

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

Thursday, January 30, 2014

9:00 a.m. to 12:00 noon

Attendees

Black Hills Audubon Society

- Sue Danver

Citizens

- John DeMeyer
- David Milne

Capitol Lake Improvement and Protection Association (CLIPA)

- Bob Holman

Deschutes Estuary Restoration Team (DERT)

- Dani Madrone
- Cliff Mitchell
- Dave Peeler

Ecology (Ecy), WA State Dept. of

- Dustin Bilhimer
- Lisa Cox
- Rich Doenges
- Andrew Kolosseus
- Lydia Wagner

Enterprise Services (DES), WA Dept. of

- Carrie Martin

Environmental Protection Agency (EPA)

- Jo Henszey

LOTT Clean Water Alliance

- Karla Fowler

Olympia, City of

- Laura Keehan
- Patricia Pyle

Squaxin Island Tribe (SIT)

- Scott Steltzner

Thurston County

- Sue Davis
- Allison Osterberg
- Barb Wood

Thurston Public Utility District

- Linda Oosterman

Transportation (WSDOT), WA State Dept. of

- Emily Miller

Tumwater, City of

- Dan Smith

Washington Stormwater Center

- Lisa Rozmyn

General Updates

- **New Manager:** We welcomed Rich Doenges, who began working for Ecology on January 27, as the Section Manager for the Water Quality Program's Southwest Regional Office. He formerly worked for Thurston County and attended some of the Deschutes Advisory Group meetings.
- **Briefings:** Mindy Roberts, Ecology, Environmental Assessment Program, (primarily) and Lydia Wagner, Water Quality Program, provided two briefings on the Budd Inlet modeling results. The first was to the LOTT Clean Water Alliance Board of Directors on November 13, 2013 and the second to the Lacey City Council on January 16, 2014.
- **Separating the TMDL:** Ecology has not made any decisions yet about whether to keep the TMDL as one cleanup plan, including both freshwater and marine waters, or separating them into two plans. Ecology staff met with the new EPA representative on this issue. The Thurston County Commissioners provided written comments and stated their preference is to keep the submittal intact.
- **Website update:** Ecology staff is discussing the possibility of developing a Frequently Asked Questions (FAQ) document to post on the Deschutes River Watershed TMDL website. They will provide more information when it is available.

Abbreviations used in these notes

- **CSWGP:** Construction Stormwater General Permit
- **DAG:** Deschutes Advisory Group
- **DNR:** WA State Department of Natural Resources
- **DO:** Dissolved Oxygen
- **DOH:** WA State Department of Health
- **Ecy:** WA State Department of Ecology
- **EPA:** Environmental Protection Agency
- **GW:** Groundwater
- **ISWGP:** Industrial Stormwater General Permit
- **LA:** Load Allocations
- **OSS:** On-site septic system
- **SGGP:** Sand and Gravel General Permit
- **TC:** Thurston County
- **UGA:** Urban growth area
- **WLA:** Wasteload Allocations
- **WQ:** Water quality
- **WQIR/IP:** Water Quality Improvement Report/Implementation Plan
- **WQS:** Water quality standards
- **WSDOT:** WA State Department of Transportation
- **WWTP:** Wastewater Treatment Plant

Stormwater Wasteload Allocations (WLA) Draft Tables

Dustin Bilhimer, Ecology, WQ/HQ

Q: *Regarding new development on property which could accommodate over 100 houses, will this get permitted?* **A:** Yes, under the CSWGP. There is interaction between Ecology and Thurston County for construction permits. WQ based effluent limits are the same and are very protective. **Q:** *What happens if they don't meet the effluent standards after the houses are developed?* **A:** The CSWGP no longer applies and the county has the enforcement authority. **Ecy:** The OSSs are handled by the Thurston County Health Department. At some point the stormwater probably goes into a system covered under the Phase II Municipal Stormwater Permit.

DAG: On the Deschutes River side, there are another significant amount of houses, approximately 50-100. These are under either Olympia's or Thurston County's jurisdiction.

Lisa Cox: If the site plans were in before local plans were made, older regulations already in place would apply. Any concerns need to get raised with the appropriate jurisdiction.

Q: *What does weekly monitoring mean?* **A:** This is addressing the ISWGP, not the municipal permits. Ecology staff is still discussing this item.

