

Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1



1. Welcome and Introduction

Jan. 27, 2022

Welcome!



Zoom meeting logistics

- 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
1 p.m.	Introductions, Meeting Agenda, and Meeting Objectives (Angela Rowland, DEQ)
1:20 p.m.	Rulemaking Advisory Committee Charter Review (Angela Rowland, DEQ)
1:45 p.m.	Project Overview and Scope (James McConaghie, DEQ)
2:45 p.m.	Break (10 mins)
2:55 p.m.	History of Aquatic Life Use Designations in Oregon (Debra Sturdevant, DEQ)
3:25 p.m.	Introduction to ODFW Fish Habitat Distribution Database (Jon Bowers, ODFW)
3:55 p.m.	Break (10 mins)
4 p.m.	Introduction to Critical Habitat Designations (Brian Bangs, USFWS)
4:20 p.m.	Wrap Up & Next Steps (James McConaghie, DEQ)
4:30 p.m.	Adjourn

Introductions

DEQ staff

Staff Name	Role	Contact Information
Angela Rowland	Meeting Facilitator	angela.rowland@deq.oregon.gov
James McConaghie	Project Manager, Technical Lead	james.mcconaghie@deq.oregon.gov
Mailea Miller-Pierce	Technical Specialist	mailea.miller-pierce@deq.oregon.gov
Debra Sturdevant	WQ Program Lead	debra.sturdevant@deq.oregon.gov
Connie Dou	WQ Program Manager	connie.dou@deq.oregon.gov

Advisory Committee membership

Committee Member	Affiliation	Committee Member	Affiliation
Emily Bowes	Rogue Riverkeeper	Sharla Moffett	Oregon Business & Industry
Sarah Cloud	Deschutes River Alliance	John Runyon	Cascade Environmental Group, LLC / River Restoration Northwest
Mary Anne Cooper	Oregon Farm Bureau	Susan Smith	Oregon Association of Clean Water Agencies
Mike Eliason	Oregon Forest & Industries Council	Glen Spain	Pacific Coast Federation of Fishermen's Associations / Institute for Fisheries Resources
James Fraser	Trout Unlimited	Invited, pending acceptance	NOAA- National Marine Fisheries Service
Liz Hamilton	Northwest Sport Fishing Industry Association	Brian Bangs	U.S. Fish and Wildlife Service
Megan Hill	Portland General Electric	Rebecca Anthony	Oregon Department of Fish and Wildlife
Steve Kucas	Portland Water Bureau	Michelle Maier	U.S. Environmental Protection Agency
John Schaefer	Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians (CTCLUSI)		
Invited, pending acceptance	Confederated Tribes of Warm Springs		
Michael Martin	League of Oregon Cities		
Chris McCabe	Northwest Pulp & Paper Association		

Questions about today's meeting?



Image Source: ODFW

Advisory Committee Charter

2022 Aquatic Life Use Updates Advisory Committee Charter

January 2022
James McConaghie



Water Quality
Standards Program
700 NE Multnomah St.
Portland, OR 97232
Phone: 503-229-5696
800-452-4011
Fax: 503-229-5850

Contact:
James McConaghie
james.mcconaghie@deq.oregon.gov
503-222-5619

www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



DEQ
State of Oregon
Department of
Environmental
Quality

Advisory Committee ground rules

- Prepares for and sets aside time for the meetings;
- Provides DEQ staff with copies of relevant research and documentation cited during the meeting;
- Stays focused on the specific agenda topics for each meeting;
- Consults regularly with constituencies to inform them on the process and gather their input;
- Is courteous by not engaging in sidebar discussions; and
- Avoids representing the views of any other committee member or the entire committee to the public or media.

Meeting Ground Rules

- Please mute your line when you are not speaking
- Be respectful of each other
- Raise your virtual hand to speak
- Speak for yourself when recognized
- Limit background noise
- Let others speak without interrupting

Advisory Committee purpose

- Provide policy input to the DEQ on the proposed rulemaking
- Focus on social, fiscal, and economic impacts of proposed changes (ORS183.333)
- Be informed about DEQ's technical development process

Advisory Committee purpose

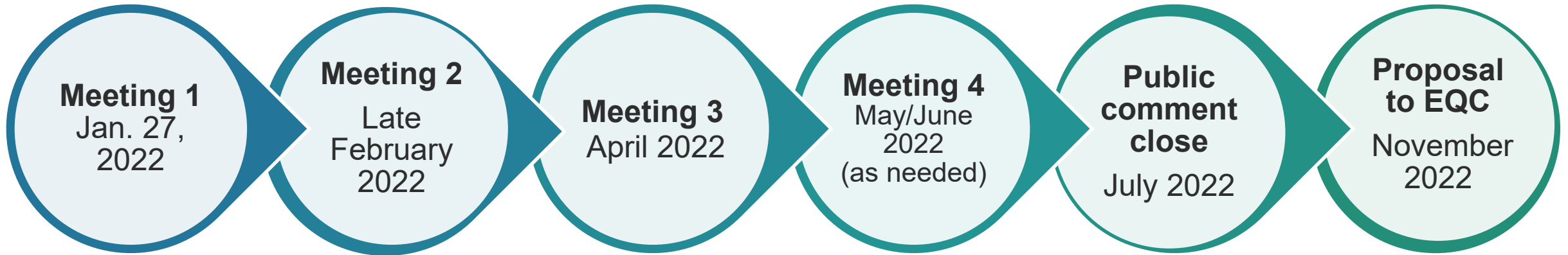
- Provide input to DEQ as individuals or representatives of communities of interest
- Not requested to agree on policy recommendations as a group.
- Not expected to reach consensus on views or input.
- DEQ retains discretion over final content of proposed rules

Rulemaking objective

“To amend administrative rules designating aquatic life use subcategories associated with Oregon’s water quality standards for temperature and dissolved oxygen based on the most current and best available scientific data and objective information.”

Meetings format and schedule

- ½ to ¾ day teleconferences via Zoom
- Presentations
- Discussion and Follow-Up



Meeting materials

- Meeting Announcements:
 - GovDelivery: two weeks prior
 - DEQ Events Calendar
 - Direct Email to Committee Membership
- Materials:
 - Agenda, other background materials posted to website two weeks prior
 - Presentation slides provided prior to meeting
- Meeting Summary:
 - Committee will have at least 1 week to review, provide corrections
 - Posted to webpage

Resources

- Rulemaking email address: aquaticlife.2022@deq.oregon.gov
- Rulemaking Webpage:
 - <https://www.oregon.gov/deq/rulemaking/Pages/aquaticlife2022.aspx>
- GovDelivery:
 - <https://public.govdelivery.com/accounts/ORDEQ/subscriber/new>
- GIS Online Web Maps (coming soon)

Questions about Charter?



Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1

2. Project Overview and Scope

Jan. 27, 2022

Presentation outline

- Project Goals
- Topic Areas
- Project Timeline
- Technical Development Process
- Scope of the Rulemaking

Project goals

- Updating existing designations for aquatic life use subcategories associated with implementation of the temperature standards, based on up-to-date and newly available data.
- Designate aquatic life use subcategories associated with implementation of the dissolved oxygen standard in rule for the first time, based on the best available data.
- Minor miscellaneous rule amendments.

Why is DEQ updating the designations?

- Incorporate *best available & up-to-date* data:
 - Originally designated in 2003
 - 18 more years of data available (especially habitat surveys)
 - Broader statewide coverage
 - More specific life-stage timing information
 - More data on resident trout, other native aquatic species
 - Fish passage restoration and barrier removals

Why is DEQ updating the designations?

- Improvements in Geographic Information System
 - New statewide geospatial data standards
 - DEQ transitioning to the National Hydrography Dataset
 - Better estuary delineation/waterbody data
- A need to specifically designate subcategories used for criteria in the dissolved oxygen standard in rule
- 2017 and 2021 Triennial Review Priority

What rules are we changing?

- Basin-Specific Rules:

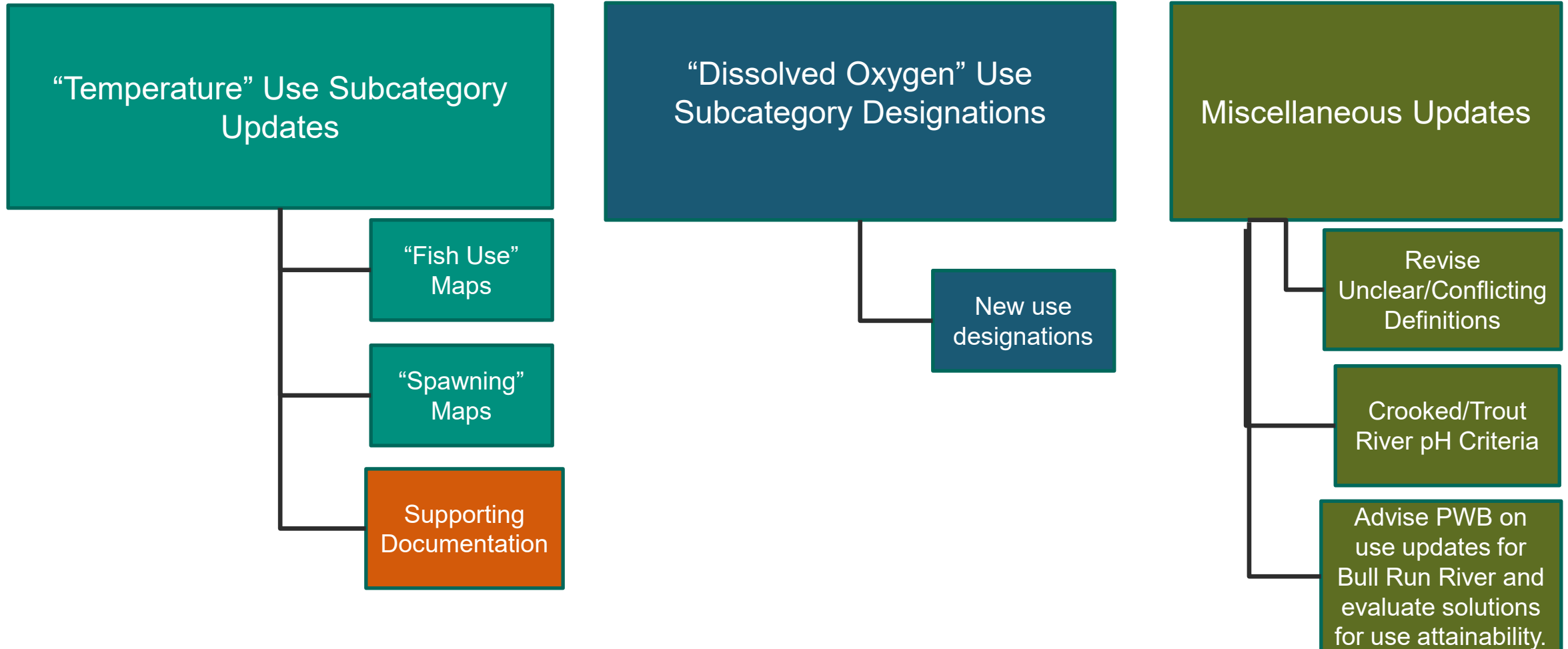
OAR-340-041-101 → OAR-340-041-345

- Amend with maps, tables and/or descriptions of waterbodies where the different aquatic life use subcategories are designated

