

## Meeting #6 Summary: September 30, 2020

The meeting was held virtually

*A list of acronyms used is on p. 3 of this meeting summary*

### ATTENDEES

Advisory Committee members in attendance, and the organizations and interest groups they represent:

**Jeff Clarke** (WASWD), small-medium treatment plants; **Joseph Grogan** (Coupeville), small treatment plants; **Patrick Kongslie** (Pierce County/PNCWA), all treatment plant sizes; **Eleanor Ott** (Ecology), state agencies; **Mindy Roberts** (WEC), PSNGP AC environmental groups caucus lead; **Mark Sadler** (Everett), large treatment plants; **Rebecca Singer** (King Co), large treatment plants, PSNGP AC Chair, and PSNGP AC local utility caucus lead; **Valerie Smith** (Dept of Commerce), PSNGP AC state agencies caucus lead; **Wendy Steffensen** (LOTT), treatment plant with nutrient removal; **Dan Thompson** (Tacoma), large treatment plants; **Bruce Wishart** (Puget Soundkeeper), environmental groups; **Jenny Wu** (USEPA), PSNGP federal agencies caucus lead.

Advisory Committee members not in attendance:

**Chip Anderson** (Lummi Tribe Sewer District), tribal facilities; **Pete Tjemsland** (Sequim), small treatment plants.

Advisory Committee alternates in attendance, and the AC member each is designated to represent:

**Katherine Brooks** (Patrick Kongslie), **Judi Gladstone** (Jeff Clarke), **Teresa Peterson** (Dan Thompson), **John Rabenow** (Mark Sadler).

Advisory Committee alternates not in attendance:

**Abby Barnes** (Valerie Smith), **Terri Prather** (Wendy Steffensen).

Ecology's AC support staff in attendance:

**Rian Sallee** (meeting facilitator), **Kelly Ferron** (coordinator and liaison to PSNF)

The list of other individuals that registered for the webinar begins on p. 9 of this document.

### ***Purpose of this committee***

*To advise Ecology in drafting general permit requirements for domestic wastewater treatment plants discharging directly to Puget Sound that will lead towards reducing nutrient loads.*

### ***Ecology's goals for the first PSNGP***

*The first permit should stop the water quality problem from getting worse and require plants to take meaningful steps towards making future reductions that meet water quality standards. At the same time, the PSNGP needs to somehow accommodate approved capacity commitments identified in comprehensive and general sewer plans to support smart growth. Additional goals include flexibility for communities to collectively address nutrients and consistent monitoring requirements for all permittees.*

### **AC caucus leads share constituent input**

The written summary of input provided by each caucus is included at the end of this meeting summary along with input from regional planners and tribal water quality staff.

### **AC members discuss evolving recommendations document**

The on-screen notes taken during this discussion are provided as a separate, attached document.