Q: The SGGP says monitoring increases to monthly. **A:** This is probably a mistake. The tables should all read monthly instead of weekly.

Q: Regarding clarification on the tables. *Is this what Ecy is intending to include in permit modifications after EPA approves the TMDL?* **A:** These will go into the WQIR/IP as the WLA. Lisa Cox: We won't necessarily modify the current permit, but will likely adopt the changes in the next municipal stormwater permit issuance.

Bacteria LA table: Most of the information in this table came directly out of the Technical Report. We will incorporate the maps into the TMDL submittal.

Q: *Why are there different WQS for Percival Creek and Capitol Lake?* **A:** Because the waterbodies drain into a lake. The WQS have different beneficial uses and are set to be protective of those uses. Percival Creek is designated as Extraordinary Primary Contact which has a more stringent limit than the Deschutes River. It is designated as core salmonid rearing which differs from the spawning/rearing standard for the Deschutes River.

Q: *Is the 90% percentile reduction the number Ecy wants to achieve?* **A:** Our target is for the waterbodies to meet the appropriate WQS. The reductions listed are the amount of bacteria we need to reduce in order to achieve this goal. We decide on the allocations by using the more restrictive WQS that are applied to a particular waterbody. To clarify, the percent reduction specified is of the existing percentile. The WQIR/IP includes the issue of antidegradation because we do not want any areas to get worse than their existing condition.

Q: *Could the cities and counties use the information in this table to identify where to put in additional stormwater facilities? Are these numbers based on one storm event of a certain size? How do they transfer into required reductions? How do you isolate the source for additional storm load reduction needed? Are more identification and monitoring needed by the cities?* **Ecy:** Our goal with this table is to help give the affected local government information to prioritize their work.

Stream Temperature LA table: These represent the areas modeled for riparian shade and their ability to produce effective shade. Relates to canopy closure over stream and what stream is already experiencing along the reach. The colors go from green to red, with green as the best. Key areas to concentrate on are indicated in red, orange, and yellow. Thurston County did a riparian assessment of some areas and indicated they need shade. See map for more information. We will use all this information as help with implementation actions.

Dissolved Oxygen LA table: Part of the solution will come as a benefit to temperature improvements.

OSS Density map: Green indicates 0-3 septic systems. Red indicates the highest density of OSS in these areas. East of Oly/Lacey is Chambers Creek area. In the central part of the watershed the other red hot spot is Rainier. There is highly dense OSSs located near Lake Lawrence. The overlay polygon with hashmarks show highly permeable gravels and areas more sensitive to groundwater and nutrient pollution. This can help guide our implementation and recommendations for TC. Ecology is not responsible for permitting OSS. We can work with TC to help identify things they can do to get figure out how to reduce the overall nutrient loading from OSS.

DAG Comment: Add a legend for colors to define them. **Ecy response:** Okay.

Q: *Will these relate to previous temperature tables and maps?* **A:** Yes, with recalculations as needed.

Q: *When we get to implementing actions in the WQIR/IP, will Ecy translate the nutrient issue, planning somehow to provide guidance on nutrient reduction? We realize Ecy is looking at the DO standard. You can't compare that to manure or septic runoff. Nutrients were sampled and the data is in the technical study. Will there be some guide? For example, will the tables include nutrient reductions or loading as needed?* **A:** No. We are using the information to identify higher priority and risk areas. We do not have specific information on OSS to calculate reductions. **Q:** *To clarify, will Ecology provide specific locations in the tributary along with correlating nutrient reduction targets to try and reduce the load?* **A:** Ecy will set the nutrient load targets at the mouth of the Deschutes River. Ecy will use information from additional DO models to adjust the targets for nutrients.

Ecy: *Will a table like the one presented today help?* **DAG:** Yes. There are limited options right now for dealing with existing OSSs. The county needs to identify and focus on the areas where they can make changes. If there is a particular point in the seepage study that identifies high levels are coming in at the groundwater level, the county needs to know the location. **Ecy:** We are trying to address this through the geologic and flow characteristics. We have nutrient loads from Qual2K models and desired future conditions (as described in the technical study). We need to reduce temperatures to increase the oxygen saturation level. This will have the biggest impact on DO levels.

Q: *Some areas that seem to have a lot of OSS are outside the watershed boundary. Is there any way to know if those OSS are influencing inside the boundary?* **A:** Some USGS studies look at groundwater flow, which generally flows northwest. Urban areas have more water movement due to stormwater flow.

