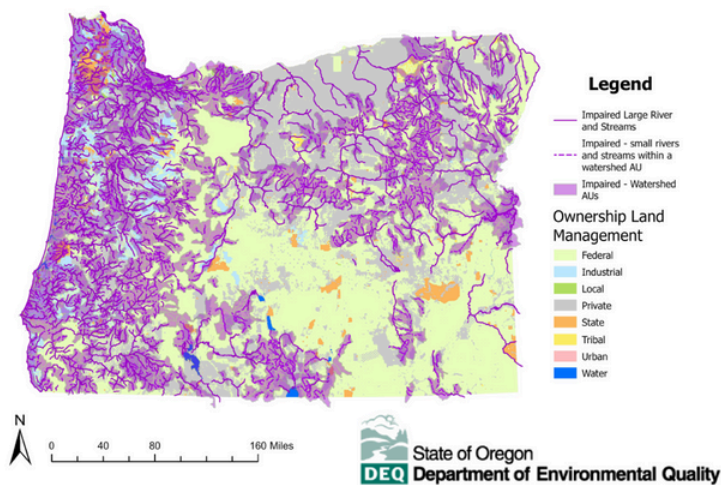


Vote YES on HB 3932: Improving Oregon's Water Quality Using Beaver

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 more than 106,000 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.

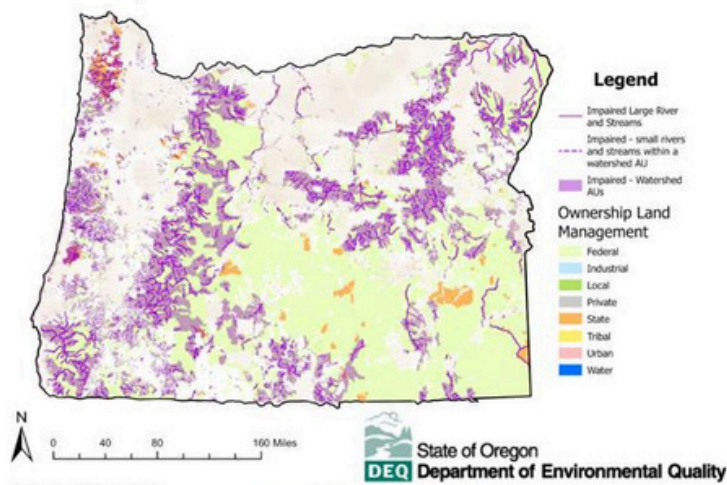
Impaired Waters in the Entire State



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 on State and Federal Lands



WHAT DOES HB 3932 DO?

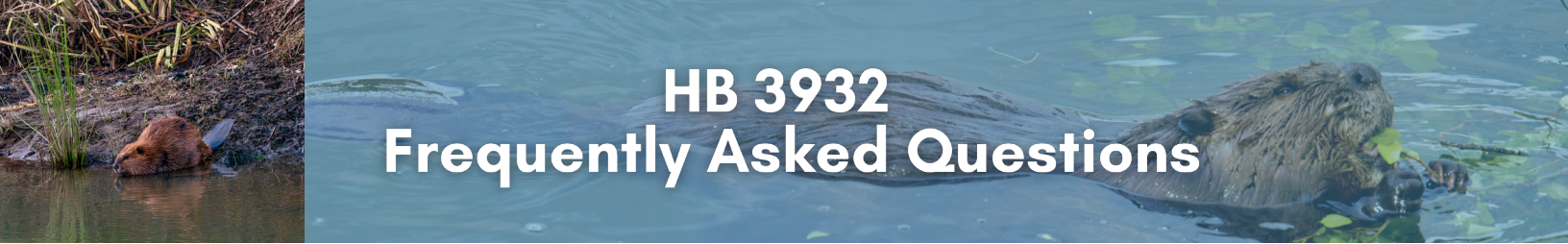
- It proposes beaver hunting and trapping closure in waterways on public lands the DEQ classifies as impaired so they can provide the ecosystem services and improve water quality.
- Beavers cannot prevent streams from becoming impaired but they are a nature based solution to treating impaired waters.
- 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.

Supporters of HB 3932





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?

HB 3932 brings two agencies together – DEQ and ODFW – that otherwise wouldn't happen. DEQ does not monitor or manage beavers, ODFW's mandate isn't addressing water quality issues. This bill pulls the strength of two agencies to work together and address a major problem in Oregon. Additionally, 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.

Beaver dams: A natural pollution solution

Beaver dams improve water quality by using physical, chemical, and biological methods in two lines of defence. Initially, pollutants are removed as **(1) water entering the pond slows down** and again as **(2) water is filtered through the dam**.

As rainwater flows across the landscape it can pick up a variety of pollutants from urban, industrial, and agricultural sources. Pollutants accumulate in streams where they threaten the health of ecosystems and humans. For instance, the residue left on roads by car tires is responsible for a toxic chemical capable of killing coho salmon. Although many human-engineered facilities exist to improve water quality, promoting nature-based solutions can save time, energy, and money while preserving the function and beauty of natural landscapes.

In flowing water, negatively charged soil particles and positively charged pollutants are attracted to each other like magnets.

① WATER SLOWS AS IT ENTERS THE POND

Slow water no longer has enough energy to carry sediment and it settles to the bottom, taking pollutants with it.

The sediment behind the dam does not become toxic thanks to microbes that consume and transform pollutants like pesticides into forms that are less harmful.

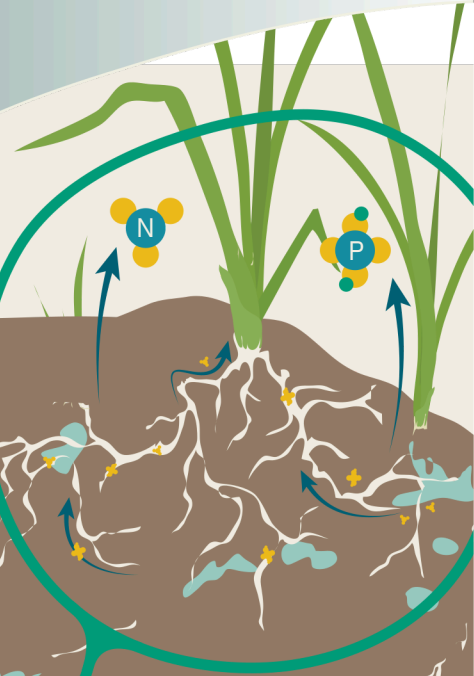
BENEFICIAL BACTERIA + PESTICIDES → LESS-TOXIC BYPRODUCTS

② WATER IS FILTERED AS IT CROSSES THE DAM

Large pollutants are trapped within the sticks, roots, and soil pores of the dam.

The negatively charged soil in the dam traps positively charged pollutants like copper, zinc, and lead as the water flows through.

Zn⁺⁺ Cu⁺⁺ Pb⁺



The plant roots and microbes in the dam take up and trap chemicals. Wetland plants also remove excess nutrients.

Can dams be used without beavers?

A beaver dam without any beavers will not clean the water for long. With each heavy rainfall, flows can erode sediments, wash away wood, and new paths around or through the dam. Beavers work continuously to maintain and repair their dams. Fortunately, there are many coexistence tools that make it easier to accommodate both beavers and their dams.

For more information and references visit: projectbeaver.org

