

100-J General Permit Information Session

100J National Pollutant Discharge Elimination System
General Permit

Thursday, Sept. 29, 2022, 1:30 p.m.

Today's agenda

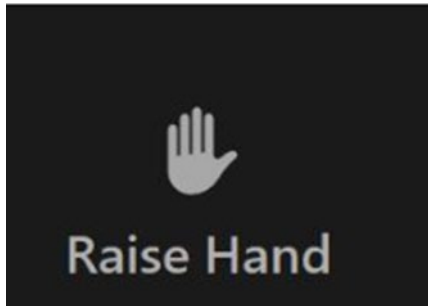
- Welcome and introduction
 - Participation via Zoom
- Permit basics
- Temperature
 - Aquatic life criteria
 - Thermal plume
 - Total maximum daily load
 - Existing permit limits
- Renewal schedule
- Questions



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



100-J Permit

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

TMDLs - WLA

Technology Based

Effluent Limit Guidelines

Cooling Water Intake Structures

Outstanding and High-Quality Waters

Land Application Option

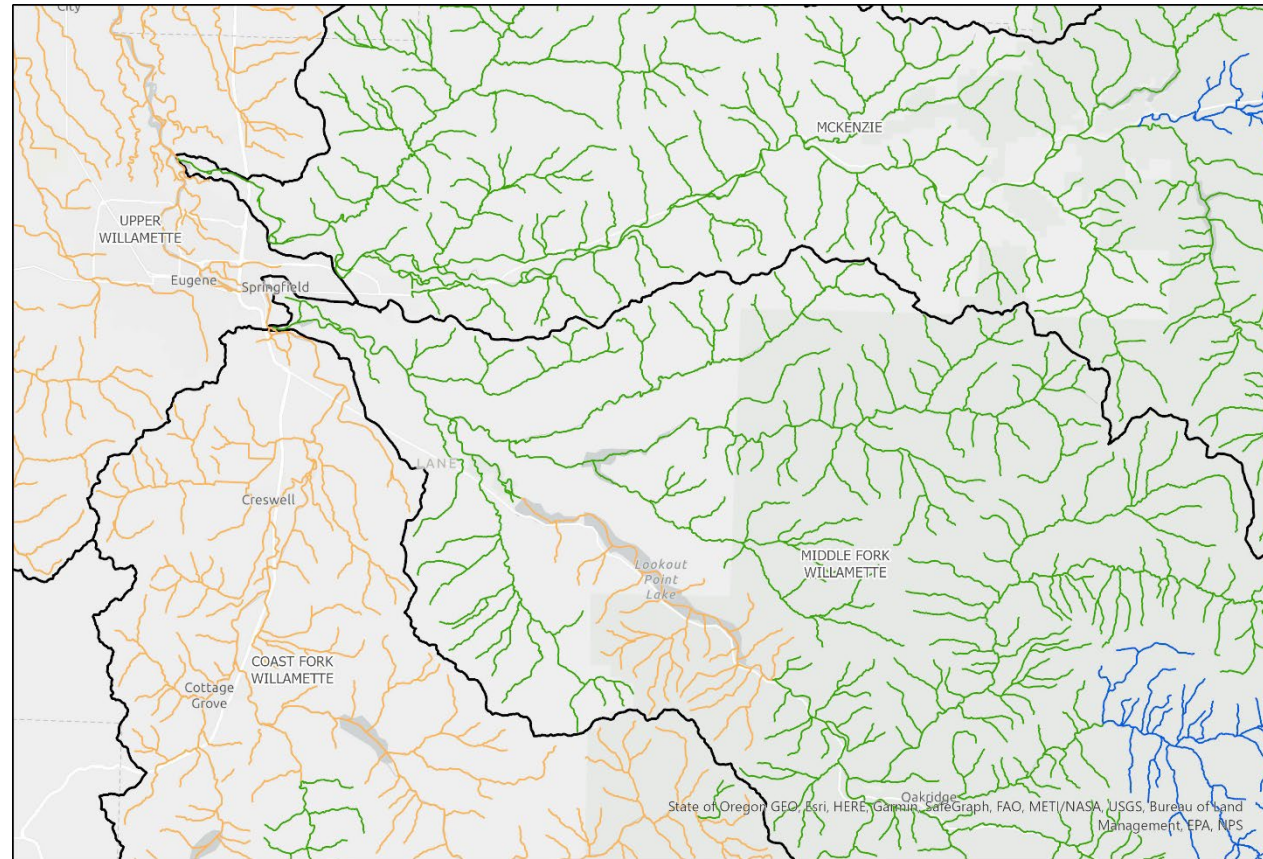
Information session | Temperature

- 2003 EPA approved temperature requirements
 - Water Quality Aquatic Life Criteria
 - Thermal Plume from discharge to waterbody
 - Total Maximum Daily Load (TMDL)
- Existing permit limits

Aquatic Life Criteria

- Fish Use Temperature Criteria
 - Salmon and Steelhead Spawning 13.0°C / 55.4°F
 - Core Cold Water Habitat 16.0°C / 60.8°F
 - Salmon and Trout Rearing and Migration 18.0°C / 64.4°F
 - Salmon and Steelhead Migration Corridors 20.0°C / 68.0°F
 - Lahontan Cutthroat or redband trout use 20.0°C / 68.0°F
 - Bull trout spawning and juvenile rearing 12.0°C / 53.6°F
 - Lakes, ocean, bay waters – no more than 0.3°C above natural condition.

