

# Oregon DEQ Aquatic Life Use Updates

## Rule Advisory Committee Meeting #6

### 1. Welcome and Introduction

Dec. 16, 2022



# Welcome!

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# Zoom meeting logistics

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- Trina Brown – DEQ Admin. Support
- “Raise hand” to be recognized for questions or comments  
- Feel free to post questions into the chat and we will respond
- If you are listening on the phone:
  - Press \*9 To raise your hand
  - Press \*6 Unmute/Mute your line
- Today’s meeting will be recorded

# Agenda

Time	Topic
9 a.m.	Welcome, Introduction
9:20 a.m.	Resident Trout Spawning: 2003 rulemaking and implementation (Debra)
9:40 a.m.	Resident Trout Spawning Designation rule options (James)
10:30 a.m.	Break (10 mins)
10:40 a.m.	Resident Trout rule options con't.
11 a.m.	Discussion: RAC preferences and concerns (RAC, facilitated)
11:20 a.m.	Input for fiscal impact statement (Mailea)
11:45 a.m.	Wrap Up, Next Steps
12 p.m.	Adjourn meeting

# Meeting Objectives

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- Inform and discuss revision of proposed Resident Trout Spawning designation rule
- Solicit input for revising the fiscal impact statement
- Highlight opportunities for comment before draft rule publication
- Review updated schedule

# Discussion Ground Rules

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- Questions and interjections from committee members only please
- Will reserve a portion at end of meeting for questions from observers if time permits
- Be respectful of each other
- Raise your virtual hand to speak
- Speak for yourself when recognized
- Stay on mute unless speaking
- Stay on topic in the chat
- Let others speak without interrupting

# Questions about today's meeting?



Image Source: ODFW

# Oregon DEQ Aquatic Life Use Updates Rulemaking Advisory Committee, Meeting #6

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2. Resident Trout Spawning: 2003  
Rulemaking and History of Implementation





# History of the Dissolved Oxygen Standard

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- The DO standard was last substantively revised in 1996.
  - *For waterbodies identified by the Department as providing salmonid spawning, during the periods from spawning until fry emergence from the gravels, the following criteria apply:*
  - The dissolved oxygen shall not be less than 11 mg/l. However, ....(IGDO)
- The criteria were approved, following ESA consultation,...
- ...Except the IGDO criterion of 6 mg/l was disapproved
  - DEQ revised the IGDO criterion to 8 mg/l.
- In 2003, because salmon and steelhead and bull trout spawning uses were designated in rule as part of the temperature standard revisions, the DO spawning criteria language was revised to cross-reference those use tables and figures.
  - The trout spawning language remained similar to what it was (shown above)

# 2003 Rulemaking

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- Revised temperature standard
- Designated the fish & aquatic life use subcategories associate with the temperature standard in rule
  - To clarify when and where the criteria apply
  - Adopted fish use maps and tables
- Did not substantively revise DO standard
  - Reformatted Division 42 rules
  - Cross-referenced salmon and steelhead spawning maps and tables adopted as part of the temperature standard

# Salmonid Spawning Criteria (OAR-340-041-0016 (1))

- *“For water bodies identified as active spawning areas set out in OAR 340-041-0101 to 340-041-0340: Tables 101B, 121B, and 190B, and Figures 130B, 151B, 160B, 170B, 180A, 201A, 220B, 230B, 260A, 271B, 286B, 300B, 310B, 320B, and 340B, (as well as any active spawning area used by resident trout species), the following criteria apply during the applicable spawning through fry emergence periods set forth in the tables and figures and, where resident trout spawning occurs, during the time trout spawning through fry emergence occurs.”*
- The listed tables and figures designate salmon, steelhead and Bull trout spawning use
- Resident trout spawning areas have not been designated

# Implementation Memos to EPA

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- 1998
  - Cool water v. cold water DO criteria by ecoregion
  - Doesn't address resident trout spawning
- 2004
  - DEQ will use the following dates to apply the DO spawning criteria
  - Trout rearing or redband trout: Jan 1 – May 15
    - Core cold water habitat or bull trout habitat: Jan 1 – June 15
    - Trout rearing upstream from core cold water habitat: Jan 1 – June 15
  - Char (Bull trout) spawning: dates vary by basin
  - “DEQ will continue to refine all of these designations as more information is developed on resident trout and char spawning activities.”

# Implementation of spawning criteria

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- WQ Assessment (303d)
  - Applied DO spawning criteria to all streams with resident trout as a year-round use, except those specifically excluded
  - In 2022, 72 assessment units were listed for DO based only on presumed resident trout spawning
- TMDLs
  - No TMDLs contain allocations based on meeting the DO spawning criteria for streams with only presumed resident trout spawning
  - One is in progress: Powder Basin
- Permits
  - We are working with the permit writers to determine whether any permits contain WQBELs based on the DO spawning criteria where there is only presumed resident trout spawning

# Objective for this rulemaking

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- DEQ would like to clarify where and where active resident trout spawning occurs
- However, there are still data gaps
- James will talk about the options available to us at this time

# Oregon DEQ Aquatic Life Use Updates Rulemaking Advisory Committee Meeting #6

## 3. Dissolved Oxygen Salmonid Spawning Uses: Resident Trout Spawning Policy Options

Dec. 16, 2022

# What happened since the last RAC meeting?

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- Reviewed resident trout spawning rule language with EPA and OR-DOJ.
- Original proposal not workable as intended.
- New policy alternatives substantively change proposal.
- RAC input:
  - new options considered.
  - revised fiscal impact statement.



# Resident Trout Spawning Uses for Dissolved Oxygen

## Salmonid Spawning Criteria

### OAR-340-041-0016 (1)

“For water bodies identified as active spawning areas set out in OAR 340-041-0101 to 340-041-0340: Tables 101B, 121B, and 190B, and Figures 130B, 151B, 160B, 170B, 180A, 201A, 220B, 230B, 260A, 271B, 286B, 300B, 310B, 320B, and 340B, (as well as any **active spawning area used by resident trout species**), the following criteria apply during the applicable spawning through fry emergence periods set forth in the tables and figures and, **where resident trout spawning occurs**, during the time trout spawning through fry emergence occurs.”

Class	Concentration and Period <sup>1</sup> (All Units are mg/L)			
	30-D	7-D	7-Mi	Min
Salmonid Spawning		11.0 <sup>2,3</sup>		9.0 <sup>3</sup>
				8.0 <sup>4</sup>



Source: NOAA Photo Library

# Designating Salmonid (DO) Spawning Uses

## “Where” - Spatial Components

1. Salmon & Steelhead Spawning Habitat

2. Resident Trout Spawning Habitat

## “When” - Temporal Components

3. Adult Spawning (start)

4. Egg Incubation & Emergence (end)

“Salmonid Spawning”

# Times when criteria apply

- Derived from ODFW Timing Units and Timing Tables
- Procedures unchanged from original proposal.
- Detailed in the technical support document.



