

Puget Sound Nutrient General Permit

Advisory Committee Meeting

April 15, 2020 from 9:30-noon

Webinar basics at 9:25

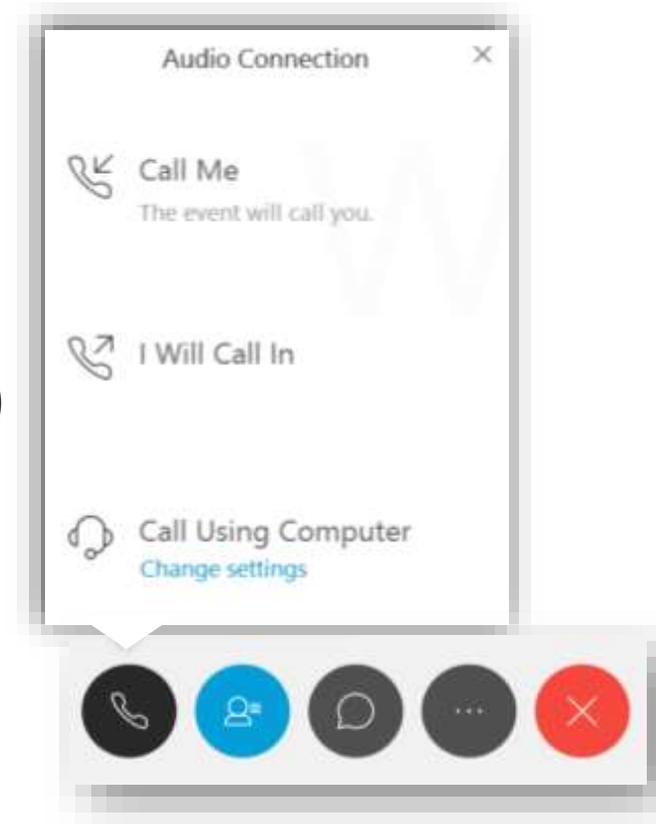


WEBINAR FEATURES: AUDIO CONNECTION

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- Select the 'Call Me' option (best audio quality)
- The webinar will call your phone

We will do a sound check 10 and 5 minutes before the scheduled start of the webinar.



Having technical difficulties? Let us know via the chat box, or email kefe461@ecy.wa.gov



WEBINAR FEATURES: CHAT BOX

The screenshot displays the Cisco Webex Events interface. At the top, the title bar reads "Cisco Webex Events" and "Connected". Below the title bar is a menu with "File", "Edit", "View", "Communicate", "Participant", "Event", and "Help". The main content area shows a meeting titled "Water Quality HQ (Host)" with a large "WH" logo. A blue callout box with a yellow border and arrow points to the chat icon in the bottom toolbar, containing the text: "CLICK ON THIS SYMBOL TO OPEN THE CHAT BOX". The bottom toolbar includes icons for mute, video, chat, more options, and end meeting. On the right side, there are panels for "Participants" (showing "Water Q... (Host)" and "Your Name (me)"), "Chat" (with a text input field "Enter chat message here"), and "Q&A".



NAVIGATING THE WEBINAR FEATURES

The screenshot shows the Cisco Webex Events interface. At the top, the title bar reads "Cisco Webex Events" and "Connected". Below the title bar is a menu with "File", "Edit", "View", "Communicate", "Participant", "Event", and "Help". The main content area shows a meeting titled "Water Quality HQ (Host)" with a large circular logo containing the letters "WH". At the bottom of the screen is a toolbar with several icons: a microphone, a person icon, a chat icon, a three-dot menu, and a red 'X' icon. On the right side, there are two panels. The top panel is titled "Participants" and shows a list of participants under "Panelist: 1" and "Attendee:". The bottom panel is titled "Chat" and shows a message input field with the text "Enter chat message here".

CLICK ON THIS SYMBOL TO OPEN THE CHAT BOX

TYPE HERE TO CHAT WITH HOST



NAVIGATING THE WEBINAR FEATURES

Cisco Webex Events

File Edit View Communicate Participant Event Help

Water Quality HQ (Host)

WH

Participants

Panelist: 1

WH Water Q... (Host)

Attendee:

YN Your Name (me)

CLICK ON THIS SYMBOL TO "RAISE YOUR HAND"

Chat

To: Host

Enter chat message here

Q&A



NAVIGATING THE WEBINAR FEATURES

Cisco Webex Events

File Edit View Communicate Participant Event Help

Water Quality HQ (Host)

Participants

Panelist: 1

WH Water Q... (Host)

Attendee:

YN Your Name (me)

Now your hand is raised. Click on this symbol to "lower your hand"

To: Host

Enter chat message here

Q&A



Puget Sound Nutrient General Permit (PSNGP)

First Advisory Committee (AC) Meeting

April 15, 2020



Welcome!

