

Emerging Regulatory Issues Update for Discovery Clean Water Alliance

Updated April 2020

1 Columbia River Temperature TMDL

In 2003, the U.S. Environmental Protection Agency (EPA) released a Preliminary Draft Temperature Total Maximum Daily Load (TMDL) for the Columbia and Snake River Basins. Although states are generally charged with developing TMDLs, Oregon, Washington, Idaho, and the EPA agreed in 2000 that EPA would take the lead in developing the TMDL for the Columbia and Snake Rivers because the rivers form the borders between these states along much of their lengths. The preliminary draft TMDL issued by EPA in 2003 determined that dams on these rivers are responsible for the elevated water temperatures and exceedances of water quality standards. For example, EPA concluded that Grand Coulee dam on the Columbia River causes temperature increases as high as 6.23 °C, and that the four dams on the Lower Snake River can each raise temperatures by 1.2 °C to 2.08 °C.

The 2003 preliminary draft TMDL included only a group thermal load allocation for the Columbia River reach of river mile (RM) 112 to 95 (encompassing the Salmon Creek Treatment Plant [SCTP], Vancouver outfalls, Portland outfalls, River Road power generation facility, and other minor discharges). The group thermal load allocation for this reach was 926.3 megawatts (MW), the largest group allocation on the river. Since this 2003 preliminary draft TMDL was issued some large thermal point sources on the lower Columbia River have ceased or decreased loads, including Georgia Pacific-Camas and Boise-St Helens. The 2003 Preliminary Draft TMDL was never finalized.

A lawsuit was filed February 23, 2017 by five plaintiffs in the U.S. District Court, Western District of Washington (Judge Franklin D. Burgess) in Seattle. This suit seeks to compel the EPA to complete and issue a Total Maximum Daily Load (TMDL) document to establish limits on discharge temperature loads to the Snake and Columbia Rivers. The plaintiffs are seeking a declaratory judgement that the EPA has violated its mandatory duty under the Clean Water Act as well as “unreasonable delay under the Administrative Procedure Act” by failing to issue the final TMDL. They also seek injunctive relief that would order the EPA to complete the temperature TMDL and they request a reimbursement for litigation costs, according to the complaint.

The five plaintiffs in the new lawsuit are the Pacific Coast Federation of Fishermen’s Organizations, Idaho Rivers United, Snake River Waterkeeper, The Institute for Fisheries Resources and Columbia Riverkeeper. Plaintiffs are represented by Bryan Hurlbutt, an attorney at Advocates for the West, a public interest nonprofit environmental law firm based in Boise, Idaho, and Richard Smith, attorney at Smith and Lowney PLLC in Seattle.

On October 17, 2018, Judge Ricardo Martinez (U.S. District Court, Western District of Washington, Seattle) ordered the EPA to approve Washington and Oregon’s temperature TMDLs within 30 days or develop its own within 60 days. On November 21, 2018, EPA appealed the district court’s judgment requiring EPA to issue a total maximum daily load (TMDL) for temperature for the Columbia and lower Snake Rivers. EPA also sought a stay pending appeal from the district court, which on November 8 denied EPA’s motion to extend the court’s 60-day deadline for issuing the TMDL.

In its October order setting the deadline, the district court concluded that Washington and Oregon had constructively submitted a “no TMDL” because the states had “clearly and unambiguously indicated” they would not produce a TMDL for the rivers. The district court therefore determined that EPA had failed to undertake its mandatory duty to issue a TMDL. EPA argued in its motion for a stay pending appeal that it

was likely to succeed on its appeal because the constructive submission doctrine was an unlawful expansion of the Clean Water Act and, even if lawful, was not properly applied in this case. EPA also noted that it had disapproved the states' "constructive submission" on November 16, 2018, and that it was not yet in violation of its duty to issue a TMDL. EPA also argued it would be irreparably harmed because being compelled to issue a TMDL could moot its appeal, would impose significant hardship because TMDL preparation typically takes three to five years, and would interfere with EPA's "ability to engage in a robust TMDL process." EPA also asserted that the balance of equities and public interest favored a stay pending appeal to allow synchronization and coordination of TMDL preparation and implementation. On November 30, 2018, EPA's motion for court to issue a stay pending appeal from the district court was granted. This stay will provide time for EPA to appeal the district court's judgment.

