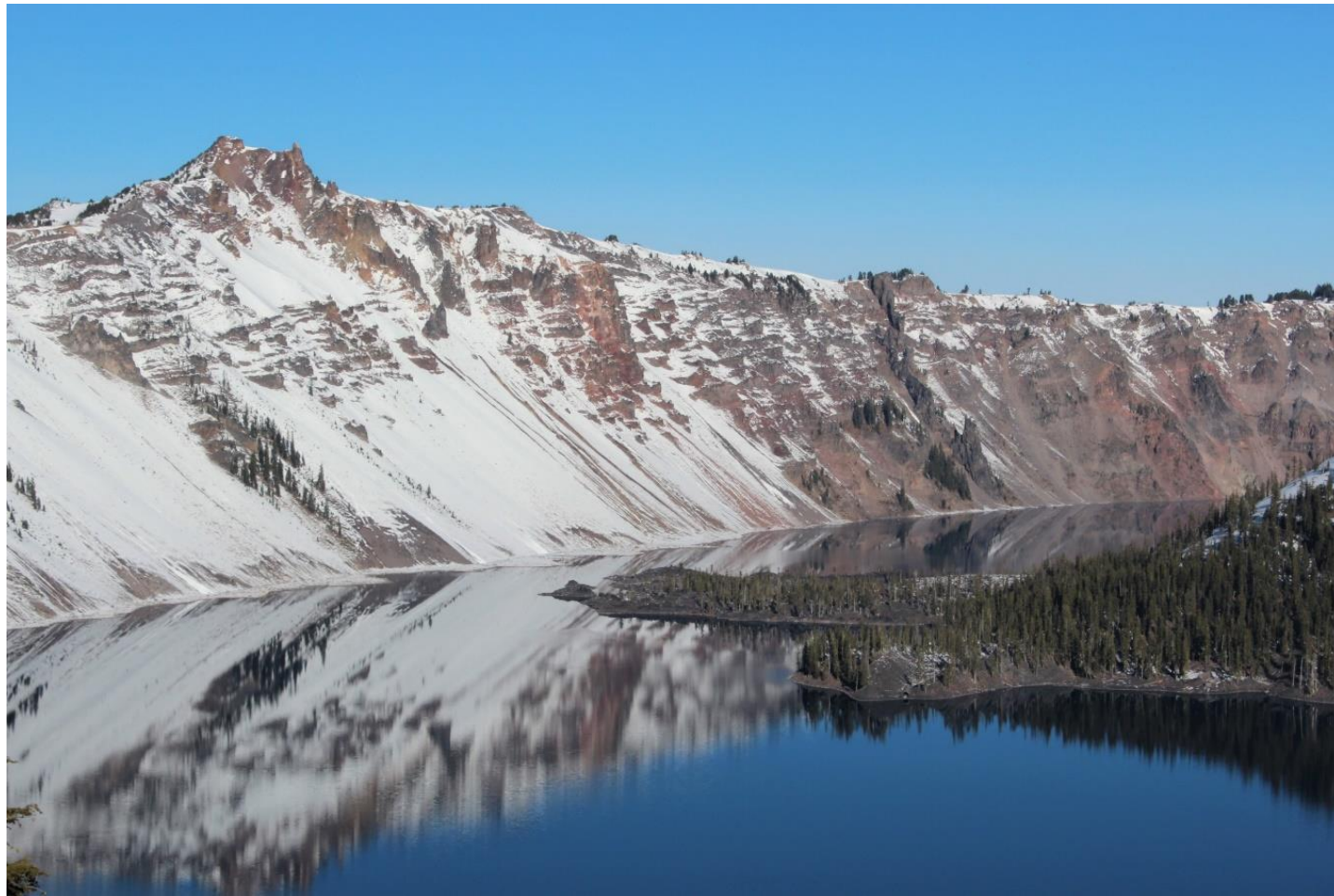


Waldo and Crater Lake Outstanding Resource Waters Rulemaking

Water Quality Standards Program

Public Hearing
August 18, 2020



Testify today or
Email comments to:
waldoorw2020@deq.state.or.us

by August 28, 2020, 4:00 pm

Notice of rulemaking:

<https://www.oregon.gov/deq/Regulations/rulemaking/Pages/rwaldoorw2020>

Presentation:

- Outstanding Resource Waters
- Rulemaking Process and Timeline
- Information on Waldo and Crater Lakes
- Proposed rules

Outstanding Resource Water Policy

- Antidegradation policy –
3 classes of waters:
- impaired
 - high quality
 - **outstanding resource waters**

Where high quality waters constitute an outstanding state resource, existing water quality must be maintained & protected.

Photo courtesy of Lesley Merrick, DEQ



2019 Waldo Lake Petition

- Submitted by NW Environmental Defense Center
- Designate Waldo Lake and wetlands ORWs
- Protect water quality and ecological integrity

