REGION 10 OWW TOPIC BRIEFING

TRIBAL CONSULTATION AND REVIEW UPDATE FOR DESCHUTES TOTAL MAXIMUM DAILY LOAD (TMDL), THURSTON & LEWIS COUNTIES, WASHINGTON

Meeting Purpose

Provide background information and discuss with Dan the following:

- Overall Status of EPA Watershed Unit Review;
- Discussions with NWEA;
- Tribal Consultation Outcomes;
- Ecology Regional Office Position and EPA Evaluation;

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- Options for Moving Forward

Project Background

The Deschutes River, Percival Creek, and Budd Inlet Tributaries (Phase 1) TMDL study area (186 mi^2) is located in south Puget Sound and is situated within the boundaries of Thurston and Lewis Counties, Washington (**Figure 1**). The study area includes the major cities or towns of Olympia, Lacey, Tumwater, and Rainier. Significant data collection to support the Phase 1 TMDL began in 2003. Data analysis and modeling concluded in 2012. On December 17, 2015, Ecology submitted the final Phase 1 TMDL to EPA for approval. The submitted TMDL package includes a request that EPA approve allocations for 71 Water Quality Limited Segments (WQLSs) impaired by five pollutants (temperature, dissolved oxygen [DO], pH, fecal coliform, and fine sediment). EPA understands that Ecology is developing a TMDL for Budd Inlet and Capitol Lake as Phase 2 of the Deschutes TMDL.

The Squaxin Island Tribe (SIT) has maintained throughout the TMDL development and public notice process that critical aquatic improvement measures are missing from the TMDL. EPA met with SIT in 2015 to discuss these concerns and again on 6/30/2016 as part of the formal coordination process. In

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identified many of the same deficiencies detected by EPA and SIT during conversations held on August 2, 2016 in Portland, OR. As the final stages of the Phase 1 TMDL unfolded, NWEA filed a complaint in 2014 regarding Ecology's use of Natural Condition Criteria (NCC). As NCC provisions are likely to be remanded, parts of the Phase 1 TMDL may be invalidated because the TMDL considered or applied targets (temperature and DO) that were based on system potential (~modeled interpretation of highest quality condition attainable).