- Thank you for offering your time
- Process
- Shared goals:
 - Limit nutrient loads to Puget Sound from direct WWTP discharges in the long term
 - Support smart growth
- Questions for me?



Today's Agenda

9:30	Welcome and overview <ul style="list-style-type: none">• Advisory Committee Q&A	Vincent McGowan, Ecology's Water Quality Program Manager
9:50	Introductions and committee process: <ul style="list-style-type: none">• Select our chair• Discuss our schedule• Review our approach to making recommendations	Karen Dinicola, Ecology's facilitator for this Advisory Committee
10:50	<i>Short break</i>	
11:00	Introduction to first concepts to be discussed: cap and optimization <ul style="list-style-type: none">• Advisory Committee Q&A	Eleanor Ott, Ecology's PSNGP permit writer
11:40	Opportunity for clarifying questions from the public about cap and optimization concepts	Kelly Ferron, Puget Sound Nutrient Reduction Forum staff
11:50	Review agreements and next steps	Advisory Committee Chair
12:00	<i>Adjourn</i>	

Purpose of the first part of today's meeting

To convene the Advisory Committee:
introduce members, select our chair, and
discuss the AC process and timeline



Introductions

- Advisory Committee members
 - Permittees:
Rebecca Singer, Patrick Kongsli, Dan Thompson, Mark Sadler, Judi Gladstone, Joe Grogan, Pete Tjemslund, and Wendy Steffensen
 - State agencies: Valerie Smith
 - Federal Agencies: Jenny Wu
 - Tribes: Chip Anderson
 - Environmental Groups:
Mindy Roberts and Bruce Wishart
- Ecology staff
 - Ellie Ott, Kelly Ferron, and Karen Dinicola



Please share:
Name
Place of work
Representation
Expertise and perspective
Favorite way to enjoy the Sound



AC Chair – our spokesperson

- Rebecca Singer of King County has volunteered to serve as chair of this Advisory Committee
- Are there other nominations?
- Do AC members select/confirm our Chair?



Purpose of Advisory 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



Recommendation Process

- Discuss possible approaches, understanding the sideboards
- Gather and share input from broader groups of interested parties
- Understand others' perspectives
- Discuss and document feedback
- Agree to final recommendations that highlight areas of agreement and concerns



Proposed Timeline

- April – July 2020 monthly AC meetings
 - Final recommendations from the AC in mid 2020
- Late 2020 – Preliminary draft permit conditions
 - Informal public comment period
 - AC meeting
- 2021 – Final draft permit
 - Formal public comment period
 - Public hearings
 - AC meeting
- Final permit issuance is anticipated 3-6 months after final draft





Discussion about process

Purpose of the second part of today's meeting

Members of the Advisory Committee will understand some possible conceptual approaches to developing the cap, and why optimization is necessary



Topics to discussed by AC

Cap

Calculation

Expression

Compliance

Monitoring

Parameters

Frequency

Planning

Optimization

Short Term

Long Term

Permit Overlay

Managing duplicate requirements

Implementation and Management



What is “reasonable potential”?

- A regulatory threshold
 - 40 CFR § 122.44(d)(1)(i)
 - *Establishing limitations, standards, and other permit conditions*

[Permit] Limitations must control all pollutants or pollutant parameters that **are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute** to an excursion above any state water quality standard.



2019 Commitments to address DO

1. Set nutrient loading limits at current levels from all permitted dischargers in Puget Sound and its key tributaries to prevent increases in loading that would continue to contribute to Puget Sound's impaired Status.
2. Require permittees to initiate planning efforts to evaluate different effluent nutrient reduction targets.
3. For treatment plants that already use a nutrient removal process, require reissued discharge permits to reflect the treatment efficiency of the existing plant by implementing numeric effluent limits used as design parameters in facility specific engineering reports.



Why Pursue a General Permit?