### Public comments

- Jim Voetberg (Mukilteo): Utilities support making nutrient reductions but need to know the targets. Can do optimization in the short term but more investments may be wasteful. Various steps don't always build on each other. Support the framework in the utility caucus proposal and the timeline.
- Teresa Peterson (City of Tacoma): Agree with Jim. Utilities need a clearer definition of what optimization is and what actions are needed. A pared down version of the recommendations document will be helpful. Not sure AC will be in a place to present the recommendations by November 3 Forum; how will Rebecca do this? The public process for general permit needs to happen as soon as possible to prepare elected officials for rate increases, get buy-in, and explain why this will be so costly.
- Caitlin Dwyer (Lake Stevens Sewer District): Doing research and not finding funding. Please ask the federal government for funds to help the region to pay for this work.
- Heather Earnhart (Alderwood Water and Wastewater District): Seems to be a disconnect in understanding of timeline regarding the desired timelines by environmental groups and a realistic timeline for utilities. Have another meeting and spend time working this out. Suggests a white board exercise to illustrate the necessary timeframes for facility upgrade planning.
- Tom Swartout (Parametrix): Appreciate the efforts.
- Alyssa Barton (Puget Soundkeeper): Agree with what Bruce has been saying in the meetings. The environmental groups have been negotiating in good faith since April. The Recommendations by the Environmental caucus represent a very watered down, and we think more than reasonable, approach. The Clean Water Act requires plants to improve water quality using AKART and water quality based limits; this proposal does neither. Environmental groups have already conceded to a requirement of meeting standards by the end of the second term; this is a big concession. The Enviro caucus comments are a negotiated position made in good faith with the expectation that other folks would also make major concessions in their recommendations and positions. The Clean Water Act requires much more, consistent with the Northwest Indian Fisheries Commission's comments.
- Judi Gladstone (WASWD): Appreciate the work of the environmental groups and Tribes. The utility proposal provides an opportunity. Consider an additional meeting. Appreciate the work of the committee and the good discussions.
- Dave Peeler (Deschutes Estuary Restoration Team): Agree with Alyssa's comments. The Clean Water Act is set up to put the focus on point sources for improvements. Nonpoint sources determinations will come, but the point sources need to start evaluating technologies now. Plants don't need WQBELs or WLAs to do that. Suggest boiling down the document to a high level summary that shows general areas of agreement and general areas of disagreement. That will be a good outcome of this process.
- Corrin Hamburg (Anacortes): Good conversation today. Appreciate the discussion of a trigger-based system and feedback loop. Worried about TSS problems that may result from the nutrient reduction process. We need a way to test process changes without penalty.

### Key Takeaways from Today's Discussion

- We identified many areas of agreement, particularly around monitoring recommendations.
- We are unlikely to come to agreement in all areas.

- Call it a trigger rather than a cap.
- Utility representatives want more time to discuss these recommendations and suggested scheduling another AC meeting; Ecology's permit writer reminded the committee that the schedule to develop and issue the permit is tight, and the preliminary informal comment document will provide the next opportunity for input.

### Summary of Action Items for Ecology staff

- Ecology staff will work to pare down the recommendations document and send it out to AC members within a week.
- Eleanor Ott will send out information on nearfield impacts from the bounding scenarios report.

### Summary of Action Items for AC members

- Wendy Steffensen will send out information about how side stream treatment and BNR work together: both are needed to achieve 3mg/L.
- Members will review this meeting summary and provide timely feedback by email for its finalization.
- Members will review the utility caucus proposal and provide feedback to Rebecca Singer. To support AC discussion, Rebecca will crosswalk the utility caucus proposal with revised recommendations document.
- AC members will work with caucuses to provide input via Box within the week following Ecology's sharing the pared down version of the recommendations document.
  - If possible, focus comments on consensus agreements from caucuses.
- Contact the chair and facilitator with questions, concerns, and/or suggestions about process.

### Final meeting for developing these recommendations

Wednesday, October 21 from 9:30-3:00 with a 1-hour lunch break, to adopt final recommendations for delivery to Ecology and presentation at the November Forum meeting. At this meeting, we will also discuss whether/when/how to reconvene the AC during Ecology's PSNGP issuance process.

### List of acronyms and abbreviations used in this meeting summary

AC – Advisory Committee

BOD – biological oxygen demand

BNR – biological nutrient reduction

COD – chemical oxygen demand

DOC – dissolved organic carbon

EPA, or USEPA – U.S. Environmental Protection Agency

Forum, or PSNF – Puget Sound Nutrient Forum

LOTT – LOTT Clean Water Alliance (a wastewater utility in Olympia, serving the urbanized areas of Lacey, Olympia, and Tumwater in Thurston County)

MGD – million gallons per day

PSNGP – Puget Sound Nutrient General Permit

TKN – total Kjeldahl nitrogen

TIN – total inorganic nitrogen

TOC – total organic carbon

TSS – total suspended solids

## Puget Sound Nutrient General Permit Advisory Committee (PSNGP AC)

WASWD – Washington Association of Sewer and Water Districts  
WEC – Washington Environmental Council  
WQBELs – Water Quality Based Effluent Limits  
WWTP – Wastewater Treatment Plant  
USEPA – U.S. Environmental Protection Agency

