

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

Thursday, February 27, 2014

9:10 a.m. to 11:45 a.m.

Attendees

Black Hills Audubon Society

- Sue Danver

Citizens

- John DeMeyer
- David Milne
- Steven Morrison

Deschutes Estuary Restoration Team (DERT)

- Dave Peeler

Ecology (Ecy), WA State Dept. of

- Dustin Bilhimer
- Andrew Kolosseus
- John Stormon
- Lydia Wagner

Enterprise Services (DES), WA Dept. of

- Carrie Martin

Environmental Protection Agency (EPA)

- Jo Henszey

Health (DOH), WA State Dept. of

- Lynn Schneider

Hood Canal Salmon Enhancement Group

- Julian Sammons

LOTT Clean Water Alliance

- Karla Fowler

Squaxin Island Tribe (SIT)

- Erica Marbet

Thurston County

- Sue Davis

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

- **Separating the TMDL:** Ecology has still not made any decision yet about whether to keep the TMDL as one cleanup plan, including both freshwater and marine waters, or separating the project into two plans. Staff continues to work on the freshwater sections of the WQIR/IP.
- **Thurston County Commissioners Letter:** Rich Doenges, WQ/SW Section Manager, sent a response to the Commissioners on February 19. The letter thanks them for their interest and opinion on keeping the TMDL effort whole. *[Note: Both letters are available online with this month's Deschutes TMDL Advisory Group meeting materials.]*
- **Additional Tables Input:** Lydia thanked people who have responded and provided updates to the Legal Authorities, Technical Assistance, Grants/Loans, and Education/Outreach tables. She welcomes more input and extended the deadline to March 10. This information will get incorporated into the WQIR/IP.
- **March 27 meeting:** Ecology is cancelling this meeting. When the Advisory Group meets again, Ecology staff hopes to provide the draft freshwater WQIR/IP for their **preview** and announce the decision about whether to split the project. In the meantime, staff will continue to meet internally or with external stakeholders as needed and when appropriate.

- **Draft Notes Review:** Lydia mentioned that comments from one of the January meeting attendees were not included in the notes. She reminded the group to please review and comment on the draft notes by the requested time. This review is to ensure the notes are as accurate as possible. It was not intentional the comments were not included. It is challenging to facilitate and take notes simultaneously, which is why the draft notes are sent out for review prior to finalizing and posting on the website. This omission is included in this month's meeting notes.
- **South Puget Sound Dissolved Oxygen (SPSDO) Study:** Andrew stated the final study should be available mid-March. More information on this study is available at http://www.ecy.wa.gov/puget_sound/dissolved_oxygen_study.html.

On-site Septic System (OSS) Nitrogen Removal Technologies

Lynn Schneider, WA State Dept. of Health (DOH), Office of Shellfish and Water Protection

This project, funded by a National Estuary Program (NEP) grant through the U.S. EPA, was to identify reliable and affordable nitrogen removal options for small on-site septic systems. The DOH selected three public domain and cost-effective septic treatment technologies to test. These were built, tested, and evaluated over a one-year period and were located at the Snoqualmie Wastewater Treatment Plant. They were designed for a four-bedroom household; the space for each system was 20 ft. by 20 ft., and the beds were three feet deep. They determined the Recirculating Gravel Filter (RGF) system was the most effective.

Glossary of terms used in the presentation

BOD: Biological oxygen demand (5-day)	NO₃: Nitrate
C: Carbon	NO_x: Nitrogen oxide
CaCO₃: Calcium carbonate	OSS: On-site septic system
CBOD: Carbonaceous biological oxygen demand (5-day)	P: Phosphorus
COD: Chemical oxygen demand	QA: Quality assurance
EPA: U.S. Environmental Protection Agency	RGF: Recirculating Gravel Filter
ERGF: Enhanced Recirculating Gravel Filter	RS&G: Recommended Standards & Guidance
ETV: Environmental test verification treatment product verification	SCOD: Soluble chemical oxygen demand
HCOSSNR: Hood Canal On-site Sewage System Nitrogen Reduction	TN: Total nitrogen
N: Nitrogen	TSS: Total suspended solids
N₂: Nitrogen gas	UW: University of Washington
NEP: National Estuary Program	UWCEE: University of Washington Civil and Environmental Engineering
NH₃: Ammonia	VRGF: Vegetated Recirculating Gravel Filter
NH₄: Ammonium	VSS: Volatile suspended solids
NO₂: Nitrogen dioxide	WRF: Woodchip Recirculating Filter
	WWTP: Wastewater treatment plant

Lynn's slides are available online with all the materials for this meeting.