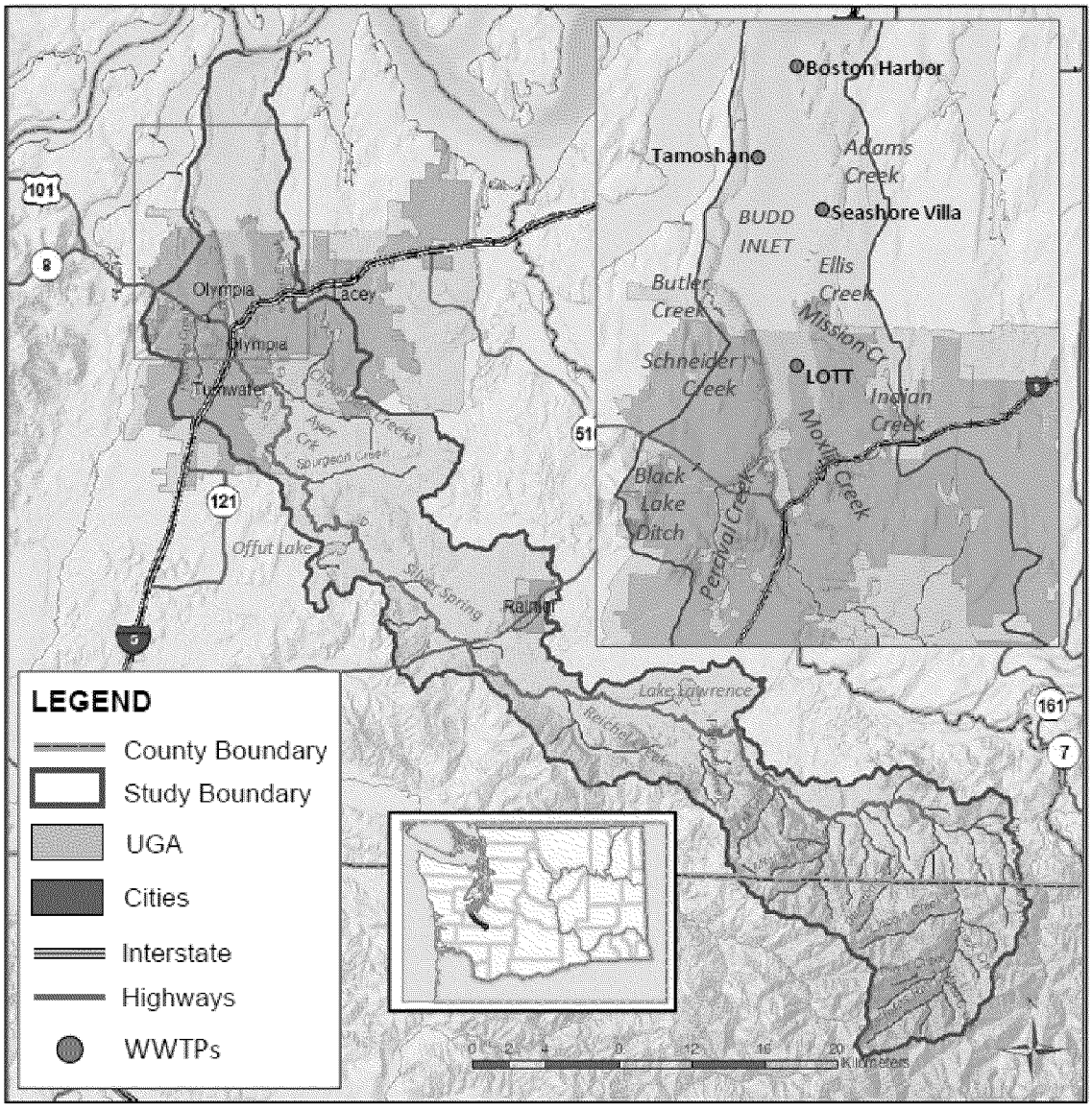

Figure 1. Study Area for Deschutes TMDLs

Quick Summary

- ✓ Ecology is seeking approval for TMDLs that span 71 segments
- ✓ Category 5 impairments: water temperature, DO, pH, fecal coliform bacteria, and fine sediment
- ✓ Category 4C pollution: in-stream flows and large woody debris
- ✓ TMDL split into two phases given technical complexity and political ramifications related to Capitol Lake and Budd Inlet impairments. Complexities include Capitol Lake as a source of low DO to South Sound and nutrient reductions from stormwater sources to address Capitol Lake phosphorus impairment

- ✓ Surrogates are proposed for 4 of 5 pollutants
- ✓ The TMDL seeks to achieve temperature, DO, and pH water quality standards through increased stream shading
- ✓ Ecology predicts that WQS for temperature, DO, and pH will be achieved by 2065.
- ✓ Permittees include: 5 municipal stormwater-MS4s, 7 sand & gravel, 9 industrial stormwater, and 25+ construction stormwater. The boundary of the Phase 1 TMDL does not include wastewater treatment point sources. Phase 2 of the TMDL will include the LOTT regional wastewater facility that serves south Puget Sound.

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NWEA Concerns

SWRO (Andrew) scheduled a meeting with Nina Bell on August 2, 2016 in Portland, OR (at OR Ops office) to obtain NWEA feedback on the Deschutes TMDL as she had indicated unspecified concerns with the TMDL in previous discussions. Laurie and Chris participated in the meeting at the request of Ecology. Overall, Nina expressed an unfavorable opinion of the TMDL and summarized that the TMDL will not change or improve existing conditions. Nina did offer a potential 'carve-out' from the NCC remand for temperature segments of the Deschutes if buffer requirements were more detailed and were placed into the load capacity/allocation section of the TMDL. Nina explained the DO segments (and maybe pH by reference) of the TMDL were too problematic/flawed and should not move forward (no 'carve-out'). Appendix A summarizes TMDL related concerns expressed by NWEA.

Tribal Consultation and Outcomes

SIT has maintained throughout the TMDL development and public notice process that the Phase 1 TMDL should address habitat (lack of woody debris, reduced stream flows). In addition, long implementation

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model scenario representing natural condition target for the TMDL and instead relied on a flow value based on current flow history (1991-2001) (**Table 1**).