### **Other individuals that registered for the webinar, and the organizations they represent:**

Alyssa Barton	Puget Soundkeeper
Amanda McInnis	HDR
Amanda Tobin	Pierce County
Anthony Vendetti	City of Sumner
Bill Davis	City of Bremerton
Brent Vadopalas	University of Washington
Caitlin Dwyer	Lake Stevens Sewer District
Carl Schroeder	Association of Washington Cities
Cassandra Moore	Pierce County Planning & Public Works - Sewer Division
Catherine Gowan	King County Wastewater Treatment Division
Chris Bacha	City of Tacoma
Chris Cleveland	Brown and Caldwell
Chris Sheridan	Kitsap County
Chris Thomas	The Freshwater Trust
Christopher Stoll	Kennedy Jenks
Chuck Peterson	Snohomish County Public Utility District
Corrin Hamburg	City of Anacortes WWTP
Dan Mahlum	RH2
Darrell Winans	City of Gig Harbor WWTP
Dave Peeler	Deschutes Estuary Restoration Team
David Clark	HDR
Don Seeberger	D. Seeberger Consulting
Doug Navetski	King County
Dustin Bilhimer	WA Dept of Ecology
Eileen	Snohomish County
Eric Burris	City of Bremerton
Eron Jacobson	
Heather Earnheart	Alderwood Water & Wastewater District
Heather Stephens	Stantec
Jacque Klug	King County
James Tupper	
Jane Vandenberg	Pierce County Sewer Utility
Jason Flowers	Murraysmith
Jeff Langhelm	City of Gig Harbor
Jim Voetberg	Mukilteo Water and Wastewater District
John Barton	Lakehaven Water and Sewer District
John Conway	King County Wastewater Treatment Division

## Puget Sound Nutrient General Permit Advisory Committee (PSNGP AC)

John Ewell	City of Lynnwood WWTP
John Phillips	Parametrix
Jon Kercher	Pierce County Planning and Public Works
Josiah Hartom	Alderwood Water & Wastewater
Judi Gladstone	Washington Association of Sewer & Water Districts
Judith Scott	City of Tacoma
Kathryn VanNatta	Northwest Pulp & Paper Assn.
Ken Ziebart	WA Dept of Ecology
Kevin Buckley	Seattle Public Utilities
Kevin Leung	WA Dept of Ecology
Kirk Elliott	City of Tacoma
Kirsten McDade	RE Sources
Kristen Thomas	Clark Regional Wastewater District
Laurie Pierce	Pierce County
Lyset Cadena	City of Everett
Mark Toy	WA Dept of Health
Marty Grabill	WSUD-SKWRF
Matt Smeraglio	Cascade Energy, Inc.
Matt Symington	City of Tacoma
Melissa Wu	Jacobs
Michael Martinez	NWIFC
Michael Milne	
Michael Shaw	Pierce County
Ned Lever	City of Bremerton
Nina Bell	
Paul Marrinan	City of Puyallup
Peg Wendling	City of Bellingham
Rob Feller	City of Port Angeles
Robert Knapp	Jamestown S'Klallam Tribe
Ron Basinger	City of Sumner WWTF
Roy Stanton	Washington Water Service
Russ Shiplet	Kitsap Building Association
Scott Weirich	Parametrix
Shelley Davis	Planning & Public Works - Sewers
Stella Vakarcs	Kitsap County
Steve Hood	WA Dept of Ecology
Steve Lindstrom	Sno-King Water District Coalition
Tadd Giesbrecht	Brown and Caldwell
Teresa Peterson	City of Tacoma
Theodore Key	
Tim Berge	Southwest Suburban Sewer District
Tom Coleman	RH2 Engineering
Tom Knuckey	
Tom McBride	McBride Public Affairs LLC

Tom Swartout  
Tonya Lane

Parametrix  
WA Dept of Ecology

**Discussion summaries from PSNGP AC Caucuses and other groups requested to provide input**

**Tribal Water Quality Staff:**

Plant operations and requirements under the GMA should not be divorced from requirements under the CWA and treaty agreement; development should not take primacy over clean water

- Do the engineers and planners understand treaty rights? If not, educate them.

