



LOOKING AHEAD

Charting a sustainable future for Oregon's hatchery system





Climate change, aging hatchery infrastructure, and increasing costs are making it more difficult for Oregon's hatchery system to meet fishery and conservation goals.

ODFW is seeking to proactively meet these challenges by conducting an assessment of the hatchery system, and examining how we can **adapt and invest for the future.**

The Department is collecting information to understand:



Economics

Financial sustainability, costs and benefits, funding models



Climate Vulnerability

Assessing the impact of climate change on hatchery infrastructure and programs, the need for these programs, and how can impacts be mitigated



Current State

Document the deferred maintenance needs at all facilities

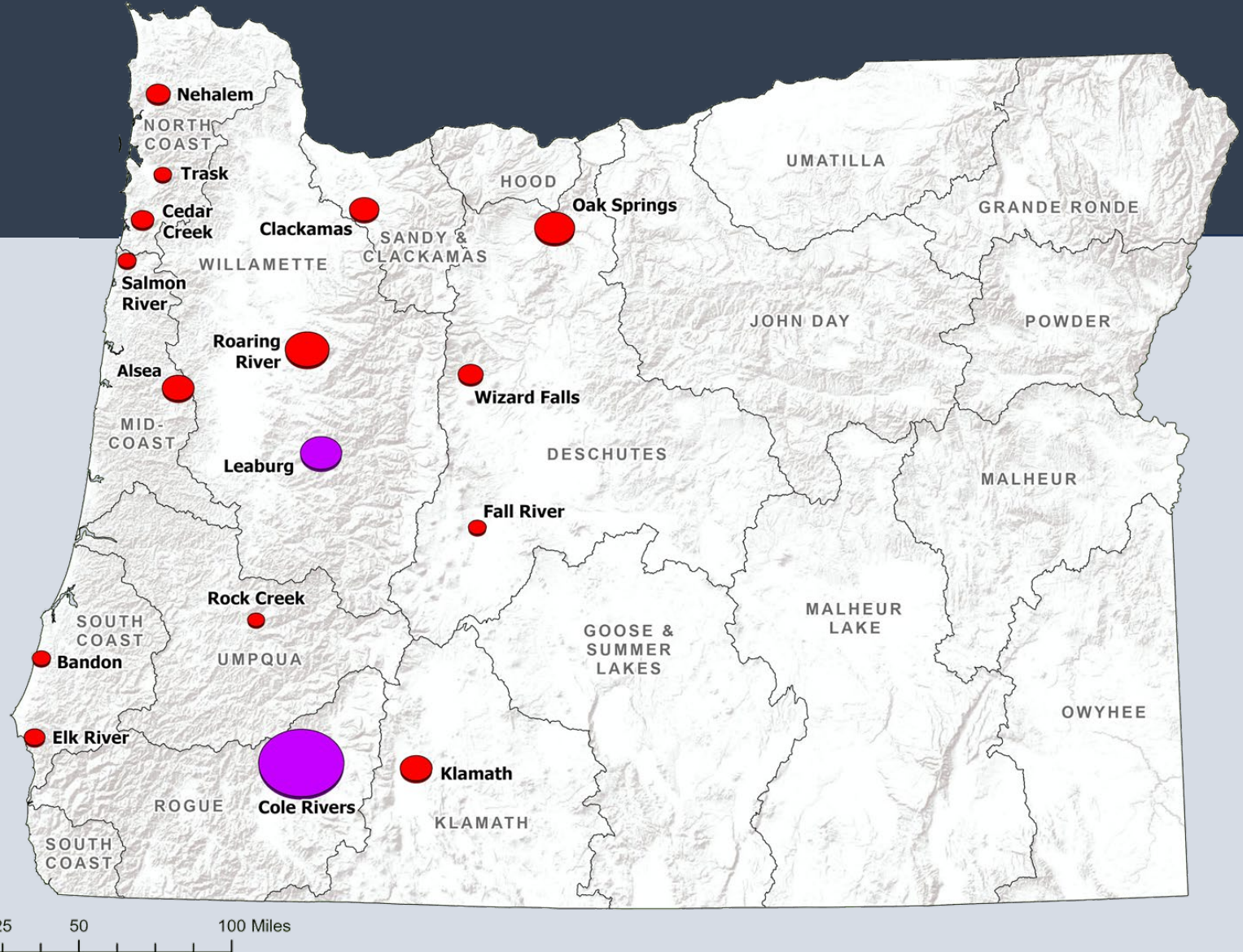


HATCHERIES

Under review

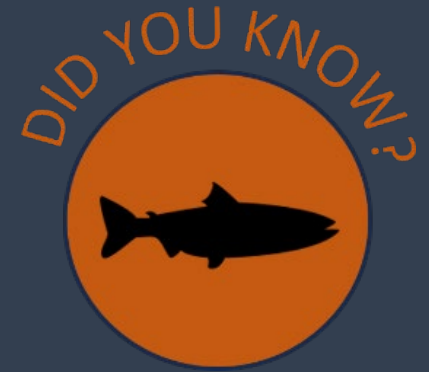
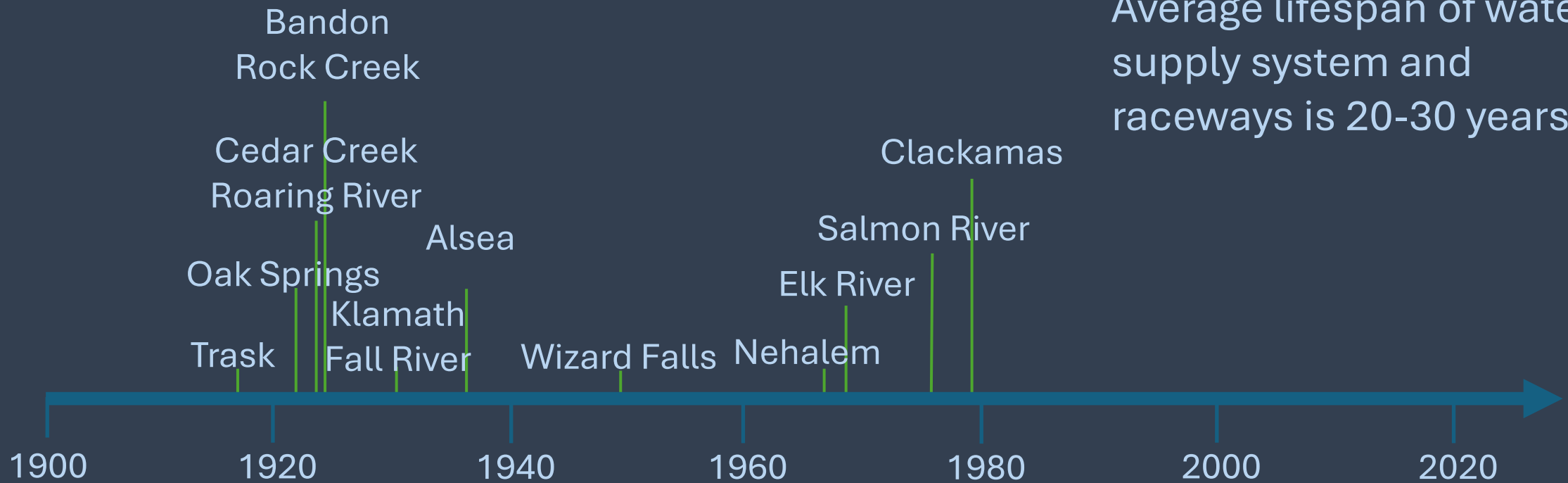
Focus on 16 facilities