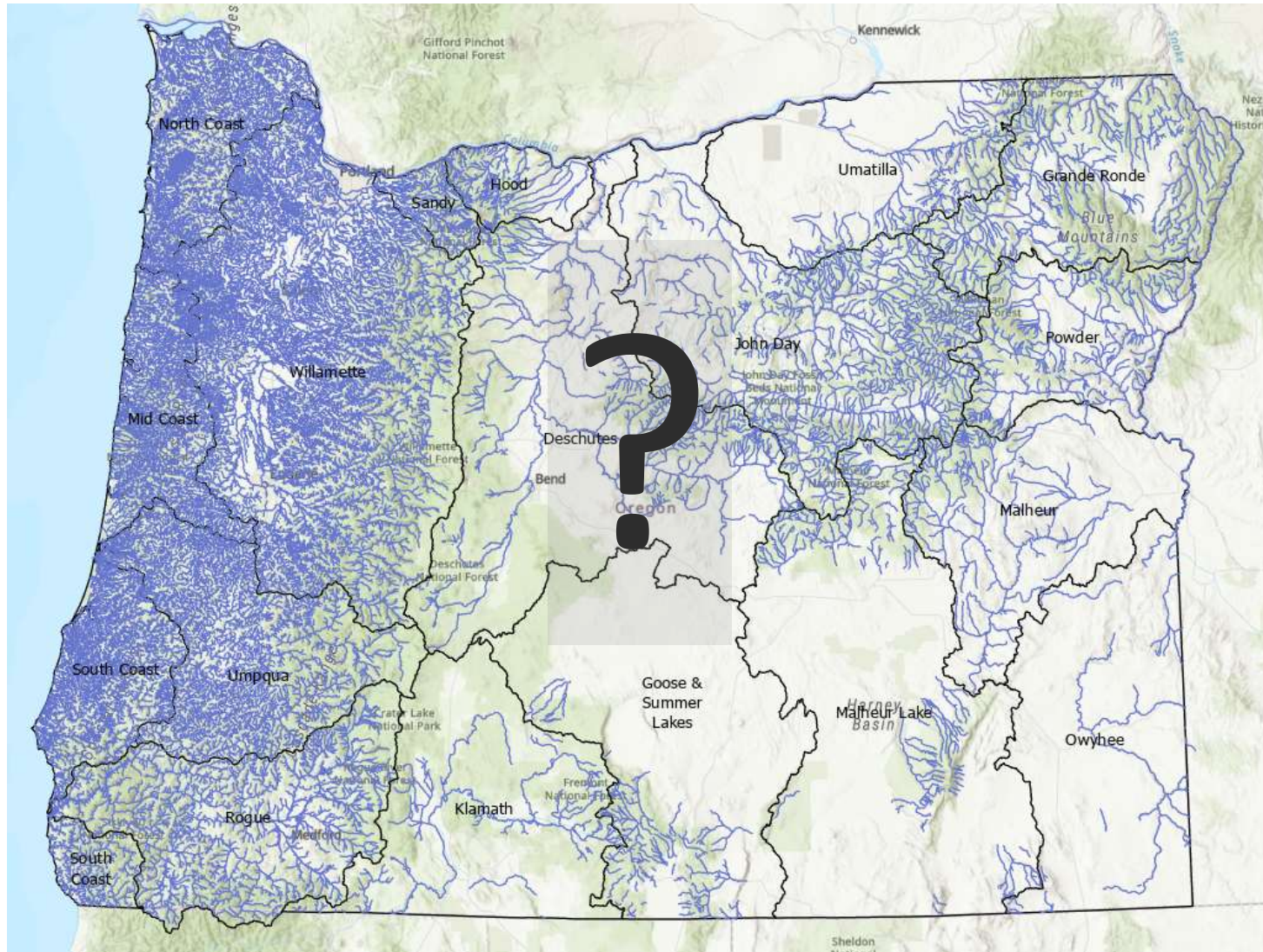
Timing Units

Calapooia R above Brownsville - Anadromous Species												
Waterway ID: MidWill02												
Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Upstream Adult Migration</b>												
Winter Steelhead	▨	▨	▨	▨	▨	▨						▨
Spring Chinook salmon				▨	▨	▨	▨					
<b>Adult Spawning</b>												
Winter Steelhead			▨	▨	▨							
Spring Chinook salmon								▨	▨	▨		
<b>Adult Holding</b>												
Winter Steelhead			▨	▨	▨							
Spring Chinook salmon				▨	▨	▨	▨	▨				
<b>Egg Incubation through Fry Emergence</b>												
Winter Steelhead			▨	▨	▨							
Spring Chinook salmon	▨	▨	▨					▨	▨	▨	▨	▨
<b>Juvenile Rearing</b>												
Winter Steelhead			▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
Spring Chinook salmon				▨	▨	▨	▨	▨	▨	▨	▨	▨
<b>Downstream Juvenile Migration</b>												
Winter Steelhead	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
Spring Chinook salmon	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨

▨ Represents periods of peak use based on professional opinion, survey data, or other information  
 ▨ Represents lesser level of use based on professional opinion, survey data, or other information  
 ▨ Represents periods of presence OR uniformly distributed level of use

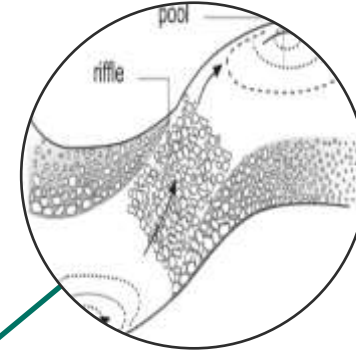
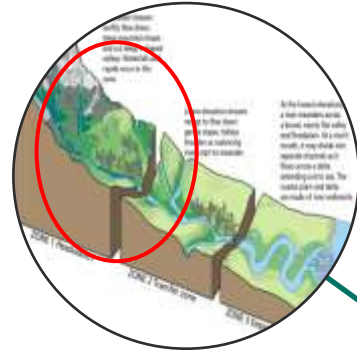
Timing Tables

# Where do salmonid spawning criteria apply?

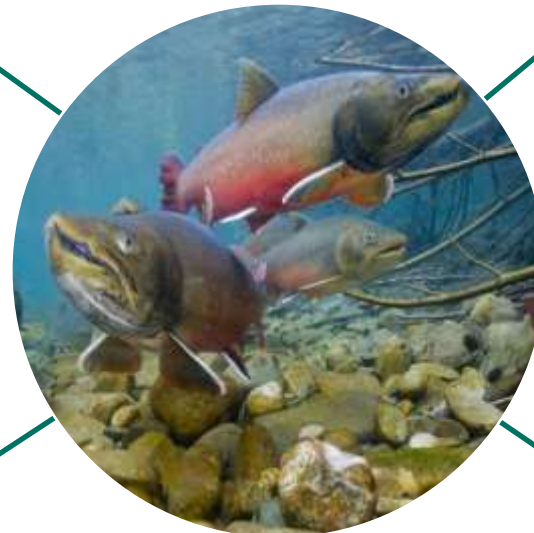


# Trout Spawning Habitat Requirements

Clear, silt-free cold-water streams: headwaters and tributaries



Geomorphology: riffles above pools



Substrate:  
Fine gravels  
1/2 – 3 inches



Velocity:  
1.0 - 3.0 ft/sec



\*Values for Rainbow and Coastal Cutthroat trout

(Lindsey et al. 1959; Hartman et al. 1962; Scott and Crossman 1973; Raleigh, 1984; Roberge et al., 2001; NRCS, 2000; NRCS, 2007)

# Potential 'Salmonid Spawning' habitat range

## Spawning Habitat

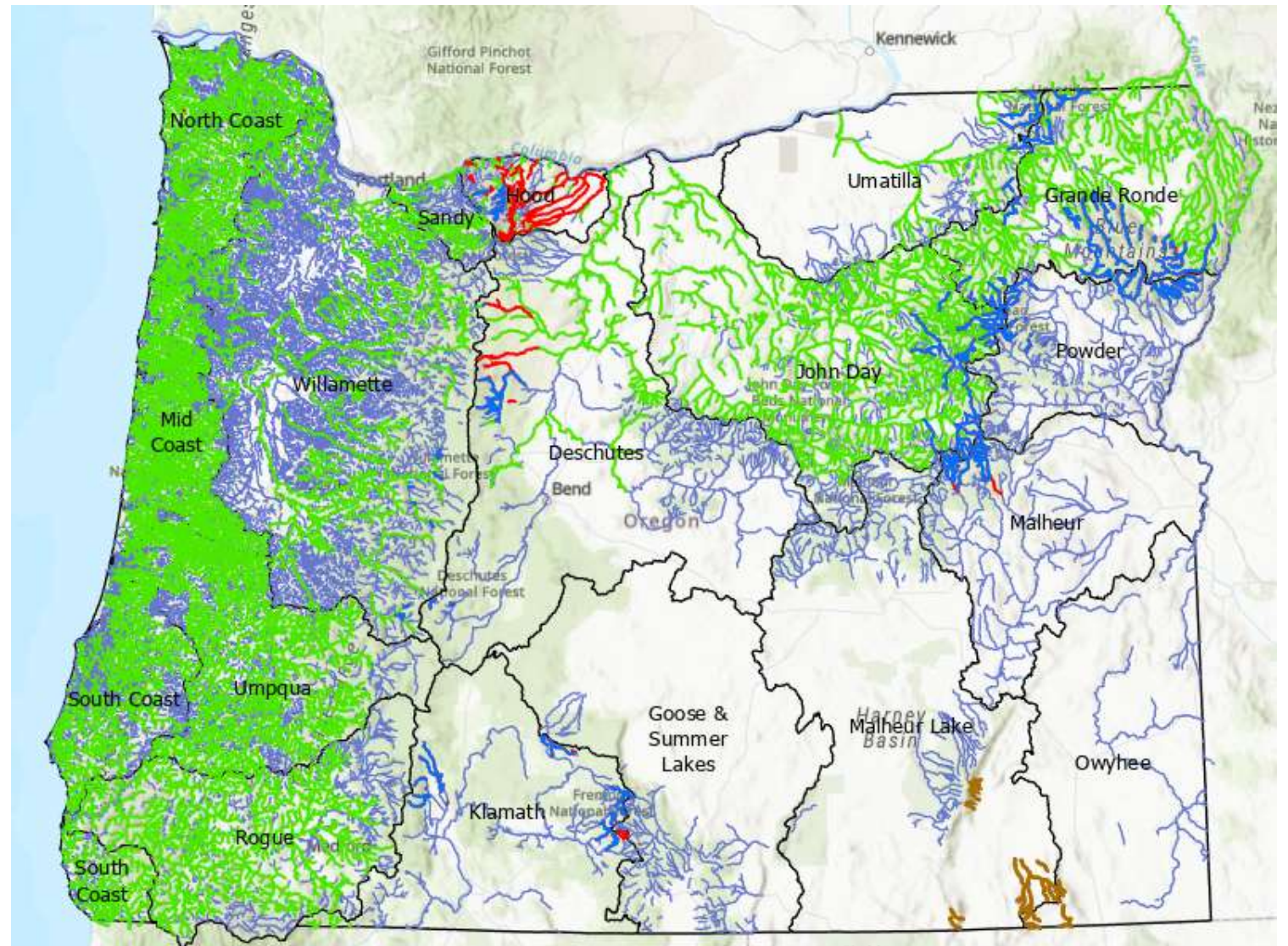
- Salmon & Steelhead
- Bull Trout
- Lahontan Cutthroat Trout
- other Resident Trout species