Jurisdictions should pursue satellite facilities located upstream in watersheds where they will have the greatest benefit to instream flows

Keep pressure on facilities to make more progress faster toward eventual plant upgrades. We shouldn't have to wait 20-25 years to get these results

If GP doesn't work, do a formal TMDL (or consider doing it now instead of current planned approach, it might be more effective) – see NWIFC 7/23/20 letter to Governor Inslee

**Federal agencies:**

1. How to best/most accurately calculate and track loadings?
  - a. The federal caucus generally supports the approach of requiring different sampling frequencies based on plant size and the parameters and approaches laid out in meeting summary notes.
  - b. We support monitoring for parameters at a frequency that will characterize the sources of nitrogen in plants to inform optimization and upgrades, characterize nitrogen in effluent, and inform current and upcoming PS nutrient modeling including monthly loadings of nitrogen.
  - c. If EPA were writing a permit, we would also look to Ecology's Permit Writers Manual which speaks to at a minimum, monitoring nitrogen for process control (NH<sub>3</sub> and nitrate in aerators and clarifiers 2 samples/week). In this case, additional monitoring is needed to support other objectives.
2. What size categories of plants should have what frequency of sampling required?
  - a. The federal caucus supports ideas 3-4 samples/wk for facilities >10 MGD and 1-2 samples/week for facilities 3-10 MGD.
  - b. Although 1 sample/month for facilities >3 MGD could be a cost savings for smaller facilities, it may be too little monitoring to compare with the monthly cap trigger. This could be risky for small facilities who may be "lucky" if their one sample/month is below the trigger or "unlucky" if it exceeds. 2-4 samples/month may reduce the likelihood of being out of compliance and more representative of effluent from smaller facilities.
3. How should cost play into the monitoring requirements? This appears to be accounted for somewhat in question 2 with different monitoring frequencies based on size.
4. Do you agree with this set of parameters and if not, what should be added or removed?
  - a. Influent: frequent ammonia and BOD, monthly TKN -
    - i. Generally, the federal caucus agrees with the parameters. Some felt that influent and effluent parameters should be the same to assess removal from the treatment process.
  - b. Effluent: TIN, TKN, DOC, and BOD

- i. Generally, the caucus agreed with the effluent parameters. Some suggested that CBOD might be monitored rather than BOD, since BOD could "double-count" nitrogenous oxygen demand, already encompassed by TIN. However, using BOD instead of CBOD could be considered a margin of safety when looking at nitrogenous oxygen demand. COD could also be considered for long-term oxygen demand.
  - ii. The caucus had a question on whether DOC (and DIC) is being monitored to inform the model on ocean acidification or for other reasons such as plant performance?
5. What actions should be required if the cap is exceeded?
  - a. The federal caucus generally agreed with optimization tiers that would be triggered if the cap were exceeded with more expensive actions needed if caps continued to be exceeded.
  - b. The federal caucus agreed that more clarity on these actions are needed as discussed in previous committee meetings, including a definition of low cost. Cost thresholds from the evolving recommendations document are a possibility or a sliding scale threshold of \$X per 0.1 MGD based on design capacity.
  - c. If actions are infeasible and costs prohibitively high for small facilities, a trading option available in Wisconsin is for dischargers to pay into a fund that pays nonpoint sources as an offset. This could be a trading option for the first general permit appropriate for small dischargers with limited funds who have not upgraded their plants. We have included more ideas in the evolving recommendations document.

