Clean Water Services Advisory Commission
Meeting Minutes
June 20, 2012

Attendance

The meeting was attended by Commission Chair Tony Weller and Commission members Molly Brown, Lori Hennings, John Kuiper, Victoria Lowe, Mike McKillip, Stephanie Shanley, David Waffle, Sandy Webb, and Bill Young, and Clean Water Services District General Manager Bill Gaffi.

Commission members Alan DeHarpport, Deanna Mueller-Crispin, Judy Olsen, and Jerry Ward were absent.

Also in attendance were Brian Wegener (Tualatin Riverkeepers), Stewart Rounds (USGS), and Steven Sobieszcyk (USGS).

Clean Water Services staff attending included Bob Baumgartner (Regulatory Affairs Division Manager), Nora Curtis (Conveyance Systems Department Director), Mark Jockers (Government and Public Affairs Manager), Raj Kapur (Water Resource Analyst), Carrie Pak (Engineering Division Manager), Damon Reische (Development Services Supervisor), Peter Ruffier (Regulatory Affairs Department Director), and Sheri Wantland (Public Involvement Coordinator).

1. Call to Order

Chairman Tony Weller called the meeting to order at 6:33 PM in the conference room at the Clean Water Services Administration Building.

Mr. Jockers noted revisions to the previously mailed agenda: Mr. Sobieszcyk will join Mr. Rounds in presenting the USGS Monitoring Update, and Commission members will be asked for input on FOG Program goals, which was listed as an informational item.

2. Review/Approval of Meeting Minutes from April 18, 2012

Mr. Waffle moved to approve the minutes of the April meeting. There were multiple seconds to the motion. Motion passed. Mr. McKillip abstained.

3. Appeals Subcommittee Appointments

Mr. Jockers explained the role of the Appeals Subcommittee is to hear and decide appeals regarding implementation and application of the Clean Water Services District's programs, standards, and rules. Three members are needed to serve a three-year term. The group has been convened only once or twice since 1990, but it is important to have it in place in case it is needed. It is a substantial commitment if convened.

Mr. Weller asked if the authority of the Appeals Subcommittee is to make recommendations, final decisions, or some other action. Mr. Jockers said Clean Water Services General Counsel Jerry Linder would have the answer to that question. Ms. Curtis cited two previous appeals in which the Subcommittee's decision was final, but she said the Subcommittee's authority may vary depending

on the issue.

Ms. Webb, Mr. McKillip, and Mr. Waffle volunteered to serve as members of the Appeals Subcommittee. Mr. Waffle noted that he is a non-voting member of the Commission. Mr. Jockers said the bylaws simply state "three members of the Commission." Mr. Weller asked for any other nominees. There being none, Ms. Lowe moved to close nominations and approve the aforementioned volunteers. Ms. Hennings seconded. Motion passed.

4. Design and Construction Standards

Ms. Pak said revisions are upcoming for the Design and Construction Standards (D&Cs) established through the Clean Water Services Engineering Division. The last major revision was about five years ago. Tonight's presentation ***(attached)*** will provide some background information as preparation for the revision process. No recommendations are needed from the Commission tonight.

Mr. Reische said the D&Cs help maintain continued improvement of water quality in the Tualatin River basin. The standards ensure consistency throughout the storm and sanitary sewer infrastructure, most of which is built by various private developers. The standards bring state and federal regulations to a local scale and help make the development process easier and faster than in other urban areas. The standards cover storm and sanitary sewer conveyance, treatment of stormwater runoff, erosion control, design and construction of pump stations and force mains, and, under regulations unique to Oregon, protect water quality-sensitive areas through the use of vegetated corridors or buffers. A broad range of constituents use the standards, from developers of large subdivisions to individual homeowners, to public facilities such as schools and parks, to nonprofit stream restoration projects. The standards are implemented by Clean Water Services and its member cities.

The D&Cs were created after Ordinance 27 was adopted by the Clean Water Services Board of Directors in 1994. They have been updated over the years in response to changes in technology and regulatory requirements, and as a result of experience and discovering what does and doesn't work. Some updates involved entire standards, such as when state or federal regulations changed, and some revisions were minor, such as when the section on LIDA (Low Impact Development Approaches) was expanded in 2009.