## Other Habitat

- other Resident trout species

## 2021 FHD data coverage

- ~99% salmon and steelhead spawning habitat
- >95% resident trout habitat



# Why are there data gaps?

- Resources
  - Approx. 58,440 river miles of habitat to survey
- Not generally listed species
- Not a high wildlife management priority
- Mainly a DEQ business case

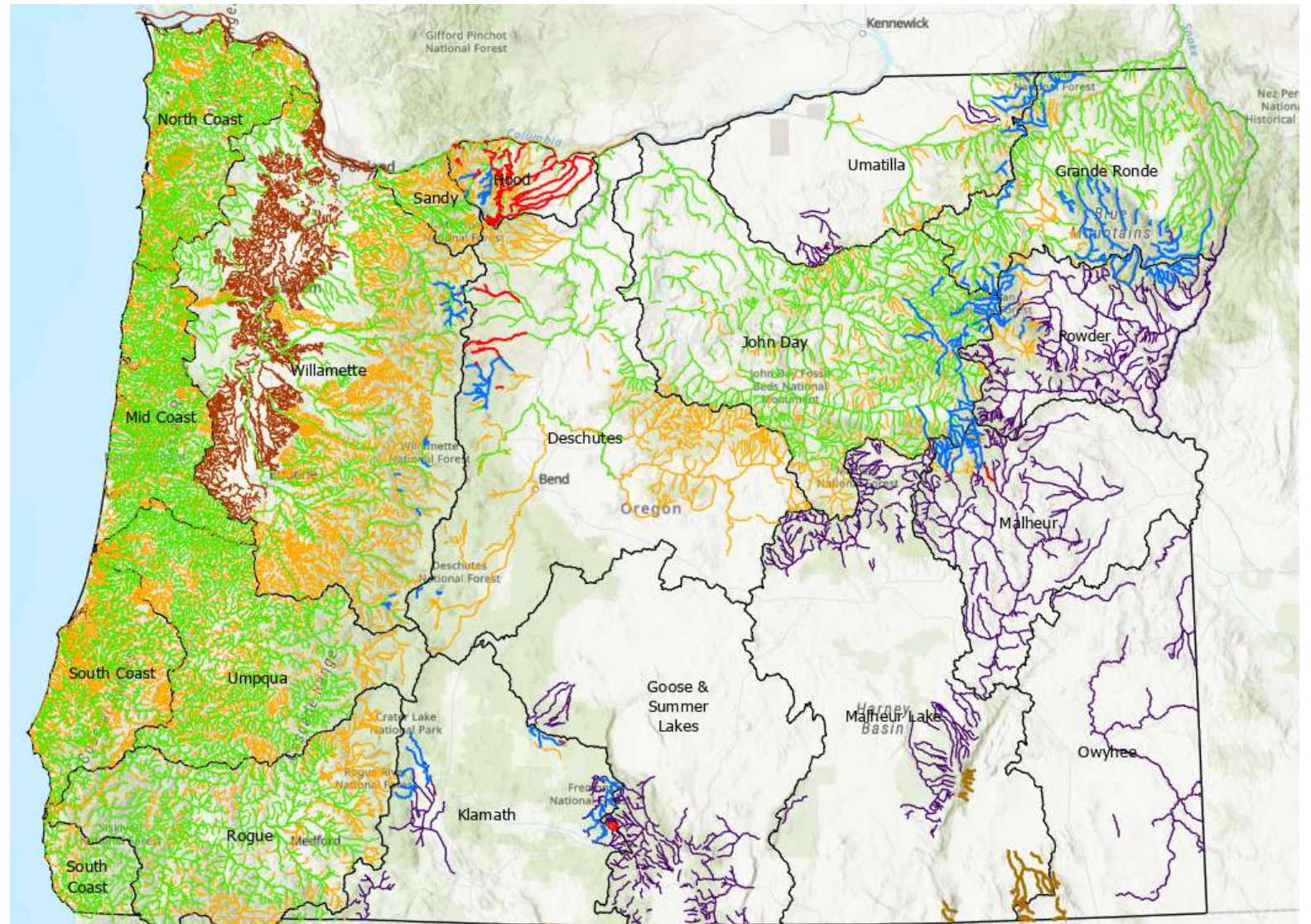
# What are the Data Gaps?

## Spawning Habitat

- Salmon & Steelhead
- Bull Trout
- Lahontan Cutthroat Trout
- other Resident Trout species



## Other Resident Trout Habitat

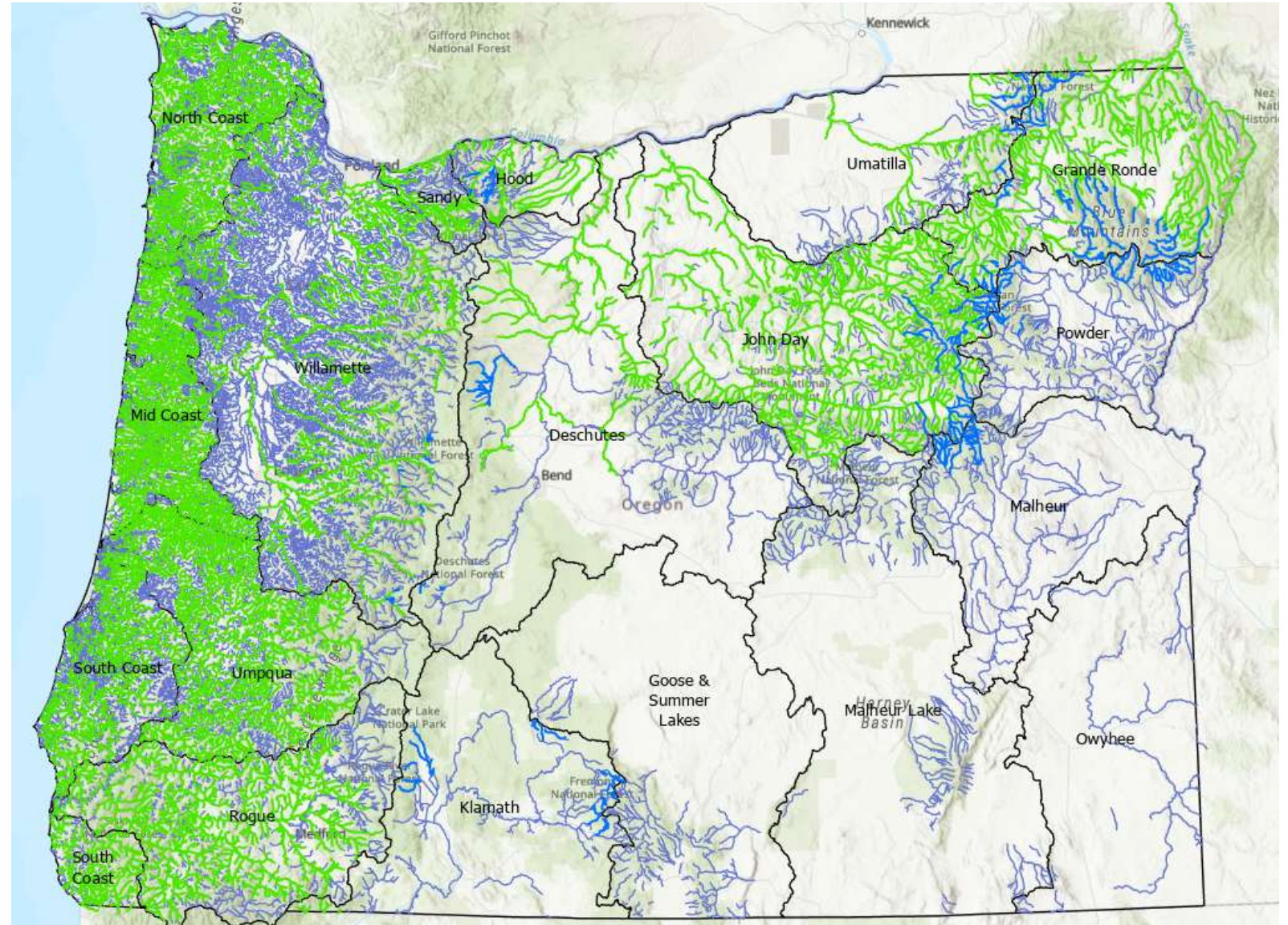
- Downstream of Salmon & Steelhead spawning
- Upstream of Salmon & Steelhead spawning
- Eastern Basins / No anadromy