Updating use designations, not the criteria

- Not revising the temperature or dissolved oxygen criteria
 - OAR-340-041-0016
 - OAR-340-041-0028
- Updating where / when uses occur so DEQ can accurately apply these criteria and implement the water quality standards

Project topics areas



Project timeline

Technical Development Phase & Workgroup

Policy Creation & Rule Adoption Phase

Acquire data /
preliminary GIS
work
2020-2021

Technical
Workgroup
2021-2022

Final
Technical
Peer
Review
April 2022

Stakeholder
Committee
Start
Jan. 2022

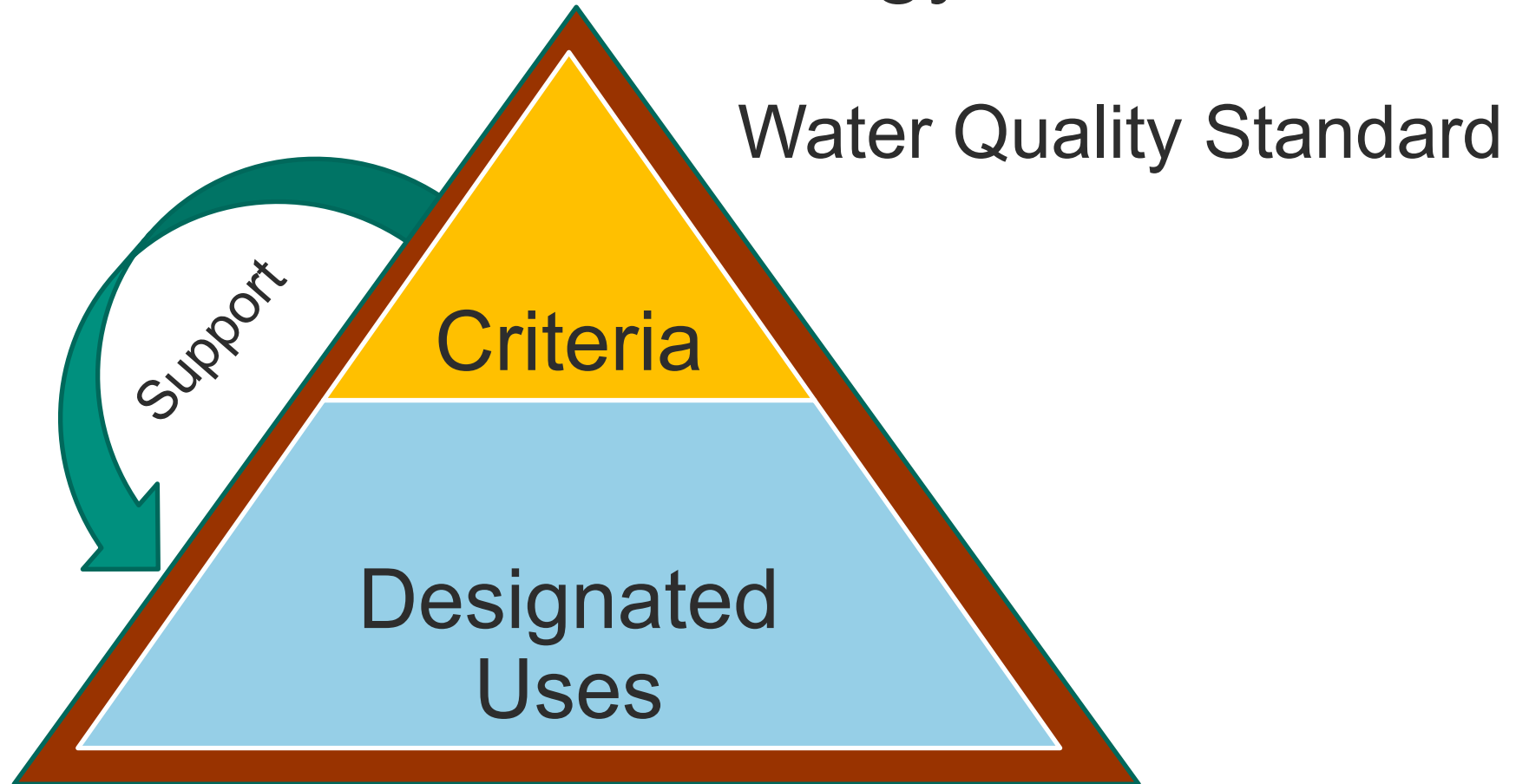
Stakeholder
Committee
End
**May-June
2022**

Public
Comment
Period
**June-July
2022**

OR
Environmental
Quality
Commission
Submission
Nov. 2022

Project background

A little Clean Water Act terminology...



Project background

Designated Uses

- Fish & Aquatic Life Use

Use Subcategories

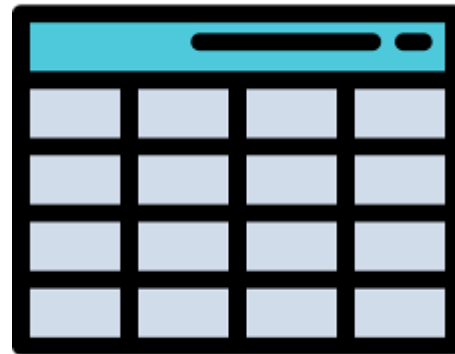
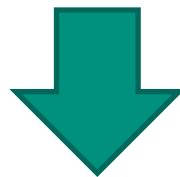
Salmon & Trout Rearing & Migration
(18°C)

Core Cold-Water Habitat (16°C)

Rulemaking goals

Designated Uses

- Fish & Aquatic Life Use



Designated Uses in Oregon Administrative Rules

OAR-340-041-101 → OAR-340-041-345

340-041-0130

Basin-Specific Criteria (Deschutes): Beneficial Uses to Be Protected in the Deschutes Basin

(1) Water quality in the Deschutes Basin (see Figure 1) must be managed to protect the designated beneficial uses shown in Table 130A (November 2003).

(2) Designated fish uses to be protected in the Deschutes Basin are shown in Figures 130A and 130B (November 2003).

[NOTE: View a PDF of Figures by clicking on "Tables" link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468B.030, 468B.035 & 468B.048

Statutes/Other Implemented: ORS 468B.030, 468B.035 & 468B.048

History:

DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019

DEQ 17-2003, f. & cert. ef. 12-9-03

340-041-0340

Basin-Specific Criteria (Willamette): Beneficial Uses to Be Protected in the Willamette Basin

(1) Water quality in the Willamette Basin (see Figure 1) must be managed to protect the designated beneficial uses shown in Table 340A (August 2005).

(2) Designated fish uses to be protected in the Willamette Basin are shown in Figures 340A (November 2003) and 340B (August 2005).

[NOTE: View a PDF of Figures and Tables by clicking on "Tables" link below.]

[ED. NOTE: To view attachments referenced in rule text, click here to view rule.]

Statutory/Other Authority: ORS 468.020, 468B.030, 468B.035 & 468B.048

Statutes/Other Implemented: ORS 468B.030, 468B.035 & 468B.048

History:

DEQ 5-2020, minor correction filed 02/03/2020, effective 02/03/2020

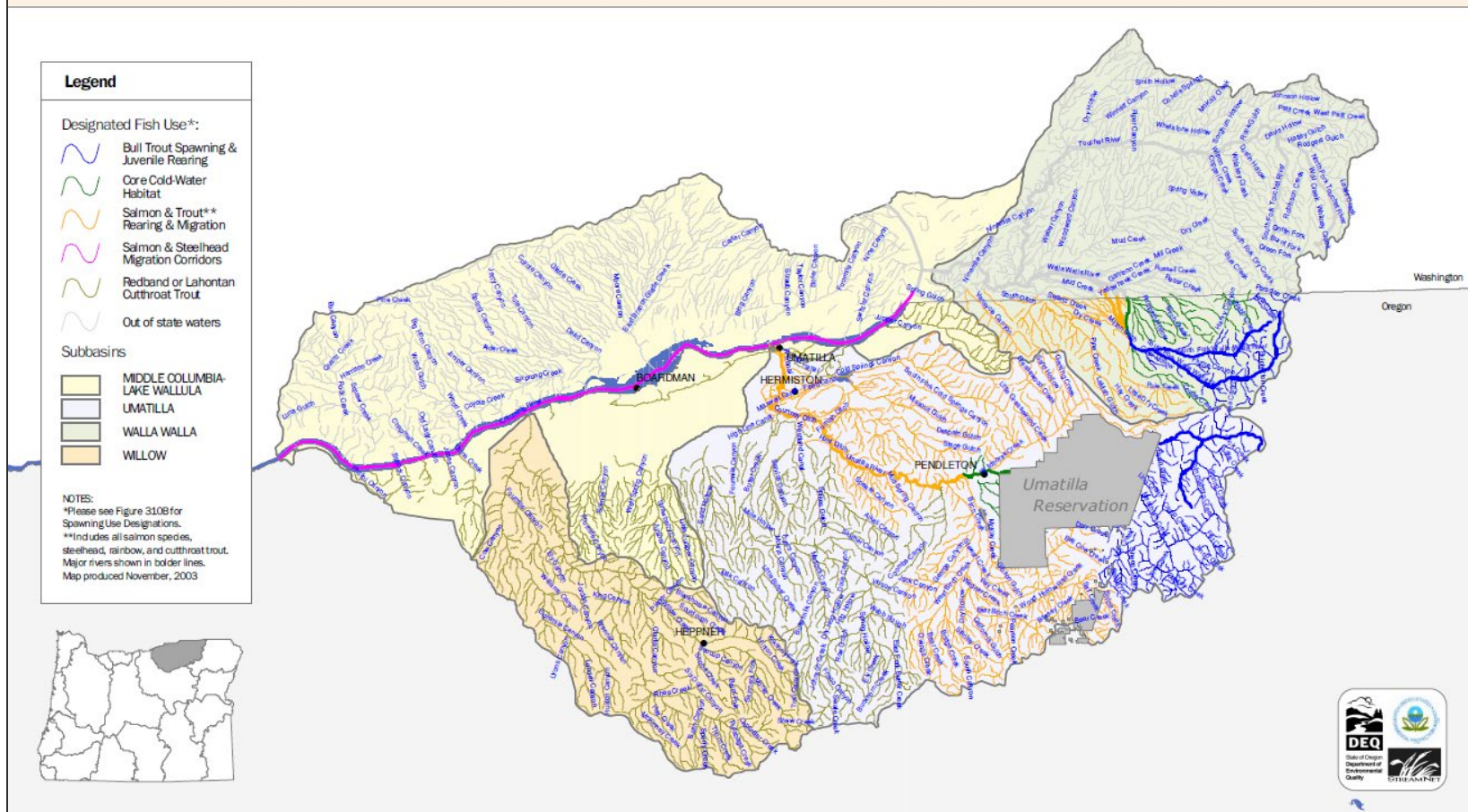
DEQ 13-2019, amend filed 05/16/2019, effective 05/16/2019