Since the last major revision in 2007, and as development activities have changed due to the economy, Clean Water Services staff has been compiling a list of issues to address in the next update. For example, after dropping off dramatically, residential development is picking up but with different types of projects. The D&Cs that were appropriate for the large residential subdivisions and partitions of five years ago do not fit as well with today's multi-family developments and public improvement projects such as roads, paths, and parks. Commercial/industrial expansion is also increasing again, but on a different scale. Redevelopment a few years ago usually meant tearing down a whole building and putting up something else, but now is more likely to be small additions to existing facilities. The standards dictate that redevelopment must include water quality treatment facilities for stormwater, which is more challenging to do with the current smaller-scale projects. Another change in development activities is an increase in stream restoration projects, but there is no current standard or set of best management practices (BMPs) for erosion control in stream restoration work.

Mr. Reische said staff is tentatively scheduled to ask the Board of Directors next month to open the standards and begin the revision process. With the importance of public involvement in mind, staff will also ask the Board to charge the Commission to act in an advisory role, especially with the more challenging key issues. The Commission may play host to discussion(s) of any issues that turn out to be particularly challenging. A partial list of stakeholders has been developed and staff will soon start convening groups to look at key issues and potential solutions. There will be many meetings for public participation. Staff will update the Commission periodically and will ask for input on the final draft of the revisions before it goes to the Board. Mr. Reische expects the revision process will take about a year, depending on stakeholder responses, while Ms. Pak added it could take longer.

Mr. Waffle asked if this would be similar in scope to the 2007 revision. Mr. Reische said this update will certainly be a larger project than the updates in 2008 and 2009, but should not need to be as extensive as the 2007 process.

Ms. Lowe asked for clarification of "best management practices," "standards," and "codes," wondering which is a suggestion or recommendation and which has the power of law. Mr. Baumgartner and Mr. Ruffier characterized a code as a regulation which identifies legal authority and requirements; a best management practice (BMP) as an action used to meet the code, although a certain BMP could be incorporated into a code and become part of the requirement; and a standard as the metric or measurement which determines if the code has been met, and which may also be incorporated into a code.

Ms. Lowe asked for further clarification about the level of authority between state, city, federal, etc. Ms. Pak said Clean Water Services Ordinance #27 directs the agency to develop the D&Cs. There are Intergovernmental Agreements (IGAs) which compel cities to use the D&Cs as at least the minimum for their standards. Most cities use them as is, but some add more stringent requirements. Ms. Pak said Clean Water Services does not dictate specific actions for each project. For instance, there is no formula dictated for erosion control where you must do X, Y, and Z--you must do whatever it takes to achieve the required outcome in the circumstances of that particular project, and some projects will require more activities than others. A variety of BMPs are spelled out and one or more of those may be used to meet the standard.

Ms. Lowe asked if cities will have to change their standards when the Board of Directors adopts the revised D&Cs. Ms. Pak said yes, adding that the member cities will be participating in the revision process.

Ms. Hennings asked if the revisions will allow for increased runoff volume due to climate change. Mr. Reische said he did not have an answer for that yet. The standards look at the "design storm" (the maximum storm event from which runoff from impervious surfaces is required to be treated) in terms of water quality, but there is not yet a regulatory driver to address hydromodification. Ms. Pak also noted that the hydromodication plan will be developed as a separate effort after the NPDES permit is issued.

Mr. Wegener asked how an expected new EPA (US Environmental Protection Agency) rule for post-construction stormwater might affect the D&Cs. Mr. Baumgartner said EPA has been looking at

several new rules and one of them addresses construction-related stormwater runoff. At last check, it was moving more toward controlling flow and/or the amount of sediment and turbidity. Staff has looked closely at these rules to try to anticipate how that will come out. There is uncertainty about what it will be and when it will actually emerge, but it is not likely to be less strict than current requirements. It will probably involve some treatment of stormwater, especially on large construction sites or developments.

Ms. Webb asked if the pending NPDES (National Pollutant Discharge Elimination System) permit renewal and issues about water recharge would affect the D&Cs (in terms of redevelopment and large concrete areas), and if the D&Cs revision would be timed to coincide with the permit renewal. Ms. Pak said staff is working closely with the Regulatory Affairs Department to keep up on permit issues such as retrofit strategies and hydromodification. However, after five years it is time to move forward with the revision process and not wait any longer for the permit renewal. The D&Cs can be adjusted if permit conditions make that necessary. She added that it is important to keep a basin/watershed perspective rather than a site-by-site approach, as it is impossible to anticipate every possibility and impractical to write standards that way.