EQC Action

Granted the petition July 2019



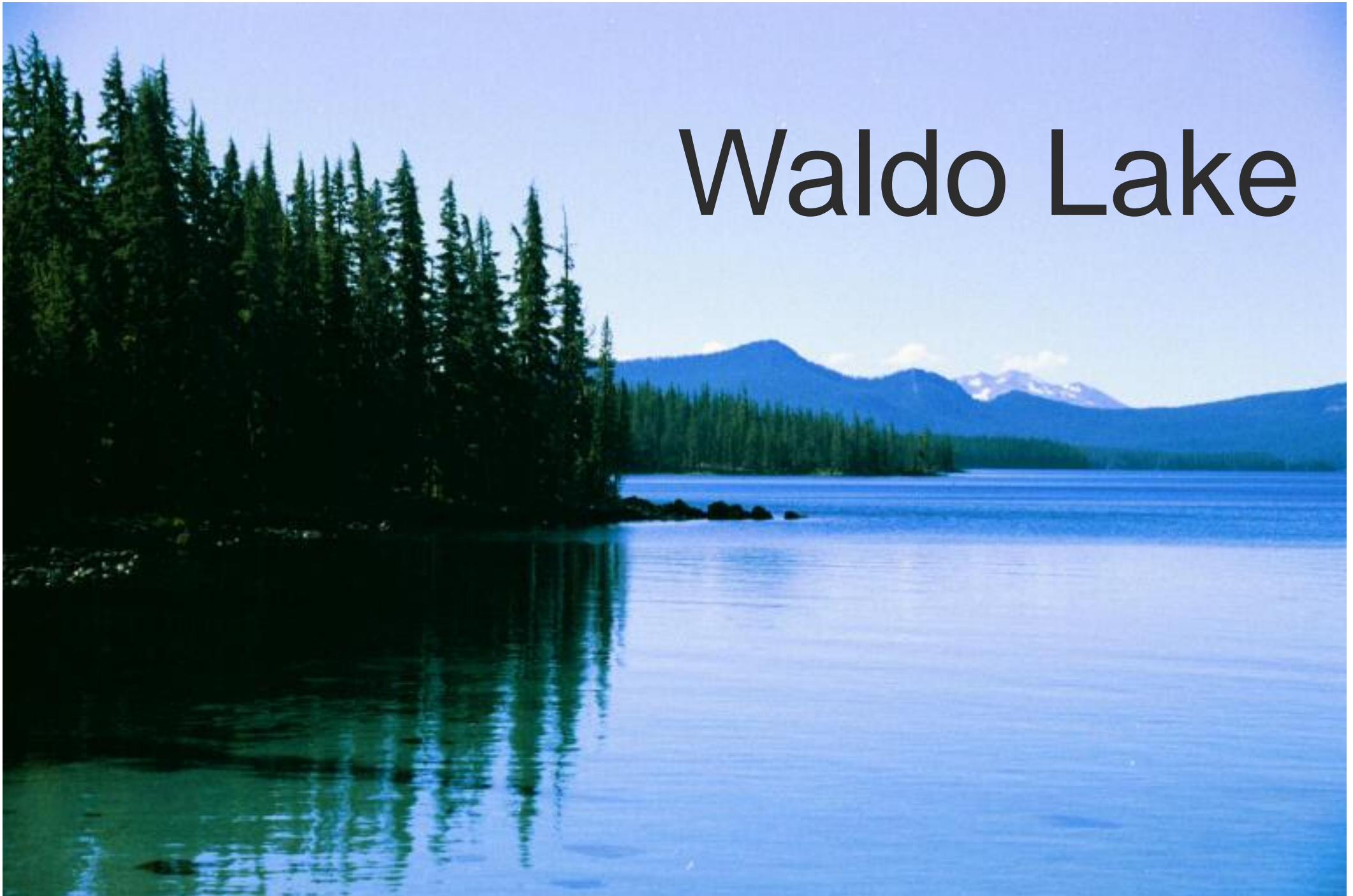
Directed DEQ to conduct a rulemaking process:

- Designate Waldo Lake and associated wetlands as ORWs
- Designate Crater Lake an ORW
- Adopt policies to protect these waters

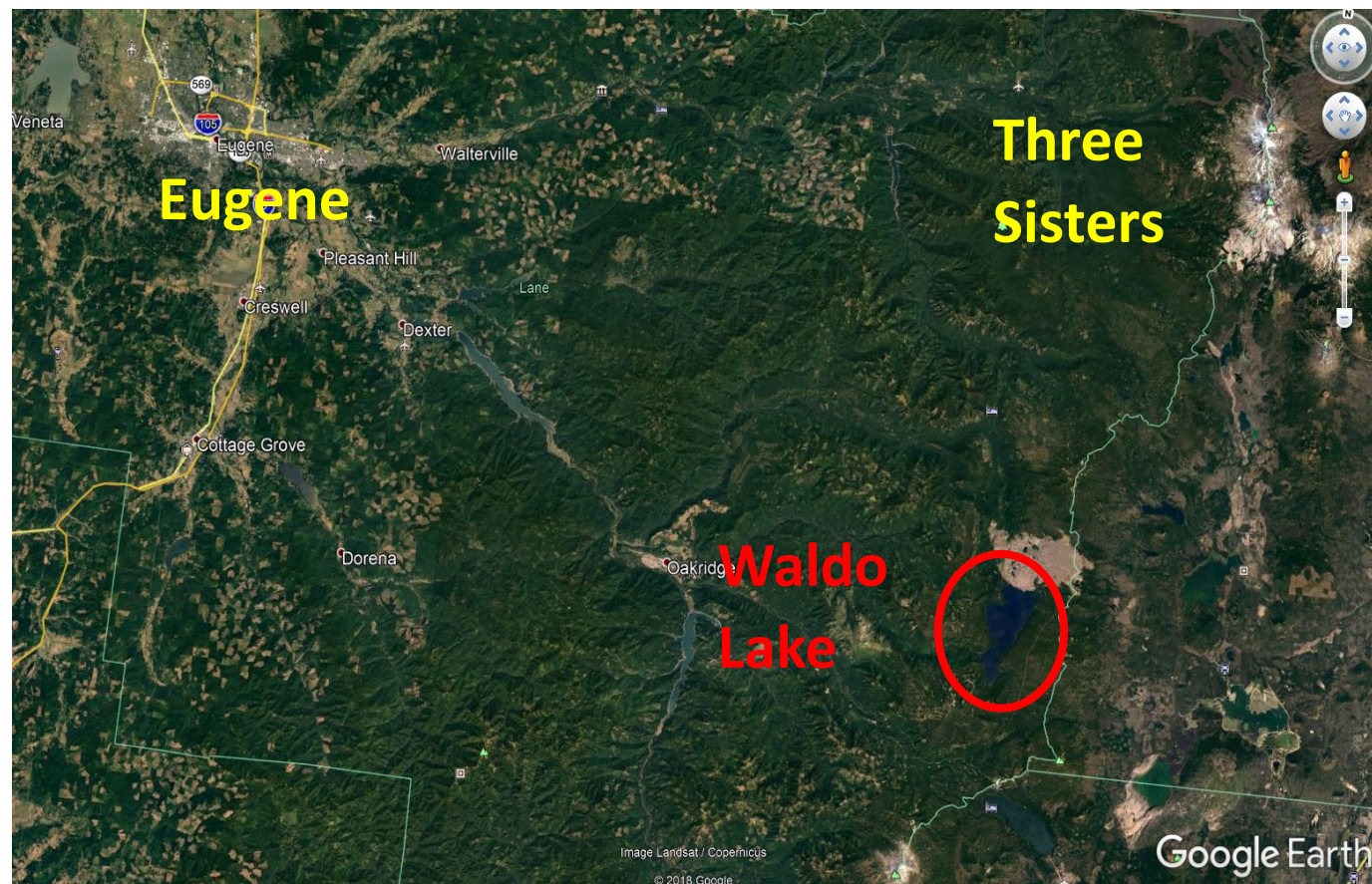
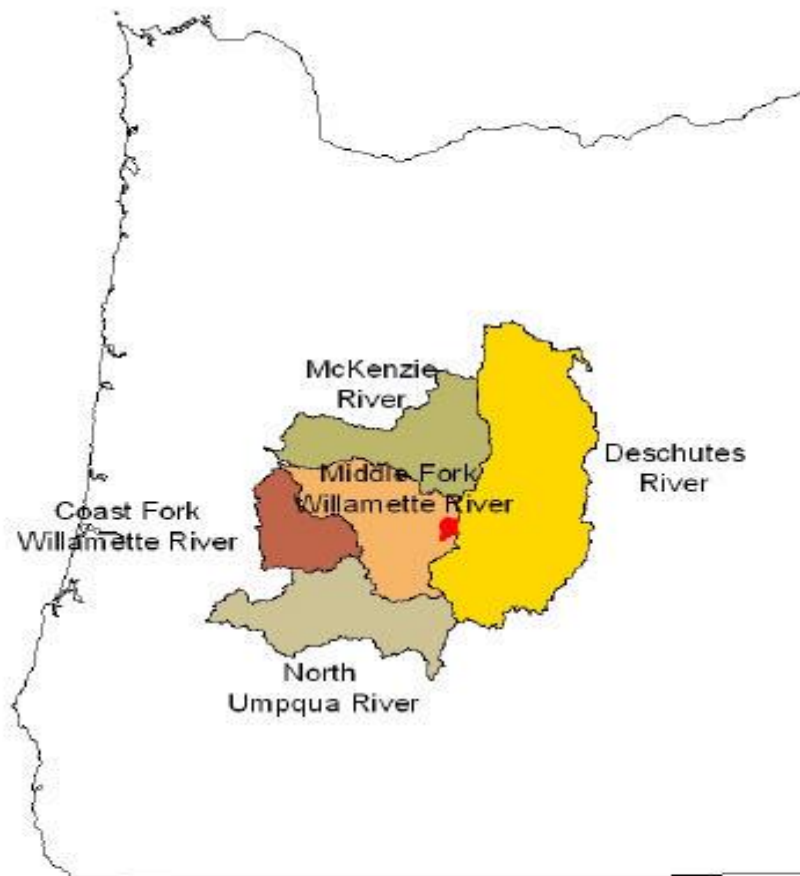
Rulemaking Timeline