DEQ 2-2007, f. & cert. ef. 3-15-07

DEQ 17-2003, f. & cert. ef. 12-9-03

Designated Use maps

Figure 310A: Fish Use Designations*
Umatilla Basin, Oregon



Designated Use tables

TABLE 121B

**BENEFICIAL USE DESIGNATIONS - FISH USES
MAINSTEM SNAKE RIVER**

Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20°C)	Redband or Lahontan Cutthroat Trout (20°C)	Salmon and Steelhead Spawning through Fry Emergence
Mainstem Snake River			
Oregon/Washington Border to Hells Canyon Dam (RM 169 to RM 247.5)	X		October 23-April 15
Hells Canyon Dam to Idaho border (RM 247.5 to RM 409)		X	

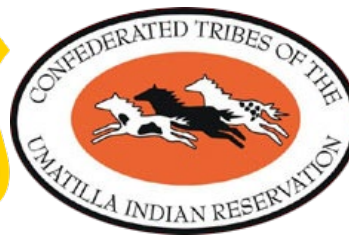
Table produced November, 2003

Technical development process



Technical Workgroup membership

Workgroup Member	Affiliation	Title
Jon Bowers	ODFW	ODFW GIS Coordinator; Fish Habitat Distribution Data Steward
Anne Hayden-Lesmeister	ODFW	Instream Flow Specialist
Brian Bangs	U.S. FWS	Biologist, Oregon Fish and Wildlife Office
Barbara Adams	U.S. Forest Service	Threatened & Endangered Species Aquatic Biologist
Tom Skiles	CRITFC	Fisheries Biologist
Craig Contor	Confederated Tribes of the Umatilla Indian Reservation	Fisheries Habitat Project Leader
Joe Ebersole	U.S. EPA, Pacific Ecological Systems Division	Research Fisheries Biologist
Michelle Maier/ Rochelle Labiosa	U.S. EPA, Region 10	Life Scientist / Physical Scientist
John Palmer	U.S. EPA, Region 10	Environmental Protection Specialist



Technical Workgroup purpose

What is a technical workgroup?

- A roundtable of scientific subject matter experts
- Conclusions and recommendations represent expert opinions of individual members
- Does not make policy recommendations for the EQC
- Does not constitute endorsement by respective agencies

Technical Workgroup purpose

What does the technical workgroup do?

- Provides expertise not organic to DEQ
- Assist DEQ in applying and interpreting data to meet project objectives
- Assist DEQ in identifying data gaps and sources of information to bridge them
- Provides peer review of DEQ's use of data and interpretation

Data sources

ODFW Fish Habitat
Distribution Database
(compiles many additional
sources)



ODFW Life-Stage Timing
Tables Database



Primary Data Sources



NOAA-Fisheries Critical
Habitat Designations &
Biological Opinions



U.S. Fish and Wildlife Service
Final Bull Trout Critical
Habitat Designation (2010) &
Biological Opinions

Data sources

Oregon statewide
temperature database
(ODEQ-AWQMS)



U.S. Forest Service NorWeST
Stream Temperature
Observations Regional
Database



Supplemental Data
Sources



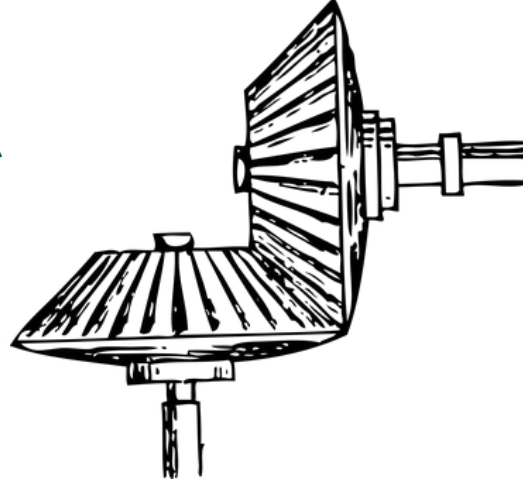
U.S. Environmental Protection
Agency, Region 10, Columbia
River Cold Water Refuges
Plan

Technical evaluation process

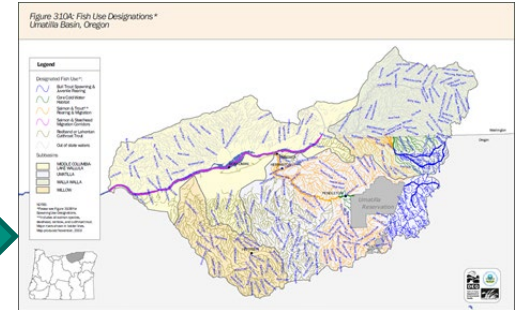
Regulations



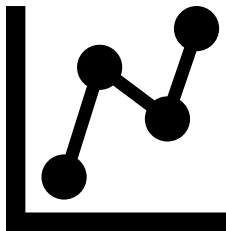
Decision Rules



Aquatic Life Use designations



Data



- ‘Defines’ the designated uses and information for identifying them
- Descriptions of the use and criteria
 - ID populations and habitat
 - spatial and temporal

- ‘Method’ to apply data in a way that matches the regulations
- Descriptive methodology
 - What variables
 - Objective and transparent
 - Reveals the ‘location’ of the uses

- ‘Depiction’ of the use designations
- Result of the definition combined with distribution info. through application of the decision rule methods.

TABLE 121B
BENEFICIAL USE DESIGNATIONS - FISH USES
MAINSTEM SNAKE RIVER

Geographic Extent of Use	Salmon and Steelhead Migration Corridors (20° C)	Redband or Lahontan Cutthroat Trout (20° C)	Salmon and Steelhead Spawning through Fry Emergence
Mainstem Snake River			
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Hells Canyon Dam to Idaho border (RM 247.5 to RM 409)		X	

Table produced November, 2003

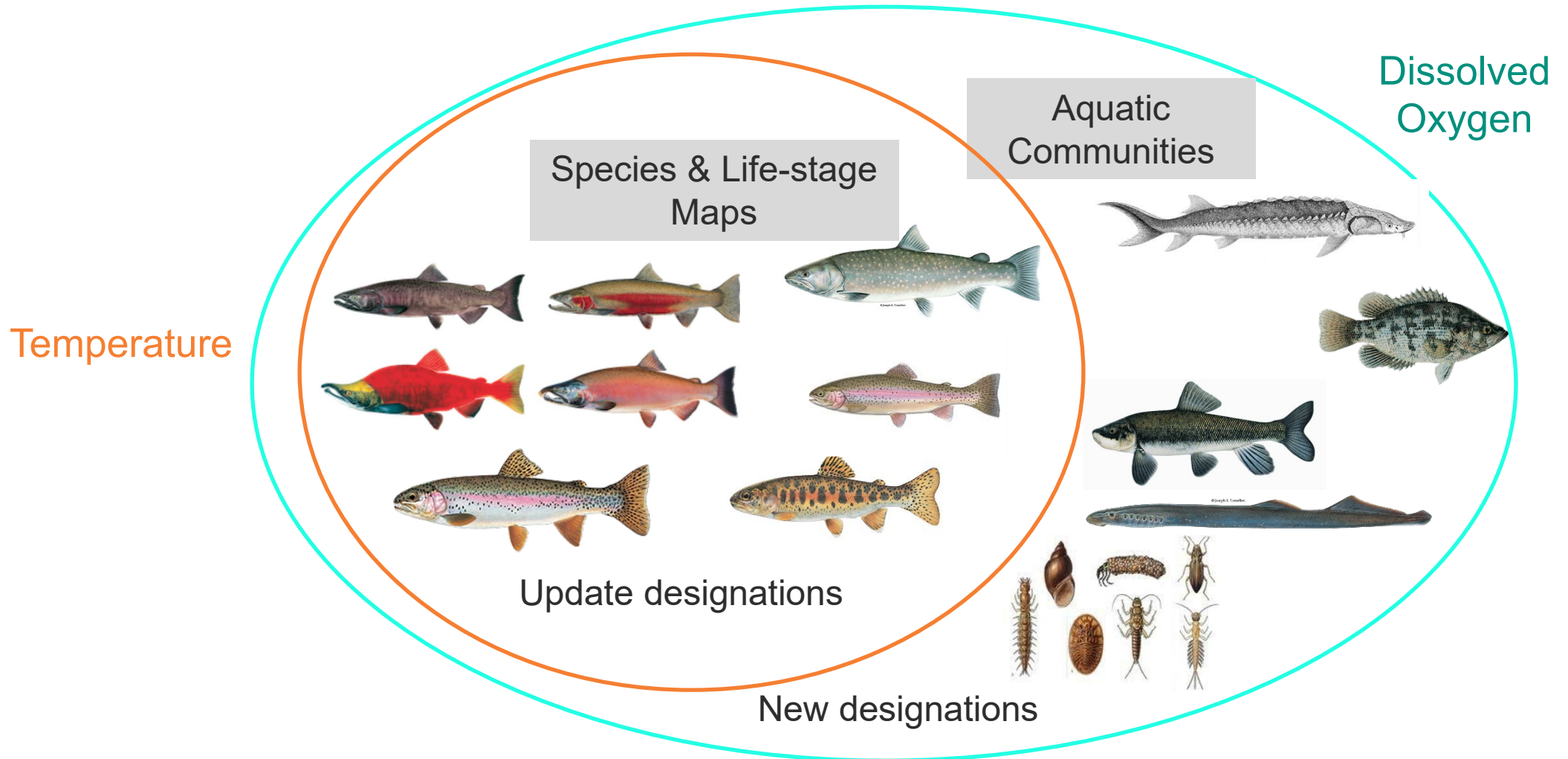
Questions about Technical Workgroup?