Mr. Weller noted that the D&Cs exist as part of Clean Water Services' compliance with its NPDES permit. They provide a code for consistency of construction, which in turn simplifies and standardizes maintenance. He and Mr. Reische mentioned the DEQ 1200-C Program and the requirements for vegetated corridors as examples of the many water quality issues that have evolved and been incorporated into the D&Cs.

Mr. Weller asked when the Commission will next be involved. Ms. Pak said probably in September or October; she will work with Mr. Jockers on scheduling presentations to the group.

Mr. Weller noted the need to let stakeholders know a revision is upcoming so they can begin preparing their ideas and comments. Ms. Pak said Mr. Reische is keeping track of all stakeholders and is working on a website page specifically for stakeholder groups.

5. USGS Watershed Monitoring

Mr. Kapur said that Clean Water Services and USGS (United States Geological Survey) have had a working agreement for more than 20 years and USGS work has been instrumental in understanding the Tualatin River watershed, helping to set the regulatory framework for TMDLs (Total Maximum Daily Loads) and the permits that followed, and informing Clean Water Services planning, operation and management activities. The upcoming phase of the agreement is a significant commitment by both agencies, with Clean Water Services contributed 55 percent, or about $335,000 of the more than $600,000 budgeted for FY 2012.

Mr. Kapur said the agreement involves data collection and monitoring as well as scientific investigations. Data collection and monitoring includes operation and maintenance of nine devices in the lower Tualatin River and major tributaries which continuously measure five or more water quality parameters (dissolved oxygen, temperature, turbidity, etc.). Near-real-time results (four-hour delay) are posted on the USGS website and can be referenced by Clean Water Services staff and others. USGS manages the website, data, quality control, and historical information. So far, 27 scientific papers have been published as a result of the scientific investigations undertaken. This data has

greatly informed and influenced Clean Water Services programs.

This year, the partnership is launching a three-phase study to summarize what has been learned over the past two decades, identify current stressors on the Tualatin watershed, and determine the focus for future studies and management strategies.

Mr. Rounds, USGS Team Lead Hydrologist, showed a map of the Tualatin watershed marked with numerous USGS and Clean Water Services data collection points. All of this information is stored in a permanently accessible national archive, providing an unusually rich database for decision-making in the Tualatin basin. Mr. Rounds said one of the longest-running monitoring efforts in the nation is by USGS at Oswego Dam, where hourly measurements have been taken since May, 1991. He noted the evolution of technology over the years as Commission members carefully passed around one of the current monitoring devices, valued at about $10,000. He said data from monitors is used to assess water quality changes throughout the day and during storm events, as well as from season to season, and to identify trends over time. Monitors downstream from the Rock Creek and Durham wastewater treatment facilities also provide useful information for managing those plants and meeting discharge permit requirements. Anyone interested can access this data through a link on the USGS website, www.or.water.usgs.gov/Tualatin.

Mr. Rounds acknowledged Mr. Sobieszcyk, USGS Hydrologist, as an integral part of the studies this year who helped put together tonight's presentation and handout. About 100 publications and articles from USGS, other agencies, and consultants were reviewed for a two-page handout ***(attached)*** summarizing nine main areas of study and learning:

Mr. Rounds noted the USGS sensors no longer measure phosphorus concentration because it has proven to be stable and predictable and it is more important to track other water quality parameters. Two monitoring devices have been pulled from stable sites but will be replaced in three years. Meanwhile, they can be used elsewhere in the Tualatin system, such as in the upper river (above Scholls Bridge) where extensive measurements have not been taken.

Ms. Brown asked how storm events affect phosphorus concentration. Mr. Rounds said if it rains a lot but not real hard, the groundwater is diluted and phosphorus concentration in the river is reduced. If the storm is violent enough or rainfall is enough to stir up the river bed, phosphorus concentration increases because of the large amount of phosphorus in the sediment.