Table 1. Critical Low Flows Calculated for the Deschutes River (from Roberts et al., 2012)

Years	Period	Rainier (12079000)		Years	E Street (12080010)	
		(cfs)	(cms)		(cfs)	(cms)
1949 – 2001	All data	24.0	0.68	1946 - 2002	64.1	1.8
1949 – 1969	Historical only	26.0	0.74	1945-1964	78.3	2.2
1991 – 2001	Recent only	21.4	0.61	1991-2001	56.3	1.6

In addition, SIT included the following in their public notice comments:

"The Clean Water Act does not allow Ecology to draw a bright line between its water quality and quantity programs. Rather, the Act requires "comprehensive solutions" to prevent, reduce and eliminate pollution in concert with programs for managing water; and (2) establishes the supreme goal of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters. Drawing a bright line is a prohibited "artificial distinction." PUD No. 1 v. Ecology, 511 U.S. 700, 719 (1994)."

EPA and Ecology met with SIT during a tribal coordination meeting on 6/30/2016 in Lacey, WA. Issues described above were discussed. An outcome of the meeting was a promised response to SIT from Ecology regarding minimum stream flows by the end of July 2016. The WU was not copied in any response by Ecology to SIT regarding this TMDL.

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TMDL held in Portland, OR on 8/2/2016.

What follows is an itemized list of key statements expressed by Ecology, NWEA, and EPA. Notes in native, uncondensed form are available. It should be mentioned that NWEA appears to have constructed a bulleted list of TMDL issues that consists of about 30-50 comments on it. Maybe one-third of those comments were shared during the meeting on 8/2/2016.

NWEA	Ecology	EPA
(1) Unconvinced that TMDL will change existing water quality conditions. (2) Downstream waters not protected (self-stated). Failing to protect DS waters is a big deal. TMDLis kind of a shell because it does not deal with DS waters or tributaries. (3) Buffers show up in implementation rather than allocation section. (4) Need to convert shade values into real, implementable surrogates. How was 75 ft. buffer determined? Vertical and areal density is important. What is mature vegetation? (5) The entire TMDL seems to be a surrogate. Suite of shade surrogates may be needed. Why was channel width not allocated as it was part of NCC demonstration. (6) Compliance with permit seems to be compliance with TMDL as WLAs are mostly existing permit conditions or restated WQS. WLAs do not seem to add value. (7) Using shade as surrogate for parameters other than temperature creates holes. (8) TMDL does not assess if current landuse practices, such as forestry, contribute to sediment impairments. (9) Reasonable Assurance section is inconsistent. Should consider actions that are not already occurring. Deferring to Fish and Forest assurances is a problem. (10) TMDL cites nutrient hotspots and impacts but does not limit nutrients. TMDL advocates a 'we'll evaluate later' approach to septics and other nutrient sources. (11) Better to wait until Budd Inlet and Capital Lake TMDL are complete. Maybe move forward with temperature segments only. (12) Lack of NCC is not an excuse to do nothing. Use the data we have and move forward. No good reason for putting things off. The TMDL should have addressed nutrients even if data	(1) An approved TMDL may help in retiring water rights and obtaining grant funds. An approved TMDL may help bring government partners to the table such as Thurston County and get conservation districts to work together. (2) Acknowledged the TMDL has some deficiencies and is working with EPA on some issues. Benefits of TMDL are relatively minor. (3) TMDL was split because of the contentious nature of Capital Lake and Budd Inlet. Data would become outdated if Ecology waited to do all waters at once. Evidence is pointing primarily to shade and buffers for the Deschutes. (4) Any buffers that Ecology pays for would have to meet NMFS buffer rule (100 ft rather than 75 ft.).	We primarily listened and took notes. Chris asked Nina to elaborate on Columbia dioxin TMDL and checkpoint approach.

were not perfect. (13) TMDL does not justify in-stream sediment fines target. How does in-stream fine targets align with WQS? (14) Ecology is hesitant to address Capitol Lake because of benefits as sediment trap, better than a muddy estuary, expensive infrastructure changes (Lake outlet works, MS4, LOTT facility). (15) Checkpoint approach used in Columbia dioxin TMDL is an appealing large watershed approach. (16) Ecology should not get credit for a TMDL when the allocations do not resolve the DO and nutrient issue. (17) Margin of safety and antidegradation section is confusing (18) Would be willing to consider temperature carve out of NCC remand. TMDLs for DO, pH should not move forward until Budd Inlet is completed. Opinion on sediment was limited.		