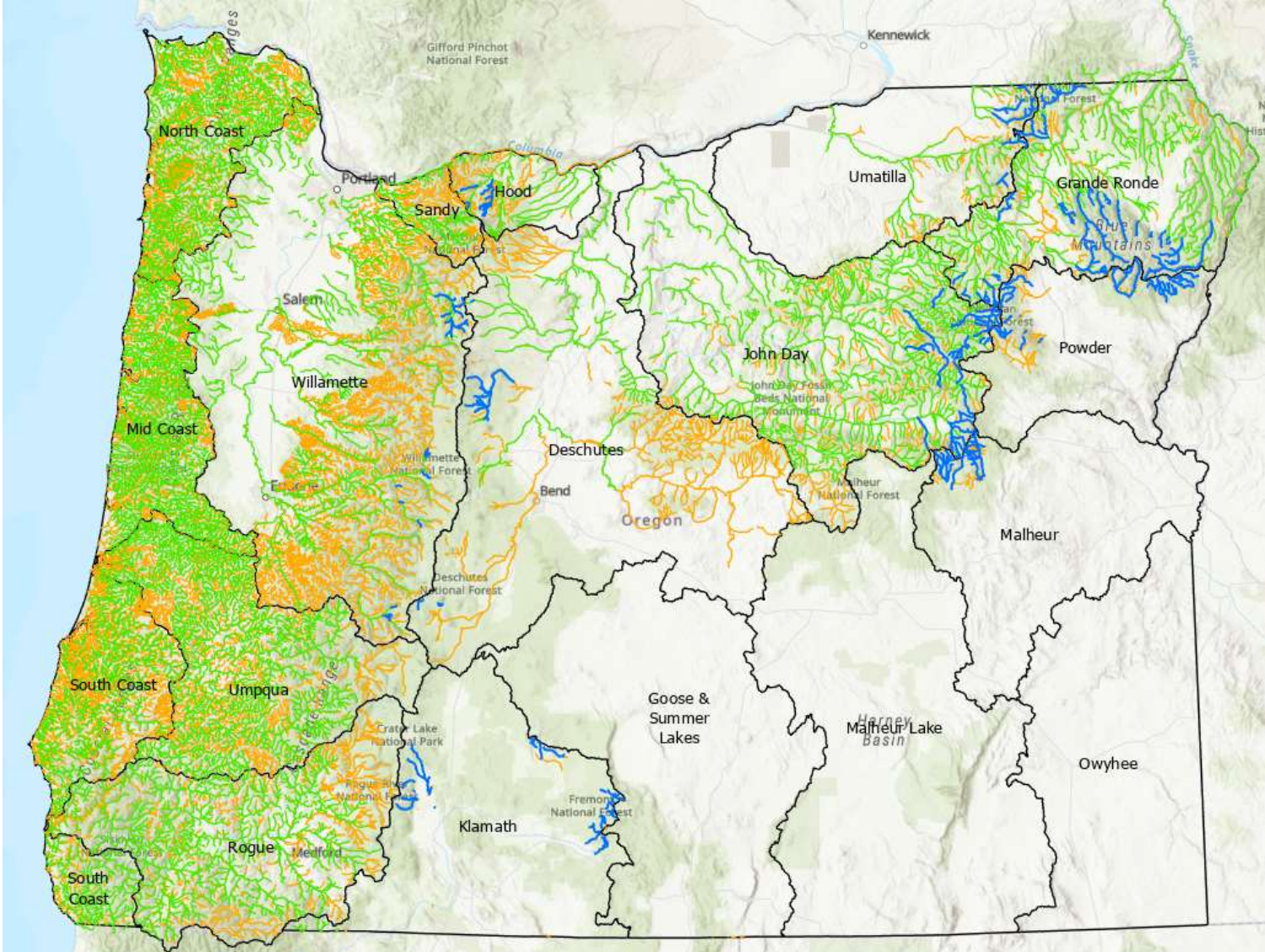
# Overlap with anadromous spawning

-  Spawning Habitat  
Salmon & Steelhead
-  Other Habitat  
Resident trout habitat



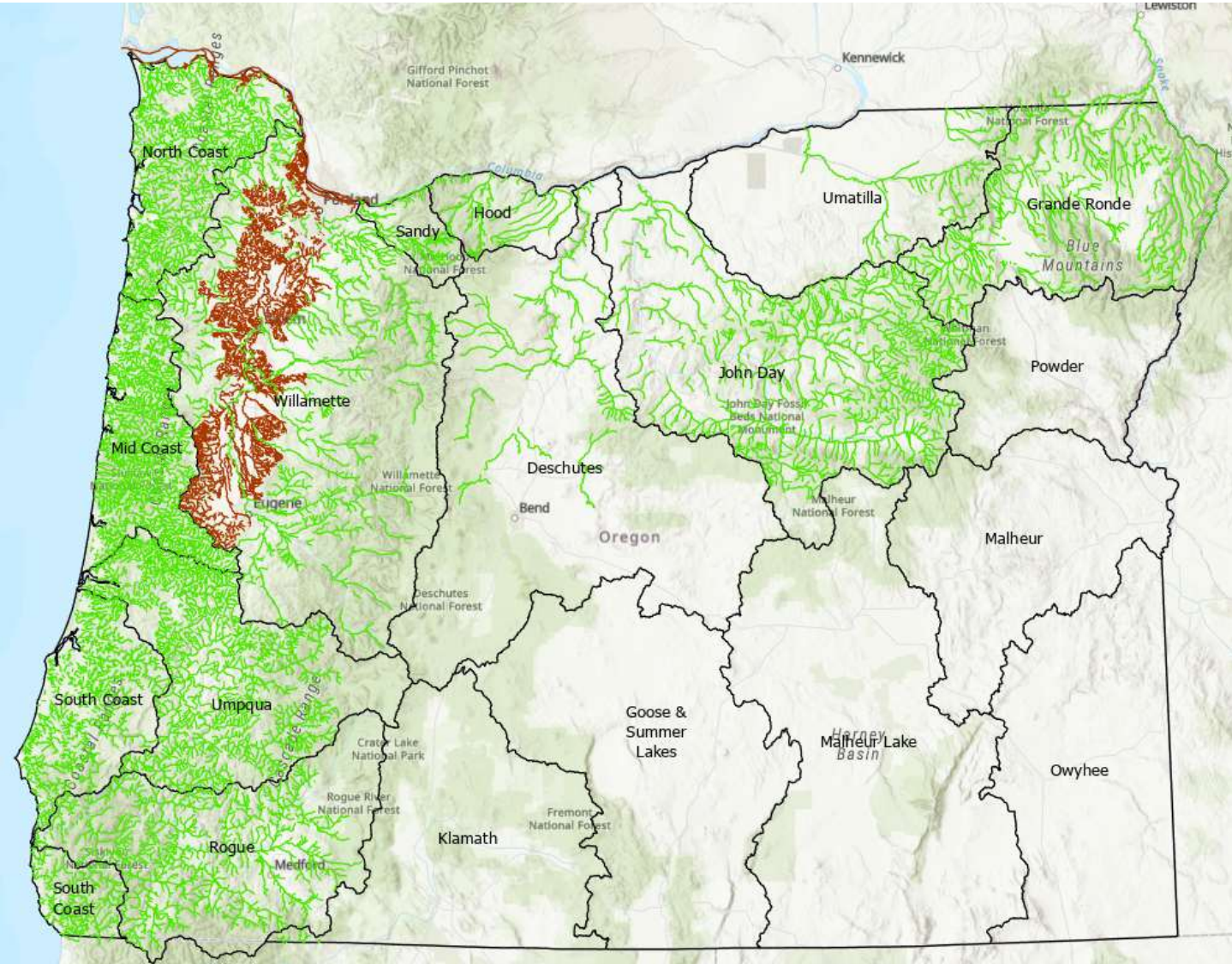
# Upstream of anadromous spawning

- Spawning Habitat**
  - Salmon & Steelhead
- Other Resident Trout Habitat**
  - Upstream of Salmon & Steelhead spawning