Project scope

- Wide scope - affects every basin in the state
- Many uses will stay the same
- Rule amendments for designated uses in Oregon
- Administrative Rules 340-041-101 → 340-041-345
- Complex
- Data driven and transparent

Main topic areas



Specific tasks: temperature use updates

1. Statewide update of fish use subcategory designations (maps and tables) in basin-specific rules (OAR-340-041-101 to OAR-340-041-345) based on updated data from ODFW.
2. Review Bull trout use designations to conform with the final federal critical habitat rule adopted and Biological Opinion.
3. Designate specific Columbia River tributaries identified in EPA's Columbia River Cold Water Refuges Plan for the 'Core-cold Water Habitat' use subcategory.



Specific tasks: dissolved oxygen use updates

1. Designate aquatic life use subcategories for the dissolved oxygen standard in basin-specific rules (OAR-340-041-101 to OAR-340-041-345) consistent with DEQ's established implementation procedures.

2. Identify resident trout spawning areas

TABLE 21
DISSOLVED OXYGEN & INTERGRAVEL DISSOLVED OXYGEN CRITERIA
(Applicable to All Basins)

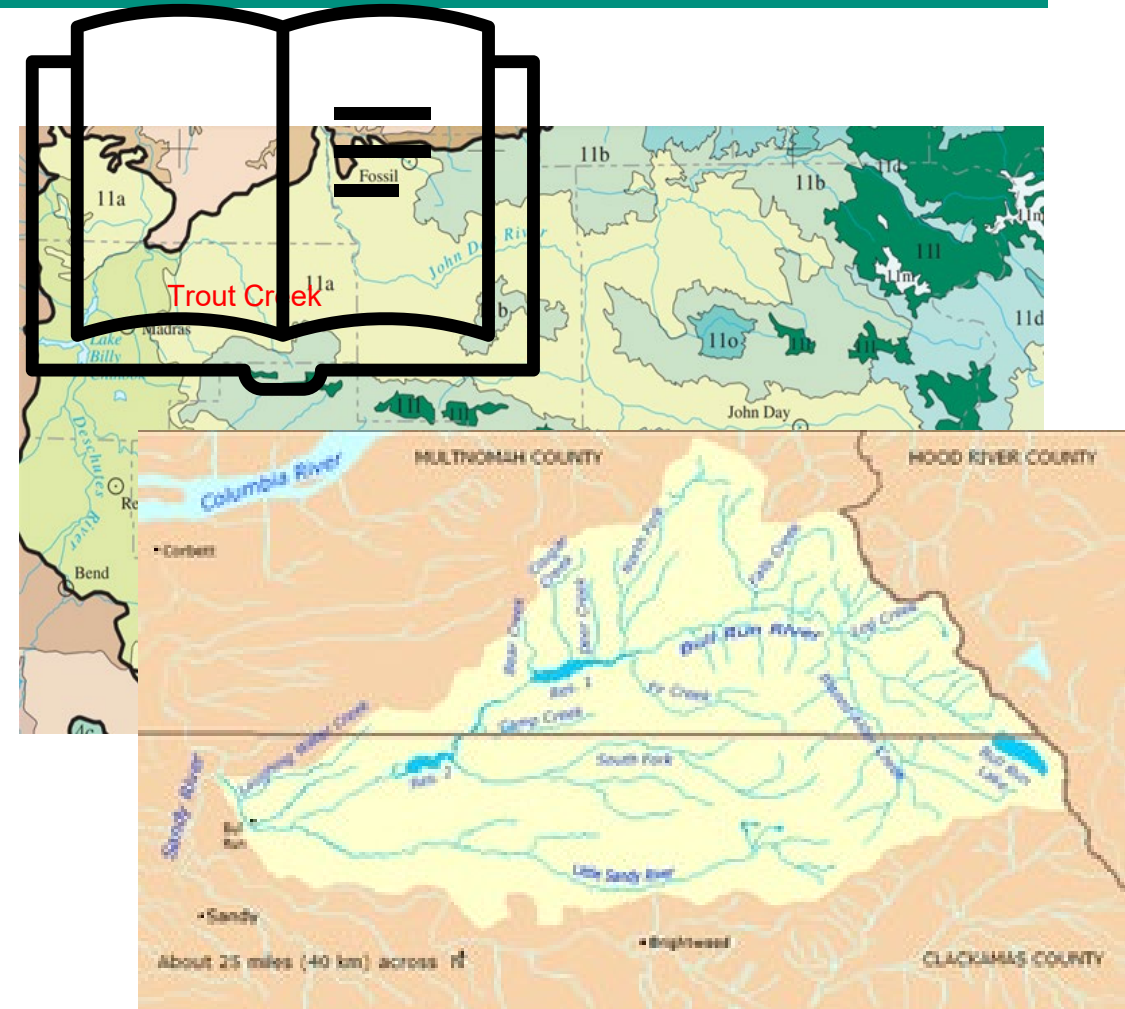
Class	Concentration and Period ¹ (All Units are mg/L)				Use/Level of Protection
	30-D	7-D	7-Mi	Min	
Salmonid Spawning		11.0 ^{2,3}		9.0 ³	Principal use of salmonid spawning and incubation of embryos until emergence from the gravels. Low risk of impairment to cold-water aquatic life, other native fish and invertebrates.
				8.0 ⁴	
Cold Water	8.0 ²		6.5	6.0	Principally cold-water aquatic life. Salmon, trout, cold-water invertebrates, and other native cold-water species exist throughout all or most of the year. Juvenile anadromous salmonids may rear throughout the year. No measurable risk level for these communities.
Cool Water					Mixed native cool-water aquatic life, such as sculpins, smelt, and lampreys. Waterbodies includes estuaries. Salmonids and
Warm Water					
No Risk					



Source: ODFW

Specific tasks: miscellaneous

1. Clarify or remove conflicting definitions for “Cold/Cool/Warm-water aquatic life” (OAR-340-041-0002)
2. Revisions to pH Criteria for Crooked River and Trout Creek (OAR 340-041-0135)
3. Advise Portland Water Bureau of any updated uses in the Bull Run river and evaluate whether potential solutions for use attainability should be included in this rulemaking package.



Questions about project scope and objectives?



Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1

3. History of Aquatic Life Use Designations

Jan. 27, 2022

Outline

- Introduction and History of Temperature Standard
- Overview of 2003 aquatic life use designations
- Introduction and history of Dissolved Oxygen Standard
- Why we are updating use designations in 2021-2022

A History of Oregon's Temperature Standard

- Major revision in 1996
 - ***No measurable increase (0.25°F) due to anthropogenic activity when T above thresholds for various species/life stages***

Species / Life stage	Threshold °F (°C)
Salmon & trout rearing and migration	64 (18)
Salmon & steelhead spawning	55 (13)
Bull trout (char)	50 (10)
Lower Willamette	68 (20)
Cool water species	No threshold

History post-1996

- ESA consultation and EPA approval in 1999
- EPA Region 10 temperature guidance (2003)
 - Involved states, tribes and federal agencies
 - Peer review by agency and university experts
- NWEA challenge
 - Court found it was not clear where and when the various criteria apply






2003 Temperature Standard Revisions

- Adopted by EQC December 2003
- Approved by EPA March 2004
- Added criteria for:
 - Core cold water habitat (16°C)
 - Redband and Lahontan cutthroat trout (20°C)
- Included aquatic life use designations to address “where & when”

Designating Fish Uses

- Inter-agency collaboration to determine where and when species and life stage uses occurred
- Had about 3 months to develop maps statewide
 - court deadline
- Relied on best available data, primarily from ODFW
- Uses adopted into basin rules as maps and tables

