

Everett Marshland

The Everett Marshland area is within the upstream portion of the Snohomish River Estuary in Everett. Described by the Tulalip Tribes as an area once containing thousands of acres of oxbow channels, beaver ponds, and emergent and forested wetlands, Everett Marshlands have been transformed for agricultural purposes. Starting in approximately 1860, riparian forests were removed and dikes were constructed to allow ditching and draining of tidal marshes. Today much of the Snohomish River Estuary is nearly completely cut off from tidal hydrology with only one-sixth (approximately 17 percent) of the historic tidal marshes accessible to salmon for refuge, foraging, and rearing. The proposed restoration would restore tidal flow by relocating dikes and roadways, altering and filling the existing drainage canals, re-establishing historic tidal channels, and reconnecting freshwater streams to the tidally-influenced area.

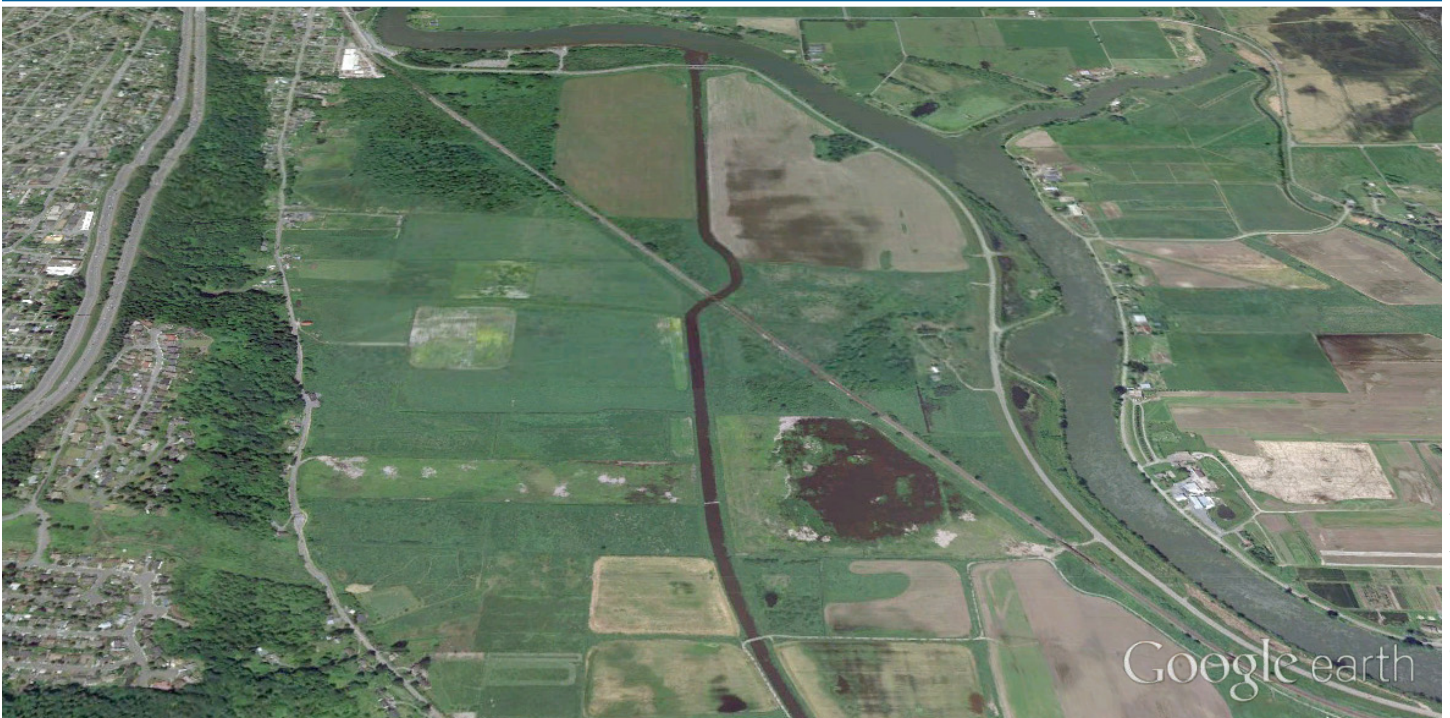


IMAGE: Google Earth (2010)

Processes Restored

- Natural formation of tidal channels in estuaries.
- Unrestricted flow of freshwater rivers and streams into estuaries.
- Accumulation and retention of organic material from plants and aquatic animals.
- Unrestricted movement and migration of fish and wildlife.

Conditions Improved

- Restored tidal freshwater wetlands, which are highly productive habitats that support biodiversity and provide connectivity between the land and sea.
- Restored large river delta that provides valuable nursery habitat for threatened species of juvenile salmon such as Chinook, increasing their survival and supporting population recovery in Puget Sound.
- Improved quality of the water flowing through the estuary.
- Increased area, length, and complexity of shoreline.
- Improved resiliency of the shoreline to respond to changes in the environment such as rising sea levels and increasing frequency of storm events.