| Milestone | Date |
|----------------------------------|--------------------|
| Advisory Committee | May – June 2020 |
| Public Notice and Comment | July – August 2020 |
| Public Hearing | August 2020 |
| Environmental Quality Commission | November 2020 |

Waldo Lake



Location of Waldo Lake



Caution! The mapping of roads and lake depths in this document is not intended for road or water navigation.

Waldo Lake

Lane County



GNIS Name - Waldo Lake

GNIS ID - 1151818

NHD Reach - 17090001020920

Lat/Lon - 43° 46' 02" / -122° 03' 10"

Elevation - 5,420 ft, 2,193m

Lake Area - 6,298.0 acres, 2,548.8 hectares

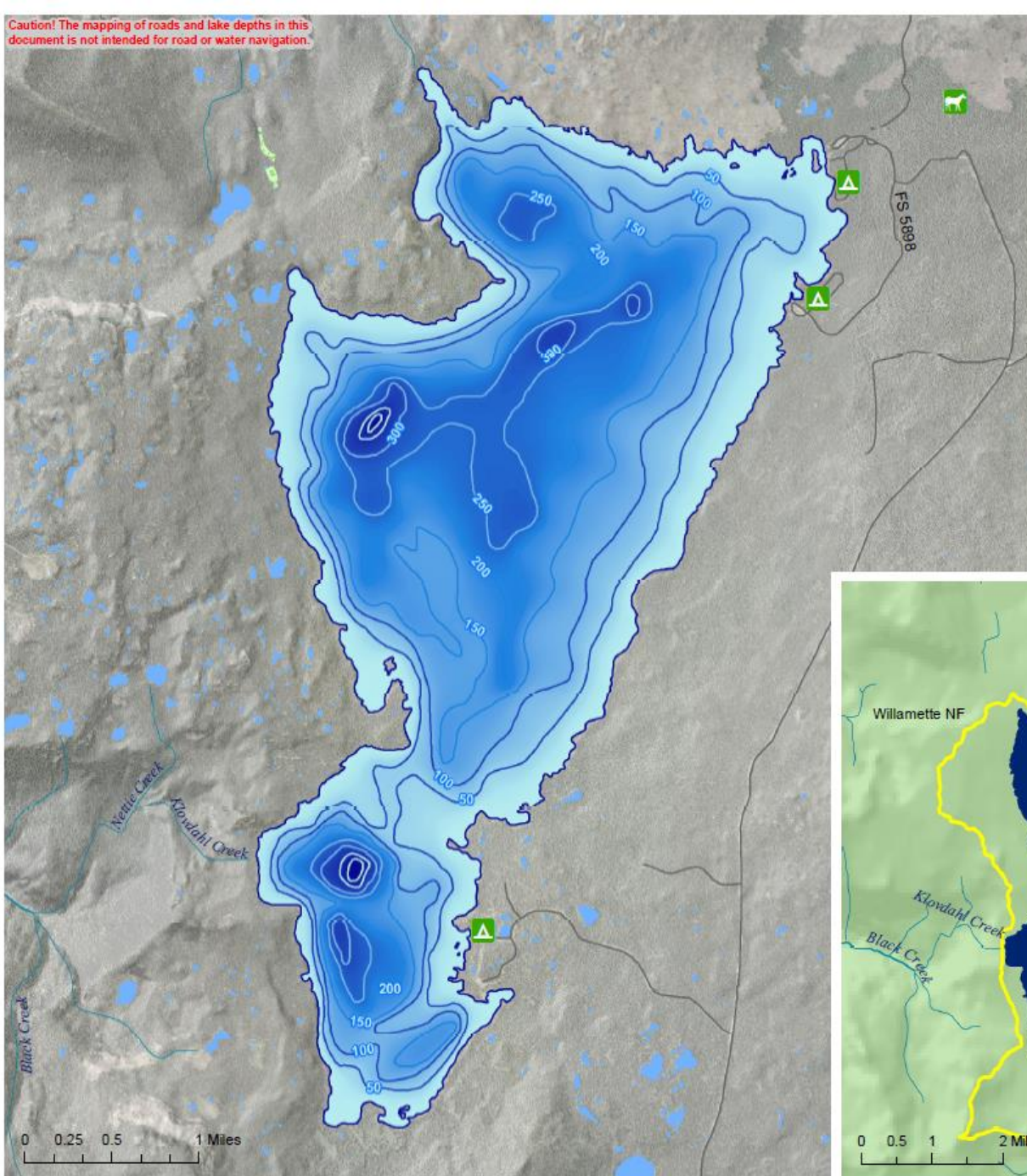
Basin Area - 29.7 sq mi, 77.0 sq km

Type - Natural lake

Trophic Status - Ultraoligotrophic, 18/08/81

Bath Map - CLR, 01/01/03

© Portland State University



Map courtesy Center for Lakes and Reservoirs, Portland State University



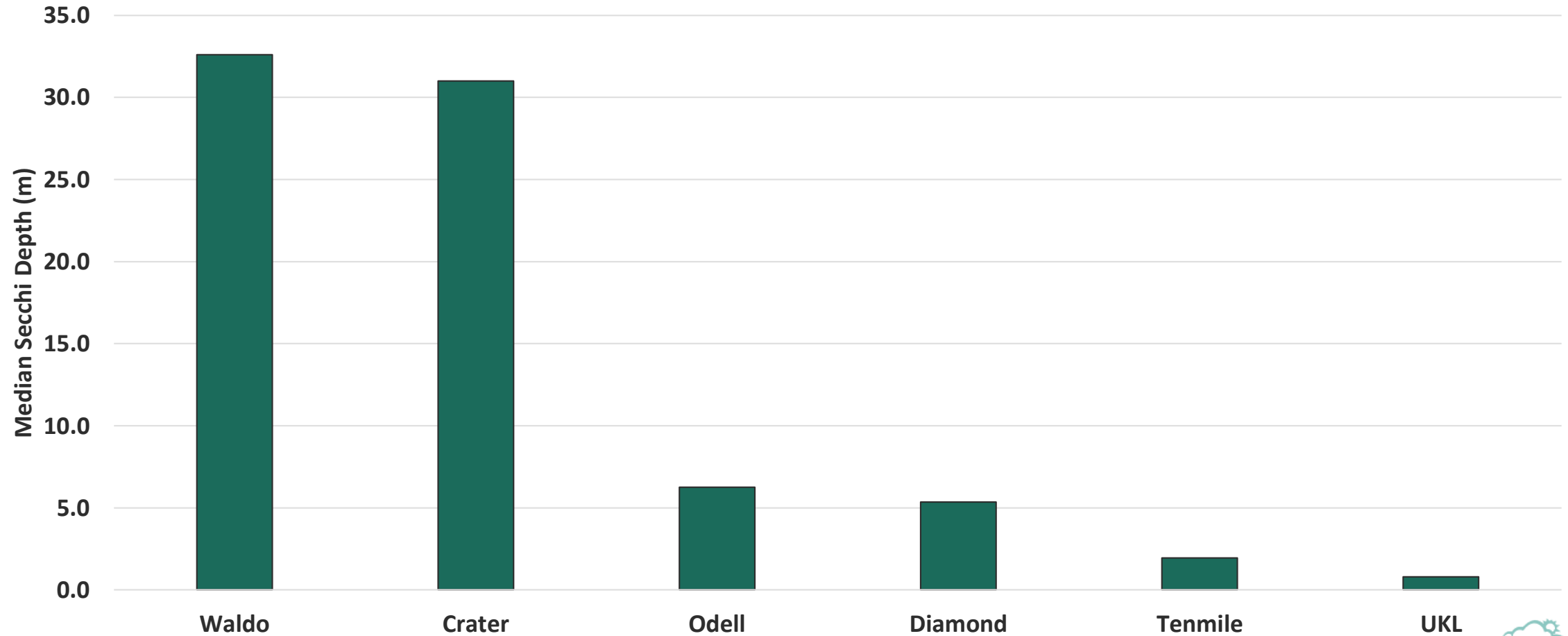
Water Quality

- Clarity
 - Ultra-oligotrophic
 - 125' on average
- Small watershed
 - Long replacement time
 - Susceptible to pollution



Photo by Leslie Merrick

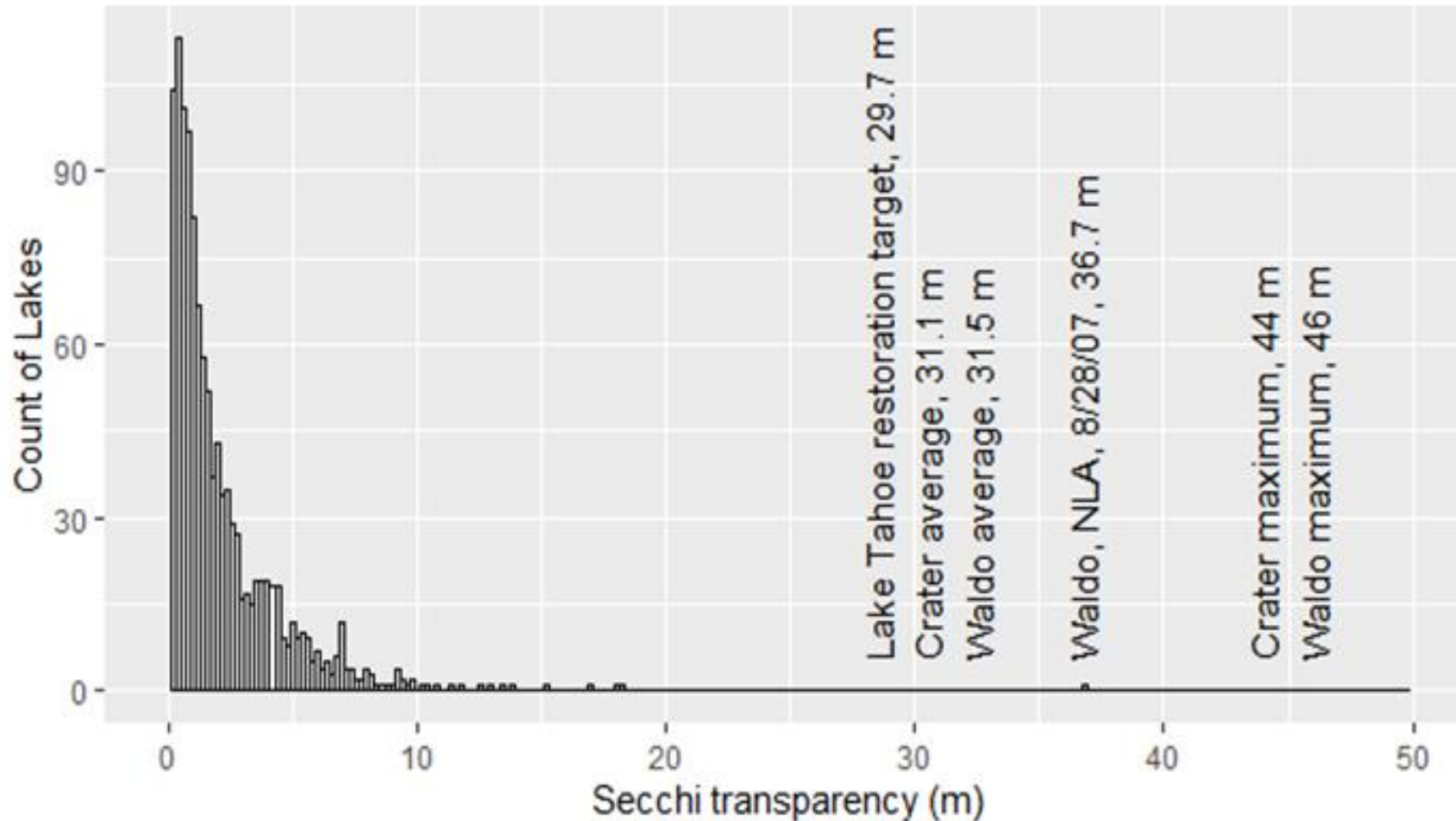
Secchi Depths of Selected Oregon Lakes.