General areas to focus on for the evolving recommendations document – The federal caucus in general agreed with the concept that is being proposed for the first general permit. We have inserted comments into the document. The areas we believe need more discussion are defining timeframes for exceedances of the cap (1 violation in a year? What time period and violation frequency triggers the next tiers of actions?) and the actions that will be triggered.

**State agencies:**

For the monitoring recommendations:

30.c *Use the permit conditions to fulfill the role of a Sampling and Analysis Plan (SAP) to ensure standard methods and comparable data.* Discussion: the permit is set up with special conditions that constitute a sampling plan; no additional QAPP is necessary. Standard methods will be integral to the permit. Agree with subpoint ii.

32 – see cap recommendations

33 Discussion: EPA uses major and minor designations where 1 MGD is the cutoff. There aren't many plants in PS under 1 MGD; the facilities under 3 MGD are about 5% of the total load. Agree with idea of giving small plants a break. The majority of the problem (75-80%) is from the large treatment plants. Perhaps 15-20% from the medium. Need to track annual reductions. Lots of these samples are 24-hour composites. Utilities seem to agree that the frequent sampling is needed to run the plant processes. Good data is important, considerations of the extra burden due to heavy monitoring. Consideration of lab costs/logistics if needing to be sent out. Larger plants should sample more.

36 – Replace DOC with TOC. Discussion: is dissolved inorganic carbon on the table? TOC is the parameter SSM needs; correlates with BOD that will also be useful for process upgrades. Make sure this carbon parameter is what SSM modelers want. TOC effluent is more important



37 - we generally agree due to variability throughout the day

Other recommendations:

7.d.i - concern about time to implement and evaluate and accomplish real change. Want to avoid constant exceedance and no real change. Trading conversation can provide some incentives for plants to make more progress sooner: funding package preference for more proactive action; more time to design, construct, and implement your upgrade; provide more access to technical assistance and opportunities to correct problems before violation/legal action. Also recognize cooperation/participation in the regional study.

8 – see #25

III How to Assess Compliance with the CAP - Generally like the idea of remaining flexible, or allow for tradeoffs, would the agreements be between ECY and facilities or allow for interlocal agreements between facilities.

22 - Discussion: some limitations in this approach – compliance issues with multi-agency bubble versus a single utility with several facilities. Handle similarly to annexation?

24 Discussion: Caution at possibility of gaming the system, i.e. concerns of when adaptive management doesn't have an end. Make this real and enforceable. See #7. How to create more incentives to look forward to modifying treatment? Maybe more access to technical support from ECY?

24.a – see phosphorus plan

25 Needs clarification/revision. Can we remove this recommendation #25, because the tradeoffs are implied/addressed elsewhere, like #7?

- Are all “new connections” assumed to increase loadings, or is there a threshold?
  - i.e. Design flows are not current loads. So anything more is considered additional loading? Federal caucus had suggested using 150% of max flow rather than design flow
  - only if new connections means that they won't be able to meet the expectation to reduce loads until they implement outside fence actions and upgrade plants; reclaimed water; I/I fixes will improve plant performance and overall water quality conditions.
- Define “rapid growth”. Will Ecology be the authority to declare that a certain number of new connections requires action to avoid increase loadings? When will the facility be required to take actions, i.e. no new connections policy or speed-up studies, design work, detailed engineering, etc.?
- Is there a way to categorize or limit this flexibility allowance based on specifically mapped ecologically sensitive areas?
- What are the other acceptable “tradeoffs” as a reasonable action that facilities could use, while they speed up studies, instead of “no new connections”?

56 – Some of these (I/I) will improve overall plant performance

67.b – need a currency and a bank, and a monitoring system to measure progress and ensures enduring implementation. Think more about including other sources in the system. Will take a long time to develop this system. Consider more focus on fixing the root cause of problem.