On February 6, 2019, the 9th circuit court ruled that the government (EPA) shall file an opening brief for the appeal on or before April 12, 2019 and appellants shall file an answering brief on or before May 10, 2019. The government may file a reply brief on or before June 7, 2019. The parties may not modify this schedule by means of streamline extension. The Clerk will calendar this case for court argument in Seattle during the week of August 26, 2019.

In October 2019, Federal District Court Judge Ricardo S. Martinez in the Western District ordered EPA to comply with provisions of the Clean Water Act and issue a Total Maximum Daily Load for the Columbia and Snake River Basins. The EPA later appealed that ruling.

On December 20, 2019, a three-judge panel of the 9th U.S. Circuit Court of Appeals upheld a lower-court ruling that the EPA must finish the TMDL for the Columbia and Snake River Basins within 30 days. EPA appealed this ruling to the Ninth Circuit Court of Appeals.

On March 30, 2020, the Ninth Circuit Court of Appeals ruled that the EPA must proceed with completing the temperature TMDL for the Snake and Columbia rivers. The Ninth Circuit rejected EPA's request that the court reconsider its December 20, 2019 opinion. EPA cannot seek additional review by the Ninth Circuit Court, but EPA could ask the United States Supreme Court for review.

2. Columbia and Snake River Dams NPDES Permits

Ecology has been pursuing the implementation of state water quality criteria, including temperature, at the nine federal dams on the Columbia and Snake Rivers under the Clean Water Act. This has been undertaken after a Columbia Riverkeepers lawsuit obliged the U.S. Army Corps of Engineers to obtain pollution discharge permits from EPA for its oil discharges into the river. However, the EPA suddenly removed the draft permits from Ecology's review in early February 2019, while the permits were in the middle of a public comment period that is part of Ecology's water quality certification process. EPA reissued the draft NPDES permit for public comment on March 18, 2020 (see link below). Exceedances of the state's temperature standards in the Columbia and Snake rivers are attributed to the combined effects of climate change and the dams, according to a draft EPA analysis.

<https://www.epa.gov/npdes-permits/proposed-discharge-permits-federal-hydroelectric-projects-lower-columbia-river>

3 Columbia River Cold Water Refuges Project

In August 2016, EPA Region 10 established the Columbia Cold Water Refuges Project staffed by EPA and NMFS. The project goal is to develop and issue a Columbia River Cold Water Refugia Plan by the summer of 2019, as described in the 2015 NMFS Biological Opinion and Reasonable and Prudent Alternative (RPA) for the Oregon water quality standards. The Columbia Cold Water Refuges Project list the following activities: 1) identify the cold-water refuges currently available for use by migrating salmon; 2) assess the sufficiency of the refuges for current and future salmonid populations; and 3) identify strategies to restore, enhance, and protect high quality refuges for the future. The project area is from the mouth of

the Columbia River to its confluence with the Snake River (the Washington-Oregon border, at River Mile 310). The project will employ modeling to predict regions influenced by identified cold water refuges.