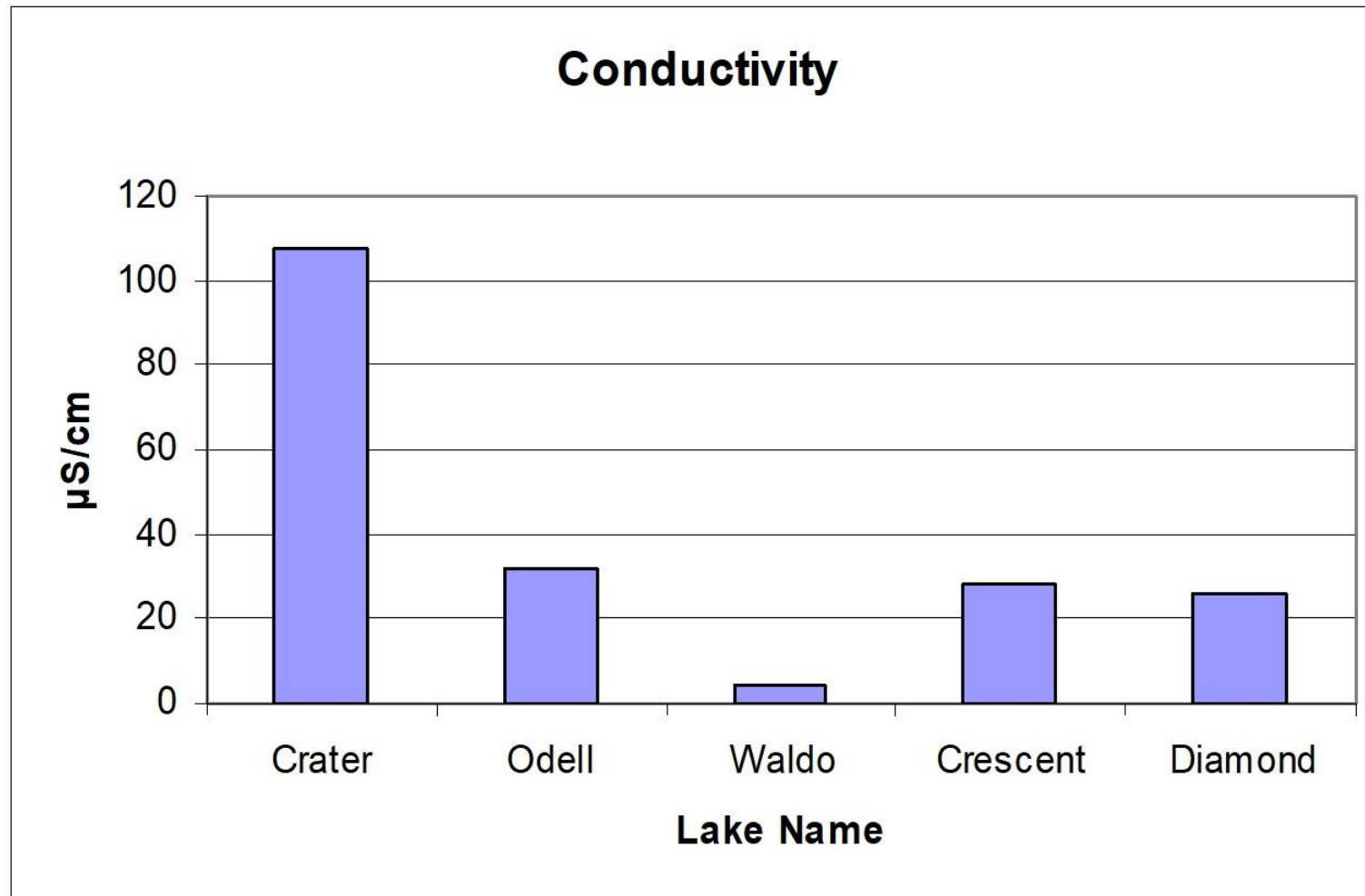
From data provided by Rich Miller, PSU Center for Lakes



Secchi Depths from the 2007 National Lakes Assessment



Water Quality



Research Opportunities



Ecological Value

- Leafy liverwort
- Amphibians
- Upland habitat for spotted owls, pine martens, Pacific fisher



Northwest Salamander

Recreation

- kayaking
- fishing
- swimming
- hiking
- mountain biking
- camping

Source of the *wild & scenic*
North Fork of Middle Fork
Willamette River



Current Protections

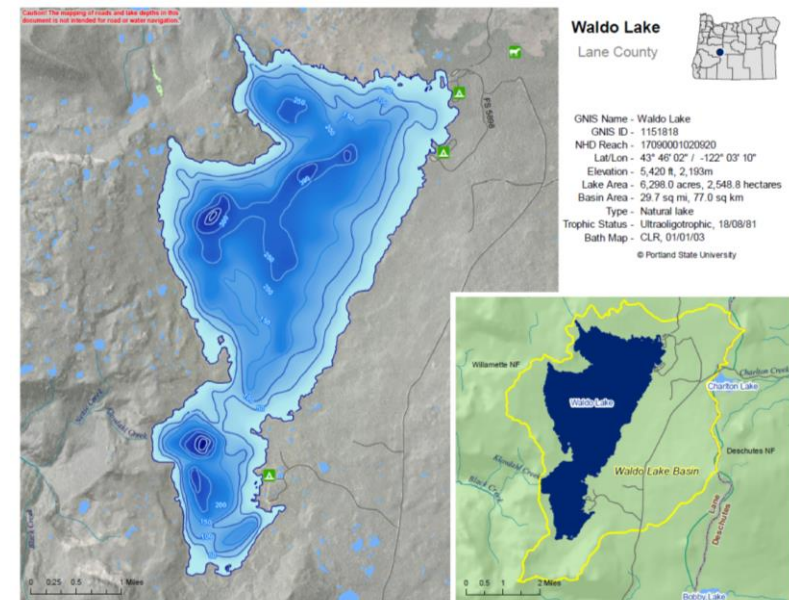
- ❖ Forest Service management goals
 - Wilderness and Roadless
 - Non-degradation
 - Recreation
- ❖ Gas-powered motor and float plane bans
- ❖ No fish stocking
- ❖ State Scenic Waterway

Findings

- Waldo Lake and its associated wetlands qualify as Outstanding Resource Waters based on their water quality, ecological, and recreational values.
- Proposed rule implements ORW policy
- State protection complements and supports USFS management goals

Proposed Protection Rule

- Prohibit new NPDES discharges.
- Prohibit activities that would degrade the existing water quality and ecological values.



