

Grays Harbor Tributaries Ecological Region Overview

What are important/unique features and functions within this Ecological Region?

- The amount of tidally influenced freshwater wetland with Sitka forest is unique in the Chehalis Basin, and much different from the deciduous-dominated forest in the Chehalis River Tidal Ecological Region.
- The maritime climate provides a year-round buffer to air temperatures.
- The Humptulips Basin characteristics are important and unique: smaller percentage of the total length in tidewater, substantial spawning gravel, and close proximity to the ocean. Old-growth forest in the upper Humptulips has no duplicate in the Chehalis Basin except in small portions of the upper Wynoochee and Satsop.
- This Ecological Region supports multiple salmon species and lamprey.
- This Ecological Region is characterized by several species that are either not seen or rarely seen elsewhere in the Basin, including bull trout and eulachon, both of which are federally listed as threatened under the Endangered Species Act.
- Stillwater-breeding amphibian habitats seem limited at all elevations. This Ecological Region may be the only place in the Basin where the Cascade frog occurs. Some of the best stream-breeding and stream-associated amphibian habitats also occur in the headwaters of the Humptulips.
- Treed tidal slough areas of this Ecological Region are important habitat for the bird indicator species—great blue heron, barrow's goldeneye, and wood duck.

What is working? What is broken?

- This Ecological Region is lacking wood and stable gravel. River habitat conditions are influenced by a legacy of logging, including splash dams that fundamentally altered instream habitat. In addition, local extraction of river resources (e.g., wood debris, gravel) appears to be prevalent. This has resulted in many reaches that lack complexity.
- The lower end of the tidal reach of the Humptulips is in very good condition, except for invasive plant infestations. The condition of the delta of this watershed is an unusual feature; there has been essentially no agricultural conversion and little development. The availability of this feature could help magnify any fish benefits associated with habitat improvements in freshwater habitat.
- Lower tidal reaches of the Hoquiam and Wishkah rivers are within Aberdeen and Hoquiam and have been heavily modified.
- Sea level rise will significantly alter the lower reaches of these systems.
- Municipal and industrial water supply dams are on the Hoquiam (West Fork, Davis Creek) and Wishkah (Malinosky Dam) rivers. Fish passage and water quality issues are believed to exist, and owners have limited resources to address issues.
- There are invasive exotic plant species including reed canarygrass.

What are your thoughts about some of the protection and restoration strategies and actions we feel are important for this Ecological Region?

- Protect areas, including stream lengths with properly functioning riparian areas and remaining old-growth, especially in the Humptulips Basin. These areas provide critical summer rearing habitat for juvenile salmon and steelhead currently as well as under future climate change scenarios.
- Protect intact tidal marsh habitats.
- Add wood throughout the instream areas above tidal influence.
- Restore wider riparian buffers, especially in the Humptulips Basin.
- Develop a strategy to integrate hatchery and natural production, which could help accelerate recovery of wild populations.
- Correct dam issues on the Hoquiam and Wishkah rivers.
- Develop a strategy for addressing knotweed.
- Develop demonstration projects for key restoration actions that can also address the importance of educating local populations. Key projects would include land acquisition/easements in the ecological corridor, instream wood and logjams, floodplain and riparian reforestation, and urban creek restoration.
- The Humptulips River has significant harvest and hatchery activities; any restoration actions will have to consider these activities.
- Research the remnant run of spring-run Chinook salmon in the Humptulips River and protect important holding areas.



The lower tidal reach of the Humptulips River is in relatively good condition, except for significant invasive species issues. The Humptulips estuary should be protected and restoration should be conducted to address invasive species.



Natural large wood is only present in a few protected locations in the upper West Fork Humptulips River. In the majority of the Grays Harbor Tributaries Ecological Region, the old growth was logged and splash dams were used extensively on the East and West Fork Humptulips rivers, the Wishkah River, and Newkah Creek to facilitate moving timber to markets.



Extensive gravel is present on the Humptulips River, but substrate stability is an issue because the system is lacking in-channel wood to hold gravels in place.



Spawning habitat for fall Chinook, coho, and chum salmon is present in the middle reaches of the Wishkah River. Increasing in-channel structure would retain and sort river gravels.



This pond on a tributary to the Humptulips River is an example of high-quality ponded habitat for multiple species, including coho salmon, amphibian, and bird indicator species.



Extensive tidal surge plain and swamp habitat is present along the lower Hoquiam River.