Inter-agency collaboration

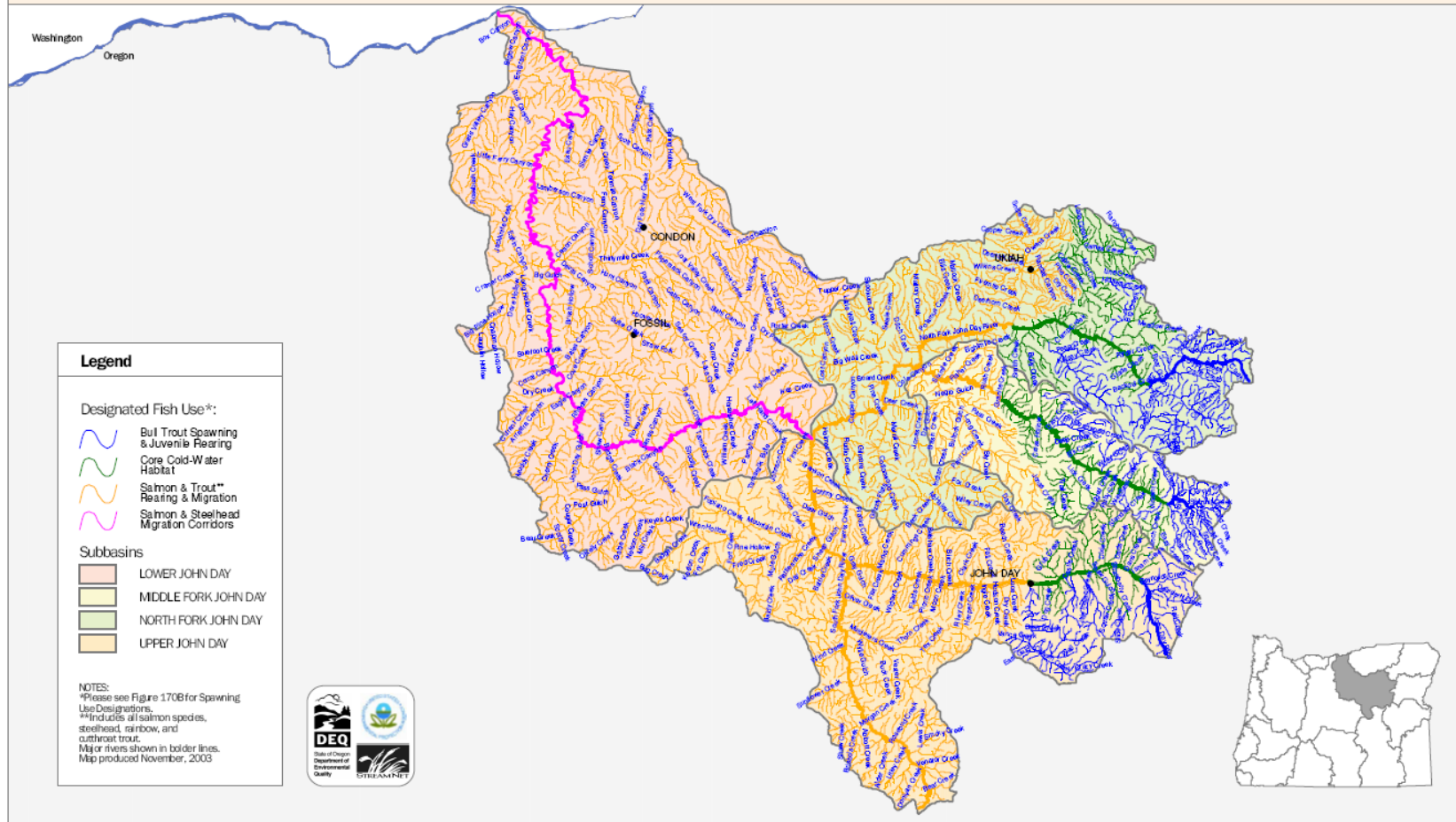
 <p>The logo for Oregon Fish & Wildlife, featuring a black silhouette of a fish on the left and a deer head on the right, separated by a diagonal line. The word "OREGON" is at the top and "Fish & Wildlife" is at the bottom.</p>	<ul style="list-style-type: none">• Developed fish distribution data base and timing tables• Focused on basins with anadromous species• Largely based on professional judgment of district biologists• Partially funded by an EPA grant passed through DEQ
 <p>The logo for the United States Environmental Protection Agency, featuring a stylized green plant with a blue globe in the center, surrounded by the text "UNITED STATES ENVIRONMENTAL PROTECTION AGENCY".</p>	<p>Assisted by doing the GIS work for several basins and provided grant funding to assemble fish use data.</p>
 <p>The logo for the National Oceanic and Atmospheric Administration (NOAA), featuring a blue bird in flight over a white wave, with the text "NOAA" in the center and "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE" around the perimeter.</p>	<p>Assisted by doing GIS work for the Grande Ronde Basin.</p>
 <p>The logo for the Oregon Department of Environmental Quality (DEQ), featuring a stylized green landscape with a river, trees, and a sun, with the letters "DEQ" in a green box at the bottom.</p>	<p>Convened a team of bull trout experts to identify current and potential bull trout habitat.</p>  <p>A detailed illustration of a bull trout, showing its characteristic spotted pattern and large head.</p>

Data sources and development

- **ODFW fish distribution data base and timing tables**
- Bull Trout Habitat Designation Report: Technical Work Group Recommendations (DEQ, July 2003),
- USFWS proposed critical habitat for bull trout spawning and juvenile rearing (67 FR 71236, Nov. 29, 2002),
- Salmon Anchor Habitat Strategy for the Tillamook and Clatsop State Forests, (Ecotrust, 2002), and
- Temperature data (ODEQ database, 2003).

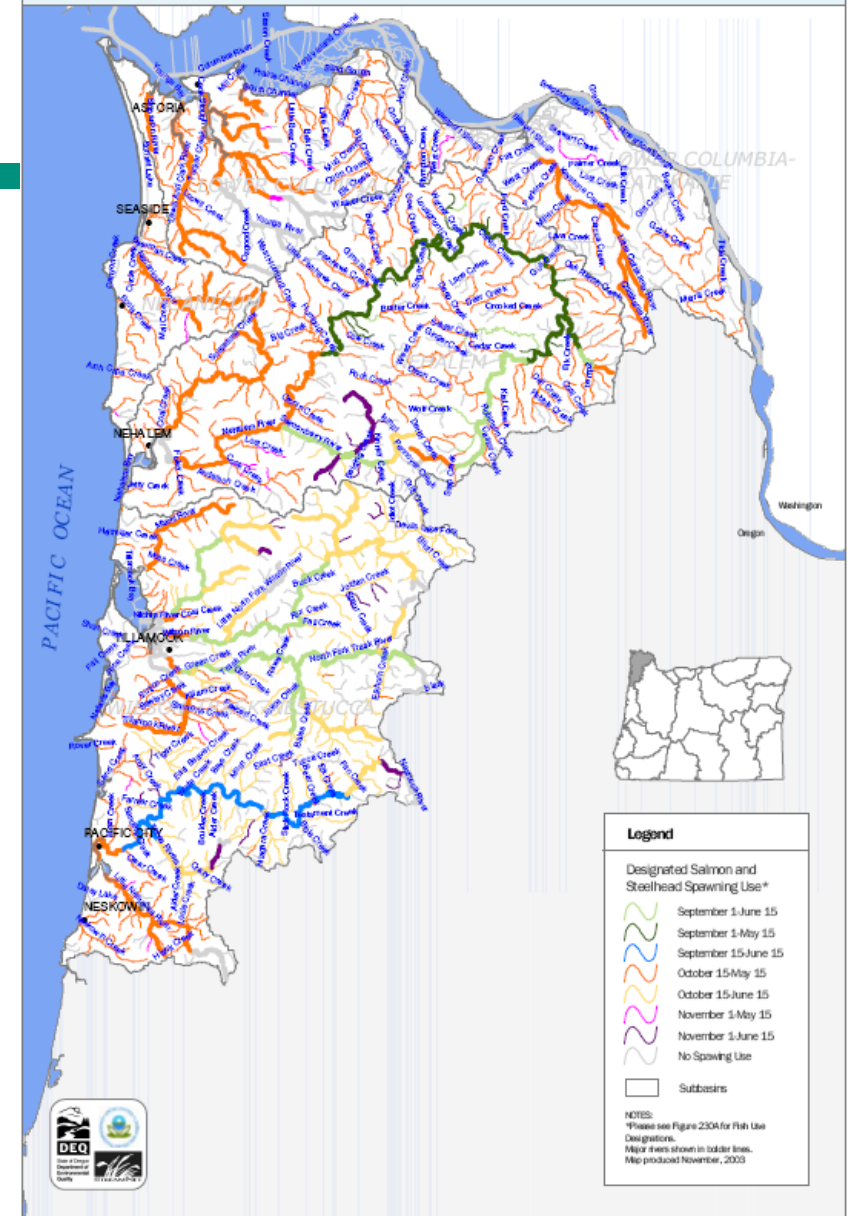
Example of Fish Use Map

Figure 170A: Fish Use Designations*
John Day Basin, Oregon



Example of Spawning Map

Figure 230B: Salmon and Steelhead Spawning Use Designations*
North Coast Basin, Oregon



Why update Temperature ALU designations?

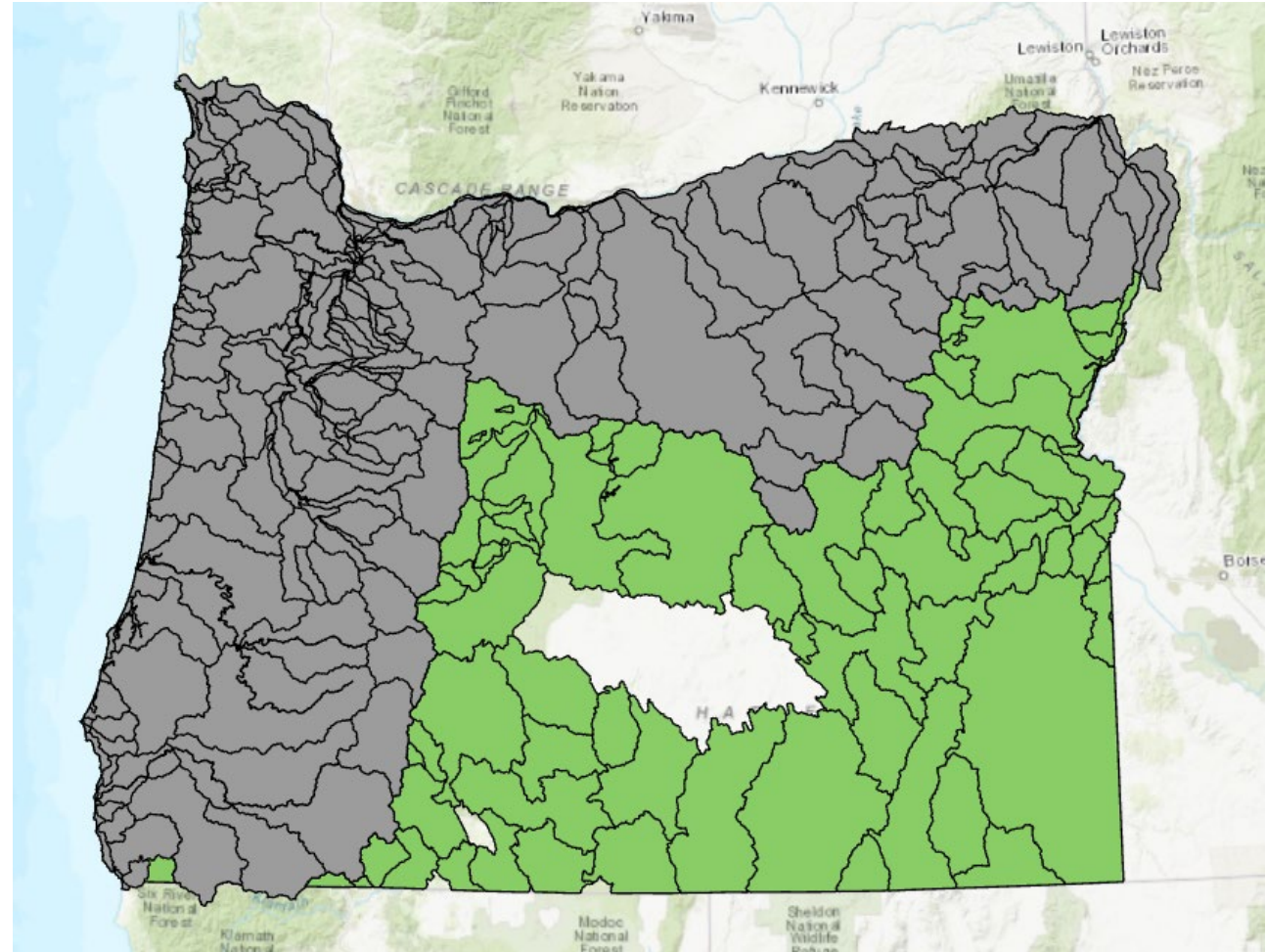
- Not updated since 2003
- Correct and clarify based on new data:
 - ODFW fish habitat distribution and timing data
 - USFWS final Critical Habitat designations for Bull trout
 - Adding bull trout spawning habitat based on 2015 BiOp
 - Temperature data
- Add habitat now occupied due to improved fish passage

ODFW Timing Units

Grey = timing units with data in 2003

Green – additional timing units with data in 2021

Note: Timing data in 2003 was not complete and final for all species and life stages. Data has been added or improved since 2003.



