

CLAYTON BEACH

SHORELINE AND EELGRASS RESTORATION



GOALS & OBJECTIVES

- Remove 1,300+ linear feet of shore armor, fill and pilings.
- Restore over 9 acres of beach, backshore, and riparian habitat.
- Uncover buried nearshore spawning habitat for surf smelt and sand lance (forage fish).
- Restore 13 acres of subtidal eelgrass habitat.
- Improve public access and enjoyment for park users.
- Provide interpretation of cultural & historical uses and ecosystem dynamics.

PROPOSED TIMELINE

- Feasibility and Design: 2022-2024
- Design & Permitting: 2024-2025
- Construction/Revegetation: 2026-2027
- Eelgrass Restoration: 2026-2030
- Baseline Monitoring: 2023-2024
- Vegetation Management: 2025/On-going
- Post-Construction Stewardship & Monitoring: On-going

RESTORATION BENEFITS

- A restored shoreline will reconnect the nearshore to backshore and upland habitats, providing nutrients and shading necessary for a range of organisms including forage fish, juvenile salmon, marine and shorebirds that rely on healthy beaches and shorelines.
- Recruitment of large woody debris, currently impeded by the armor and debris, will improve stability of sediments reducing erosion potential while providing structure and function to the upper intertidal habitats.
- Native vegetation prevents erosion and stabilizes the shoreline by absorbing wave energy, trapping sediments, slowing stormwater runoff, and moderating the effects of storms and floods. It also provides a source of insects that fall into the water and become food for fish and birds using the shoreline.
- Restored and expanded eelgrass habitat slows wave energy reducing erosion and sea level rise impacts along the nearshore and toe of the bluff.

PROJECT PARTNERS:

CLAYTON BEACH HISTORY

The shorelines throughout the Salish Sea have been used extensively for generations by area tribes for their villages, hunting, gathering shellfish and other aquatic resources, and continue to be culturally significant areas.

Starting in approximately 1912, the shoreline at Clayton Beach was developed to create the Interurban Trolley, known as “The Trolley That Went to Sea”. The electric trolley provided transportation from Bellingham to Mount Vernon and included a four-mile section crossing the water at Clayton Beach to avoid use of the adjacent Great Northern Railway. The remaining stubs present along the beach today represent just some of the 5,000 pilings used to build the trestle.

By 1928 passenger and freight use of the trolley ended due to development of Highway 99 and a preference for car and truck travel along paved roads.

EELGRASS RESTORATION

During construction of the trestle, 13 acres of eelgrass habitat were dredged and the sand was placed on the beach and bluff to support the structure and hillside.

Eelgrass beds are the nursery grounds for many of Puget Sound’s valued species providing refuge and food for juvenile salmonids, marine birds, Dungeness crabs and more. Eelgrass provides natural buffers to storm surge.

This project aims to fill the dredge hole and restore it back to eelgrass habitat using transplants. This will result in an increase in the quantity and quality of native eelgrass, providing essential nearshore habitat for salmonids, forage fish, rockfish, marine birds, and shellfish while abating the effects of sea level rise and climate change.



Historic photos of trestle construction. WWU Heritage Resources

FUNDING

- USFWS Coastal Program
- Pacific Marine & Estuarine Partnership
- Skagit & Whatcom MRCs through NOAA
- EPA (Habitat Strategic Initiative Lead)
- National Fish & Wildlife Foundation-Killer Whale Program (USFWS)
- Estuary & Salmon Restoration Program
- Burning Foundation
- Seeking Health
- Marathon Oil
- Holly Frontier Sinclair

CONSTRUCTION FUNDING NEEDS:

- Nearshore Restoration: ~\$1.3M
- Dredge hole/eelgrass Restoration: \$4.0M

LAND MANAGEMENT & OWNERSHIP

While the beach and trails surrounding Clayton Beach are primarily owned and managed by the Washington State Parks and Recreation Commission, additional landowners of the tidelands and adjacent uplands also include: Washington Department of Natural Resources, Puget Sound Energy, the Upper Skagit Tribe, and Burlington Northern Railroad. NWSF and partners will coordinate with all entities during the design and implementation process.

FOR MORE INFORMATION

<https://nwstraitsfoundation.org/project/clayton-beach/>

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Clayton Beach Eelgrass Mapping. WDNR 2023.