Fish Use Maps



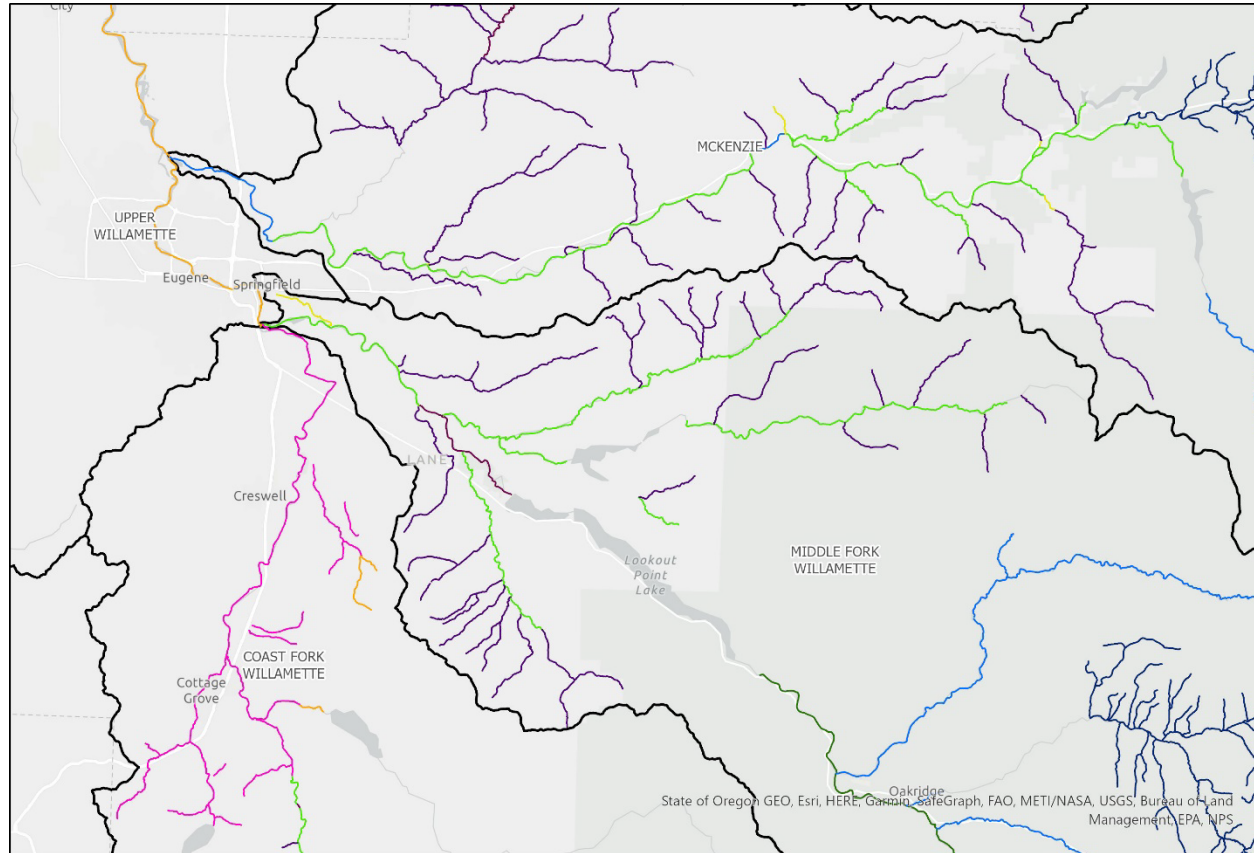
Designated Fish Use in the Willamette Basin*

- Bull Trout Spawning and Juvenile Rearing
- Salmon and Trout Rearing and Migration
- Core Cold Water Habitat
- Subbasin Boundary

Note: Stream segments that are not designated are not shown.

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

Fish Use Maps



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 | |
| — September 15 - May 15 | — October 15 - June 15 | — Bull Trout Spawning | Note: Stream segments that are not delegated are not shown. |

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

Thermal plume

- Prevent or minimize by limiting potential fish exposure to the following temperatures:
 - Impairment of an active spawning area
 - 13°C (55.4°F) or 9°C (48°F) for bull trout spawning
 - Acute harm or death
 - 32°C (89.6°F) or more for less than 2 seconds
 - Thermal shock
 - 25°C (77°F) or more, to less than 5% of the cross section of a low flow (7Q10) of a waterbody
 - Blocking fish migration
 - 21°C (69.8°F) or more, to less than 25% of the cross section of a low flow (7Q10) of a waterbody

TMDL

- Total Maximum Daily Load
 - Permit must be consistent with a TMDL
 - Existing 100-J sources
 - Most TMDLs do not contain additional requirements
 - Some TMDLs have wasteload allocations
 - Reserve for a new source

Existing limits

- Existing limits for non-hydroelectric facilities
 - A not to exceed heat load of 25
 - Flow (MGD) x Temperature (°F) = 25 or less
 - Flow maximum is 0.5 MGD
- Other temperature limits of 100°F (37.8°C) and 150°F (65.5°C)

100-J schedule



Questions

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