Why update Temperature ALU designations?

- Correct and clarify based on improved waterbody mapping capability
 - CMECS classification for delineating estuarine & fresh water
 - National Hydrography Dataset (NHD)
 - Correct errors where linework previously went into estuarine waters/bays, reservoirs, or large rivers (i.e. Columbia and Snake)

Dissolved Oxygen Subcategories

- Major revision of DO Standard in 1996
- Use subcategories based on aquatic community
 - Cold-water, cool-water and warm-water aquatic life
 - Salmonid spawning (anadromous and resident)
 - Estuarine waters and marine waters
- Use subcategories have not been designated in rule
- DEQ has a standard practice for application (1998 memo)
- There are still data limitations

Questions?



Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1

4. Guest Presentation: Jon Bowers, ODFW

Jan. 27, 2022



Oregon Fish Habitat Distribution and Aquatic Life Use Timing

January 27, 2022

FHD Scope and Content

- Habitat based
- Species / run specific
- Current vs. historical
- Basis for habitat identification
- Habitat Use
- Life history, origin, production, references
- Basis details

Primary Data Sources

- Baseline 1:24,000 scale mapping project
- Large scale inventory or monitoring efforts by state and federal resource agencies
- Periodic, targeted reviews (e.g. ESH, barrier prioritization)
- Case by case updates

FHD Data Standard

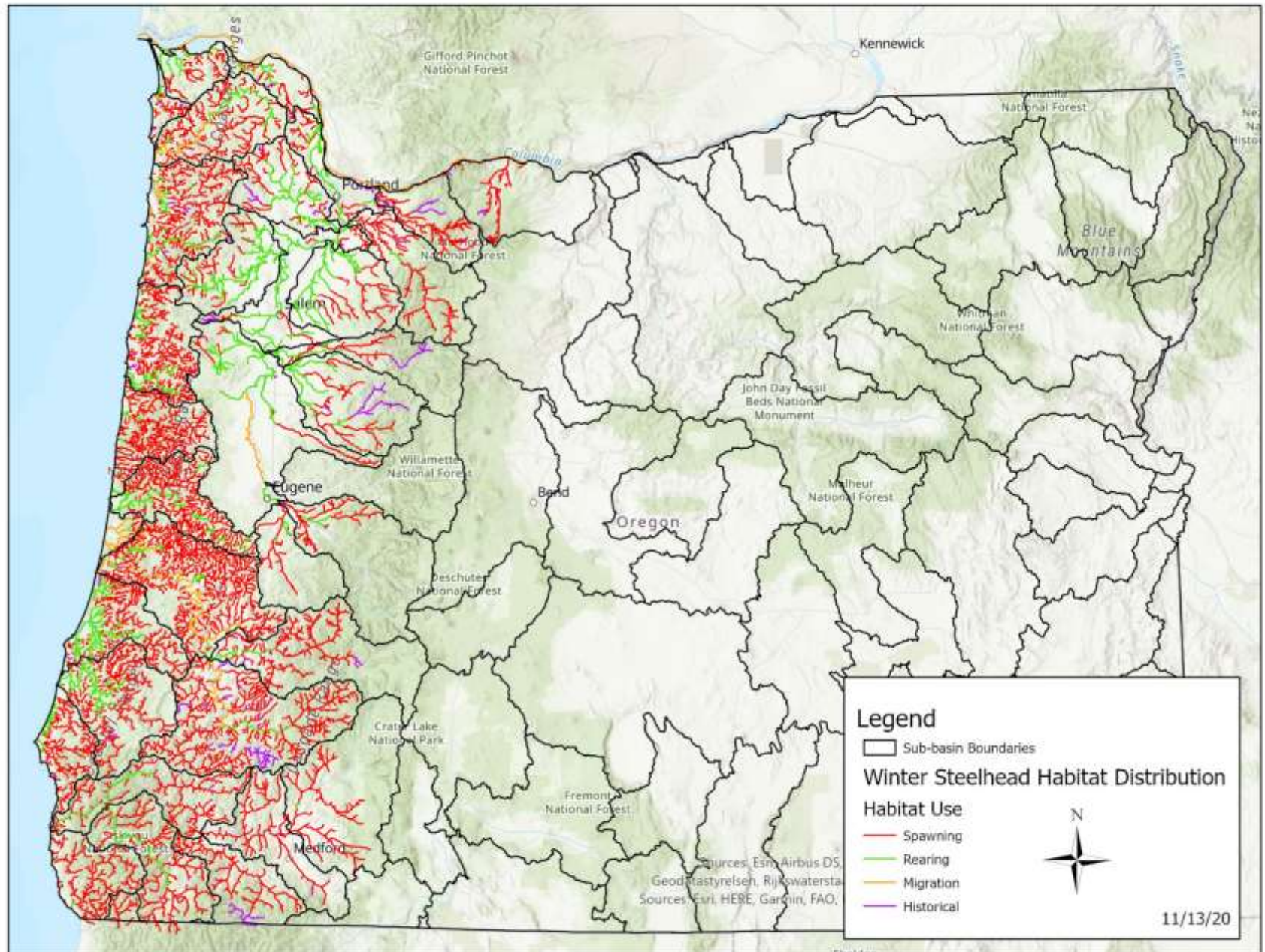
- Overview of Oregon Framework Data
- Framework standard process / endorsement
- Technical focus
 - Data characteristics
 - Definitions
 - Domains
 - Business rules



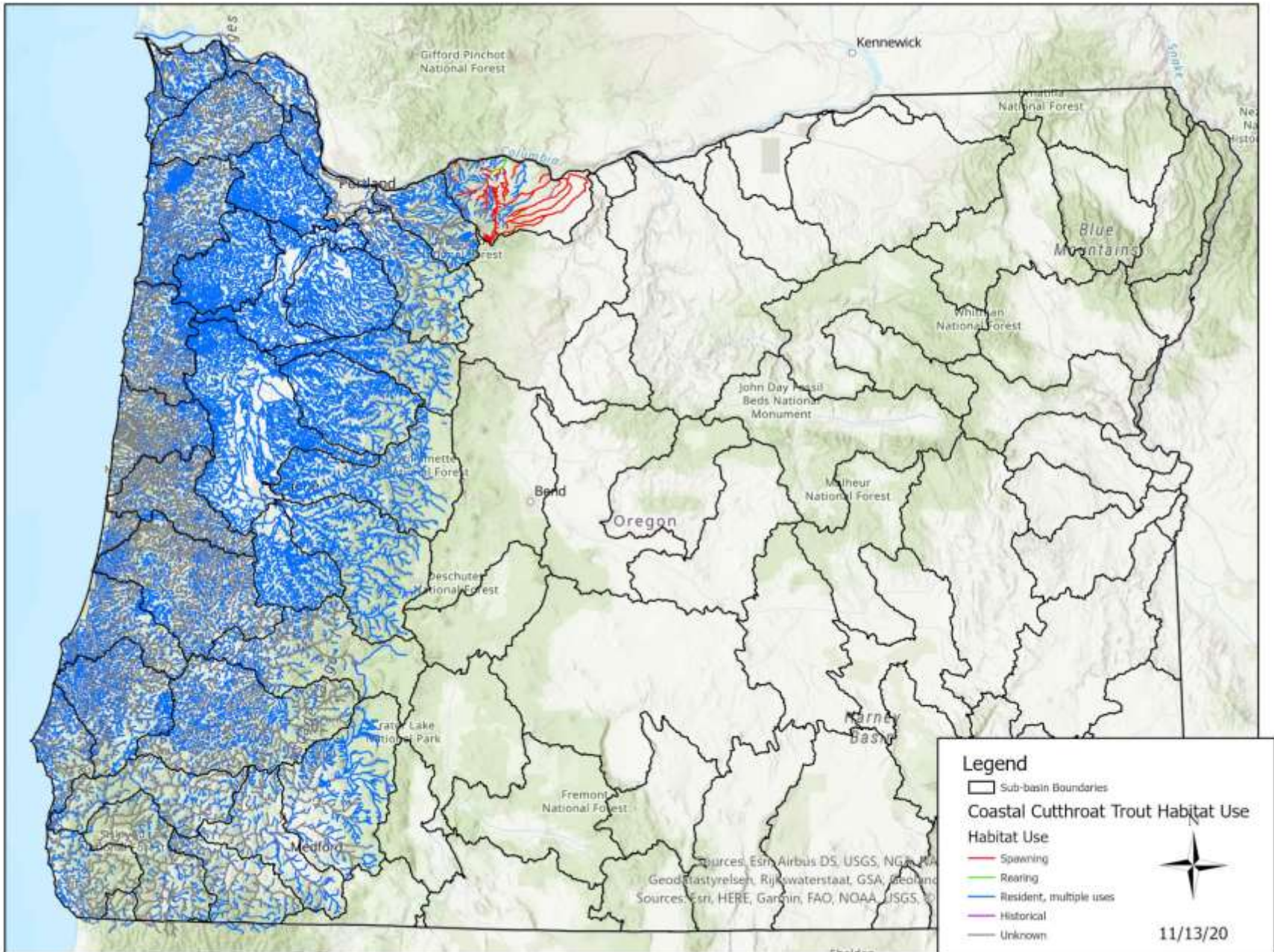
Process for Updates

- Stewardship Plan
 - main guidance
- Data Standard Business Rules
 - supplementary guidance
- Key Considerations
 - Data Category
 - Data Provider Group
 - Basis for Change