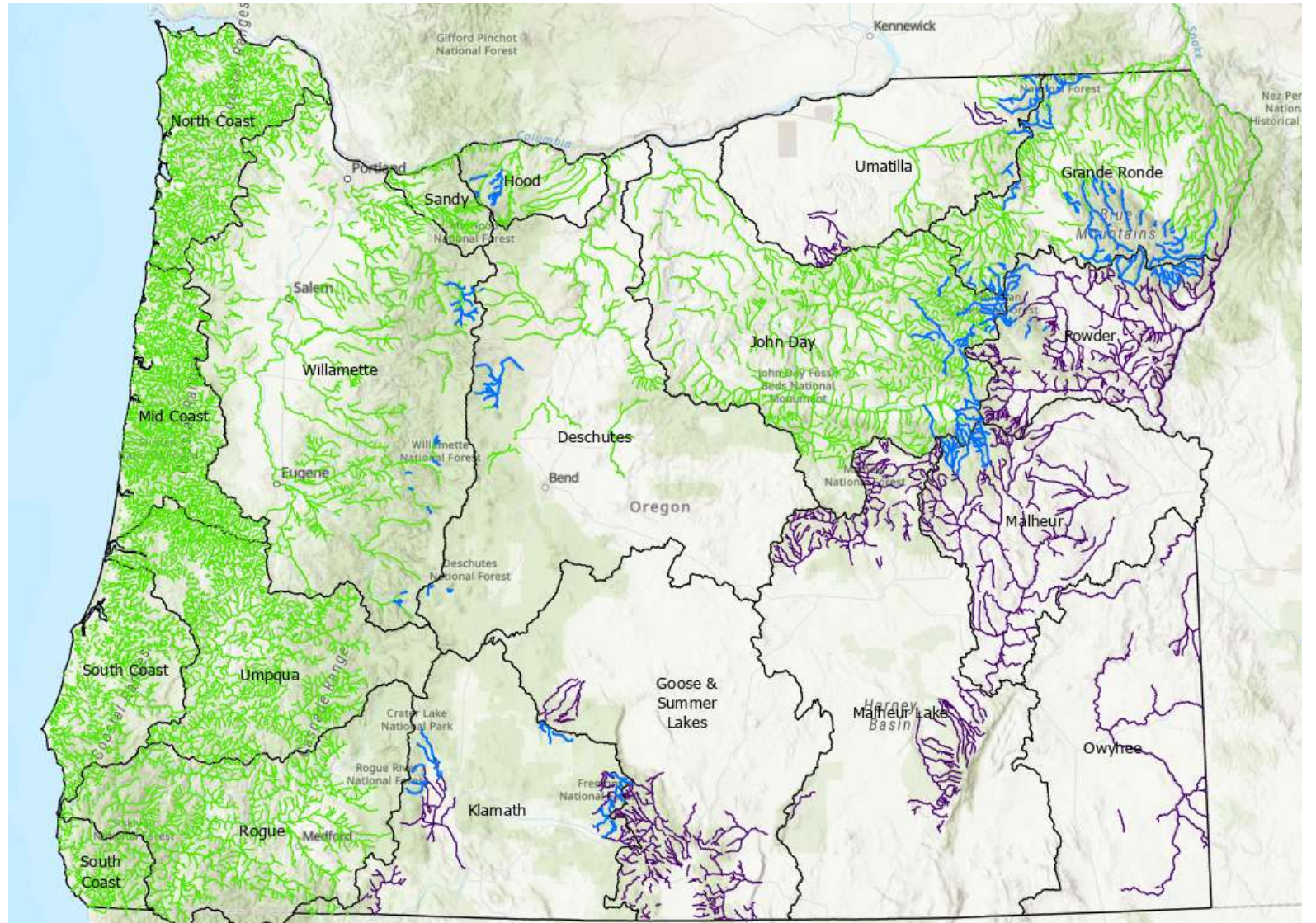
# Downstream of anadromous spawning

- Spawning Habitat**
  - Salmon & Steelhead
- Other Resident Trout Habitat**
  - Downstream of Salmon/Steelhead spawning



# Eastern Oregon – No Anadromy

- Spawning Habitat**
  - Salmon & Steelhead
  - Bull Trout
- Other Resident Trout Habitat**
  - Eastern Basins / No anadromy



# Prior Implementation: Resident Trout Spawning

## Prior implementation:

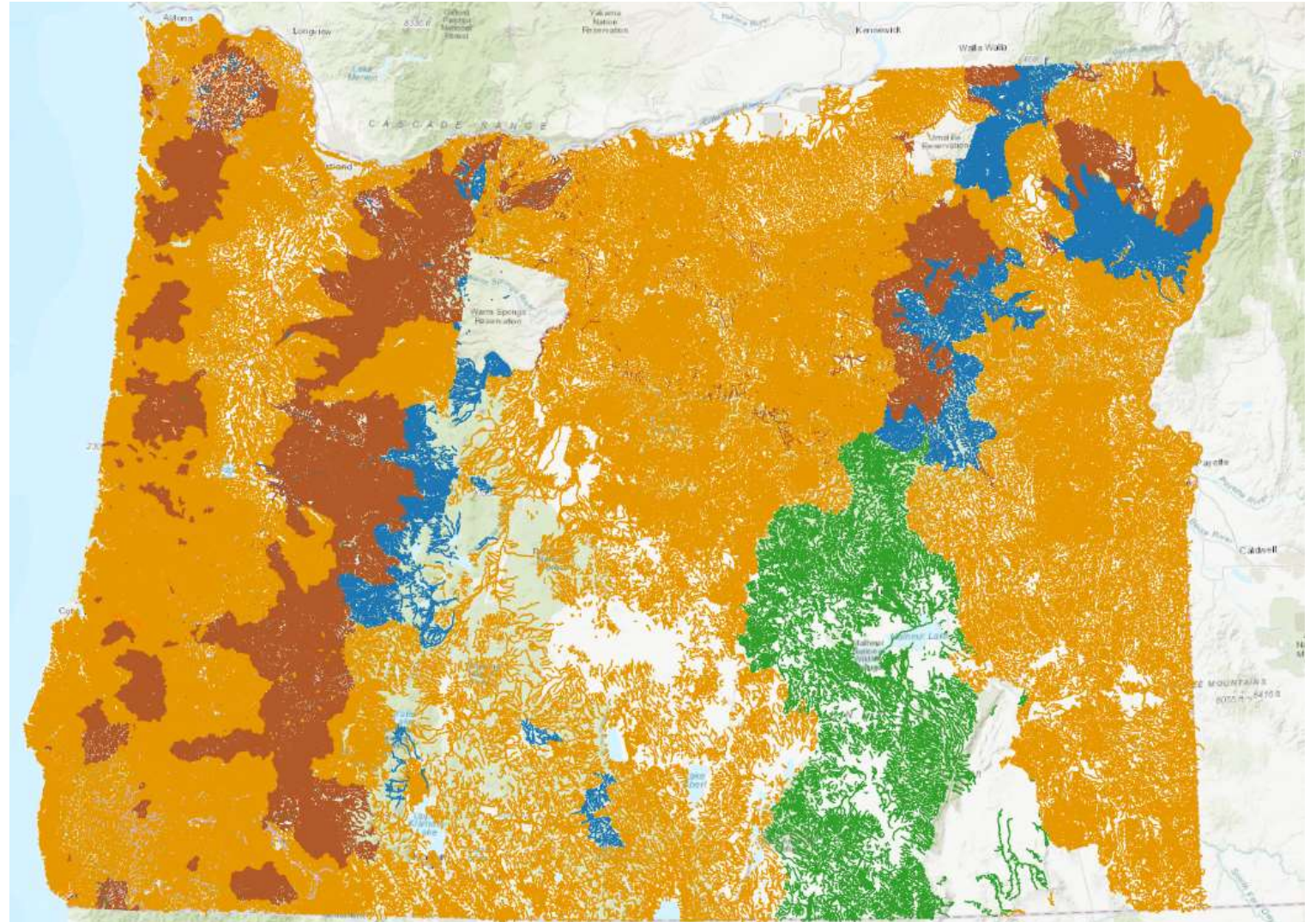
- “All waters of the state with trout.”
- In practice, virtually all waterbodies.
- Highly conservative.
- Has exceeded the range of native trout distribution in the FHD.

## Where DEQ determined not an existing use:

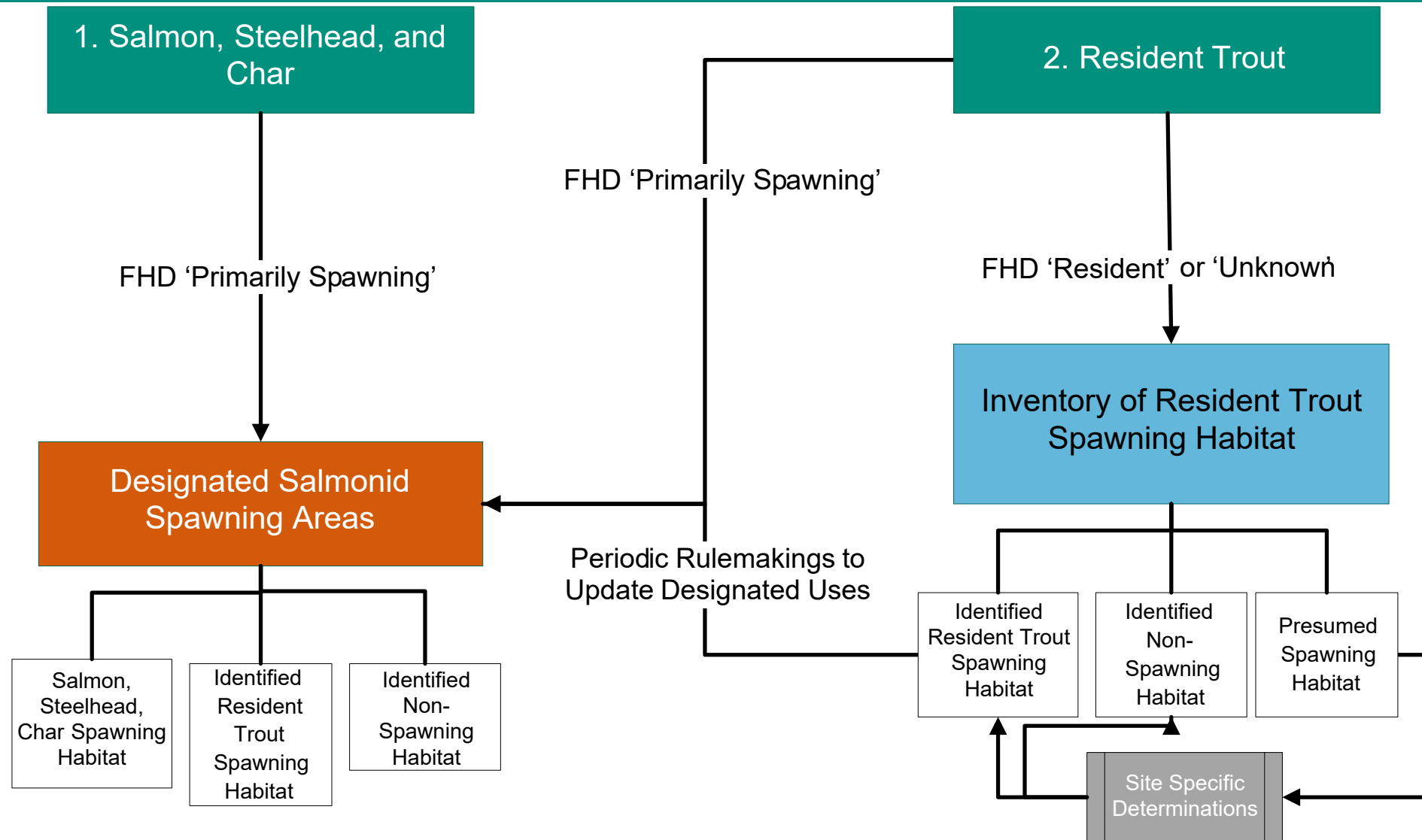
Lower Tualatin River (RM 0 -62.6) and some tributaries.