More information on this project, including specific publications on each system, is available as follows:

- **National Estuaries Program Grant: Denitrification:**
<http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/EPAGrants/Denitrification.aspx>
- **Fact Sheet: *On-Site Sewage Denitrification Verification Project: Enhanced Recirculating Gravel Filter System***, publication #DOH 337-115, September 2012:
<http://www.doh.wa.gov/Portals/1/Documents/4450/337-115-ERGF.pdf>
- **Fact Sheet: *On-Site Sewage Denitrification Verification Project: Recirculating Gravel Filter with Vegetated Woodchip Bed System***, publication #DOH 337-116, September 2012
<http://www.doh.wa.gov/Portals/1/Documents/4450/337-116-RGFV.pdf>
- **Fact Sheet: *On-Site Sewage Denitrification Verification Project: Vegetated Recirculating Gravel Filter System***, publication #DOH 337-117, September 2012:
<http://www.doh.wa.gov/Portals/1/Documents/4450/337-117-VRGF.pdf>
- **Publication: *Nitrogen: A concern for Puget Sound and Washington's drinking water supplies***, publication #DOH 337-114, September 2012:
<http://www.doh.wa.gov/Portals/1/Documents/4450/337-114-Denit-Project.pdf>
- **DOH Wastewater Management Section, Office of Shellfish and Water Protection**, 360-236-3330, or wastewatermgmt@doh.wa.gov
- **U.S. Environmental Protection Agency, Estuaries and Coastal Watersheds:**
<http://water.epa.gov/type/oceb/nep/index.cfm>

Hood Canal Area OSS Pilot Project

Julian Sammons, Hood Canal Salmon Enhancement Group

As a follow-up to the DOH On-site Septic System (OSS) Nitrogen Removal NEP project, the Hood Canal Salmon Enhancement Group, through the Pacific Northwest Salmon Center (PNWSC), is piloting a two-stage system which the DOH identified as the most effective. This was the Recirculating Gravel Filter and Woodchip bed systems. This pilot is funded through a grant from Ecology's National Estuary Program, Toxics and Nutrients Prevention, Reduction, and Control.

They will install three systems including a full time residence, a Bed & Breakfast, and the PNWSC office. The landowners will participate in a survey throughout the study to provide feedback on issues such as odors, system problems, or aesthetics. Monitoring by monthly sampling at each site will go on for two years. The PNWSC will continue quarterly monitoring for another six years. During this time the PNWSC will conduct public outreach through site visits, publications and presentations, feedback from landowners, and a final report. The report will provide information on the landowner's perception of the system, ease or difficulty in maintaining the system, predicting its longevity and efficacy, and the logistics of the actual installation. The systems are going into the three properties in April 2014 with sampling beginning in May or June.

Glossary of terms used in the presentation

B&B: Bed and Breakfast

BOD: Biological Oxygen Demand

CBOD: Carbonaceous biological oxygen demand (5-day)

DO: Dissolved Oxygen

DOH: Washington State Department of Health

PNWSC: Pacific Northwest Salmon Center

RGF: Recirculating Gravel Filter

Julian's slides are available online with all the materials for this meeting.