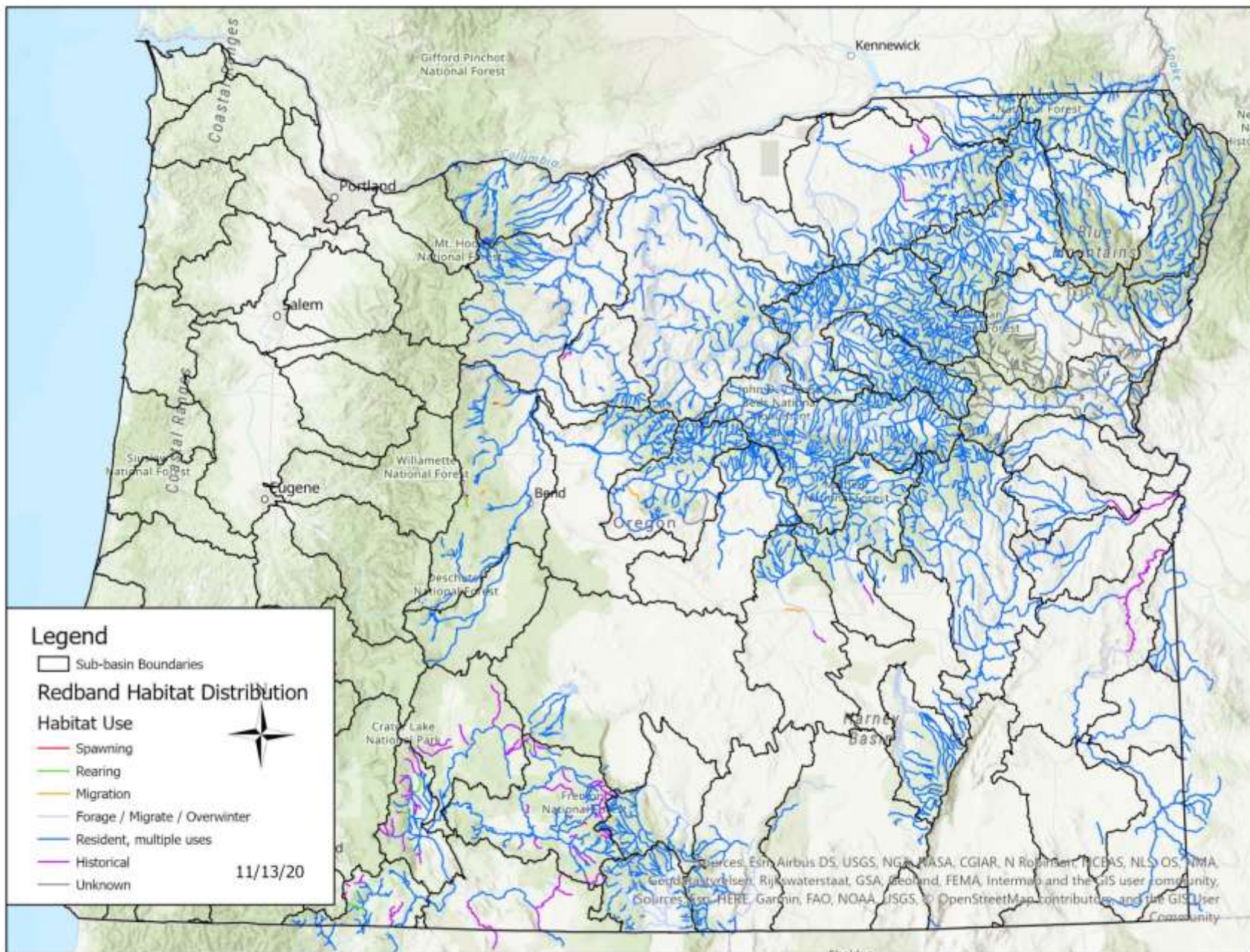
Winter Steelhead Habitat Distribution



Coastal Cutthroat Trout Habitat Distribution



Redband Trout Habitat Distribution



Life Stage Timing Data Scope

2003 Data	
Extent	Anadromous zones
Species	Salmonids + Bull Trout

2021 Data	
Extent	Statewide
Species	Salmonids, Bull Trout, lamprey, species of concern

- Original 2003 format was used for the 2021 update
- Reference information enhanced and updated

Life Stage Timing Data Content

- Species / run
- Life History
- Life stage
- Activity status
- Activity intensity

John Day R above and incl. Canyon Cr - Anadromous Species

Waterway ID: JohnDay01

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Comments
Upstream Adult Migration													
Summer Steelhead	///	■	■	■	■	■	■						
Spring Chinook salmon					■	■	■						
Pacific Lamprey	///	///	■	■	■	■				///	///	///	
Adult Spawning													
Summer Steelhead				■	■	■	■	///					
Spring Chinook salmon								///	■	■	///		
Pacific Lamprey			///	■	■	■	///						
Adult Holding													
Summer Steelhead													C2
Spring Chinook salmon						■	■	■	■	■			
Pacific Lamprey	■	■	■	■	■	■	■	■	///	///	///	■	
Egg Incubation through Fry Emergence													
Summer Steelhead				■	■	■	■	■	■				C3
Spring Chinook salmon	■	■	■	■	■	■	■	■	■	■	■	■	C1
Pacific Lamprey			///	■	■	■	///	///					
Juvenile Rearing													
Summer Steelhead	■	■	■	■	■	■	■	■	■	■	■	■	■
Spring Chinook salmon	■	■	■	■	■	■	■	■	■	■	■	■	■
Pacific Lamprey	■	■	■	■	■	■	■	■	■	■	■	■	■
Downstream Juvenile Migration													
Summer Steelhead	///	///		■	■	■	■			///	///	///	
Spring Chinook salmon		///	■	■	■	■	■						
Pacific Lamprey	■	■	■	■	■	///	///			///	///	■	

■ Represents periods of peak use based on professional opinion.

/// Represents lesser level of use based on professional opinion.

■ Represents periods of presence, either with no level of use OR uniformly distributed level of use indicate

John Day R above and incl. Canyon Cr - Non-Anadromous Species

Waterway ID: JohnDay01

Life Stage/Activity/Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Comments
Adult Fluvial or Adfluvial Migration													
Bull Trout Fluvial	•••	•••	•••	•••	•••	•••			•••	•••	•••	•••	
Westslope Cutthroat Trout Fluvial							•••	•••					
Redband (Native Rainbow) Trout													
Western Brook Lamprey - Resident	▨	▨	▨	▨	▨	▨						▨	
Adult Spawning													
Bull Trout Fluvial									•••	•••	•••		
Westslope Cutthroat Trout Fluvial				•••	•••	•••							
Redband (Native Rainbow) Trout													
Western Brook Lamprey - Resident				▨	▨	▨	▨						
Adult/Sub-Adult Rearing													
Bull Trout Fluvial													C6
Westslope Cutthroat Trout Fluvial													C4
Redband (Native Rainbow) Trout													C2
Western Brook Lamprey - Resident	■	■	■	■	■	■	■	■	■	■	■	■	C8
Egg Incubation through Fry Emergence													
Bull Trout Fluvial	•••	•••	•••	•••					•••	•••	•••	•••	C5
Westslope Cutthroat Trout Fluvial				•••	•••	•••	•••						C3
Redband (Native Rainbow) Trout													C1
Western Brook Lamprey - Resident				▨	▨	▨	▨	▨					
Juvenile Rearing													
Bull Trout Fluvial	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	
Westslope Cutthroat Trout Fluvial	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	
Redband (Native Rainbow) Trout	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	
Western Brook Lamprey - Resident	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	C8
Juvenile/Sub-Adult Migration													
Bull Trout Fluvial	•••	•••	•••	•••	•••				•••	•••	•••	•••	C7
Westslope Cutthroat Trout Fluvial	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	
Redband (Native Rainbow) Trout	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	•••	
Western Brook Lamprey - Resident	■	■	■	■	■	■	■	■	■	■	■	■	C8

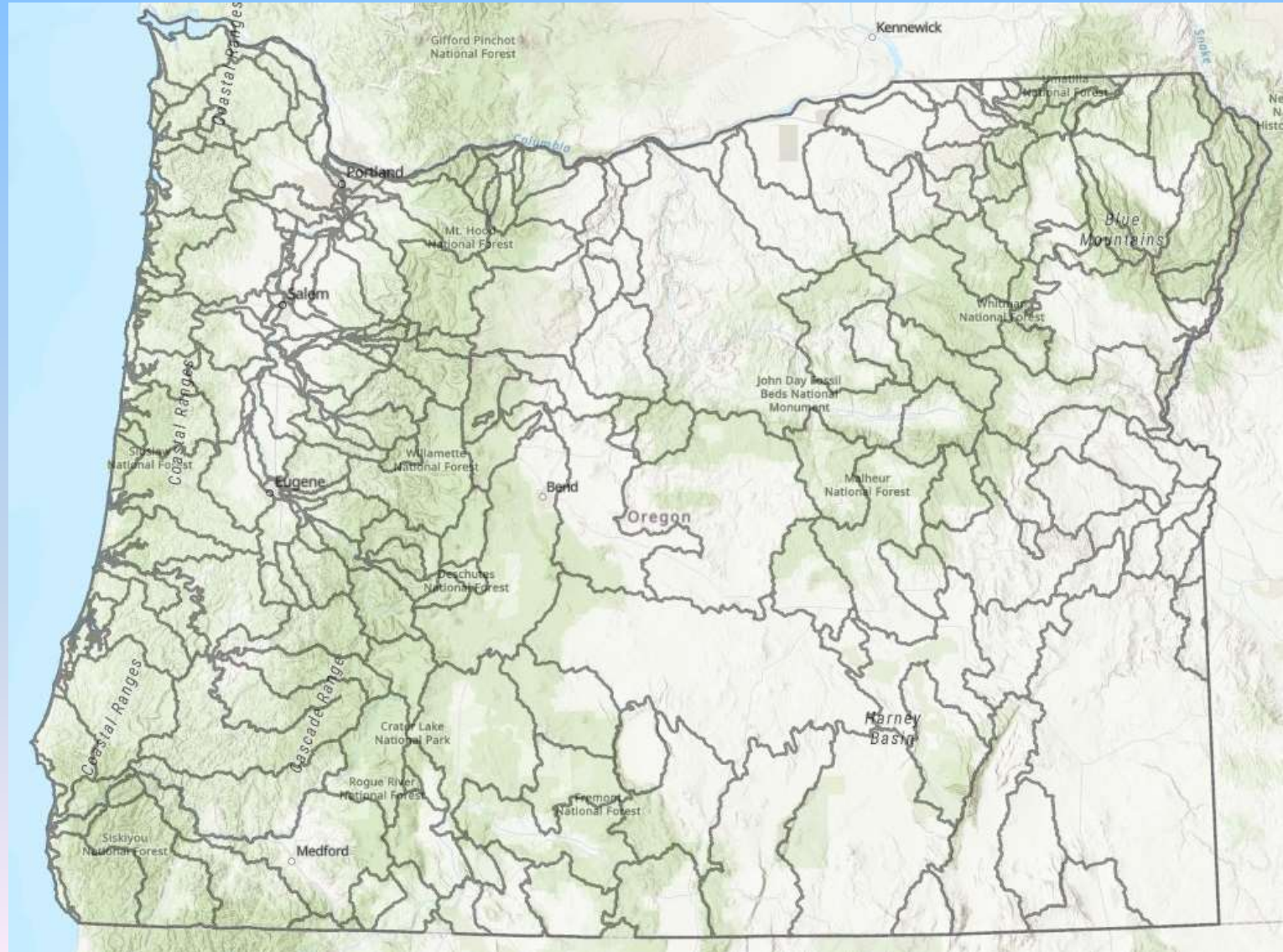
▨ Represents periods of peak use based on professional opinion.