Fern Ridge Reservoir

Lower Coquille River (RM 0-35.6 tidal inf.)



# Original Resident Trout Spawning Proposal



# What happened since the last RAC meeting?

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- “Presumed” uses must be treated as designated uses.
- Changing “presumed” use requires:
  - UAA
  - Rulemaking
  - ESA consultation
- Inaccurate
- High regulatory and administrative burden to correct.
- DEQ no longer considers a viable approach.

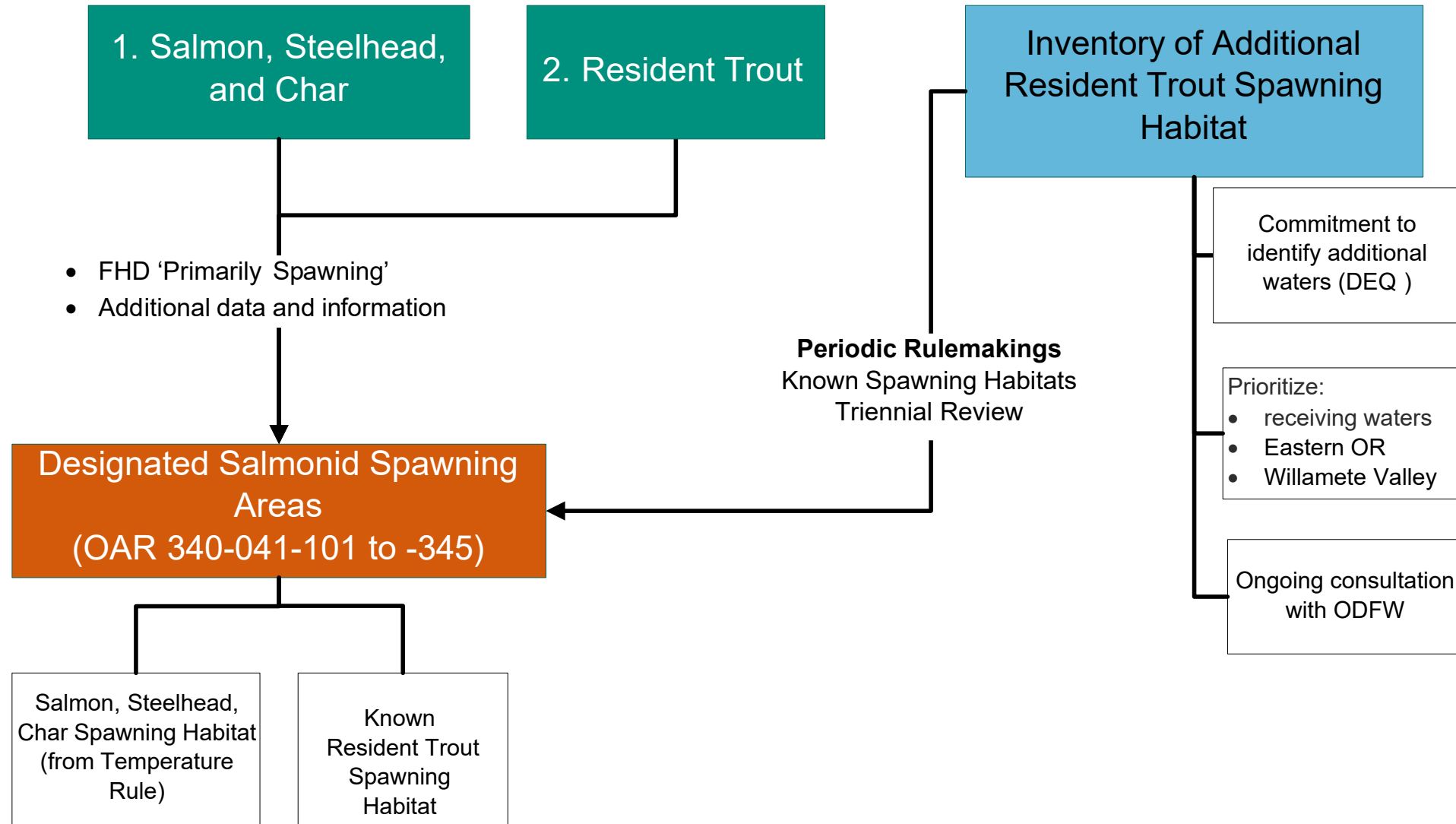
# Elements of DEQ's Preferred Options

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- Designate all known spawning habitat.
- Commit to address **data gaps**.
- Identify additional spawning habitats.
- Include “Inventory” mechanism to speedily and transparently apply criteria to newly identified spawning habitat.
- Prioritize additional designations in the Triennial Review.

