

Meeting: Engineering and Planning Subcommittee

Date: April 1, 2009

Attendees: Wes Jorgenson and Joyce Nichols, City of Bellevue; Walt Canter, Cedar River Water and Sewer District; Steve Moye, Coal Creek Utility District; Laura Keough and Paul Sentena, NE Sammamish Sewer and Water District; Margaret Wiggins, Northshore Utility District; Dave Christensen, City of Renton; Art Wadekamper, Ronald Wastewater District; Ron Little, Sammamish Plateau Water and Sewer District; Trish Rhay, City of Seattle; Pat Brodin, City of Tukwila; Tamie Kellogg, Facilitator
King County Attendees: Mark Buscher; Greg Bush; Sharman Herrin; Doug Marsano; John Phillips; Suzanne Schweitzer; Jeff Stern; Bob Swarner; Steve Tolzman; Laura Wharton

II. Overview of Lower Duwamish Superfund Clean-up Feasibility Study (informational)

The Lower Duwamish Waterway Group (LDWG) is comprised of four agencies: the Port of Seattle, the City of Seattle, King County, and Boeing --- that manage the superfund site and work on it in a cooperative way. They are currently conducting sampling, studies, plans and analyses of the area. The regulatory agencies overseeing LDWG are the United States Environmental Protection Agency (EPA) and Washington State Department of Ecology (DOE); they are responsible for selecting and providing project direction. LDWG operates the superfund site under a consent order and under the Model Toxics Control Act. All groups involved must work together to remediate the area. There are upland contamination and source control issues involved in this area and it's paramount that the area is not re-contaminated. The water quality in the river was classified as a dead zone. That has largely been corrected by minimizing Combined Sewer Overflows (CSOs), discharges, etc. Current work is on sediments, improving sedimentation quality, and habitat restoration to improve the local ecosystem. Over 70K cubic yards of contaminated sediment have been actively remediated and 25 acres of habitat have been restored. Earlier work was done under the NRDC.

In response to a question, Greg answered that as a result of the old NOAA settlement in 1990, a trustee implementation group made up of the City of Seattle and King County cleaned up the area. This was a result of settling the natural resources damage liability for CSOs in Elliott Bay and the Duwamish area. The actual order was signed in the 1990s and in the last 15 years the projects have been implemented.

A question was asked, if the County allocated \$12M towards the clean-up, what projects were completed? Greg replied that four areas within Elliott Bay were remediated along with the 25 acres of habitat restoration.

An inquiry was made asking if this was a one-time effort or whether it would be recurring. Greg responded that the one-time clean-up has been resolved but on-going urbanization issues continue to recur.

Someone asked what the impact of habitat restoration on the Duwamish waterway was, and Greg answered that the improvement of the inter-tidal habitat was the focus of the remediation project.

Greg responded to a question that six agencies were named in the consent order.

There have been seven years of scientific research gathered on this project. What the Remedial Investigation (RI) does is analyze where the contamination is found in the river and how that contamination is spread. This is done in great detail. There have been several drafts, with the final draft scheduled for completion in mid-2009. The Feasibility Study (FS) takes the research gathered in the RI and lists the clean-up alternatives; the draft of that study is due for completion this spring. The alternatives will range in cost from a no-action alternative to a sweeping big-dig alternative. The FS will be further refined with engineering studies. Clean-up goals are: seafood consumption, worms and benthic invertebrate, fish and wildlife, and direct contact with contaminants. There is a lot of activity in and along the Duwamish River, and the community has expressed a desire for more recreational opportunities. The consumption of bottom-dwelling seafood poses a very low impact to the wildlife (otters, seals, salmon). There are also very low risk factors in direct human contact.

In response to a question, Jeff identified the locations of CSO discharges: Duwamish, Hanford, Brandon, Fort Michigan, North Fork, and 8th Avenue.

The main clean-up principle is to address the worst area first. Due to a large sediment load, the contaminated area of the river will naturally cap. If, in addition, capping is done on top of the naturally occurring sediment load, any additional contaminants (sediment) will be much cleaner than the sediment that will be dredged. A balance needs to be achieved among the clean-up efforts. That will limit the activities that can take place in the river because they affect where the contamination is. Questions being asked among the LDWG are: how much do you dredge, how much you cap, and how much do you leave alone for the sediment load? WTD would like to see if the activities that take place will meet goals. By law, LDWG must meet all of the clean-up goals; EPA will help LDWG select the alternative.

A question was raised about who the adjacent property next to Slip 4 belongs to? Jeff replied that it's the King County Airport and a Seattle steam plant.

It was asked if Duwamish area businesses contributed to the contamination, would they be involved in the clean-up? Jeff responded that the EPA has notified 40 property owners that they have some culpability in the contamination of the river. There is also an active process to track down others who may have contributed.

Someone asked how the Duwamish clean-up compared with others. Jeff said it's pretty confined to the Copley site, but there are certainly much larger sites in various parts of the East Coast. It's an urbanized estuary, and they are looking at areas 2-3 times as large.