- 14 state-owned
- 2 federally-owned



State Hatcheries –

Original construction dates



Average lifespan of water-supply system and raceways is 20-30 years

Key assumptions at time of construction



Stable environment

Abundant water, cool
temperatures



Minimal fire risk



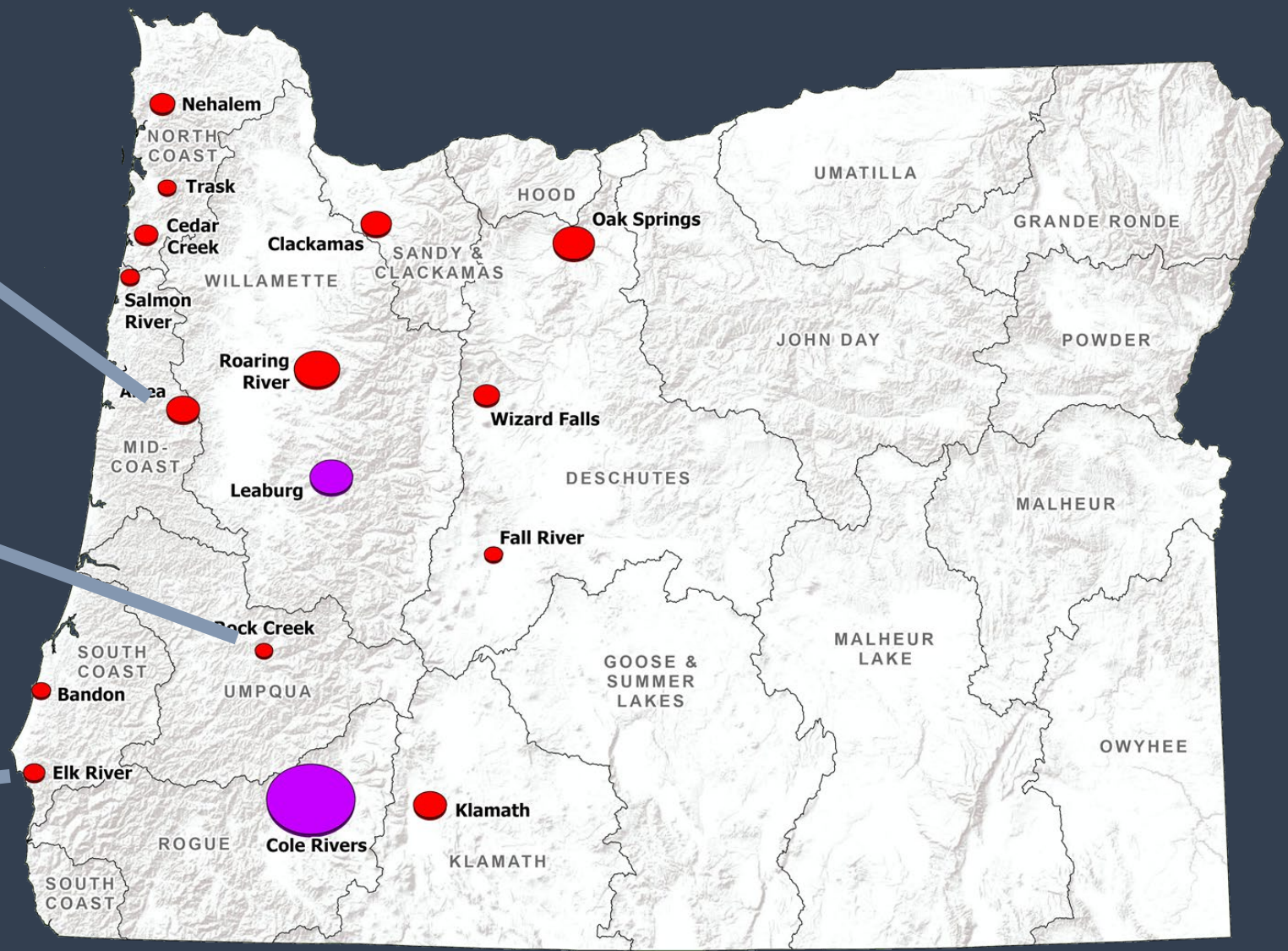
Reliable broodstock source

Temperature is expected to continue increasing

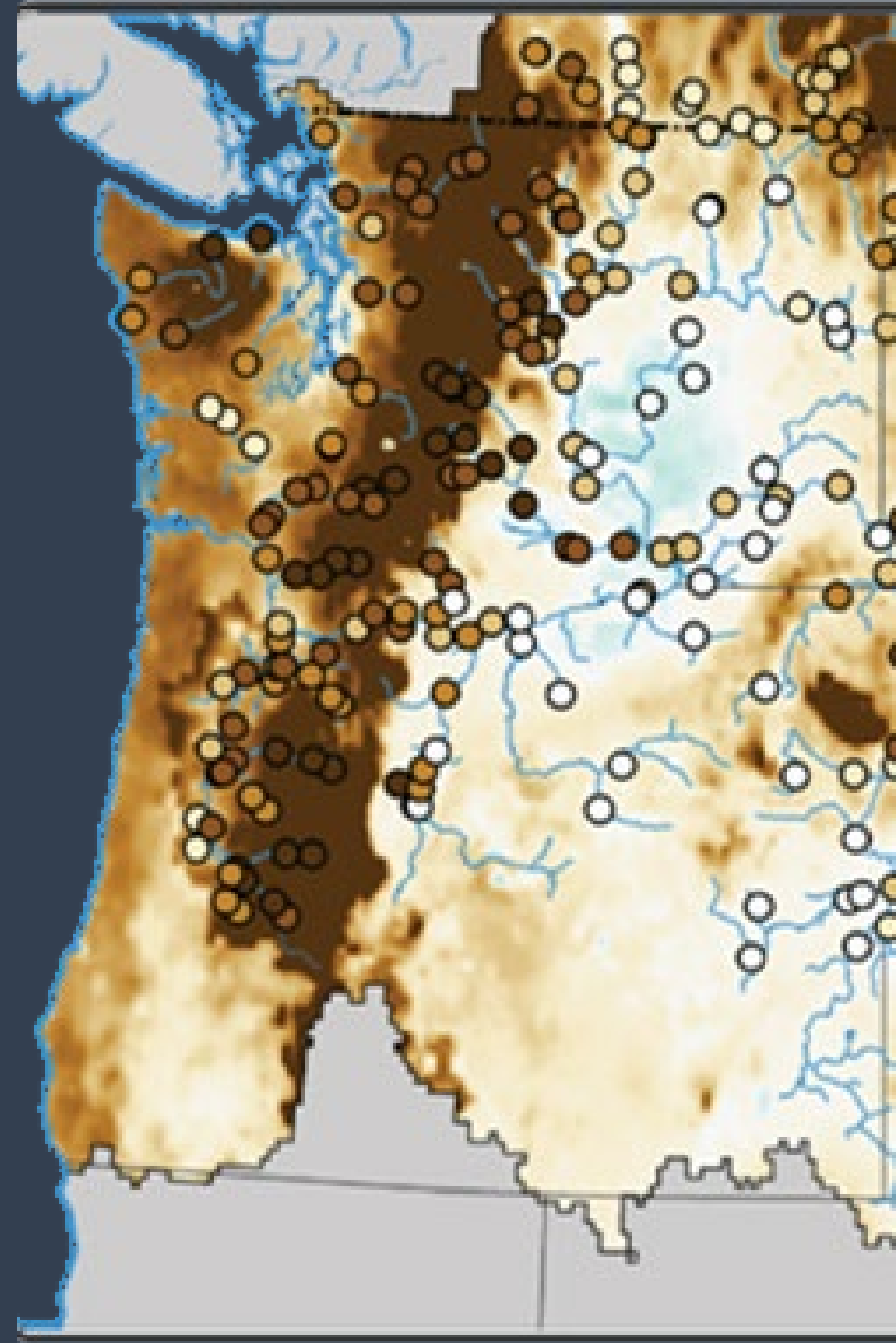
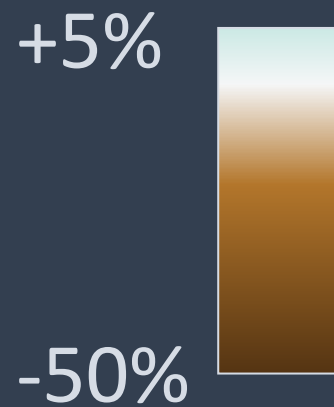
↑ **2.0°**
Alea Hatchery