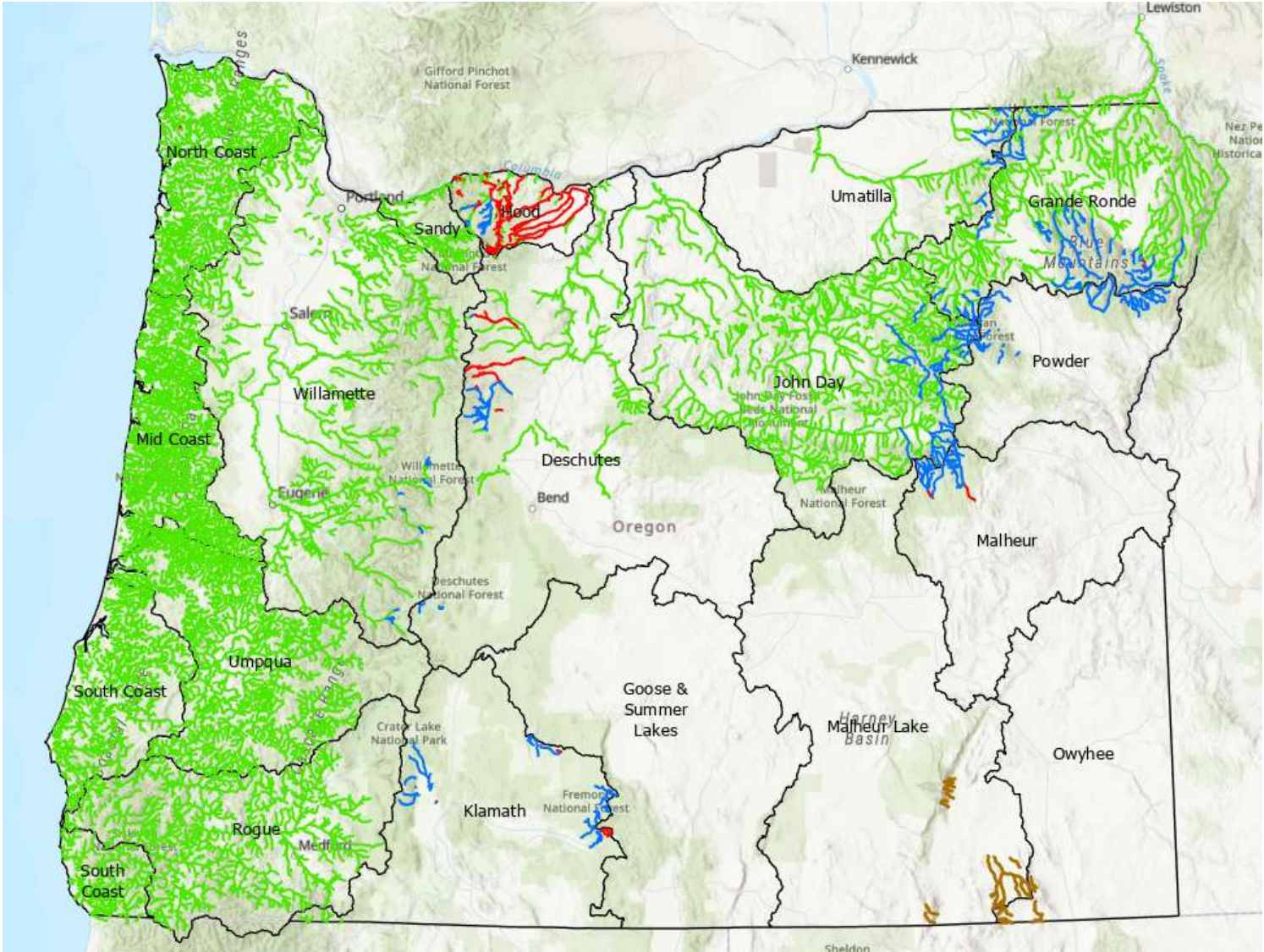


# Option 1

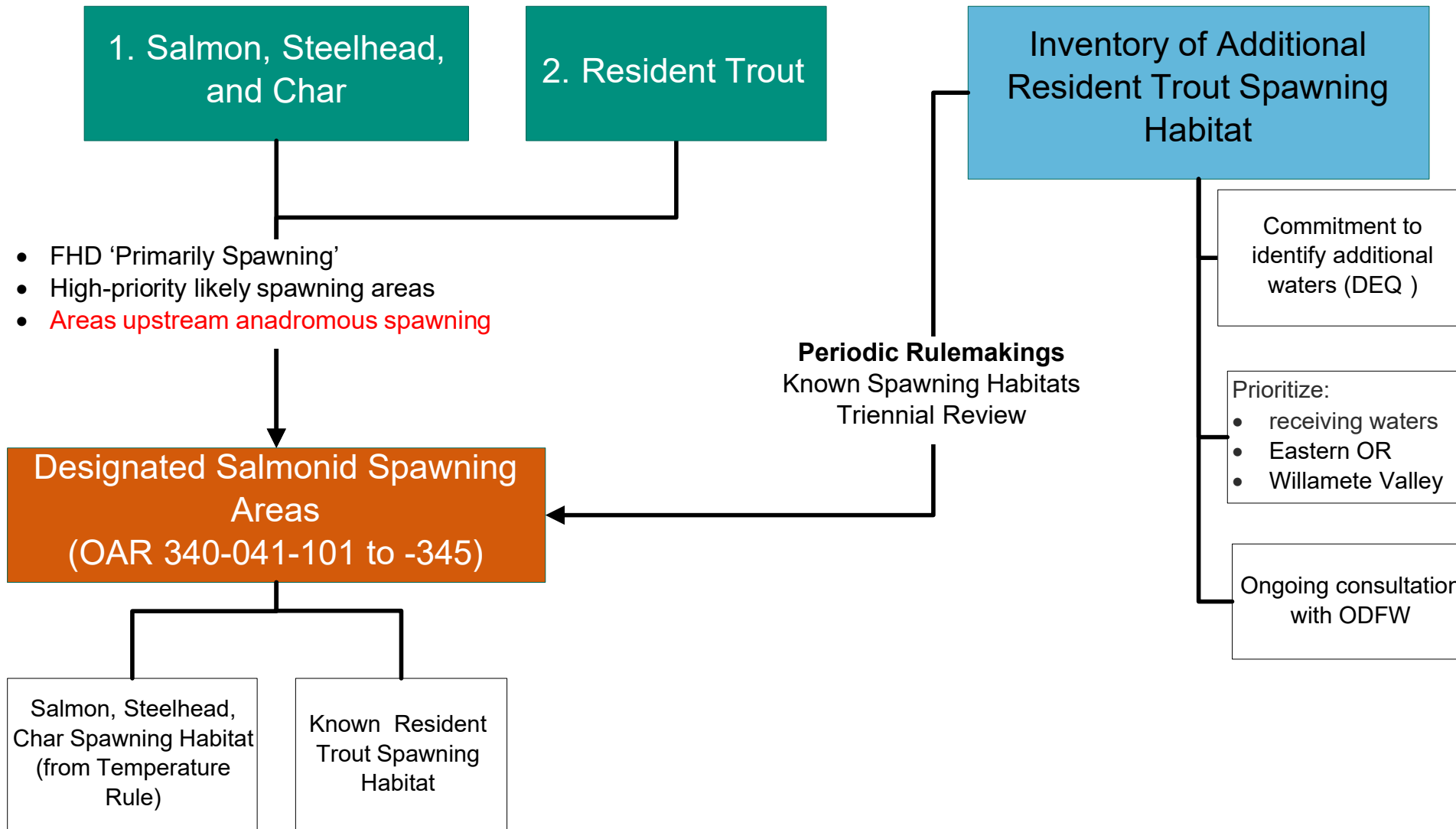


# Option 1: Habitat Designations

- Spawning Habitat**
- Salmon & Steelhead
  - Bull Trout
  - Lahontan Cutthroat Trout
  - other Resident Trout species