Map courtesy Center for Lakes and Reservoirs, Portland State University

Proposed Rule Language

(7) Outstanding Resource Waters of Oregon (ORWs)

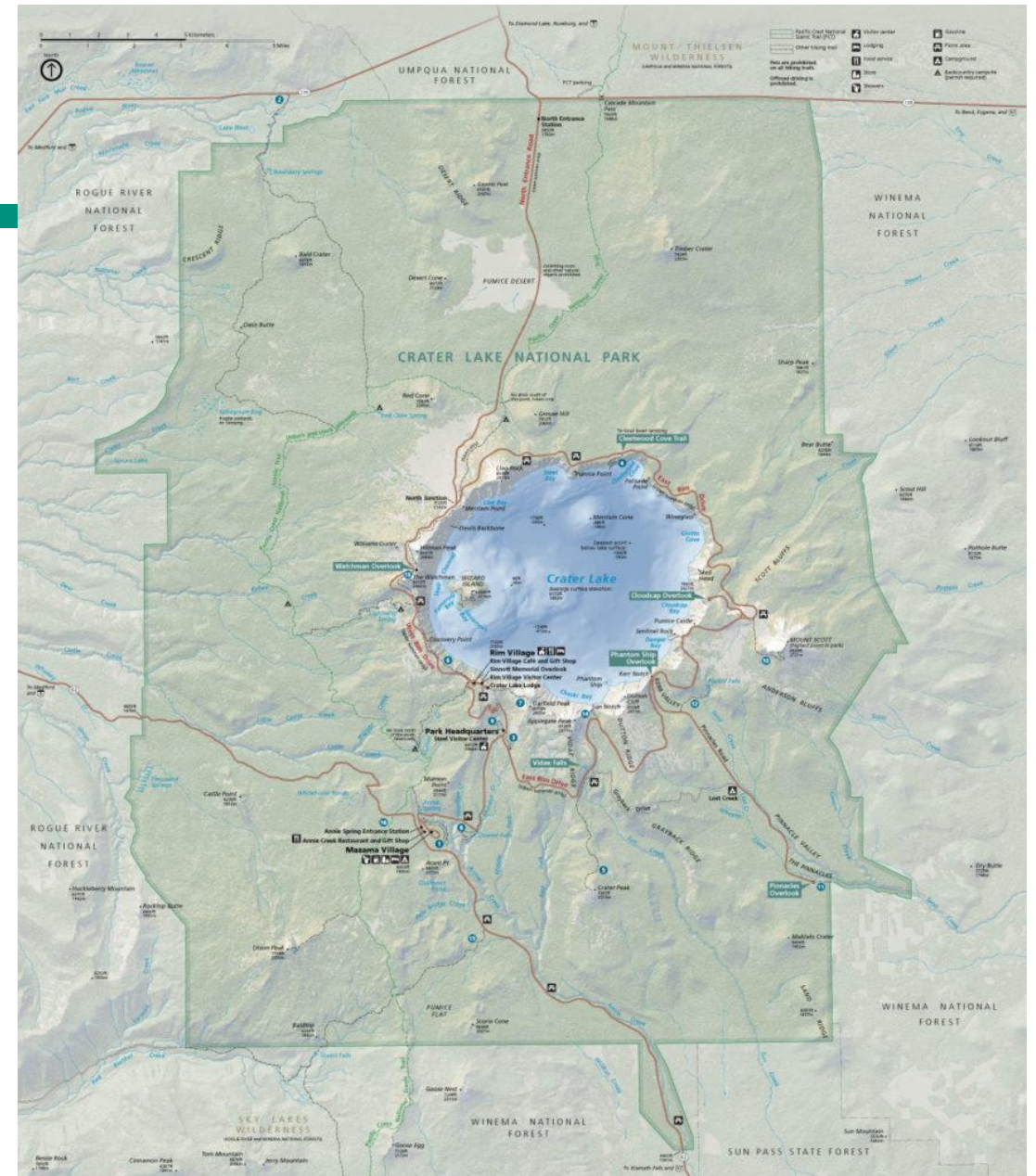
- (a) Waldo Lake and associated wetlands.
- (b) The current high water quality, exceptional ecological values, and existing and designated uses of the ORWs identified in this rule (“these waters”) shall be maintained and protected except as altered by natural causes.
- (c) No new NPDES discharge or expansion of an existing discharge to these waters shall be allowed.
- (d) No new NPDES discharge or expansion of an existing discharge to waters upstream of or tributary to these waters shall be allowed if such discharge would significantly degrade the water quality within these waters.
- (e) No activities shall be allowed that would degrade the existing water quality and ecological characteristics and values of these waters.