↑ **4.0°**
Rock Creek Hatchery

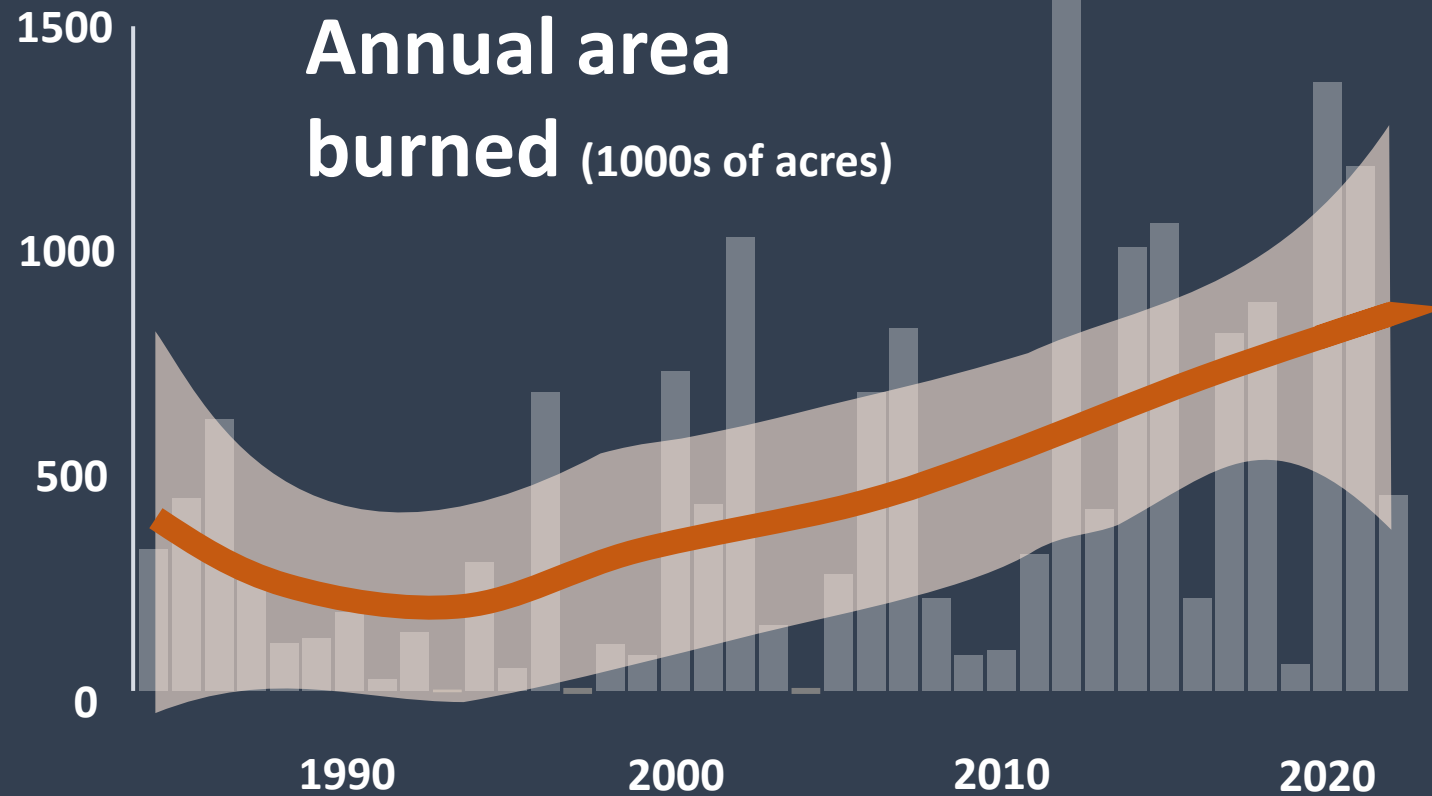
↑ **2.8°**
Elk River Hatchery

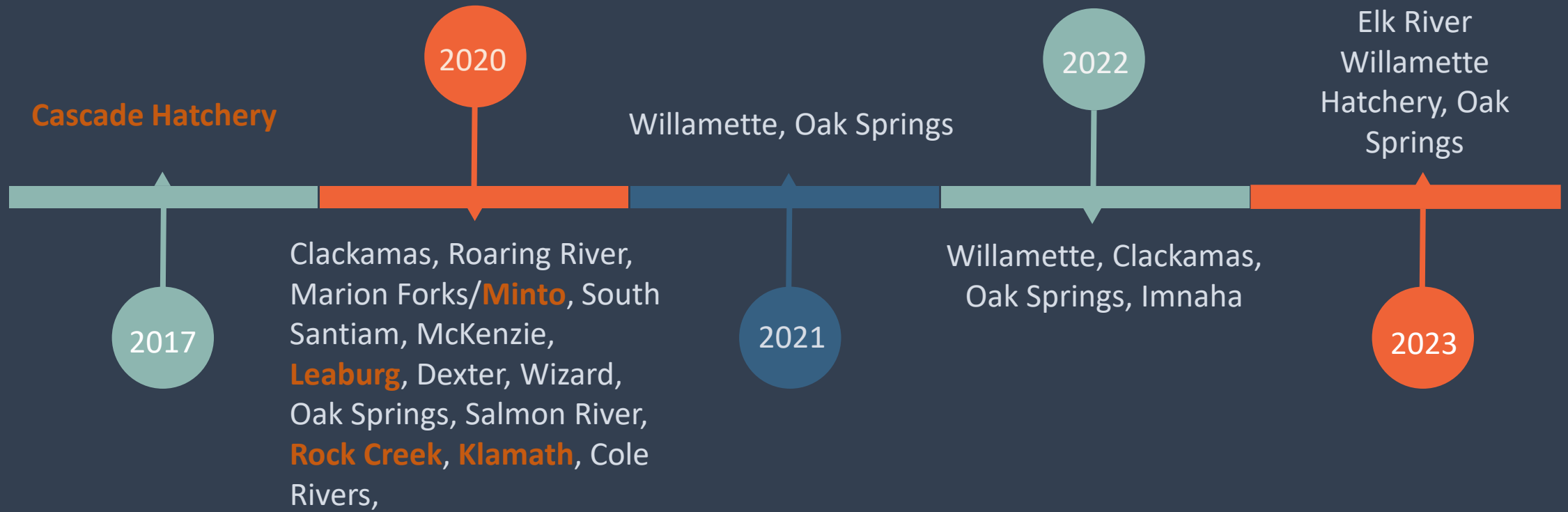


Streamflow is expected to continue decreasing



Fire activity is increasing in Oregon....





...and impacting fish, infrastructure, staff, and water quality

Webinar series

The Department of Fish and Wildlife was directed to procure a third-party assessment of the operations, sustainability, and climate vulnerability of state-owned fish hatcheries.

Today



Future need for hatchery programs

Aug. 8



An economic cost-benefit analysis. Funding models and financial sustainability



Impact of climate change on hatchery stocks