The NMFS RPA required EPA to submit a final scope of work to NMFS by Aug 2016. Per the Fact Sheet on EPA's website, the plan for the project is to be completed by the summer of 2019. The main project website, Fact Sheet and Scope of Work for this project are located at these links:

<https://www.epa.gov/columbiariver/columbia-river-cold-water-refuges>

<https://www.epa.gov/sites/production/files/2018-10/documents/columbia-river-cold-water-refuges-fact-sheet-oct2018.pdf>

<https://www.epa.gov/sites/production/files/2017-07/documents/columbia-river-cold-water-refuges-scope-of-work-sept2016.pdf>

EPA issued the Draft Columbia River Cold Water Refuges Plan on October 1, 2019. This Draft Plan can be found here:

<https://www.epa.gov › files › columbia-river-cwr-plan-draft-october-2019>

The EPA's Draft CWR Plan identifies the Lewis River as the nearest CWR to the SCTP outfall discharge site in the Columbia River. No CWR sites were identified within 4 miles of the SCTP diffuser. In addition, Salmon Creek was not identified as a Cold Water Refuge for salmon.

4 Columbia River Toxics Reduction

EPA Region 10 and other federal agencies, states, tribes, and nonprofit environmental groups established the Columbia River Toxics Reduction Working Group to share information, coordinate activities, and develop strategies to identify and reduce toxics in the Columbia River Basin. All meetings and workshops are open to the public, and the next meeting will be held May 20, 2020 remotely. The link to this work group is below:

<https://www.epa.gov/columbiariver/columbia-river-toxics-reduction-working-group>

The work group's projects include the following:

1) The Columbia River Toxics Reduction Working Group developed and issued a document titled: *Columbia River Toxics Reduction Working Group: Strategy for Measuring, Documenting and Reducing Chemicals of Emerging Concern*. This document is an outline for a research and monitoring strategy, and a characterization of the biological impacts of Contaminants of Emerging Concern (CECs) on aquatic and terrestrial wildlife in the Columbia River Basin. Key CECs discussed include PBDEs, Perfluorinated Compounds, Estrogens, Pharmaceuticals, and Personal Care Products. The document states that Phthalates are a ubiquitous CEC. The link to this document is below:

<https://www.epa.gov/sites/production/files/2014-07/documents/columbia-river-cec-strategy-july2014.pdf>

2) EPA Region 10 and the Columbia River Toxics Reduction Working Group issued a Toxics Reduction Action Plan in 2010 that seeks governments, nonprofits, industries, and citizens to help reduce toxics in the Columbia River basin. This Toxics Reduction Action Plan identifies 61 actions to:

- Increase public understanding and political commitment to toxics reduction in the Basin
- Increase toxic reduction actions
- Conduct monitoring to identify sources and then work to reduce toxic contamination
- Develop a regional, multi-agency research program
- Develop a data management system that will allow us to share information on toxics in the Basin.

The link to this work plan is below:

https://www.epa.gov/sites/production/files/documents/columbia_river_toxics_action_plan_sept2010.pdf

3) The workgroup developed a “story map” providing background information on polycyclic aromatic hydrocarbons (PAHs) and locations of water and sediment data throughout the basin. The lower Willamette River is called out as a highly impacted area. The link to this online story map is here: (<http://nwcouncil.maps.arcgis.com/apps/MapJournal/index.html?appid=99e5965fe1ac4dd38001e784d7c6aac6>)

The NPDES permit for the SCTP will be the regulatory means of implementing toxics reductions in wastewater discharges. The December 2019 revised human health water quality criteria will be the basis for implementing influent and effluent controls of CECs covered under current state water quality standards.

5 Freshwater Aluminum Water Quality Criteria

In December 2018, EPA released the final aquatic life ambient water quality criteria for aluminum for freshwater under Section 304(a)(1) of the Clean Water Act. Criteria are calculated based total recoverable aluminum concentrations and on the receiving water’s pH, total hardness, and dissolved organic carbon, using a spreadsheet-based calculator tool provided by EPA. Criteria can also be determined using the Appendix K lookup tables in the final rule document. The link to the EPA site with these final criteria and supporting documents is provided below:

<https://www.epa.gov/wqc/aquatic-life-criteria-aluminum#2018>

Ecology will need to implement the EPA’s recommended criteria into water quality standards or develop stricter criteria subject to final EPA approval under the CWA Section 303(c). It is not clear what Ecology’s timeline is for this implementation. Low and high pH values, low hardness, and low dissolved organic carbon content generally increase the bioavailability and toxicity of aluminum. Aluminum can affect the ability of fish and other aquatic life to breath and regulate salt ions in the bloodstream. Aluminum is a common and abundant metal naturally found in rocks and soil and reaches receiving waters through weathering processes; however, it is also released by mining, some industrial activities, and by water treated with alum for solids removal (SCTP does not do this). Columbia River aluminum-related cleanup sites listed on Ecology’s website include the Columbia Gorge Aluminum smelter near Goldendale and the former Reynolds Metals Aluminum smelter in Longview.

Minimum expected total aluminum water quality criteria were calculated using EPA’s aluminum-criteria-calculator-v20 based on the minimum river pH (7.3) from the 2018 Columbia River monitoring dataset, 10th-percentile hardness (55 mg/L) levels measured near the SCTP outfall site in the Columbia River, and applying a default dissolved organic carbon concentration (1.4 mg/L) for the Columbia River (from Oregon DEQ’s Copper BLM Guidance). The calculated acute and chronic aluminum water quality criteria for the Columbia River at RM 96 are approximately 1,300 ug/L and 530 ug/L, respectively.

No effluent aluminum sample results have been found in the spreadsheets provided by the District. The SCTP NPDES permit does not require effluent monitoring analysis of aluminum in quarterly samples. The raw laboratory data sheets from 2016 and 2017 pollutant scans do not include aluminum effluent data to compare to the draft water quality criteria. No background aluminum data were collected in the 2015 sampling in the river, but some data may be in the USGS data and other sources. In Ecology’s EIM database, a search for aluminum data in water samples on the Columbia gives only two locations with data, located near Wenatchee. Given the high dilutions provided by the planned new SCTP outfall diffuser, it is very unlikely that aluminum will be an effluent constituent of concern. Aluminum could be added to future permit-required testing at minimal additional cost. Additional research could be done to try to determine the typical range of effluent aluminum concentrations for similar WWTPs and/or industrial users.

Ecology's Permit-writer for the SCTP, Dave Knight, brought this new aluminum criteria to our attention in 2016 during the Camas Receiving Water Study and 2017 Local Limits Development Plan development – suggesting addition of background sampling for aluminum. Since the permit did not specify this parameter, Camas declined to add it.

6 Copper Biotic Ligand Model (BLM)

EPA's 2007 [aquatic life freshwater quality criteria for copper](#) is based on the Biotic Ligand Model (BLM). The BLM is a metal bioavailability model that uses receiving water body characteristics and monitoring data to develop site-specific water quality criteria. Input data for the BLM include: temperature, pH, dissolved organic carbon (DOC), major cations (Ca, Mg, Na, & K), major anions (SO₄ & Cl), alkalinity, and sulfide. If these other input parameters are not available, the BLM allows use of estimated values; however, EPA recommends using site-specific data for these inputs and encourages monitoring to develop them. EPA is also looking into BLMs for aluminum, zinc, and lead.

Washington state's existing hardness-based water quality criteria calculation for copper does not currently consider other water chemistry parameters. This makes the existing criteria potentially overly stringent or under protective, or both at different times. At some point Ecology would be expected to adopt the BLM for copper (and other metals) water quality criteria, although it isn't clear when that would happen. The BLM is listed as a work priority for the years 2015-2016 in the last triennial review that was conducted in 2010; these reviews are supposed to occur every 3 years. It is not clear whether any work was done on this topic or when the next triennial review is scheduled.

Oregon DEQ has adopted the BLM for copper criteria and DEQ is currently having major dischargers and those discharging to sensitive receiving waters collect 2 years of monthly effluent and receiving water samples for analysis of the BLM input parameters. These collected data will then be applied in the BLM to derive site-specific copper water quality criteria for use in RPAs for NPDES permit development.