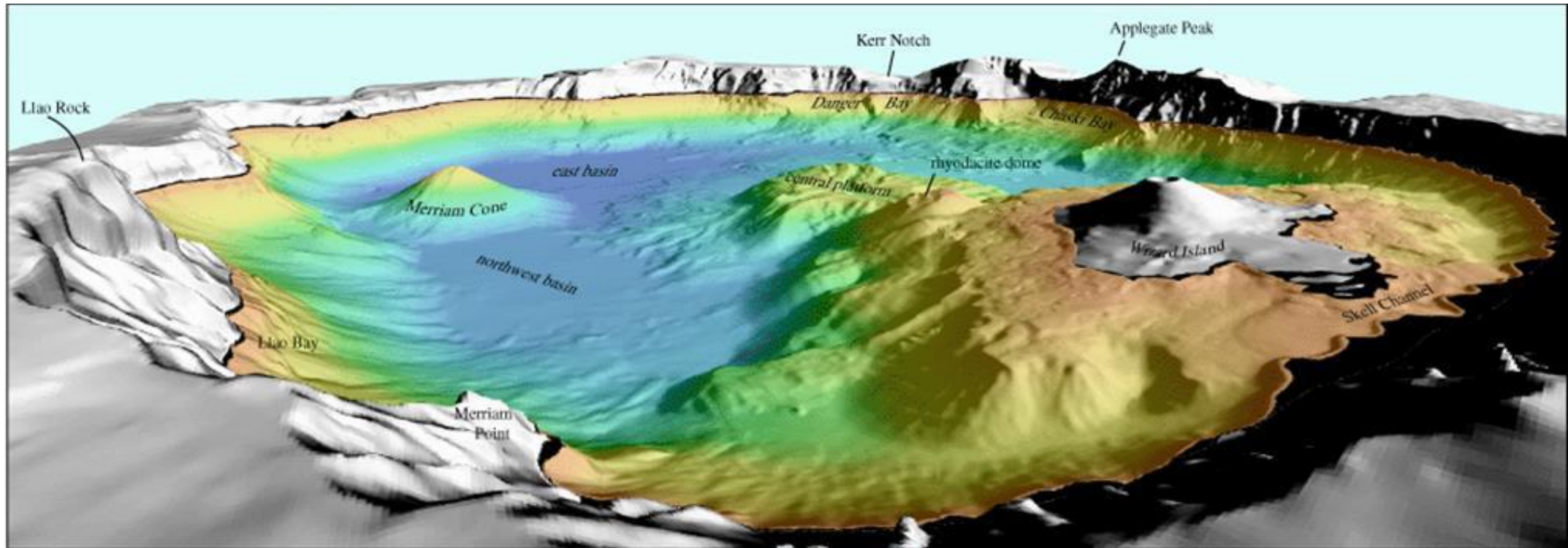
Crater Lake

Photo credit: Debra Sturdevant

Location



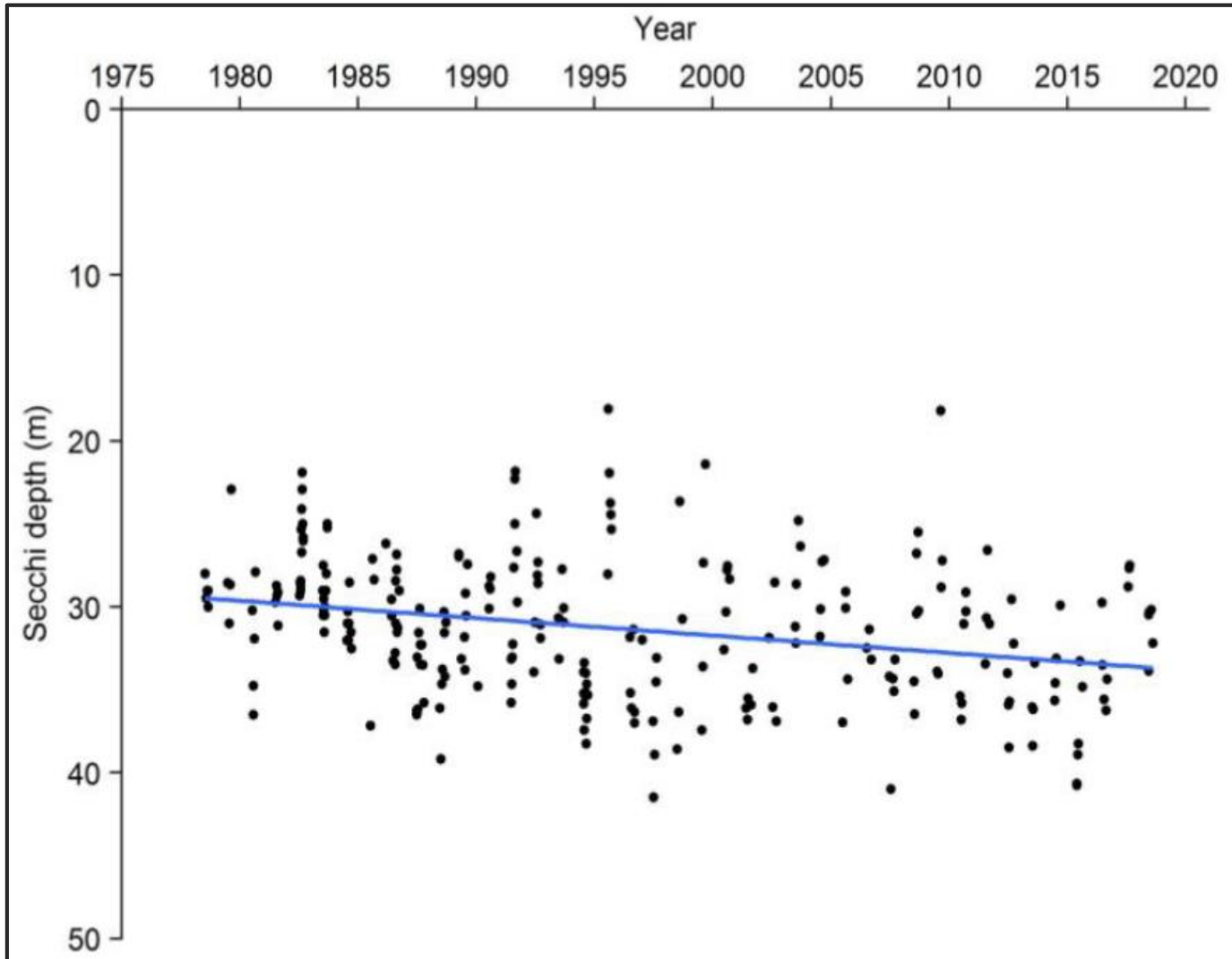
USGS shaded relief perspective image of Crater Lake looking southwest.



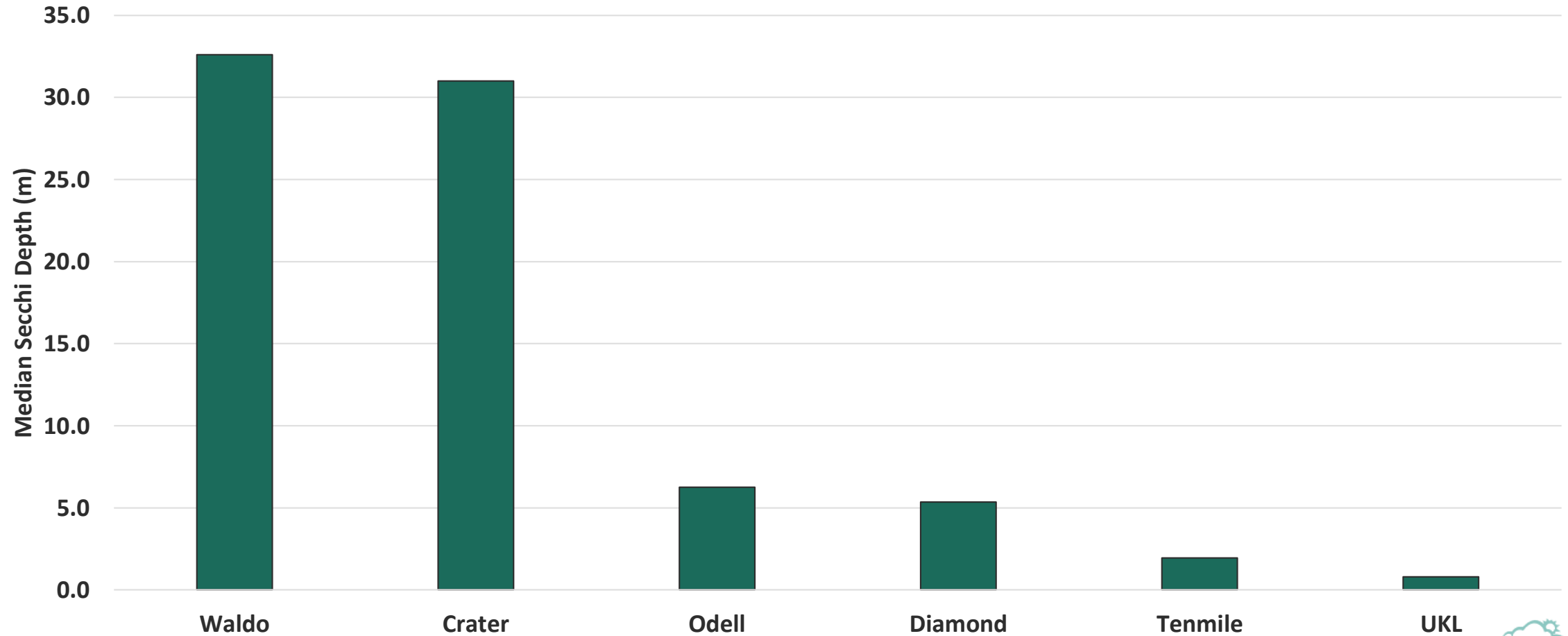
- In Mt. Mazama caldera, formed roughly 7700 years ago.
- Deepest lake in the United States