Contact information:

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More information about this pilot project is available at:

- **1030 KMAS Radio Chat**, February 18, 2014: <http://pnwsalmoncenter.org/dave-julian-kmas-talk-septic-project/>
- **Outreach, PNWSC Seeking Landowners for Septic System Project:** <http://pnwsalmoncenter.org/pnwsc-seeking-landowners-septic-system-project/>

Open Comments

- **John DeMeyer:** He would like to see the graphs and background data provided in the DOH presentation. He is also interested in more information about the Chesapeake Bay TMDL that Dustin Bilhimer referenced during the meeting. **Ecology response:** *Website links for the DOH material are included in these notes. Information about the Chesapeake Bay TMDL is available at <http://www.epa.gov/chesapeakebaytmdl/>. As a future meeting agenda item, Ecology and EPA staff will work together on an EPA presentation about either the Chesapeake Bay Multi-State TMDL or other Puget Sound related TMDLs.*
- **Dave Peeler:** The 2014 Salish Sea Ecosystem Conference is a great educational opportunity on the larger Puget Sound issues. **Ecology response:** *This conference is April 30 – May 2, 2014, at the Washington State Convention & Trade Center, in Seattle. More information about this conference, including the schedule, rates, and registration, is available at www.wvu.edu/salishseaconference/.*
- **Sue Danver:** Will the Deschutes TMDL include some of the DOH research and recommendations for OSS nitrogen removal? **Ecology response:** *We are working with Thurston County Health to identify the appropriate BMPs to address this issue. Thurston County Response:* The County is looking at impacts from OSS from future growth and potential loads into the groundwater. For example, how high will the nitrogen levels go in the drinking water? In urban areas there are high densities and the county is working with the three cities and LOTT for areas inside the UGA. One alternative is that all residences be served by sewer. They all need to identify the high priority areas and the county is proactive on this task. The goal is to reduce the loads to achieve the best overall nutrient reduction
- **Steven Morrison:** He asked for clarification on the preview of the draft WQIR/IP. **Ecology response:** *Ecology has committed throughout this process to provide the Advisory Group with an advance review opportunity (preview) of the draft document before it goes out for public review and comment.*

- **John DeMeyer:** The TMDL needs to recognize and document that nitrogen is the problem. In the minds of most people they think the WWTP is taking care of the problem. LOTT is the only WWTP that denitrifies through their secondary treatment program. Today the presentations were addressing removing nitrogen. He wants to make sure the TMDL quantifies the problem and states we need to reduce the sources by a certain amount and then describe how. He doesn't want to see us to have to come back and deal with another issue. **Ecology response:** *Mindy's report did address nutrient loads into the river. Identifying what is going into Budd Inlet continues to get refined through additional modeling. The biggest load into the Deschutes River is temperature. We have to look at both issues to develop a strategy. Much of this has already been addressed through the identified implementation actions.*
- **Dave Peeler:** Mindy Roberts did look at OSS and what is going into the Deschutes River. He doesn't recall how many are already in this system and what the potential build out would look like. If we don't make a change to have fewer OSS going in, then new ones will have an impact in the future.
- **Steve Morrison:** Mindy's data was based on the information available at the time the information was gathered.

Note: *The following comment was given at the January 30 meeting. Its omission into those meeting notes was not deliberate or intentional. Ecology staff makes their best effort at simultaneously facilitating the meeting and taking accurate notes. The correction to the draft notes, which are sent out to all advisory meeting attendees for review and comment, was not received in time to make it into the final version.*

- **Dani Madrone:** The science is clearly pointing to dam removal. There have been several comments made wondering why dam removal was not part of the action plan. The updated action plan only mentioned to find alternatives to dam removal. From a public participant standpoint, it would be easy to assume that these comments have been ignored. **Ecology response:** *Yes, we did receive those comments and the text in the modified version was meant to reflect their intent. Ecology staff is still developing the Implementation Actions table along with the rest of the WQIR/IP. The Advisory Group will have an opportunity before the draft document goes out for public comment to provide input on several sections of the draft WQIR/IP, including this table. Ecology will consider all those comments as they revise the draft and prepare it for public review.*

Next meeting

Date: Thursday, April 24, 2014
 Time: 9:00 a.m. – 12:00 noon
 Place: Tumwater Fire Department
 311 Israel Rd. SW, Tumwater, WA

Reminder: *The March 27 meeting is cancelled.*