Q: *Within the Deschutes River watershed, are new subdivisions allowed to be built now? If we're already having a problem with nutrients, why is this allowed? Not all subdivisions have community wells. Perhaps they should have their own WWTP, owned by the community. Does this technology exist?* **TC response:** There are some small WWTPs but they have their own issues and still have to dispose of the wastewater. Surface discharges are unlikely. Infiltration into the ground at reclaimed water quality standards is possible. It is possible that inside the UGA getting connected to the sewer system is an option but otherwise OSSs are the only thing available. **DAG:** There are other treatment systems under research. **Ecy:** Our modeling shows that groundwater monitoring is needed. **Q:** *We have problems now so how do we address today's problems and anticipate future growth?* **A:** One recommendation is to identify sensitive areas and use the information to help guide the county's work.

DAG comments about OSS:

- New development should be plumbed for both septic and underground sewer in case pipes ever come into their area.
- Spokane County is a good example of adopting a resolution regarding new OSSs and prepping for future sewer hookup. The county was proactive since this was not a state required action. It was controversial at the time.
- There is a general awareness that nitrogen is a nutrient having big effect to WQ and DO in salt water. People think a brand new OSS resolves issues but it doesn't remove nitrogen.

TC response: You can only do this inside the UGA. Earlier TC looked at the Cooper Point area, on the west shore of Budd Inlet. This area is in desperate need of upgrading with the intention of future hook up to sewer. Unfortunately TC could not do it because it was outside the UGA.

Ecy response: The Henderson Inlet TMDL requires homeowners requires them to show evidence of pumping and O&M of their systems. We acknowledge that LOTT has the most advanced level of treatment in this area.

DAG: He understands Fort Lewis is pumping GW out to remove a chemical and assumes this is expensive. *Could LOTT pump the wastewater down to help clean the groundwater?* **Ecy:** Yes it is too expensive and Fort Lewis is a smaller area to treat. LOTT's reclamation plants are currently discharging to GW. **LOTT:** They are in the process of a scientific study now looking at this issue. The Martin Way reclaimed water facility will get closer scrutiny for possible use in other areas.

DAG: Regarding an area the CLT was going to purchase around 2005-07, it was exercise in frustration to get a good system in. The houses are clustered and infiltration would occur in a sensitive area. There was some study put indicating the area had Vashon soils. The SEPA was already completed and stated this area would never get hooked into a sewer system. In the past the rules were that if development didn't occur within a certain number of years the permit was invalid. The rules changed due to the poor economy. **TC response:** In this particular area, sewer was not available because it was outside the UGA. The county looks at proposed development and requires hydrogeologic studies to determine loads. It is not a zero percentage but there is a limit that only a small percentage is allowed over the current background condition. The DOH allows only certain types of systems and the counties have to comply with those requirements. The DOH recently certified a newer system that can reduce the nitrogen effluent by 50%. Systems that are approved and certified by the DOH for use must have public domain technology. There were problems in the past with systems using proprietary devices and then the company went out of business and replacement parts were not available.

Ecy: As another example, the town of Rainier is all OSS. There are initial discussions about looking at converting individual OSS into a larger community based system. Perhaps this could be done in other areas with the Deschutes River watershed. **TC:** Tenino converted from OSS to sewer and they treat to reclaimed water standards and infiltrate. This is a considerable improvement because there used to be seepage pits or cesspools. It is possible for small towns with concentrated homes to do this effectively.

Implementation Actions Table

Lydia Wagner, Ecology, WQ/SWRO

She shared a January 2014 draft version of the table presented in October 2013. She incorporated some of the exact language or intention of comments provided to her by the DAG after the October 2013 meeting. The following are some of the suggestions or comments provided during this meeting.

- Identify the secondary permittees instead of grouping them in with the Phase II Municipal Stormwater General Permits. For example, the Port of Olympia is a secondary permittee to the City of Olympia.
- **Q:** *Regarding the Port of Olympia, where does the airport fit in?* **A:** It would have separate coverage under the Industrial Stormwater General Permit. This is one reason why it is helpful to separate out the secondary permittees.
- Ecology needs to clearly define the geographic boundary of the Port of Olympia.