Value in a General Permit

- Timely initiation of nutrient controls
Sound-wide
- Robust public involvement process
- An opportunity for WWTP communities to work together to achieve nutrient reduction
- Increased flexibility for permittees



Nutrient Cap Calculation Options



Key Questions for Cap Development

1. What averaging period (e.g., week, month, season, annual) is most appropriate for a cap on nutrient loads?
2. How many years of effluent data should be used to establish a TIN load cap?
3. Should the calculation method be the same for those facilities with discernable near field impacts as well as for those that have far field impacts?
4. Should the same method be used to calculate representative loads for all facilities? What are ways to eliminate the issue associated with data sets that are not normally distributed?
5. How can facilities who have nutrient removal technology avoid being penalized for their proactive efforts when they are subject to the same cap requirements?
6. What are options to balance GMA requirements and the need to cap current nutrient loads?



What is a representative load?

There is not a standard calculation method for determining a current or historic load.

Concentration Data (Sampling Frequency)		Flow Statistic
Monthly	Pair with →	
Quarterly	Pair with →	
Weekly	First calculate a monthly average concentration and then pair the result with →	

$$\text{Mass Loading} = \text{Concentration (mg/L)} * \text{flow} * \text{CF}$$



An Implementation Example



Suquamish WWTP

- EPA NPDES Permit: WA0023256
- Owned/Operated by Kitsap PW
- SBR treatment with EQ tank and UV disinfection
- Discharges to Port Madison Bay
- Design Flow: 0.40 MGD
- Years of monthly TIN data



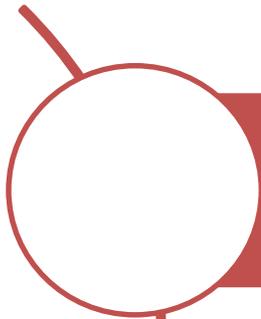
Cap Calculation Alternatives



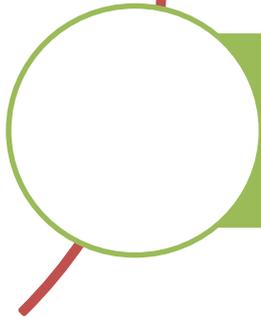
1. Selection of ranked 95th percentile from facility's representative loads.
2. Non-parametric calculation of a 95% confidence interval.
3. Selection of the highest TIN load reported by the facility.



Questions about the Cap Options



Does everyone understand all three concepts?



What is it that you want or need to understand this topic better?



Questions for Review

- Does one proposal seem better than another? Why?
- What is missing in the calculation consideration?
- What concepts/principles do you agree with? Why?
- What concepts/principles do you disagree with? Why?



Optimization Plans

Optimization is an Adaptive Management Strategy

- Limit the discharge of TIN to the maximum extent practicable; and,
- Stay below the load cap.



Optimization Plan Components

Evaluate possible operational adjustments to drive nitrification/denitrification

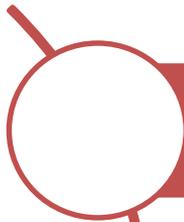
Investigate minor retrofits (i.e., < 5% equipment budget)

Evaluate septage receiving policies and procedures

Evaluate side-stream management process changes



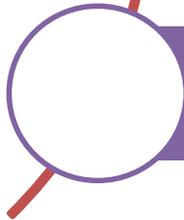
Questions about Optimization



Do you understand the goal of optimization?



Do you understand proposed components?



Do you understand where the challenges may lie?



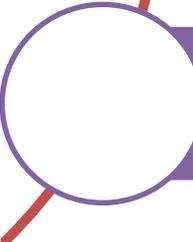
Questions for Review



What concepts/principles do you agree with? Why?



What concepts/principles do you disagree with? Why?



What are universal optimization requirements that could apply to all dischargers?