Aug. 15



Infrastructure assessment, (deferred maintenance, vulnerabilities, mitigation measures, alternatives etc)



Planning and policy context for management of the hatchery system



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Future need driven by:

Wild fish status

Expectations about need for supplementation and/or reintroduction

Expectations about ability of wild populations to support harvest

Ongoing or new habitat impacts

Expectation for ongoing presence of dams and or new impacts that require mitigation

Angler Demand

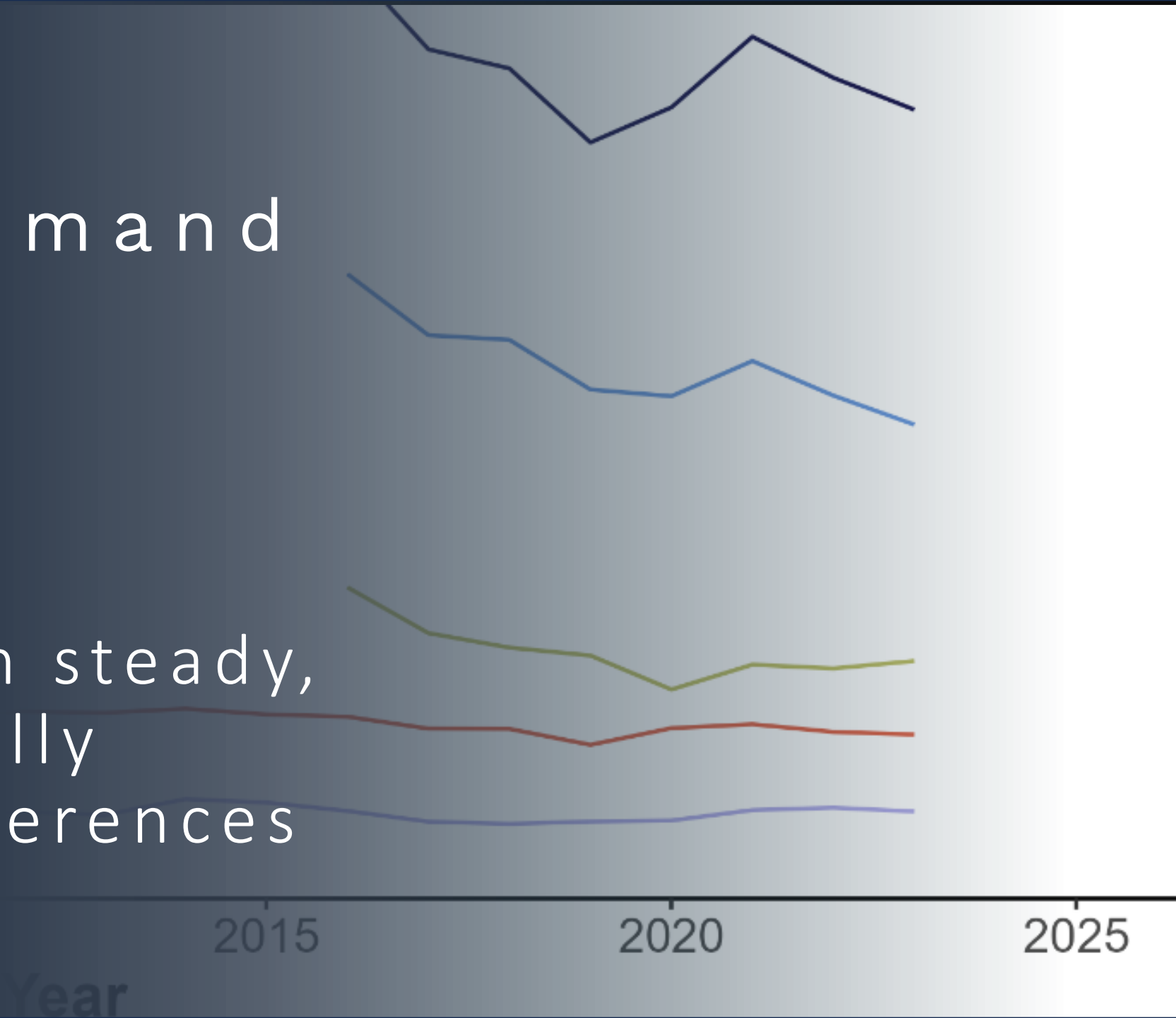
Trends in license and tag sales that indicate demand or shifts in preference