### **Environmental groups:**

Let's go back to our purpose: Puget Sound deserves protection. WWTPs' work is critical to achieving water quality goals. We are past the limit of what the Sound can take. We need to start now to clean up and prepare for population increases. King County and Tacoma are 2/3 of the load. These five plants are causing problems elsewhere. We've had a lot of successes. The environmental community wants to work with King County and Tacoma. We need to cap loads and trigger actions. The utilities cannot claim that this is a surprise. Some of you were in meetings about this fifteen years ago. "No" isn't an option. The question is: How?

### **Utilities/plant operators:**

The members of the Utility Caucus have developed a proposal for the Puget Sound Nutrient General Permit (please see attached). Our Caucus is providing this proposal for consideration in response to the Ecology summary document, "Evolving Recommendations".

During our discussions, we noted a number of items upon which the utilities all agree. These broad items of consensus include:

- We want to demonstrably protect/improve water quality for marine life and beneficial uses,
- There is a need for increased monitoring and sampling to inform the science,
- Implementing steps should be practical and achievable, and
- State and federal funding strategies are needed to assist in this effort.

However, the Utility Caucus also wants to assure that other Advisory Committee members understand the hurdles and limitations we face as we move forward. Most significantly these items include:

- Recognizing facility limitations to optimize traditional secondary treatment equipment and processes for nitrogen removal, including:
  - implementation schedules for optimization upgrades must be coordinated with existing operational and facility maintenance needs and other project work,
  - operational limitations (e.g. training existing staff, hiring of qualified staff in a limited candidate pool, etc.), and
  - capital costs if optimization upgrades do not offset future nitrogen removal costs.
- Impacts on rate affordability,
- Providing for growth of our communities in a booming Puget Sound region, and
- Complexities and lengthy timelines to plan, design, and implement capital improvements.

One problem we want to highlight is the concept of "phasing in" improvements: requiring facilities to reduce nitrogen levels to an intermediate level, and then requiring them to meet an even lower standard. The technology and designs to meet different standards can be significantly different, so that such a phased approach would incur major additional expenses without environmental benefit.

Our utilities exist in large part to protect the environment, and in particular Puget Sound. We want to work to protect and improve the marine environment but are keenly aware of the impact that nutrient regulations could have on plant operations, utility rates, housing affordability, and regional development patterns. We hope that our participation and recommendations will help develop a permitting structure that provides for a workable balance of all these factors.

See separate, attached document: "Draft Designing a Nutrient General Permit\_utilities proposal\_9-25-2020.docx"

### **Local jurisdiction planners:**

(#13) Relatively few plants are at or above 85% capacity and these should already be planning expansion/upgrades. Focus the PSNGP planning requirements (#53-54) on plants that exceed the cap, rather than those nearing capacity.

(#44) Planners expressed support for a regional feasibility study and its expected efficiencies. Require (vs. "allow" in #48) coordination among plants. AWC could assist in coordination.

- Define the regional study deliverables to align with the permit requirements.
  - Do this in parallel with permit development/issuance timeline.

(#53-54) Planners recommend the first PSNGP orient toward the information in 2030 for a 2032 Comprehensive Plan update (or appropriate date for the county – there are three separate schedules). The timelines are better aligned than for the 2024 update. Jurisdictions are concerned about ability to provide the level of detail needed for the CFP Capital Facilities Plan (CFP) update and the GMA-required funding plan. The required actions under AC consideration impact current plans as well as future updates.

- Having bookend cost estimates would then not be crucial for 2024 Comp Plan updates for all jurisdictions; special purpose districts are on different timelines (see Dept of Commerce for list). Placeholder language in the 2024 update should suffice.
- Focus the first permit requirements on data collection, optimization, and other actions plants can currently take, rather than making much progress toward plant upgrades.
  - The CFP is updated every year at many jurisdictions. Some jurisdictions will do more, earlier. Most will want to wait until the target (WQBEL) is defined.
  - Plant size influences ability to plan and to reduce nutrients. Some jurisdictions don't know yet what the impacts to GMA planning are. Need the info for growth targets.

Overall: Be clear in use of "plan" versus engineering report and other terms defined in WAC.