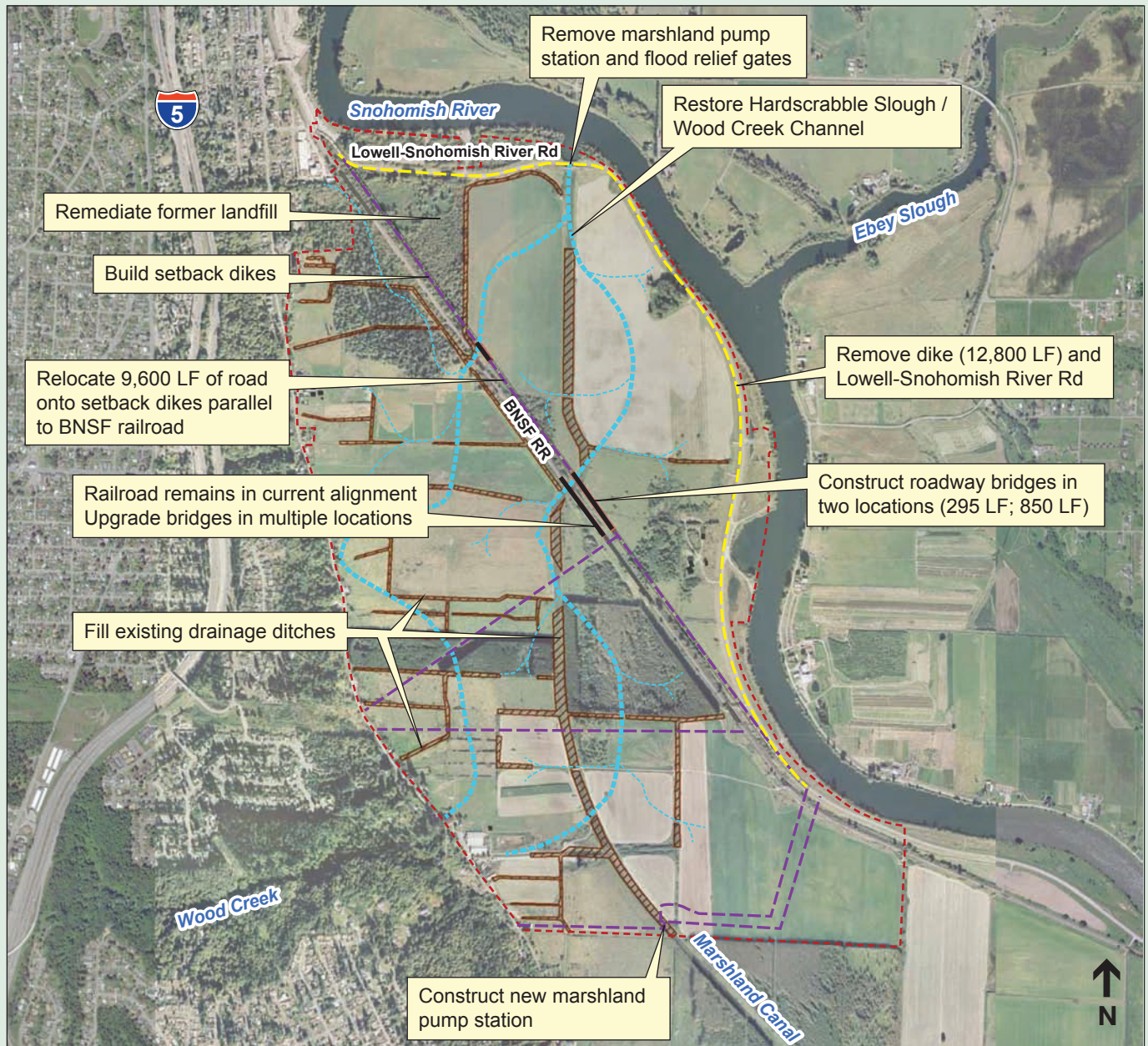


Image above depicts major project features. See design report for additional details.

SOURCE: ESA (2011); Bing Maps (2011)

Key Design Elements

The restoration would remove 1.5 miles of dike along the Snohomish River associated Lowell-Snohomish River Road, which would re-introduce tidal influence to the diked farmlands. The road would be aligned with the BNSF railroad and multiple bridges would be constructed to allow tidal flow beneath the road and railroad embankment. The Marshland Pump Station and flood gates would be relocated to the south end of the site. Multiple starter channels would be excavated in the restoration area to initiate tidal slough channel development. New setback dikes would be constructed to protect the regional transmission lines and gas pipelines located west of the BNSF railroad and passive recreational trails would be created along the west side near Lowell-Larimer Road.

Site Summary Statistics

- Area of Restored Process: 829 acres
- Total Project Cost: \$357.5 million

For more detailed information regarding this conceptual design, please visit our website at www.pugetsoundnearshore.org/cdr.html.