# Option 1A



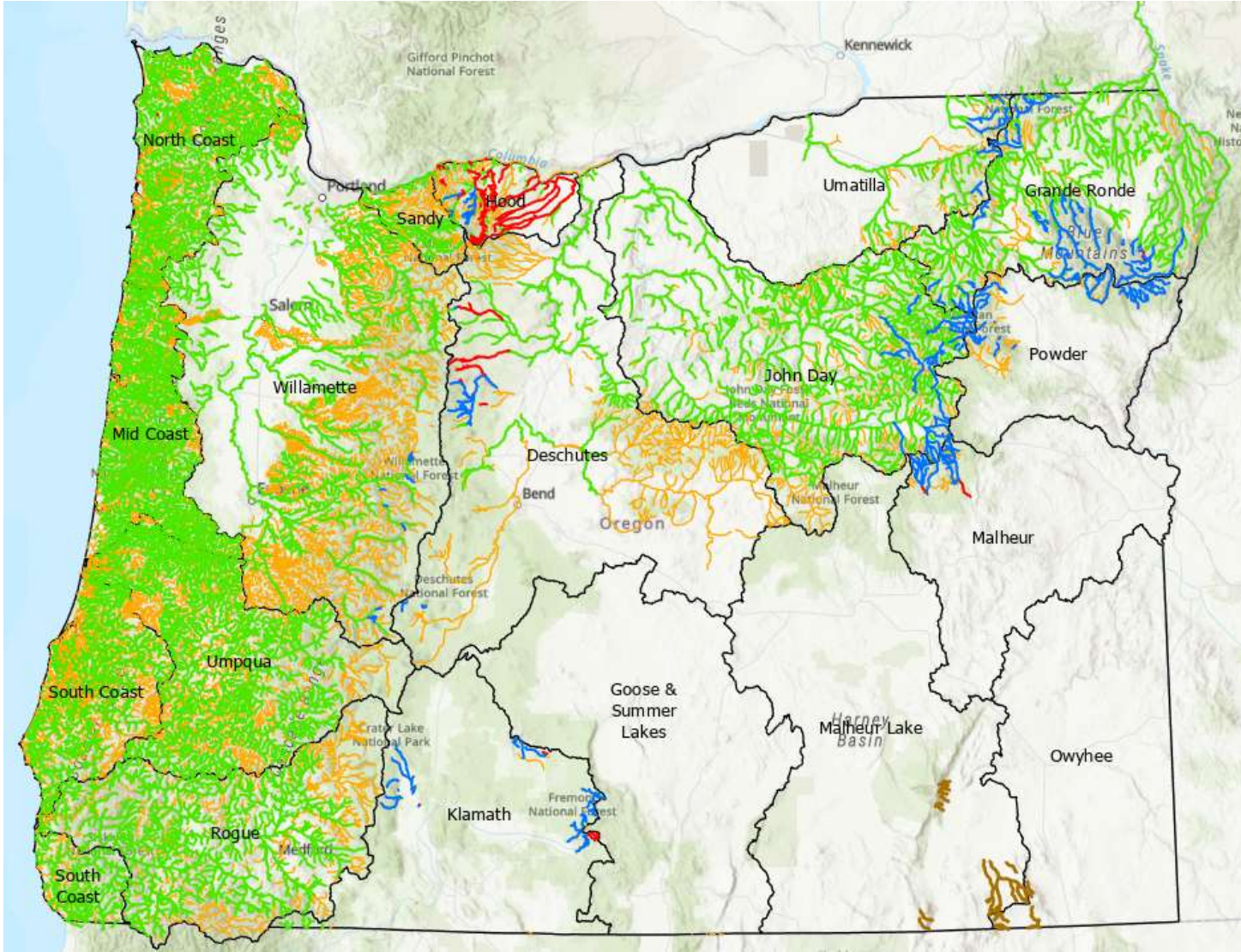
# Option 1A: Habitat Designations

## Spawning Habitat

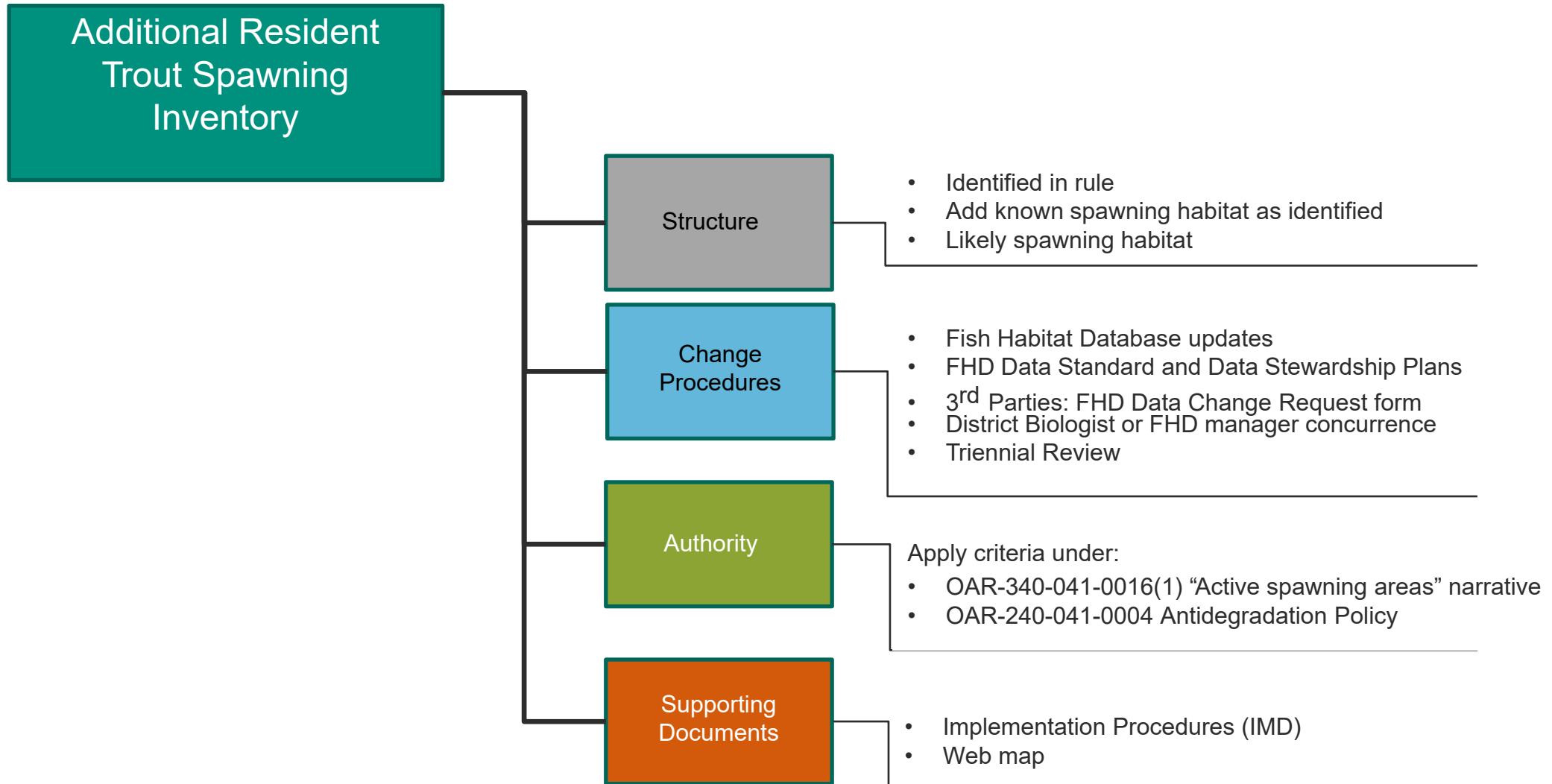
- Green: Salmon & Steelhead
- Blue: Bull Trout
- Brown: Lahontan Cutthroat Trout
- Red: other Resident Trout species

## Other Resident Trout Habitat

- Orange: Upstream of Salmon & Steelhead spawning + char



# How would the “inventory” work?



# How will DEQ consult with ODFW?

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## Pre-Rulemaking

- ID any readily available spawning habitat information.
- Review published reports, datasets
- Contact ODFW district biologists about existing or likely spawning habitat

## Post-Rulemaking

- Continued follow-up with district biologists
- Evaluate any 3<sup>rd</sup> party data submitted during/after comment period
- ID high priority areas
- Special projects / funding sources

# Other options evaluated but not viable:

## Option 2: Postpone designations for DO spawning

### Key Elements

- Gather more data before designating uses in rule
- Continue implementing 2004 memo
- Follow up commitment with ODFW

### Disadvantages

- Regulatory uncertainty.
- Inefficient, postpones other work- requires an additional rulemaking.
- EPA action on the current rules may invalidate 2004 memo.

## Option 3: Designate all resident trout habitat for spawning

- Consistent with current implementation procedures

- Inaccurate.
- Overly conservative.
- High regulatory and administrative burden.
- Requires UAA, rulemaking to change inaccuracies.
- Limited ability to use and incorporate new data.

# Take Home Messages

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- DEQ is proposing Option 1 or 1A for designating resident trout spawning.
- Striving for accuracy.
- Designate known and likely resident trout spawning habitat.
- Balance protection with uncertainty about occurrence of the use.
- Commit DEQ to follow-up and act quickly on new information.
- Incremental improvement over existing rule.
- Existing uses protected through the narrative standard.



# Questions and Discussion



Source: NOAA Photo Library

# Fiscal and Economic Impacts

## Aquatic Life Use Updates Rulemaking

### Rulemaking Advisory Committee Meeting #6

# What is a fiscal impact statement?

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- Identification of entities the proposed rule may economically affect and projection of any significant economic impact on:
  - State agencies
  - Units of government
  - The public
  - Small and large businesses
- DEQ is required to get advisory committee recommendations on:
  - Whether the rule will have a fiscal impact;
  - The extent of that impact;
  - Whether rule will have significant adverse impacts on small businesses
    - If so, recommendations on reducing economic impact on small businesses.

# Potential differences since RAC #5

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- DEQ is assessing which waterbodies are currently listed for DO spawning based on the assumption that resident trout spawn there
  - Goal: identify which waterbodies are listed based solely on presumed resident trout spawning
- DEQ's permitting department indicated no individual permits should be affected
  - No expected fiscal impact on either large or small businesses

# Basins

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- Potential for delisting waterbodies may occur within the Willamette, North Coast, Goose and Summer Lakes, Malheur Lake, Owyhee, Powder, and Umatilla Basins
- No active TMDLs would be impacted
  - The pending Powder and Upper Deschutes' TMDLs would not be affected

# Are New Fiscal Impacts Expected?

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- If waterbodies are delisted for DO spawning impairments, a positive fiscal impact may occur
  - Less DEQ staff time related to permits and TMDLs
- Costs are unknown

# Next Steps

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- DEQ will provide the next draft of the FIS in early January.
- There will be a two-week turnaround time to provide comments or additional information.
- Email us with any information you wish to share:  
[AquaticLife.2022@DEQ.oregon.gov](mailto:AquaticLife.2022@DEQ.oregon.gov)

# Questions and Discussion

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# Oregon DEQ Aquatic Life Use Updates Rule Advisory Committee Meeting #6

## 5. Wrap Up and Adjournment

Dec. 16, 2022

# Thank you!

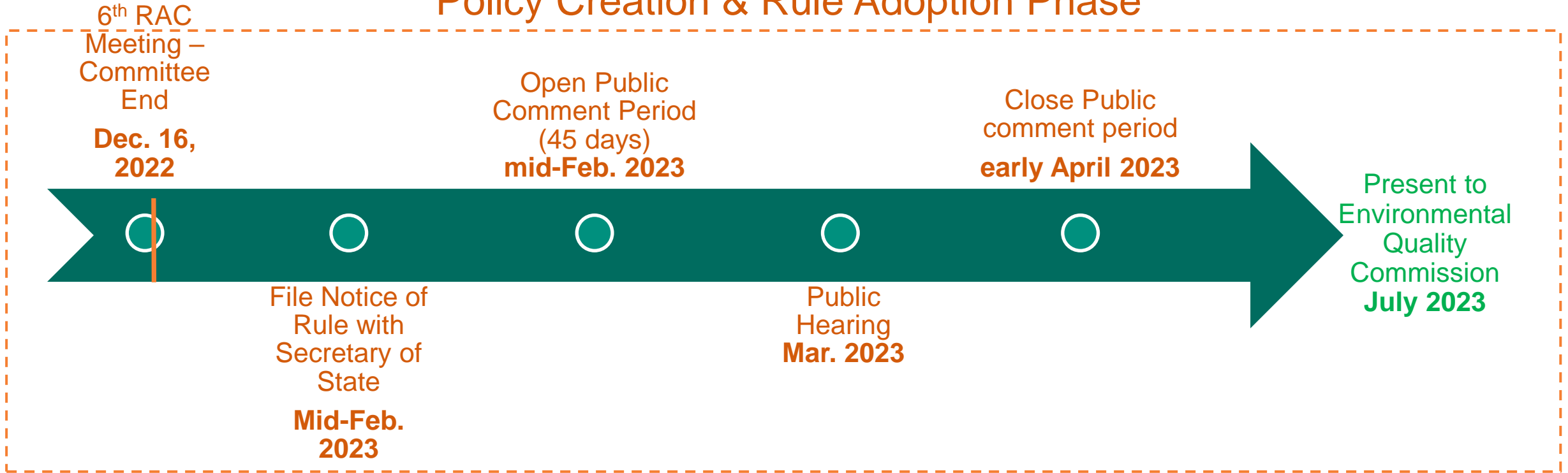


# Opportunities for RAC Input:

- DEQ will send:
  - Draft meeting summary will be provided to the group
    - ~1 week for review and corrections
  - Revised FIS: early January 2023
    - 2 weeks for comments
- Send comments to: [aquaticlife.2022@deq.oregon.gov](mailto:aquaticlife.2022@deq.oregon.gov)
- Staff available to answer questions about any documents in meantime.
  - James: [james.mcconaghie@deq.oregon.gov](mailto:james.mcconaghie@deq.oregon.gov)

# Revised Project Schedule

## Policy Creation & Rule Adoption Phase



↑  
Progress

# Questions before Adjournment?



Image source: NOAA Photo Library



# Thank you



Metolius River, Oregon

Aquatic Life Rulemaking: [aquaticlife.2022@deq.oregon.gov](mailto:aquaticlife.2022@deq.oregon.gov)

James McConaghie, Aquatic Life Use Updates Project Lead:

[james.mcconaghie@deq.oregon.gov](mailto:james.mcconaghie@deq.oregon.gov) or call (503) 229-5619

Website: <https://www.oregon.gov/deq/rulemaking/Pages/aquaticlife2022.aspx>

# Non-discrimination and Translation

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## Translation or other formats

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