

The Kelp Forests and Eelgrass Meadows of Hat Island and Mukilteo

A Vital Resource for Marine Life and Climate

Hat Island is home to bull kelp forests and eelgrass meadows. Mukilteo hosts eelgrass as well, but bull kelp has not been observed there since 2018. This marine vegetation faces challenges from climate change and is considered a critical and protected area by the state.

The Snohomish County Marine Resources Committee monitors the health of our marine vegetation and believes that we have an opportunity to protect this critical local resource. Bull kelp and eelgrass provide habitat, improve water quality, and support culturally and economically important species, including salmon and shellfish.

The Benefits of Our Marine Vegetation

Kelp and eelgrass are highly productive components of the marine food web. The two organisms are neighbors in the nearshore shallow waters, with kelp anchoring on rocky spots and eelgrass in sand or mud. The organisms work together to provide habitat and ecosystem benefits essential to many species like shellfish, salmon, orca and shore birds. Kelp forests produce and store more food energy per square foot than even a rainforest. Recreational, tribal, and commercial fisheries depend on healthy marine vegetation to feed their catch.

Marine vegetation is also an important part of our climate change response:

- Kelp and eelgrass beds can dampen wave action and **reduce the rate of erosion** from sea level rise.
- Kelp is exceptionally fast-growing and absorbs carbon dioxide to fuel that growth, making it a subject of ongoing scientific study for **long-term carbon storage potential**.
- Kelp and eelgrass help **reduce ocean acidification** and **increase ocean water oxygen** levels.
- Marine vegetation **improves marine water quality** by reducing nutrient loading from stormwater, wastewater, and agricultural run-off.
- The **habitat kelp and eelgrass provide** will be important as salmon and other species adapt to climate change.

Marine vegetation faces a variety of environmental stressors

Each year, kelp and eelgrass die off in the fall and winter and grow back in the spring and summer. To successfully grow, kelp and eelgrass need clean, cold water with adequate light. Shoreline development, sediment loading in our local waters, and pollution make it difficult for marine vegetation to thrive. Commercial and recreational boating activities can damage kelp and eelgrass, as can warming ocean temperatures.

Submerged Vegetation Monitoring Program Sites

-  Eelgrass present in this area
-  Area of last observed kelp - 2018
-  Mukilteo lighthouse

-  Observed kelp site



What actions are being taken to protect our marine vegetation?

Kelp and eelgrass are considered essential fish habitat by the National Marine Fisheries Service **because endangered species such as rockfish, certain listed salmon species, and abalone depend on them.** The Southern Resident Killer Whales are indirectly dependent on healthy marine vegetation due to their fish diet and preference for Chinook salmon. In 2022, Washington state passed SB 5619 (RCW 79.135.440), which directed the Department of Natural Resources to develop a Statewide Kelp and Eelgrass Health and Conservation Plan. **Washington state is committed to conserving and restoring 10,000 acres of kelp and eelgrass. Snohomish County is home to the first kelp and eelgrass protection zone in the state,** which conserves 2,300 acres of habitat at the mouth of Snohomish River and at the south end of Hat Island. While kelp conservation work continues at the state level — symbolized by the 2025 passage of HB 1631 naming bull kelp forests the state marine forest of Washington — **action is needed by local governments to protect critical kelp and eelgrass beds in their area.**



Snohomish County
Marine Resources
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What actions are needed at a local level?

Key actions that local governments can take to protect our local marine vegetation:

-  Support and provide funding for education, monitoring and restoration of kelp and eelgrass beds along our shoreline.
-  Evaluate Shoreline Master Plans and Climate Action Plans for opportunities to protect kelp and eelgrass.
-  Stay up to date on the implementation of the [Kelp and Eelgrass Health and Conservation Plan](#). Interested parties can join a [listserv](#) to receive updates: dnr.wa.gov/kelp-and-eelgrass-plan
-  Collaborate with other regional partners, such as the Marine Resources Committee and Tribal Nations, to identify coordinated actions and success measures to support marine vegetation habitat as part of natural resources co-management.



**LEARN MORE AT THE
SNOHOMISH COUNTY
MRC WEBSITE:
SNOCOMRC.ORG**

References

Puget Sound Kelp Conservation and Recovery Plan (2020): nwstraits.org/media/3222/pugetsoundkelpconservationandrecoveryplan.pdf
Puget Sound Kelp Conservation and Recovery Plan: Status Update (2023): nwstraits.org/media/3483/kelp-plan-status-update_2023oct.pdf
Kelp Policy Recommendations (2023): nwstraits.org/media/3514/kelp-policy-advisory-group-recommendations.pdf
Snohomish Marine Resources Committee: snocomrc.org/projects/marine-vegetation-monitoring/

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