How that risk is assigned is an allocation process – what share of the plan is the County's burden? Each agency in LDWG will have a 25% fiscal responsibility to fund those projects. It was in the County's best interest to be a participant in these studies. The County's position is that their share will be covered with the front-loading cost of the research. They are also leaning toward the more pragmatic cost-effective approach

alternative rather than the expense of the big-dig. In response to a question on cost allocation, Jeff answered that by signing the remediation order, the County is eligible for grants which have covered 50% of the costs.

Jeff responded to a question on source control that the County has an active source control program but they are unable to contain all sources.

An issue was raised if the area is capped, will sediment removal be necessary? Jeff answered that areas with the proper depth will be capped.

The time it takes to achieve the clean-up objective will be 20 years out, and it is suggested that a mid-range alternative be picked. EPA will weight the factors and come up with a recommended alternative. They will consider a letter from MWPAAC. LDWG will be competing with the Puget Sound Partnership for funding. A full report will be given at the May MWPAAC meeting.

II. Reclaimed Water Comprehensive Plan (informational):

Potential Use Data Collection Data: potential uses are being collected as input to the planning process; to assess if reclaimed water may satisfy a water need. The Comp Plan team is in the process of engaging stakeholders in the planning process. The process is to identify the potential uses (information initially identified by GIS data and verified by potential users). There are up to 1600 potential uses (potential users/sites) for reclaimed water throughout the region. The list is revised based on feedback collected at individual stakeholder meetings. It was pointed out that Identified reclaimed water uses do not represent a commitment to use reclaimed water. Cost and feasibility is not a consideration or criteria for reducing users from the list.

A question was asked on the purpose and need for the reclaimed water comprehensive plan, Mark replied that WTD would identify drivers for the plan and that will translate later into the evaluation criteria, focusing on narrowing the questions in the planning process.

Members expressed concern that reclaimed water as a solution was being provided before the problem was identified.

A question was asked on the type of criteria used for the list of potential uses? Mark replied that in meetings with water purveyors', they review the list and based on their feedback (i.e. a local park is a natural area park) the list is adjusted. We are relying on interested parties to tell us what use/users they would like included in the plan.

A question was asked, in discussions with water purveyors has an estimated cost of service been given? Mark answered, no - what has been said is this list allows us to identify users so that different conceptual facility configurations can be developed. The planning process would answer the cost question.

What is not being used as a criterion to not include it in the list? Develop some cost estimates. It's difficult for us to answer the cost estimates without knowing what the facility configurations are.

A few members expressed concern that the plan would not be completed in a timely manner within cost. Another member raised the concern that the overall cost of the reclaimed water program may not be cost-effective or feasible.

Another member inquired if the reclaimed water financials were available, Mark replied the plan is being developed to answer questions, including financial questions, about expanding the reclaimed water program. .

A concern was raised that there would not be enough sewer flows available for reclaimed water and the blending of domestic water may be needed.

In response to several questions, Mark answered this is an attempt to gather information and based on direct feedback on identify potential uses for reclaimed water throughout the region. After potential uses are identified they are marked in a database. There are 41 interested parties that the County would like to meeting with or have met with. The County is also meeting with industry associations rather than businesses.

A concern was raised that the list feature information whether the current water source is in proximity to a fish bearing stream, Mark replied that the information will be included in the planning process.

Mark replied that yes, for those potential users not along the Backbone a decentralized configuration (satellite or skimming plants) would be employed; South Plant is scheduled for expansion by 2029.

In response to a question on potential Snohomish County reclaimed water users for Brightwater, Mark replied that is question that the Team is trying to answer, if and when the Backbone would be made available to users in that area.

III. CSO Beach Projects and Hydraulic Modeling (informational):

As part of the Regional Wastewater Services Plan (RWSP) detailed metering was performed, model calibration is underway with the alternatives analysis to follow. Alternatives considered are: demand management, storage, CSO treatment, pump station upgrades or a combination. A preliminary analysis was performed to locate potential facility sites if storage was the preferred alternative.. A large amount of data was collected to update the county's models to determine basin flows. There were differences in storage at the four project locations compared to what was assumed in the RWSP; storage volumes are expected to change again. To develop storage estimates: the calibrated models are run in a continuous simulation using 30 years of rainfall data. The 30th volume in the 30-year simulation is used for the storage required to achieve one overflow event per year on average. The review of basins will involve what information is currently known and field verification to answer any questions.

The EPA adopted a green infrastructure strategy (January 2008) and is requiring green alternative evaluations in long term CSO control plans. The CSO program will develop and evaluate the feasibility of green infrastructure program. Also, being evaluated is the cost-effectiveness of grey versus green infrastructure and agency cost-sharing. Nine total alternatives (storage, demand management, conveyance or a combination) will be evaluated for the preferred alternative for the Puget Sound Beach Projects.

In response to a question, John answered that none of the projects were in design. John replied to a question on property acquisition for the project, properties are being reviewed for availability in the project areas.

A concern was raised about who would be responsible for cost of stormwater treatment? John answered that the County is still grappling with that issue. The Beach projects are an opportunity to install green infrastructure in a cost-effective manner.

Other concerns were that the long-term impact may result in rising rates.

Members expressed concern that unless stormwater is treated then the bigger issue of receiving water bodies' contamination will not be resolved.