In October 2017, Jacobs prepared a screening-level evaluation of the copper BLM water quality criteria for the City of Gresham and it was also used by Oregon Association of Clean Water Agencies in discussions with Oregon DEQ. This screening-level evaluation of the Gresham WWTP effluent discharge of copper to the Columbia River was developed to assess discharge compliance with the recently revised Oregon Freshwater Aquatic Life Water Quality Standards for Copper (November 2016). This evaluation was developed following DEQ's guidance - *Implementation of the Freshwater Aquatic Life Water Quality Standards for Copper* – which includes regional default input values for the Biotic Ligand Model (BLM). The results of this evaluation demonstrate that the Gresham WWTP effluent copper discharge does not exceed the acute or chronic water quality criteria for copper, and does not even approach a reasonable potential to exceed these criteria – based on conservative default input values for the Columbia River.

The copper BLM is a user-friendly spreadsheet-based model available for the public to download here: <https://www.oregon.gov/deq/FilterDocs/copperBLM223.zip>

7 Ecology 303d Listing and Water Quality Assessment Policy Updates

Ecology's 2014 303d listing (which EPA identifies as the 2012 Listing) of impaired waters in the state (issued in 2016) was approved by EPA Region 10 with the following listings on the Columbia River in the reach including the SCTP outfall:

Category 5 (requiring TMDL)

Dissolved Oxygen (Listing 49047)

Temperature (Listing 7884)

Bacteria (Listing 6705)

Category 4c (requires action plan)

Invasive Exotic Species (Milfoil) (Listing 4858)

Category 2 (continued monitoring)

pH (Listing 51515)

In addition, Dissolved Oxygen Listing 49044 is relevant to the two Vancouver treatment plants. Ecology completed a review and update of the Water Quality Policy 1-11 in November 2018. Policy 1-11 provides guidance for developing the state's 303d list. The call for data for the current Water Quality Assessment was completed March 2018 and included data for the past 10 years (2008 – 2017); Ecology is currently reviewing the data and using the credible data for drafting the assessment. Ecology held several public meetings to discuss areas of Policy 1-11 that needed revisions. Five key areas were addressed extensively and repeatedly in these public meetings:

1. Data Used in the Assessment
2. Sediment management standards
3. Bioassessment data
4. Human health criteria data
5. TMDL prioritization

Public comments were extensive and required four or more days of workshops with substantial involvement from King and Snohomish Counties. Public input was used to improve Ecology's process of listing water bodies and the transparency and credibility of data used by Ecology to create the 303d list and prioritize actions (including TMDLs), which will benefit the Alliance.

The Alliance met with Ecology on March 28, 2019 to discuss the petition to re-evaluate the current dissolved oxygen listings. The meeting also discussed the monitoring plan for 2019, which is expected to provide a second year of water quality data that Ecology would use to re-evaluate the basis for the listings. The Columbia River water quality monitoring program for the Alliance by Jacobs in the summer of 2018 was completed in accordance with an Ecology-approved QAPP, as well as the updated Policy 1-11.

In Policy 1-11, Ecology defines the critical diurnal sampling period for qualifying for a Category 1 listing as 12 am to 9 am between June 15th and September 15th, but Ecology retains the ability to adjust the definition of the baseline critical season on a case-by-case basis. Ecology requested two specific deviations from the updated Policy 1-11: 1) sampling extended past September 15th to the end of September, and 2) sampling expanded to include both early morning and afternoon sampling data. In the March 28, 2019 meeting with the Alliance, Ecology did not request any changes to the 2018 monitoring, indicating an acceptance that the 2018 data covered the critical period for the purposes of the Water Quality Assessment. The Alliance replicated the 2018 sampling design in the 2019 summer monitoring season and also extended monitoring into the first three weeks of October to address comments and concerns from Ecology. The Alliance has uploaded all 2018 and 2019 river monitoring data sets, and these have been accepted by Ecology for use in the 2020 Water Quality Assessment to establish the 303(d) listings.

