Deschutes River, Capitol Lake, and Budd Inlet
TMDL Advisory Group Meeting

Thursday, July 26, 2012 –9:20 a.m. – 11:45 am
Tumwater Fire Department, 300 Israel Rd. SW, Tumwater

Attendees

Alliance for a Healthy South Sound
- Gabby Byrne

Black Hills Audubon Society
- Sue Danver

Deschutes Estuary Restoration Team (DERT)
- Cliff Mitchell
- Sue Patnude
- Dave Peeler

Ecology, WA State Dept. of
- Bob Bergquist
- Lisa Cox
- Dave Dougherty
- Kim McKee
- Mindy Roberts
- Lydia Wagner

Enterprise Services (DES), WA Dept. of
- Carrie Martin

Environmental Protection Agency (EPA)
- Dave Ragsdale

Health, WA State Dept. of
- Mark Toy

LOTT Clean Water Alliance
- Ben McConkey
- Laurie Pierce

Olympia, City of
- Donna Buxton
- Laura Keehan
- Patricia Pyle

Olympia Yacht Club
- Jim Lengenfelder

Thurston County Environmental Health
- Sue Davis

Thurston County Storm & Surface Water Advisory Board
- Gary Larson

Thurston County Water & Waste Management
- Barb Wood

Thurston Public Utility District
- Chris Stearns

Weyerhaeuser
- Ken Johnson

General Updates

- The Technical Report is finished and available online at https://fortress.wa.gov/ecy/publications/publications/1203008.pdf.
- Thurston County Commissioners: Ecology staff will brief them on August 29. Lydia will send an email to the Deschutes TMDL distribution list when more information about the meeting is available.

Model Scenario Results for Budd Inlet

Mindy Roberts, Ecology, Environmental Assessment Program

The following are a few notes from her presentation. See the complete PowerPoint presentation for more information. It is available online at http://www.ecy.wa.gov/programs/wq/tmdl/deschutes/advisorycomm/072612DeschutesAdvMtgBuddInletScenariosMRoberts.pdf.

- **Slide 6**: The model results show the LOTT outfall may have a positive impact to the circulation.
- **Slide 8:** Any violation during the day, even one hour, is considered a violation and will light up a cell. We find lower nitrogen contributions from smaller wastewater treatment plants.
- **Slide 9:** We moved the flow and nutrient concentration from LOTT's existing outfall to the other two locations.
- **Slide 10:** Moving the outfall to Priest Point Park causes more violations in some areas. If moved to Boston Harbor the model shows improvement and the magnitude of violations go down.. There is some beneficial effect in East Bay. Nutrients going out with the tide will still result in some flowing back due to natural circulation but we cannot determine with the Budd Inlet model alone. Freshwater flow from LOTT may help circulation. Marine waters coming in are lower in the water column. Moving outfalls changes the circulation cycle because of the relative volume of freshwater going into Budd Inlet.
- **Slide 15:** The magnitude and frequency of violations go down.

Deschutes TMDL Status Update

Bob Bergquist, Ecology, Water Quality Program

We wanted to inform the Advisory Group about potential changes and the delay in the EPA submittal. Our desire is to keep the TMDL whole (consisting of the Deschutes River, Capitol Lake, and Budd Inlet), but we may need to hold back the Budd Inlet section. We do not want to delay the process more than necessary.

Some things we have learned during the model runs are bringing up additional questions we need to address. Before we establish load and wasteload allocations, we want to make sure we are firmly anchored in good science. If we moved ahead right now with the current strategy, we're not sure we have all the necessary information to make the best recommendations. We need to wait for the South Puget Sound Dissolved Oxygen (SPSDO) Study and its modeling to provide more information that will directly relate to the Budd Inlet section. We intend to run additional scenarios later, addressing the open boundary as an example. This will help identify inputs coming from outside the current boundary. We cannot set allocations in the marine environment yet. This delays the January 2013 submittal to EPA but we do not know by how much, possibly 3-6 months.

We believe we know what is going on and what is needed to improve conditions in the freshwater areas. Regarding Capitol Lake, we have run the full model scenarios with lake in. Next we will run the model with the lake out to compare the results. We previously removed the lake out scenarios from the model runs because staff needed to continue their work on the SPSDO study model.

We wanted to share with the Advisory Group today the information we can. We believe we should continue ahead with work on the freshwater section. It is possible we may hold the Budd Inlet marine water section for a second TMDL submittal. We recognize there are pros and cons to having one or two submittals.

EPA: They fully support the SWRO decision to delay the EPA submittal to keep the TMDL whole as originally planned. They want the TMDL project to stay intact. The lake out model will provide information for the TMDL and not direction on a decision about the lake. **Ecology**: We will bring the lake out model with the same parameters used with the lake in model. This will raise the issue to the policy makers.