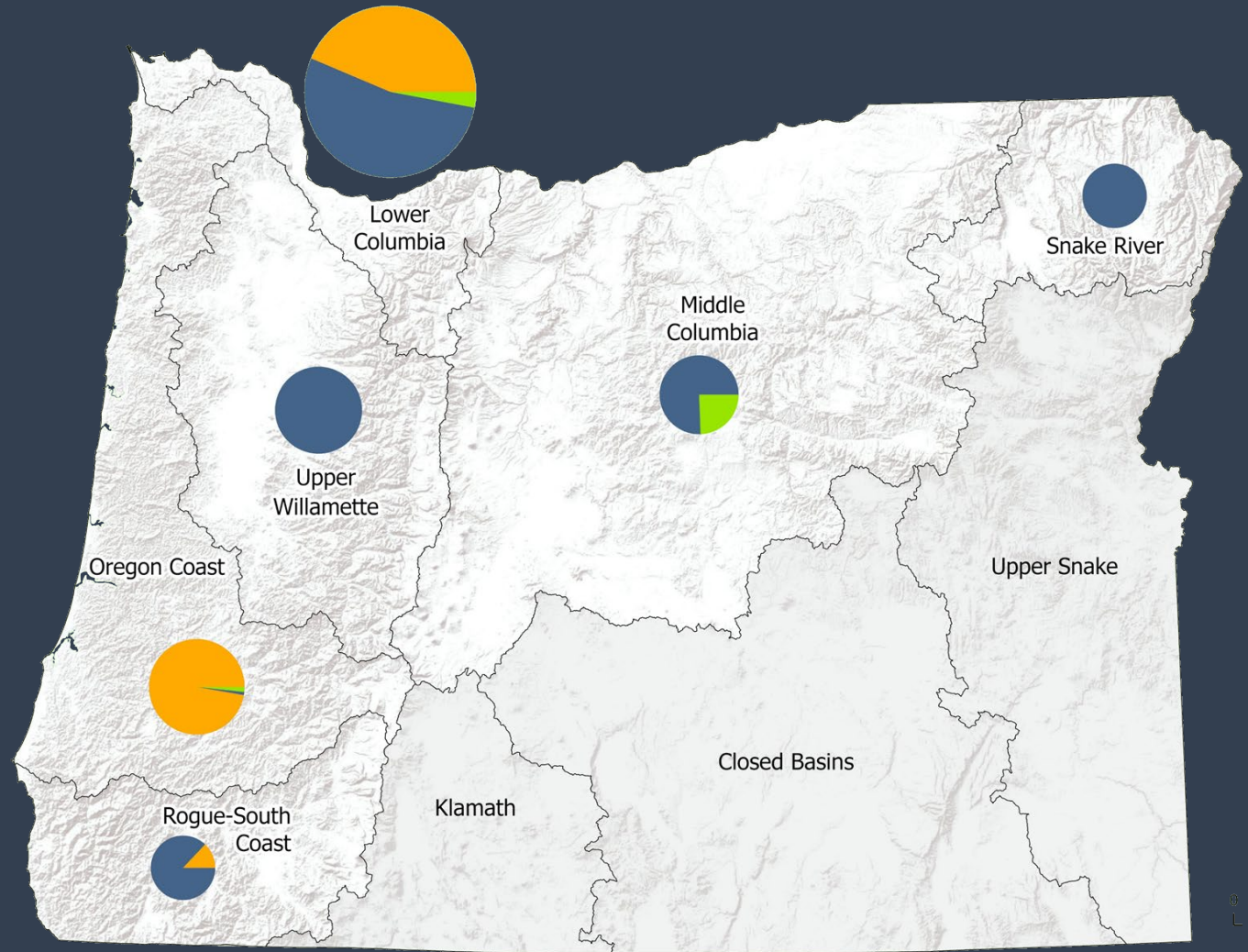
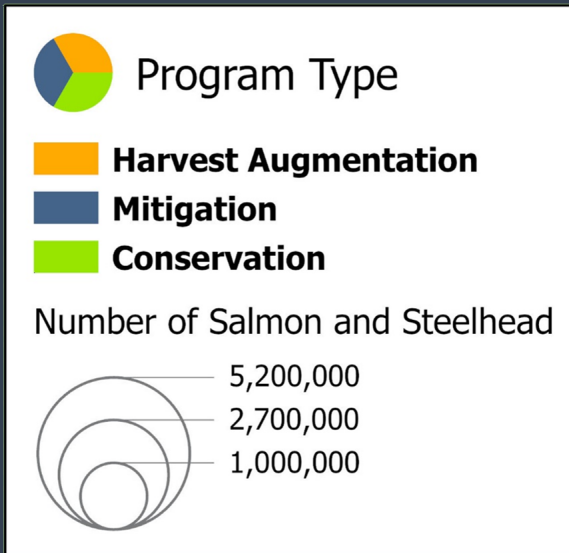
Angler Demand