The Alliance has also undertaken Wet Season Columbia River Monitoring at three shoreline sites and twice per month from November 2019 through June 2020. These wet season data will provide pH, dissolved oxygen, and temperature data for use by Ecology in NPDES permit development.

8 Recreational Water Quality Criteria for Coliphage

No update - As of April 2019, there was no new information past early 2017 on this topic provided on EPA's website (link below).

The Salmon Creek NPDES permit is currently based on a bacterial indicator standard to limit pathogen discharge to the receiving stream. Over the last couple years, the EPA has been developing ambient water quality criteria (AWQC) for viruses and has been proceeding with coliphage as the indicator organism.

It is unknown at this time whether this potential updated standard would be in addition to or a replacement of the current bacterial standard. It is also unknown how much more stringent (if any) these new viral indicator standards would be relative to the current bacterial standards and how that would affect the required UV design dose for existing UV disinfection systems at municipal wastewater treatment facilities with surface water discharges in Washington. However, it is known that coliphage is relatively more resistant to UV when compared to bacterial indicators such as fecal coliform and E. coli.

Previously EPA had indicated its intent to publish a draft rule in summer 2017 and finalize a rule in 2018 after receiving comments from the public. However, the new federal administration has impacted that schedule and it is unclear when the draft rule will be issued for public comment.

If a new rule were to be finalized on this topic, individual states would have to decide whether to adopt EPA guidance. If adopted by Ecology, wastewater utilities in Washington would then need to conform to the updated standards during their next NPDES permit renewal cycle.

Information regarding EPA's efforts relating to this issue is located at this link:

<https://www.epa.gov/wqc/microbial-pathogenrecreational-water-quality-criteria>

9 Washington State Water Quality Criteria for the Protection of Human Health

Ecology promulgated a rule on August 1, 2016, with updated surface water quality standards (Chapter 173-201A WAC) that included revised human health criteria (HHC) and updated tools to implement the standards. The revised surface water quality standards were submitted to EPA for review and approval. Ecology's revised HHC retained the cancer risk rate of one per million (10^{-6}).

On November 15, 2016, the EPA issued their decision on the Washington state's surface water quality standards, which included a partial approval and partial disapproval of Ecology's proposed revised HHC. EPA's letter included a summary of EPA's actions and additional supporting descriptions in a Technical Support Document for EPA's Partial Approval/Partial Disapproval of Washington's Human Health Water Quality Criteria and Implementation Tools. EPA concluded that under their authority in CWA section 303(c) and 40 CFR Part 131, the EPA approved 45 of the HHC proposed by Ecology in Table 240 and disapproved 143 HHC proposed in Ecology's Table 240.

EPA approved only Washington's proposed revised criteria where they were judged to be as stringent as or more stringent than scientifically defensible criteria that the EPA determined would be protective of Washington's designated uses, consistent with CWA requirements and the EPA's implementing regulations, specifically 40 CFR 131.11.

For Washington's proposed revised HHC that the EPA disapproved, the EPA finalized a federal rule for Washington containing 144 HHC in accordance with CWA section 303(c)(3) requirements. The EPA's action results in HHC for Washington State that were effective December 28, 2016 for CWA purposes (i.e. NPDES permit renewal).

The December 2016 effective HHC that pose the greatest challenge to the SCTP effluent discharge to the Columbia River include: arsenic, bis(2-ethylhexyl) Phthalate (BEHP), and organophosphate pesticides (if detected in effluent). Background arsenic concentrations in the Columbia River exceed the HHC, which is based on the EPA's original criteria for inorganic arsenic under the National Toxics Rule in 1992. Phthalate esters are used as plasticizers (i.e. substances added to plastics to increase their flexibility and longevity) and they are used primarily to soften polyvinyl chloride (PVC). Many households use PVC pipes to collect raw wastewater. BEHP may also be present or elevated due to sample contamination with equipment such as composite sampler tubing and gloves. In addition, current laboratory analyses have not yet achieved detection limits low enough to demonstrate compliance with the new HHC, for BEHP and several

other toxic organic pollutants. Organophosphate pesticides should not be present in SCTP influent flow however, they could be occasionally contributed by households disposing of old pesticides or could reside in sewer main sediments from prior disposal activities. Continued effluent monitoring and public education can eliminate pesticide sources to influent.