Ms. Lowe asked if there is a pristine system somewhere that is used as the basis for comparison of stream and ecosystem health. Mr. Rounds said usually reference sites are headwaters streams up in the Coast Range or a stream in Bull Run, making it difficult to assess a stream like Fanno Creek which is never going to look like that as it has totally different characteristics. He said there is a site on East Fork Dairy Creek near Meachams Corner where a lot of sampling has been done for national USGS programs, and it has been used as a valley bottom reference site but it is still far up in the basin.

Mr. Rounds said with so much background knowledge about the basin, the next step is to understand the current health status of the ecosystems and water quality and pick out the most important stressors

to prioritize future data collection and research and identify the best strategies for future management. USGS and Clean Water Services narrowed a list of more than two dozen ecological stressors to about half a dozen, which can be roughly correlated with a stream functions pyramid:

Stream Function Pyramid Level	Ecological Stressor
Hydrology	Quantity/Scarcity
Stream Flow	Flashiness
Sedimentation	Suspended Sediment
Water Quality	Toxics/Temperature/Dissolved Oxygen
Habitat	Invasives

Mr. Rounds concluded by saying existing data can be used to develop indices to score streams on various parameters. Such a scoring system could help identify and prioritize problem areas. USGS will finish a report by mid-summer, outlining lessons learned, assessment of current conditions, a possible framework for deciding priorities for future efforts, and some potential management strategies. They will work closely with the Regulatory Affairs Department at Clean Water Services.

Mr. Weller observed that there has not been a study of the relationships between development density, topography and soil types, and water quality. For instance, does higher density affect water quality differently in a clay-based soil environment versus a gravel-based soil environment? Mr. Rounds said that sort of study could be done and there may already be some existing data that could be useful.

Mr. Wegener asked if USGS has a cooperative program with the Oregon Department of Agriculture (ODA), as it seems ODA has a hard time measuring water quality impacts while USGS has much more data and expertise in that area. Mr. Rounds said there is currently nothing in place but over the past year USGS and ODA have discussed a cooperative monitoring agreement.

6. FOG (Fats, Oils & Grease) Program Update

Mr. Baumgartner said due to limited time, he will ask Commission members to do some homework and be ready for discussion at the next meeting:

1. Review Action Items (White Paper #2, Page 3) to be sure they seem appropriate and there are no omissions.

2. Review draft Program Goals (White Paper #3, Page 2), which were developed from discussion of program values at the April meeting, to ensure they are an appropriate basis for choosing which program elements to include and meaningful for evaluating the success of the FOG Program later on.

3. Use the external SharePoint site (handout provided, ***attached***) between meetings to review FOG-related documents in development, offer comments and reflect on comments from others, and prepare for focused discussion at the next meeting.

4. Review the list of suggested White Paper topics (White Paper #3, Page 4) and let staff know if

any seem unnecessary or if there are additional topics of interest.

Mr. Baumgartner commented on Action Item 1, reporting a great deal of recent positive interaction with Building Codes staff. They are beginning to develop a formal rules process so Building Codes will address FOG control consistently statewide rather than rely on a patchwork of local agencies with differing interpretations.

Mr. Baumgartner said he hopes Commission members will exchange comments and ideas via the external SharePoint site so there is an ongoing discussion prior to each meeting. A "comments due" reminder will be sent about a week before the meeting date and staff will compile comments for the meeting, which should help keep the meeting discussion focused. To keep topics focused and not get into too broad a discussion, only Commission members have access to the site for right now. Mr. Weller requested that summaries of comments and discussion from the FACT group also be posted for Commission members to review. Mr. Baumgartner added that a final report will be compiled from the White Papers, other documents, comments, and edits.

7. Announcements

Mr. Jockers announced that Clean Water Services is again hosting free watershed tours, one tomorrow and one next Friday, which are almost "sold out." Tour participants will spend an afternoon visiting Joint Water Commission facilities, Hagg Lake, Wapato Lake, the Fern Hill wetland area, and Fern Hill Nursery.

Commission member Bill Young is resigning as he is moving to Olympia, WA. Mr. Jockers said it is disappointing to lose Mr. Young's knowledge and experience in the state Water Resources Department, Department of Environmental Quality, and other organizations, which has provided answers and context for so many questions and issues.

8. Adjournment

The meeting was adjourned by Mr. Weller at 8:34 PM.

(Meeting notes prepared by Sue Baumgartner)