General discussion

Deschutes Advisory Group (DAG): *What is the timing for the SPSDO Study?* **Ecology (Ecy):** It is hard to predict how long the model runs will take. The technical work for the study should be completed in Fall 2012 with a draft report ready by March 2013. We can use the calibrated model to get better information about the connections to Budd Inlet. The SPSDO study is important to provide us with more information.

DAG: We already know the Deschutes River has higher contributions than other rivers. What prevents us from tackling this problem first? **Ecy**: Nitrogen and phosphorus come from same sources but how to best manage them is different. Technologies will focus on either nitrogen or phosphorus. We won't get a complete picture until we address the marine nitrogen influences. We can identify practices to control or reduce phosphorus contributions.

DAG: *Does the SSPDP study show total loading?* **Ecy**: Marine influences are dominant. Relative human contributions have tripled what is entering Puget Sound. Nitrogen inputs are mostly from wastewater treatment plants (WWTP). Where and when it comes in is as important as how much.

Environmental Protection Agency (EPA): The SPSDO model is complex. If we turn off all the WWTPs we still will have problems. The study will generate more attention. It could identify issues related to other WWTP within the South Puget Sound area and this could be controversial. **Ecy**: We kept the northern boundary constant in our model runs. We didn't turn off sources outside of Budd Inlet. We need both models to do that. We know our local sources alone are contributing.

DAG*: Does the model reflect one year?* **Ecy**: Yes.

DAG: *Is there an accumulation of residence time that could have an impact?* **Ecy**: Yes. Residence time in Budd Inlet is about 20 days.

DAG: *Is the projected state budget causing any delay?* **Ecy**: Unknown. This is a high priority TMDL and we do not foresee this as an issue.

DAG: *Are there other TMDLs linked to the SPSDO study?* **Ecy**: There are none on the freshwater side addressing bacteria. The larger SPSDO model is a study and not directly associated with a TMDL.

DAG: We have local entities we can control to reduce the loads or possibly move them to make an improvement to reduce the impact in one area. Then it potentially becomes someone else's problem. We're all in this together as part of the Puget Sound. We may have to make hard choices such as where will the discharges occur and how will they be addressed? *Is Ecology working with other entities?* **EPA***:* They are also a member of the SPSDO Study advisory committee. Other municipalities and powers are aware of the study. Presentations to local governments have happened and will continue. One thing sure to get the attention of local governments, and generate discussion, is to assign allocations to WWTPs north of the boundary.

DAG: *Where do we really land by moving the sources?* Ecology has two goals: reduce pollution loads and meet water quality standards. *Does Ecology prefer the DAG to look at pollution problems or concentrating on one area?* **Ecy**: We want to address the pollution problem, focusing on reducing loading and pollutants going into the environment.

DAG: *How much do temperature changes contribute to the Deschutes River impacts?* **Ecy**: Both an estuary and a lake receive some solar radiation. A lake will keep water around longer and definitely influences southern Budd Inlet. Ecology didn't run the model with an estuary alternative (lake out) but we expect to see the same results. Solar radiation is the main cause of the temperature in a lake or estuary and not heat coming in from the Deschutes River.

DAG: *Can we establish new model parameters?* The DAG could start thinking about what the scenarios could look like and discuss it more. The EPA will look at accumulative improvements resulting from the TMDL. **Ecy**: We looked incrementally at just the pieces identified by the DAG for the model scenarios. None of the scenarios alone will solve the problem. We need a mix/match approach throughout the watershed. We can run models with new combinations, identifying the highest priority, and figure out the accumulative benefit of multiple scenarios.

DAG: Thurston County recently revised their Critical Areas Ordinance (CAO). *Will these have an impact on this TMDL?* **Thurston County response**: There is no way to estimate load reductions. Property owners are seeing potential impacts to them. Riparian vegetation restoration is needed for fish habitat. *Where can we influence more of this happening?* **EPA***:* We already know system riparian improvements are needed. He invites Ecology to look specifically at riparian restoration activities. Provides filtration for some pollutants as well as shading. There was a group working on a reverse auction idea and perhaps this group can meet again to continue their brainstorming.

DAG: They wants details about the Aug 29 Thurston County Commissioner briefing. **Ecy**: Lydia will send details once the agenda is developed.

Open Comments

- **Cliff Mitchell, DERT**: He really appreciates Mindy's presentation on a complex issue. She did an excellent job.
- **Dave Peeler, DERT**, asked Carrie Martin, Department of Enterprise Services (DES), for an update on dredging Capitol Lake. Carrie stated the DES is beginning to look at permitting issues. A Request for Proposal (RFP) is out and closes July 27. This is to hire a consultant to start creating the road map to the permitting process. Dave Ragsdale, EPA, asked if the RFP will address what happens to the dredge spoils. Carrie responded the answer is unknown at this time.

Next meeting

Date: Thursday, August 23, 2012
Time: 9:00 a.m. – 12:00 noon
Place: Tumwater Fire Department, 300 Israel Rd. SW, Tumwater

Draft agenda: Begin discussing the Implementation Strategy and allocations for bacteria and temperature.