In March 2019, the EPA indicated a potential move to repeal their partial approval of Ecology's revised HHC. It appears this would effectively revert the state HHC back to pre- December 2016 values. The following provides the timeline of events leading up the present situation, which is that the state is waiting to hear from EPA on whether they plan to repeal the December 2016 HHC still considered effective in Washington state. The following provides a timeline of the background submittals to EPA:

- 1) February 2017 – a collection of forest industry associations led by Northwest Pulp and Paper Association filed a 67-page legal petition with EPA requesting that EPA reconsider the State of Washington's Human Health Water Quality Standards and Implementation Tools (submitted to EPA on August 1, 2016), and repeal or withdraw the Final Rule Revision of Certain Federal Water Quality Standards Applicable to Washington, 81 Fed. Reg. 85,417 (Nov. 28, 2016). The driving issue presented in the February 2017 petition by NWPPA was reverting to old HHC criteria for Arsenic and PCBs. They were accepting of the revised higher fish consumption rate, but not supportive of the cancer risk rate of 10^{-6} .
- 2) May 2017 – a collection of environmental groups led by Earth Justice filed a petition with EPA requesting to block the HHC repeal.
- 3) July 2017 – NW Indian Fisheries Commission filed a letter with EPA to deny the NWPPA February 2017 petition to repeal the HHC.
- 4) August 2017 – The Counsel for Utilities Water Act Group filed a letter with EPA supporting the NWPPA February 2017 request for EPA to reconsider the WA HHC.
- 5) August 2017 – EPA provided a letter response to the Counsel for Utilities Water Act Group's letter supporting the reconsideration of the WA HHC – essentially agreeing to reevaluate the WA HHC.
- 6) August 2017 - Ecology submitted a letter to EPA objecting to EPA's letter to the Counsel for Utilities Water Act Group where they agreed to reconsider the WA HHC.
- 7) March 20, 2019 – EPA released a 1-page memo authorizing a 30-day public comment period on their plan to repeal the 2016 partial approval of Washington's proposed HHC.
- 8) EPA's supporting memo to the March 20, 2019 for public review is either no longer posted or otherwise publicly available (web links do not work).
- 9) May 2019 – EPA reversed their December 2016 ruling on HHC revert the state HHC back to pre-December 2016 values with the exception of two arsenic criteria. EPA also announced that they would initiate rulemaking to withdraw EPA's more stringent HHC for Washington.
- 10) June 7, 2019 the State of Washington filed a lawsuit in District Court for the Western District of Washington challenging the Environmental Protection Agency's decision to revise Washington's water quality standards.
- 11) December 30, 2019, Ecology promulgated updated Water Quality Standards that include the Ecology's August 1, 2016 HHC (as instructed by EPA). The current (2020) HHC are listed here:

<https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A-240>

The current effective HHC remove the greatest challenges to the SCTP effluent discharge to the Columbia River by increasing the HHC for arsenic and bis(2-ethylhexyl) Phthalate (BEHP). Detections of pesticides in older effluent samples may or may not require additional steps for the Alliance. Continued effluent monitoring and public education can eliminate pesticide sources to influent.

10 Reclaimed Water Rule

The Reclaimed Water rule (WAC 173-219) became effective February 23, 2018. In February 2019, Ecology released a Reclaimed Water Facilities Manual (aka Purple Book) and a new chapter E1 in the Criteria for

Sewage Works Design (aka Orange Book) covering Water Reclamation and Reuse. The Reclaimed Water rule is intended to encourage and provide regulatory structure for increasing reclaimed water supplies, particularly important as climate change impacts on water resources increase.