Participation steady,
but potentially
shifting preferences





Existing Program Types

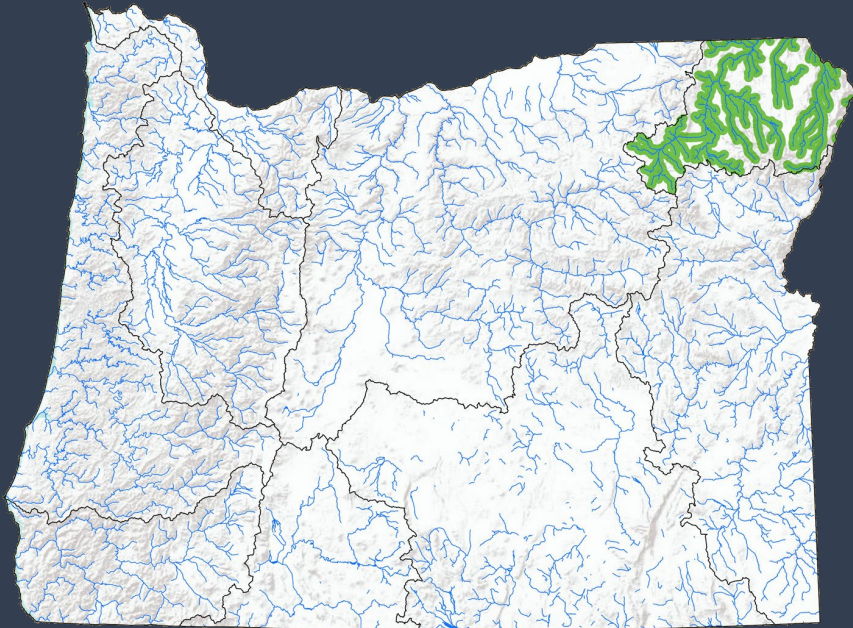




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Snake River

Likely future need for hatchery programs



Mitigation

Harvest
Augmentation

Conservation

Fall Chinook **yes**

increasing

Spring/summer
Chinook **yes**

yes

Steelhead **yes**

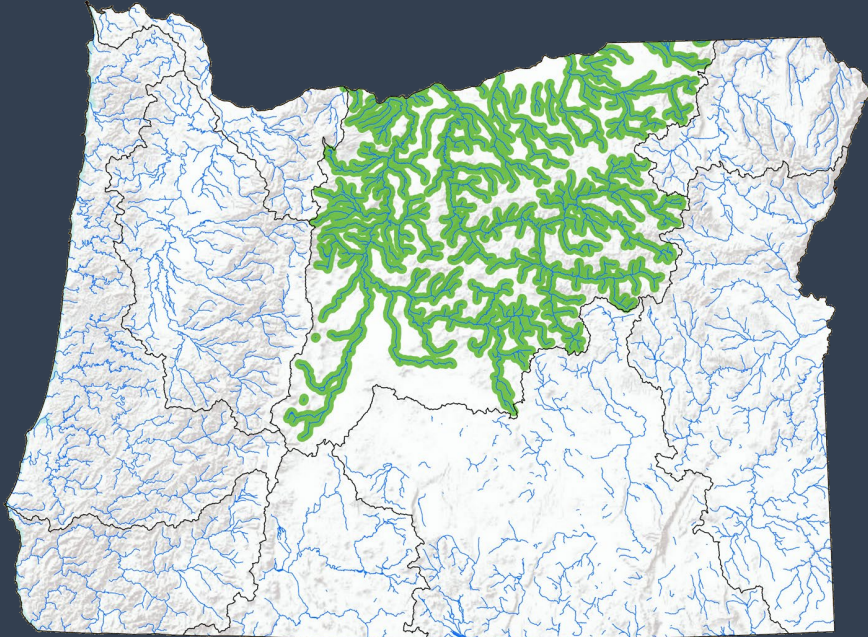
yes



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Middle Columbia

Likely future need for hatchery programs



Coho

yes

?

Fall Chinook

yes

?