- Consider the best way to translate specific geographic areas into the implementation actions. Perhaps add this as another column. This information can help the affected stakeholders to prioritize their efforts.
- Add “tracking implementation actions” to Ecy.
- **Q:** *Is the WA DES a secondary permittee of the City of Olympia or are they their own entity with specific actions assigned to them?* **A:** Ecy staff needs to discuss this further. If Ecy keeps the secondary permittee listed under the primary, the action item would read, “Comply with general permit”.
- **Q:** *How is Ecology defining “secondary”?* Ecy staff will discuss this further. Some secondary permittees may have another set of requirements in addition to the primary permit conditions.
- **WSDOT:** Make sure the implementation table matches up with the WLA tables as discussed with staff from both agencies.
- Consider adding column indicating if the responsible party is permitted or not permitted.
- Make the Land Use Category a separate table. This can help avoid confusion and clarify actions needed or recommended.
- Under Agricultural land use: more action items needed such as exclusion fencing, and appropriate fertilizer application and manure management.
- Under Commercial land use: Add nutrient management
- **Reminder:** Add forested lands with appropriate actions. For example, “comply with Forest Practices”. Organizations affected include Weyerhaeuser, DNR, and privately owned forest lands.
- **Q:** Will general land uses go under assigned organizations or stay as open and general? If so, who gets those assigned to them? **A:** Ecy intends to identify specific BMPs for implementation for specific land uses.

DAG: Ecy staff need to refer back to February 2013 and the tables/notes/discussions the DAG had to specify what actions, areas, and who might be responsible. Incorporate that information into the current draft tables. For example, under the Thurston Conservation District was an action item of addressing agricultural issues with landowners. **Ecy:** Staff acknowledged this was an oversight and will do as suggested.

Open Comments – *(This turned into a discussion about the issue of splitting the TMDL into two reports.)*

- **David Milne:** He is writing a report on the beneficial effect of Capitol Lake on Budd Inlet. It is not an advocacy or comparison paper. He is investigating the idea that the lake has a negative effect on BI. He will provide a copy of the final report to Andrew Kolosseus and Lydia Wagner.
- **David Peeler:** Regarding splitting the TMDL. He recommends Ecology keep it together. He believes it is a disservice to how the process and ecosystem works if the report were split apart.
- **Allison Osterberg:** The implementation actions table should clearly state removal of the dam.
- **Sue Danver:** *How do you connect all the development coming up in the county which relates to freshwater?* She would like to see the freshwater section of the TMDL move forward and get done.
- **Bob Holman:** He disagrees with David Milne’s ascertain about effects of the dam. Split or no split will have a great effect on how quickly Ecology finishes the TMDL. He asked EPA what they prefer. **EPA:** She stated they do not have a decision yet and are generally supportive of what Ecology prepares.

- **John DeMeyer:** Ecology should base their decision on science. A lot of studies they are referencing are using older information. *How will Ecology incorporate the most recent science and data?* **Ecy:** If you have new data that comes up, send it to us. We're doing computer modeling and can incorporate some of the information into those models. We also use new data for adaptive management. Even with new information, the basic best management practices remain the same. For example, the system needs shade and we need to keep manure out of the creeks.

Ecy: Andrew provided a brief update on the South Sound Dissolved Oxygen Study: Mindy Robert and her coworkers are finishing up the modeling report. They still have some "what if: scenarios to process and then will begin work on the sediment portions. If we decide to keep the marine/freshwater sections together this could slow the TMDL process down significantly. Looking at the sediment flux is approximately a two-year project. Remember the issue is the external sources which could be affecting the water quality in Budd Inlet.

DAG: *If there are separate two studies, where is the separation boundary? Is it the dam?* **Ecy:** The answer depends on the DO modeling for the marine part. Right now the boundary is the Deschutes River, E St Bridge, the falls, and the mouths of all the tributaries discharging directly into Budd Inlet. If we split the TMDL, Capitol Lake will stay with the marine section.

DAG: *Will Ecology address nutrients in the freshwater part of the TMDL?* **Ecy:** A numeric target could depend on the DO modeling. We do want to focus on nutrient loading. The TMDL will address issues such as agriculture and riparian shade. The freshwater TMDL will address OSS.

Next meeting

Date: Thursday, February 27, 2014
Time: 9:00 a.m. – 12:00 noon
Place: Tumwater Fire Department
311 Israel Rd. SE, Tumwater, WA