Permitting for new and replacement outfalls are likely to require an alternatives evaluation that includes reuse and/or upland disposal (e.g., wetland restoration) under SEPA, Washington DNR, and WDFW regulations.

Ecology and DOH have established a Reclaimed Water Technical Advisory Committee to discuss issues and share information related to the rule and associated guidance. Each region has an Ecology representative in the group. Both Ecology and DOH review each reclaimed water proposal, and the lead agency is determined by the type of facility. Ecology would be designated the lead agency for municipal wastewater treatment facilities such as Salmon Creek Treatment Plant. Permitting is also subject to a public comment process.

<https://ecology.wa.gov/Water-Shorelines/Water-quality/Reclaimed-water>

<https://ecology.wa.gov/About-us/Our-role-in-the-community/Partnerships-committees/Reclaimed-water-advisory-committee>

11 Puget Sound Nutrient Source Reduction Project

The Puget Sound Nutrient Source Reduction Project (PSNRP) is a project by the Washington Department of Ecology aiming to improve Puget Sound water quality by reducing nutrient loading. Recent PSNRP water quality modeling (the Salish Sea Model) concludes that effluent from municipal wastewater treatment plants (WWTPs) increases DO noncompliance with water quality standards in the Sound and, that the implementation of additional nutrient removal will decrease this noncompliance.

Interim measures to cap nutrient loading are being implemented in response to the Northwest Environmental Advocates (NWEA) petition to make high levels of nitrogen removal mandatory for all Puget Sound dischargers under the state's All Known, Available, and Reasonable Treatment (AKART) rule.

1. Nutrient Loading Cap. Nutrient loading limits will be set at current levels for all permitted dischargers in Puget Sound and its key tributaries to prevent increases in loading that would contribute to the Sound's impaired status.
2. Planning. Facility Plans will be required to evaluate alternative effluent nutrient reduction targets as part of reissued National Pollutant Discharge Elimination System (NPDES) permits.
3. Existing Design-Based Limits. For treatment plants that already use a nutrient removal process, NPDES permits will be reissued with numeric effluent limits based on the facility's existing treatment efficiency and design parameters.

Modeling efforts continue that will evaluate the impact of nutrients from watersheds and potential improvements. The Facility Plan and permit renewal processes will determine what modifications, if any, are required for treatment plants. This is intended to facilitate forward planning and innovative approaches.

It is possible that if Ecology can implement nutrient restrictions on Puget Sound dischargers prior to a TMDL that defines loads, then they could take this approach to other sites in the state – such as the lower Columbia River.

Chambers Creek Wastewater Treatment Plant recently spent about \$340 million on plant upgrades for biological nutrient removal (BNR), including design, permitting and construction. The expansion required additional space, which was available; for other treatment plants such as West Point Treatment Plant there is much less available space. The Lacey-Olympia-Tumwater Thurston County (LOTT) treatment plant

also recently began nutrient reduction (they discharge to DO-listed Budd Inlet, which has a TMDL currently in development).

On February 8, 2019, Northwest Environmental Advocates (NWEA) sued the [Washington Department of Ecology](#) in Thurston County Superior Court to challenge Ecology's January 2019 refusal to update its rules on treatment requirements for nutrient removal at Puget Sound sewage treatment plants.

Ecology is currently drafting a General Permit for Nutrient Controls and hosting public meetings online to receive comments. Ecology is also initiating discussions with dischargers that have draft permits in development.

<https://ecology.wa.gov/Water-Shorelines/Puget-Sound/Helping-Puget-Sound/Reducing-Puget-Sound-nutrients/Puget-Sound-Nutrient-Reduction-Project>

Ecology's Puget Sound Nutrients General Permit development is presented at this site:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Nutrients-Permit>