Spring Chinook

yes

yes

Steelhead

yes

yes

Mitigation

Harvest
Augmentation

Conservation



Lower Columbia

Likely future need for hatchery programs



	Mitigation	Harvest Augmentation	Conservation
Coho	yes	yes	increasing
Fall Chinook	yes	yes	increasing
Spring Chinook	yes	yes	yes
Chum	no	n/a	yes
Winter Steelhead	yes	yes	increasing
Summer Steelhead	no	yes	increasing



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Willamette

Likely future need for hatchery programs



Mitigation

Harvest
Augmentation

Conservation

Spring Chinook

yes

increasing

Steelhead

yes

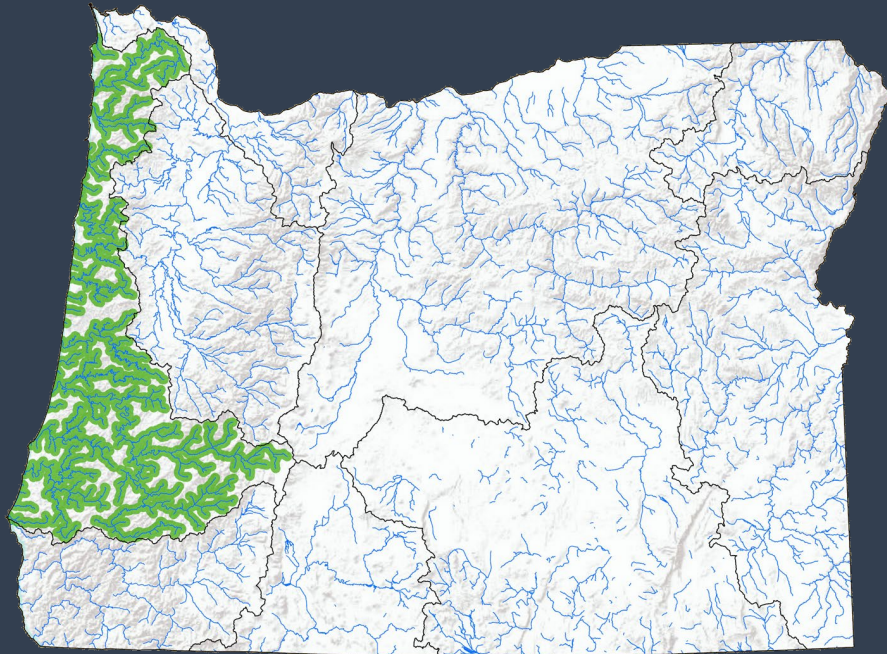
Increasing



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Oregon Coast

Likely future need for hatchery programs



Mitigation

Harvest
Augmentation

Conservation

Coho ***

yes

yes

increasing

Fall Chinook

no

yes

yes

Spring Chinook

no

yes

increasing

Chum

no

n/a

?

Winter Steelhead

no

yes

no

Summer Steelhead

no

yes

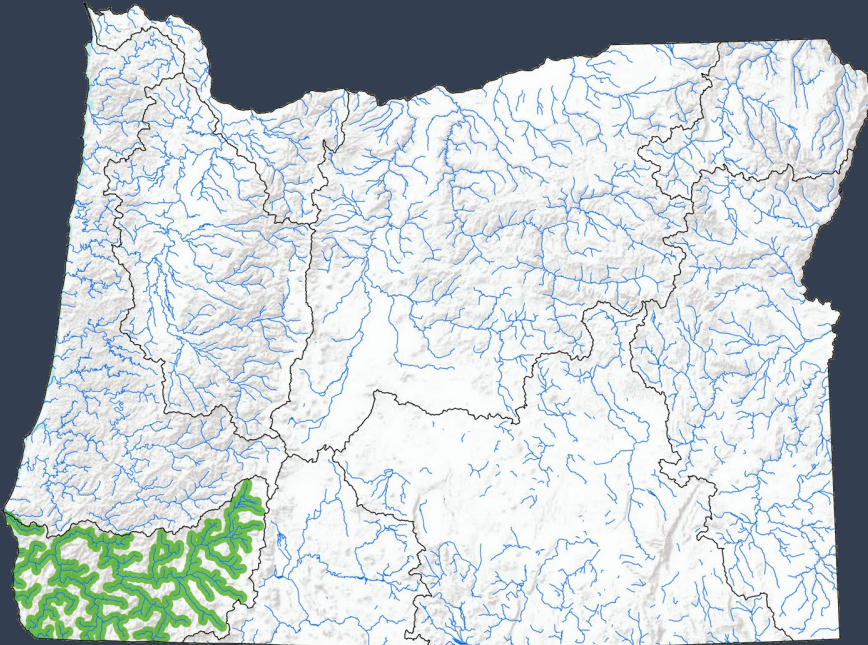
increasing



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Rogue-South Coast

Likely future need for hatchery programs



Mitigation

Harvest
Augmentation

Conservation

Coho

yes

increasing

Fall Chinook

no

yes

?

Spring Chinook

yes

?

Winter Steelhead

yes

yes

no

Summer Steelhead

yes

no

Take-homes



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Contractor assessment indicates no change in need for mitigation programs and some increasing need for harvest and conservation programs based on expected declines in wild fish status in some areas