

100-J General Permit Information Session

Water Quality Permitting and Program Development

January 2023

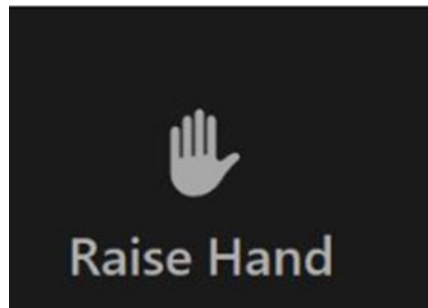
Agenda

- Welcome and introduction
 - Participation via zoom
- Permit basics
- Draft conditions
 - Coverage and eligibility
 - Temperature
 - Cooling water intake structure

Participation Options - Not Recorded

Computer

- Raise Hand Icon
- Host will call on you



- Chat box

Phone Connection

- *9 to raise/lower hand
Host will call on you
- *6 to mute/unmute

Permit Basics

- National Pollutant Discharge Elimination System
 - Discharge of pollutants to surface water
 - Five-year permit
- General Permit
 - Statewide
 - One permit
 - Qualify for coverage



100J Permit Recap

1996 - 2001

1996 temperature criteria for impaired water

Toxic chemical use

Maximum Discharge MGD

pH 6.0 – 9.0 SU

Chlorine 500 µg/L

Temperature:

Flow based temperature maximum

Maximum Temperature 100 °F

Land Application Option

2022 Concepts

New Temperature Criteria

Total Maximum Daily Loads – WLA

Technology Based

Effluent Limit Guidelines

Cooling Water Intake Structures

Outstanding and High-Quality Waters

Land Application Option

Draft - Coverage and Eligibility, Facilities

Industrial Facilities:

- Once-through or recycled non-contact cooling water, defrost water, heat pump transfer water and cooling tower blowdown
- No direct contact with any raw material or material used in production
- No more than 0.5 MGD
- Water is typically supplied from potable water, or groundwater and is used to transfer heat, cool machinery and equipment

Draft - Coverage and Eligibility, Facilities

Hydroelectric Facilities:

- Cooling water, sump pump, drainage wastewater and unwater pump wastewater discharges
- Water is typically from surface water

Draft - Coverage Not Available

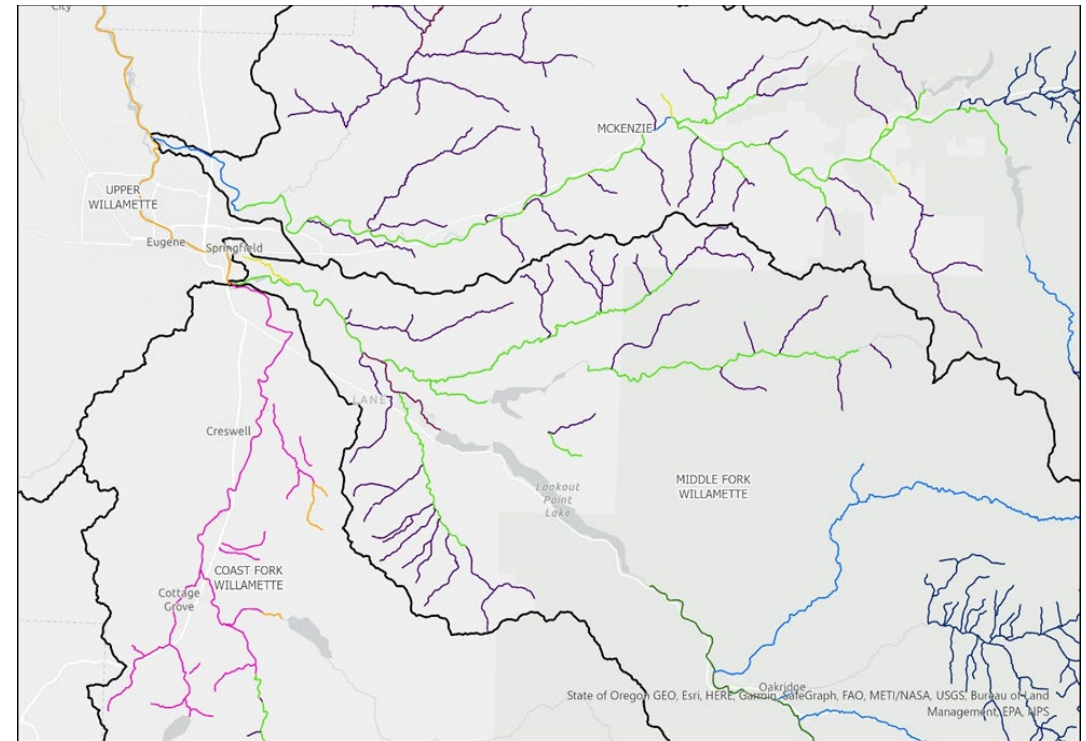
- Certain Waters
 - Outstanding Resource Waters
 - Oceans and bays (estuarine)
- Cooling Water Intake Structure
 - Use of surface water for cooling
 - Hydroelectric facility dependent upon FERC license or Biological Opinion
- No TMDL wasteload allocation available
- Facility Types
 - Industrial sources more than 0.5 MGD total maximum daily design flow
 - Steam electric power generating facility 40 CFR Part 423
 - Hydroelectric facility adjoins two states

