Goldsborough Estuary/Shelton Harbor Restoration

Steltzner, S. Squaxin Island Tribe. ssteltzner@squaxin.us
Combs, B. South Puget Sound Salmon Enhancement Group brianc@spsseg.org
Project website: https://sheltonharbor.org/





In the early 1900s, the Goldsborough Creek estuary was dredged to create what is now Shelton Harbor. In 2016, a unique restoration partnership was formed to restore the North Harbor. The group consisted of multiple public and private landowners, the Squaxin Island Tribe, and the South Puget Sound Salmon Enhancement Group.

In the first phase, engineered large wood structures (LWD) were installed at the mouth of the creek to capture sediment and act as a grade control structure. The entire North Harbor work site was placed into conservancy and adjacent high-quality riparian uplands and wetlands were purchased. The second phase consisted of importing clean sediment from local sources to construct the West (2019) and South (2020) saltmarsh lobes. Design considerations included providing elevations that would support target saltmarsh species and accommodating sea-level rise.

One year after the construction of the west lobe, monitoring has shown no significant changes to the elevation or size of the saltmarsh bed. Three plant species have begun colonizing the site through natural recruitment, saltbush (Atriplex patula), marsh jaumea (Jaumea carnosa), and pickleweed (Salicornia depressa).

The third and final phase of the project will construct a 17-acre North saltmarsh lobe and remove approximately 1/4 mile of sheet pile and creosote log shoreline armoring.

Project Accomplishments

- 52 acres of tidelands and 14 acres of upland placed into conservation.
- 155 creosote pilings removed.
- 9 engineered logjams installed.
- ≈ ½ mile of rip rap bulkhead removed.
- ¼ mile x 50' riparian zone established. 10,000 shrubs and trees planted.
- 8-acre West saltmarsh lobe constructed.
- 7-acre South saltmarsh lobe constructed.

Future Efforts

- Continue vegetation and sediment monitoring of the West Lobe.
- Begin vegetation and sediment monitoring of the South Lobe.
- Conduct saltmarsh planting studies using native ground and with biodegradable structures.
- Continue fish use studies using beach and lampara seines.



Figure 1. Goldsborough Creek estuary before restoration.

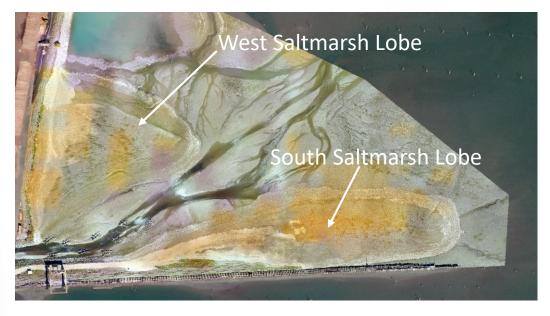


Figure 2. Goldsborough Creek estuary after Phase 1 and Phase 2 restoration.