Water Quality

Extremely Clear and Un-Productive



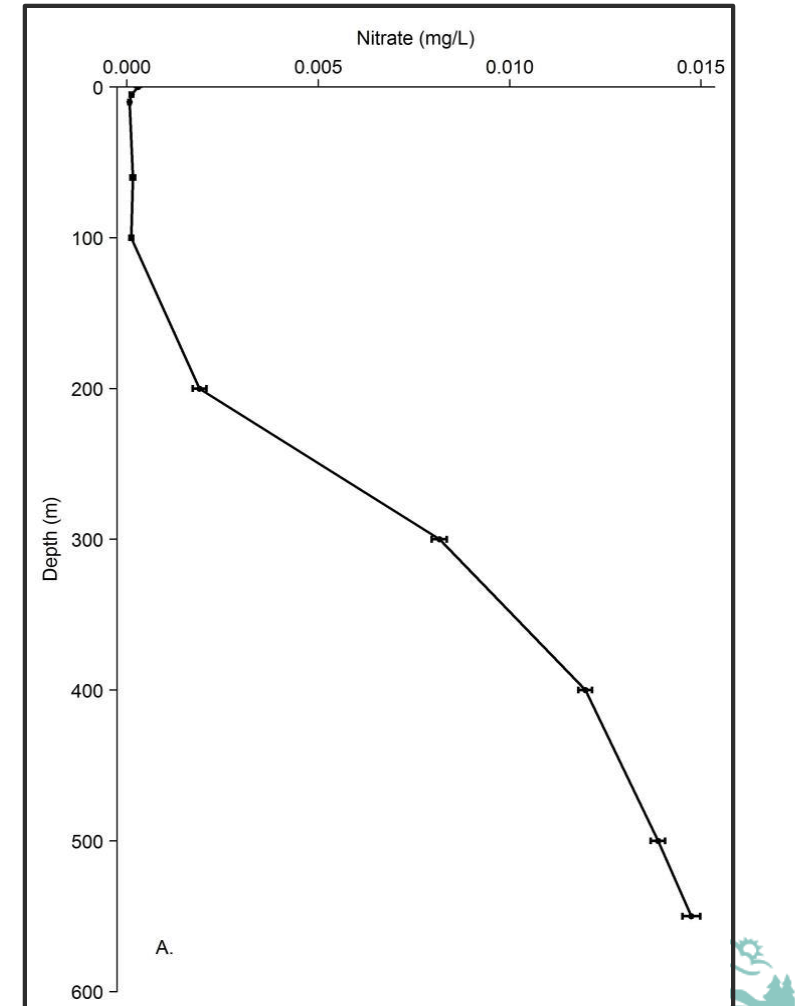
Secchi Depths of Selected Oregon Lakes.



From data provided by Rich Miller, PSU Center for Lakes

Water Quality

- No streams flow in or out
- Little transport of sediment or organic matter into lake
- Low levels of nutrients
- Low productivity (algal growth)



Ecology

- Mazama newt – endemic
- Two phytoplankton communities in summer, due to stratification
- Few taxa of zooplankton compared to other lakes



28 Researchers have noted the zooplankton community in Crater Lake is unusual because there are so few taxa compared to other lakes.

Research



Recreation



Photo credit: Debra Sturdevant



© *Dave Folts*

An aerial photograph of a large, deep blue lake, likely Crater Lake, surrounded by rugged, snow-dusted mountains. In the foreground, a snow-covered shoreline with scattered evergreen trees is visible. A prominent, snow-covered island with a forested peak sits in the middle of the lake. The water is a deep, clear blue, reflecting the sky and the surrounding landscape. The overall scene is serene and majestic, capturing the beauty of a high-altitude winter landscape.

Lake Management

Photo credit: Debra Sturdevant

Discussion Draft Rule Language

(6) Outstanding Resource Waters of Oregon (ORWs)

(a) Crater Lake.

(b) The current high water quality, exceptional ecological values, and existing and designated uses of Crater Lake shall be maintained and protected, except if altered by causes beyond the control of park management.

(c) No new NPDES discharge or increase of an existing NPDES discharge to Crater Lake shall be allowed, except construction stormwater permits for limited duration projects.

(d) Activities in and on Crater Lake and in the watershed shall be managed to protect and maintain the existing water quality of Crater Lake, except on a short-term basis to respond to public health and welfare emergencies, or to obtain long-term restoration or water quality improvements.

(e) The Environmental Quality Commission acknowledges the mandate of Crater Lake National Park to also manage the park for the purpose of providing public access and enjoyment.

Fiscal impacts from proposed rules

- No negative fiscal impacts are expected
- Possible positive impact on small businesses associated with recreation and tourism at Waldo Lake
- Did not identify added costs to USFS or NPS because the rules are consistent with current management goals to protect these lakes.



© Dave Folts

Email comments to: waldoorw2020@deq.state.or.us

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Public Comment

- July 15 – August 28, 2020 (4:00 pm)
- Testify at hearing today
- Email comments to: waldoorw2020@deq.state.or.us
- Mail comments to Debra Sturdevant
- The proposed rules and information may be found at:
[https://www.oregon.gov/deq/Regulations/
rulemaking/Pages/rwaldoorw2020.aspx](https://www.oregon.gov/deq/Regulations/rulemaking/Pages/rwaldoorw2020.aspx)