Supplemental Information

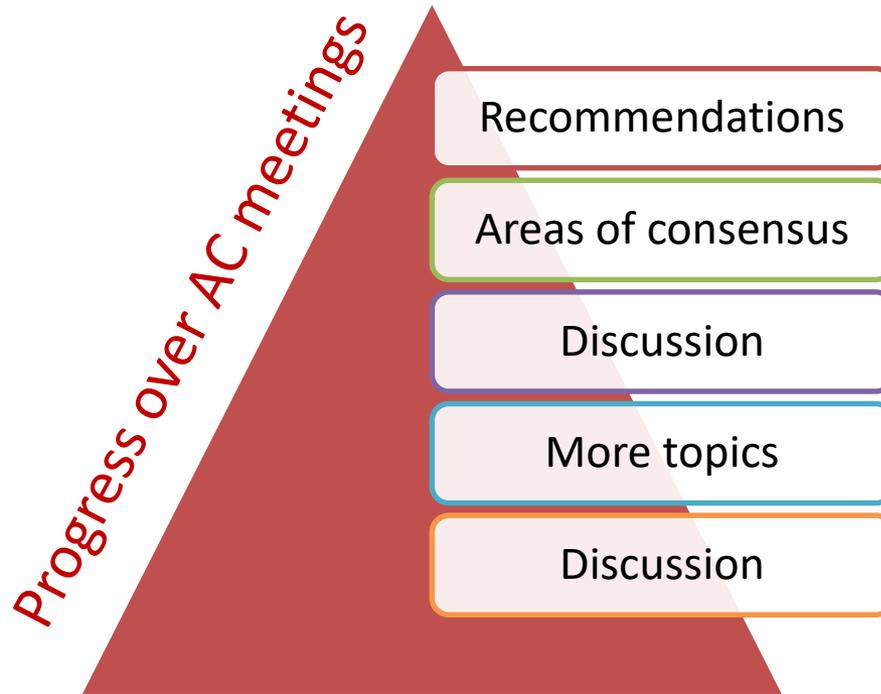
- Annual Nutrient Permit Limits Memo for Chesapeake Bay, EPA
- Nutrient Monitoring and Maximum Annual Load Memo, VDEQ
- Bootstrapping Calculation Spreadsheet



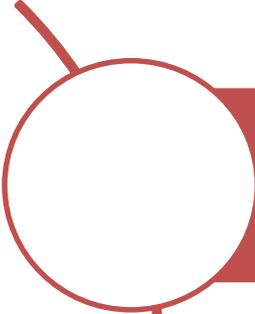


Next steps for AC

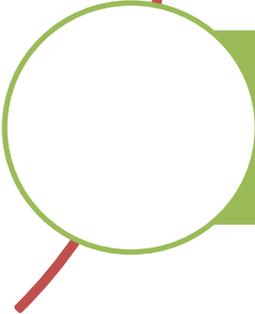
Future Meetings



Questions from the Public



Is there a concept presented today that you'd like to understand better?



What additional information do you need to be able to provide future feedback?

Please type your questions into the Webex chat box.





Recap and next steps

More Information

Subscribe to the Puget Sound Nutrients General Permit Listserv

<http://listserv.ecology.wa.gov/scripts/wa-ECOLOGY.exe?A0=NUTRIENTS-PERMIT>

Please reach out with questions and concerns:

Eleanor Ott

(360) 407-6433

psnutrientsgp@ecy.wa.gov

Karen Dinicola

(360) 407-6550





Thank you!

Advisory Committee Members

Name	Affiliation	Role	Geography
Mark Sadler	City of Everett, Public Works	Operations Superintendent	North Central
Joe Grogan	Town of Coupeville	Utility Superintendent	North Central
Dan Thompson	City of Tacoma	Division Manager	South Central
Rebecca Singer	King County DNRP, Wastewater Treatment Division	Resource Recovery Manager	South Central
Patrick Kongsli	Pierce County Planning and Public Works - Sewer Division/PNCWA Olympic Section	Sewer Division Maintenance and Operations Manager	South Central
Wendy Steffensen	LOTT Clean Water Alliance (wastewater utility)	Environmental Project Manager	South Sound
Pete Tjemsland	City of Sequim	Utilities Manager and Operator	Strait of Juan de Fuca
Judi Gladstone	Washington Association of Sewer & Water Districts	Executive Director	Puget Sound Wide
Bruce Wishart	Puget Soundkeeper	Policy Lead	Puget Sound Wide
Mindy Roberts	Washington Environmental Council	Puget Sound Program Director	Puget Sound Wide
Jenny Wu	EPA	Engineer, permit writer	Puget Sound Wide
Valerie Smith	Dept of Commerce	Senior Planner	Puget Sound Wide
Chip Anderson	Lummi Tribal Water and Sewer District	District Manger	North Sound
Tribe			
Eleanor Ott	Dept of Ecology	Permit Writer	Puget Sound Wide