▧ Represents lesser level of use based on professional opinion.

••• Represents periods of presence, either with no level of use OR uniformly distributed level of use indicate

■ Not applicable

Life Stage Timing Areas



Questions?

Jon Bowers

GIS Coordinator, ODFW

Jon.k.bowers@odfw.Oregon.gov

503.947.6097



Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1

5. Guest Presentation: Brian Bangs, USFWS

Jan. 27, 2022

Critical Habitat

Brian Bangs

Aquatic Ecologist, USFWS Oregon Fish and Wildlife Office

Portland / Corvallis

Brian_Bangs@fws.gov

What is Critical Habitat?

- Under the Endangered Species Act, critical habitat identifies geographic areas that contain features essential for the conservation of an ESA listed species.
- Critical habitat designations provide extra regulatory protection that may require special management considerations; the habitats are then prioritized for recovery actions.

What is Critical Habitat?

The designation of critical habitat **does not**:

- Affect land ownership or establish a refuge, wilderness, reserve, preserve or other conservation area.
- Allow government or public access to non-federal lands.
- Impose restrictions on non-federal lands unless federal funds, permits or activities are involved.

However, designating critical habitat on federal or non-federal lands informs landowners and the public of the specific areas that are important to the recovery of the species.

Critical Habitat

1. The specific areas within the geographical area occupied by the species, at the time it is listed on which are found those physical and biological features
 1. Essential to the conservation of the species, and
 2. Which may require special management considerations or protection; and
2. Specific areas outside the geographical area occupied by the species at the time it is listed essential to the conservation of the species.

Delineation of Critical Habitat

- Common for biologists to delineate all *suitable* habitat as critical habitat, instead of just what is *essential*.
- Important to balance regulatory burden and resources against what is truly essential for recovery.
- Best available data should support our strategy for conservation and how much CH we need for recovery.

Geographical Area Occupied

- Guidebook range map
- Broad, coarser scale

Occupied At the Time of Listing

- Use best available data and best professional judgement
- Not required to prove every square inch is occupied
- Not required to be present year-round (e.g., migratory)

Physical and Biological Features (PBFs)

- Describe features as a hierarchy of general and specific elements necessary for the maintenance of life-history processes
- Include details regarding organization or number of features when they are known to assist in Section 7 activities
 - Be as specific as you can without creating 'loopholes'
 - Not a laundry list of features

What happened to PCEs?

- Primary constituent elements
- Term used in older rules
- Term is not found in the ESA; was removed from regulations in 2016

Physical and Biological Features (PBFs)

- “The features that support the life-history needs of the species.”
- Including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species...
- May include ephemeral or dynamic features
- A PBF can be defined by one characteristic or a combination of characteristics
- Can utilize conservation biology concepts like patch size, distribution distance, and connectivity

Criteria

Geographic Considerations

- Current, historic distribution of the species and its habitat
- Metapopulation and landscape-level considerations (importance of scale)
- Seasonal or life-stage habitat needs
- Habitat limitations for migratory species
- Dispersal habitat, connectivity, corridors
- Climate change considerations

Special Management Considerations or Protections

- Need to make at least a cursory finding regarding threats that may require special management in an area
- Evaluation occurs independent of whether any form of management may currently exist
- Requires versus may require

Unoccupied Areas

- Essential unoccupied areas are CH
- Should be driven by the conservation strategy
- Areas that would support increased resiliency, redundancy, and representation (if needed)
- Climate change considerations
- Unoccupied areas do not need to have PBFs currently to be designated
- Occupied and unoccupied areas can be considered together

Process – Critical Habitat

- FWS/NOAA required to designate critical habitat at the time of listing a species to the maximum extent prudent and determinable
 - Not prudent – designation would be detrimental to the species
 - Not determinable – lack necessary information

Process - Critical Habitat

Critical Habitat Process (either as part of listing process, or a separate designation)

- Draft notice of proposed designation
- Publish proposal
- Conduct Economic Analysis
- Request comments and information
- Conduct Peer Review if necessary
- Revise proposal considering public, peer review comments and Economic Analysis
- Publish Final Designation

Questions?

Email: [Brian Bangs@fws.gov](mailto:Brian_Bangs@fws.gov)

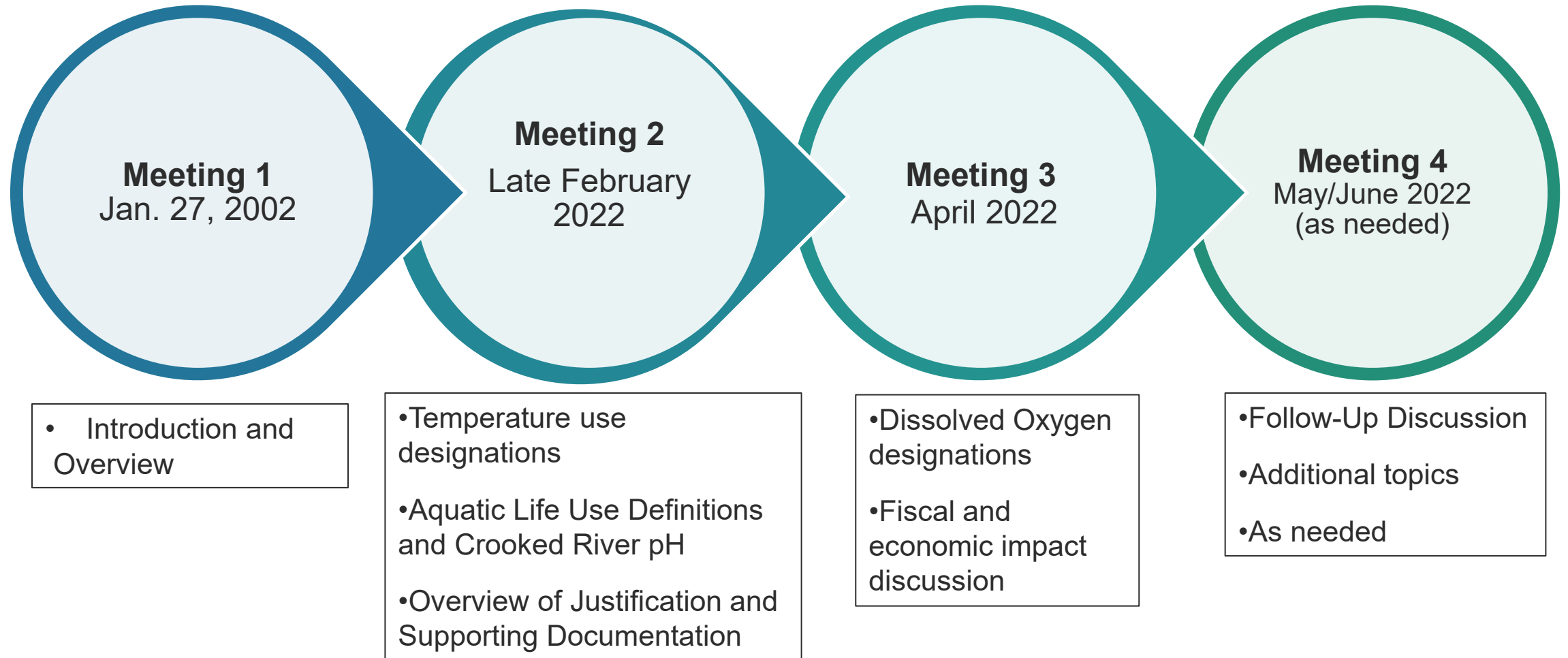
Oregon DEQ Aquatic Life Use Updates

Rule Advisory Committee Meeting #1

6. Wrap Up and Adjournment

Jan. 27, 2022

Future meeting topics



Next steps

Meeting 2 Topics:

- Overview of Temperature Decision Rules and Draft Maps
 - data sources and application methods
 - GIS Online maps
 - Discussion of strategy for documenting potential use changes and justification
- Discuss misc. definitions and pH rule amendments.
- James will send a poll to schedule this meeting soon

Before next meeting

- Draft meeting summary will be provided to the group
 - 1 weeks for review and corrections
- Provide any comments on the Advisory Committee Charter by next meeting
- Send comments to: aquaticlife.2022@deq.oregon.gov

Questions before adjournment?



Image source: NOAA Photo Library

Thank you!



Metolius River, Oregon

Aquatic Life Rulemaking: aquaticlife.2022@deq.oregon.gov

James McConaghie, Aquatic Life Use Updates Project Lead:

james.mcconaghie@deq.oregon.gov or call 503-229-5619

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