HB 3932: Improving Oregon's Water Quality Using Beaver: Natural Ecosystem Solutions

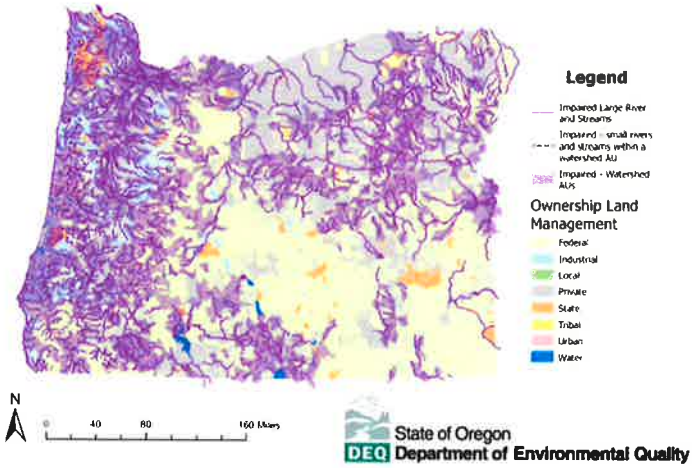
THE PROBLEM: Most of Oregon's waterways struggle with water quality issues, with many deemed "impaired" by the Department of Environmental Quality (DEQ).

- There are 310,464 miles of big rivers and small streams in Oregon, of which only 46% have been assessed for water quality data and 106,390 miles have been deemed impaired (Category 4 and 5 of DEQ's water quality classification).
- To restore impaired waterways, DEQ needs to be develop TMDLs (Total Maximum Daily Load assessments) for each waterway. But TMDLs are expensive, and DEQ lacks resources to develop and implement a TMDL for every stream and watershed that needs one. As a result, most streams continue to stay impaired in Oregon.

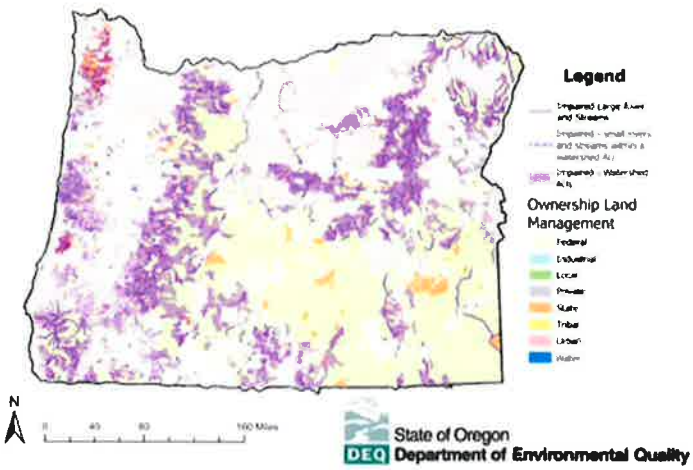
WHY BEAVERS? One of the most important ecosystem services that beavers provide is in addressing water quality issues.

- Based on the DEQ's current data, the primary factors for a waterway to be deemed impaired are: high water temperature, sedimentation, dissolved oxygen level, bio-criteria (health of invertebrates and shellfish) toxins (along the coast).
- Scientific research and literature has shown that beaver dam complexes and floodplains help to address four of these top five factors – they are nature's solution, and they tackle these issues free of charge.

Impaired Waters in the Entire State



Impaired Waters on State and Federal Lands



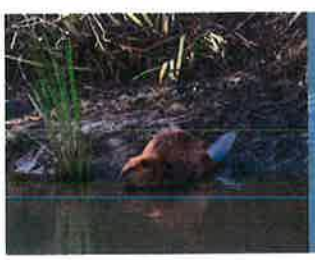
WHAT DOES HB 3932 DO?

- It proposes beaver hunting and trapping closure in waterways on public lands the DEQ classifies as impaired so they can provide the ecosystem services and improve water quality.
- Beavers cannot prevent streams from becoming impaired but they are a nature based solution to treating impaired waters.
- The bill does not apply to private lands and it allows for take of beaver on public lands in instances of damage caused by beavers on adjacent private lands.
- It allows for opening the hunting and trapping closure if a stream or river is no longer deemed impaired by DEQ.

CURRENT BEAVER HARVEST ON PUBLIC LANDS

- ODFW's 2024 data shows state and federal public lands combined accounted for only 4% of reported beaver harvest.
- This bill is NOT about limiting beaver harvest and increasing beaver population. Instead, this bill would enable beavers to access waterways where they need to be and remain long enough to perform their ecosystem functions without getting trapped out.
- Less beaver harvest reported on public lands is likely due to low beaver presence on public lands.

Contact: Rep Pam Marsh | Rep.PamMarsh@oregonlegislature.gov



HB 3932
Frequently Asked Questions

Question: Why do some areas that have had beaver closure for a while still contain impaired waterways?

As proposed in this bill, beavers are one new tool in DEQ's toolbox to treat impaired waterways but they cannot prevent the external factors causing degradation in the first place. For e.g. in some of the areas with existing closures, logging and grazing continue to be the main factors contributing to stream impairment. While beavers can help improve water quality, the sources of degradation will also need to be addressed. HB 3932 proposes beaver as a part of the solution and not prevention. Closures and restoration efforts have to work in tandem to address causes of water quality degradation.

Question: What scientific evidence exists that beaver dams can help address water quality issues?

Based on the data DEQ currently has, the four main factors for a stream to be classified as "impaired" are: high water temperature, sedimentation, dissolved oxygen level, bio-criteria - health of invertebrates. There is scientific evidence and literature on how beaver dam complexes and floodplains can help address these factors. Reference to such academic research includes:

Beaver: The North American Freshwater Climate Action Plan (hyperlinked)
The impact of beaver dams on distribution of waterborne Escherichia coli and turbidity in an agricultural landscape (hyperlinked)
Who Does it Best? Engineers vs Beavers in a Stormwater Treatment Facility (hyperlinked)
The Effect of Beaver Dam Removal on Total Phosphorous Concentration in Taylor Creek and Wetland, South Lake Tahoe, CA (hyperlinked)
Beaver: Nature's Ecosystem Engineer (hyperlinked)

Question: Does the legislature have authority and precedence to make wildlife harvest regulation changes?

Under Oregon law, wildlife is held in trust by the state for the benefit of all citizens (see ORS 496.012). When commissions are unresponsive to environmental need, the legislature has both the authority and the duty to intervene. Historical examples specifically related to species harvest include:

2023 - HB 3464 - statutory change in the beaver classification on private lands that impacted their hunting or trapping on private lands.
2022- HB 4072 - Eliminates one-day angling license
2019 - HB 2068 - Increases percentage of nonresident tags issued for hunting of black bear and cougar within particular area that may be issued by drawing
2015 - HB 2534: legislature directed ODFW Commission to prohibit use of drones, bait and lights in hunting or trapping
1977 - bobcat received legal protection as a furbearer by legislative action

Question: Is poor habitat on public lands the reason for less number of beavers on public lands, and how can closures help with that?

Degraded habitat is a challenge on public lands, but it only points to why it is even more important to retain the beavers we have there so beaver based restoration can take place. At the same time other restoration efforts need to continue to create beaver suitable habitats so beavers are more likely to move in. Restoration does not negate the importance of closures or vice versa - we are putting millions of dollars into restoration efforts but without closures their effectiveness will remain questionable.

Contact: Rep Pam Marsh | Rep.PamMarsh@oregonlegislature.gov