Draft – Temperature Limits

- Applicable criteria
- Receiving stream conditions
- TMDL requirements
- Existing permit limits
- Effluent flow

Draft - Maximum Temperature

- Spawning Area
 - 9.3°C bull trout
 - 13.3°C salmon and steelhead
 - Designated use period
 - 7-day rolling average
- Verify active spawning habitat



Designated Salmon and Steelhead Spawning Use in the Willamette Basin*

— September 1 - May 15 — September 15 - June 15 — January 1 - May 15 □ Subbasin Boundary
— September 1 - June 15 — October 15 - May 15 — January 1 - June 15 Note: Stream segments that are not delegated are not shown.
— September 15 - May 15 — October 15 - June 15 — Bull Trout Spawning

*This map is for demonstration purposes only. Please consult OAR Chapter 340, Division 41, or the 2022 Integrated Report Map for more details.

Draft – Maximum Daily Temperature

- 32°C maximum temperature
- Industry
 - Additional calculation based on facility discharge
 - 32°C or calculation whichever is lower
- Spawning area protection may still be applicable

Draft- Excess Thermal Load Calculation

- Allows 0.3°C above biologically based numeric criteria
- Meets thermal plumes requirements
- Discharge to stream
 - 25% of low stream flow, maximum dilution is 22
- Discharge to lake
 - No dilution

Draft – Additional Excess Thermal Loads

- Calculation based on previous temperature standard of 'no measurable increase' above 0.14°C

TMDLs
Alvord Lake Subbasin
Upper Grande Ronde Subbasin
Upper Klamath and Lake Drainage
Applegate Subbasin
Lower Sucker Creek Watershed
Upper Sucker Creek Watershed
Lobster Creek Watershed
Snake River/Hells Canyon Subbasin
Tualatin Subbasin (New Sources)

Draft – Additional Excess Thermal Loads

- TMDLs with specific ETLs for existing industrial sources
 - Tualatin Subbasin
 - Lower Willamette Subbasin (Columbia Slough and Fairview Creek watersheds)

Draft – Additional Temperature Requirement

- TMDL bubble allocation
 - Only discharges into the mainstem Willamette river
 - 0.5 MGD or less
- Limited number of registrants per segment
 - 13, Lower Willamette (River Mile 0 – 50)
 - 3, Middle Willamette (River Mile 50 – 108)
 - 6, Upper Willamette (River Mile 108 – 186)

Draft - Cooling Water Intake Structure

- Hydroelectric facility only
 - Meets any one of the factors contained in EPA guidance
 - Volume of cooling water used relative to other power generation facilities and relative to total water use at the facility
 - Cooling water withdrawn relative to waterbody flow
 - Location of the intake structure
 - Technologies at the facility
 - FERC license and/or biological opinion documentation

Draft - Other Limits

- pH
- Total Chlorine Residual
- Toxics
- Flow
- Oil and Grease
- Land Application

Next Steps

- Information Session
- Mid-April Public Notice
- Issue June
- Each facility will reapply

Questions

- Beth Moore
DEQ General Permit Coordinator
beth.moore@deq.oregon.gov
503-229-6402



[Sign up for public notices with DEQ's subscription service](#)