



Dugualla Bay

Dugualla Bay is located on northeast Whidbey Island in western Skagit Bay. The action area includes part of Naval Air Station Whidbey Island, Dugualla Lake and the lower Dugualla Creek. A former estuary and salt marsh, the area is now separated from Dugualla Bay's marine waters by Dike Road, a causeway that functions as a levee. To create agricultural land, the causeway, a tide gate and pump station system were built at the historic barrier embayment inlet. This eliminated tidal inundation, converting the estuary into freshwater Dugualla Lake and restricting fish access from Puget Sound. The proposed restoration will remove tidal hydrology barriers in Dugualla Bay, allowing tidal exchange between Dugualla Lake and bay, restoring 572 acres of salt marsh and mudflats. It also improves connection with the surrounding floodplain and allows fish to access the system.



IMAGE: Washington State Department of Ecology (2006)

Ecosystem Restoration Benefits

- Restore coastal embayment that provides valuable nursery habitat for juvenile threatened salmon species increasing their survival and supporting Puget Sound population recovery
- Restore intertidal and shallow subtidal areas for recreationally- and culturally-important shellfish
- Increase shoreline area, length and complexity

Significance

- Provides critical estuary habitat in the Whidbey basin, where about 80 percent of estuary habitat is no longer accessible
- Included in Puget Sound Chinook Salmon Federal Recovery Plan
- Site will be used by roughly half of the out-migrating North Fork Skagit juvenile salmon
- Adds more than five times the shoreline length to existing, available nearshore habitat

Dugwalla Bay

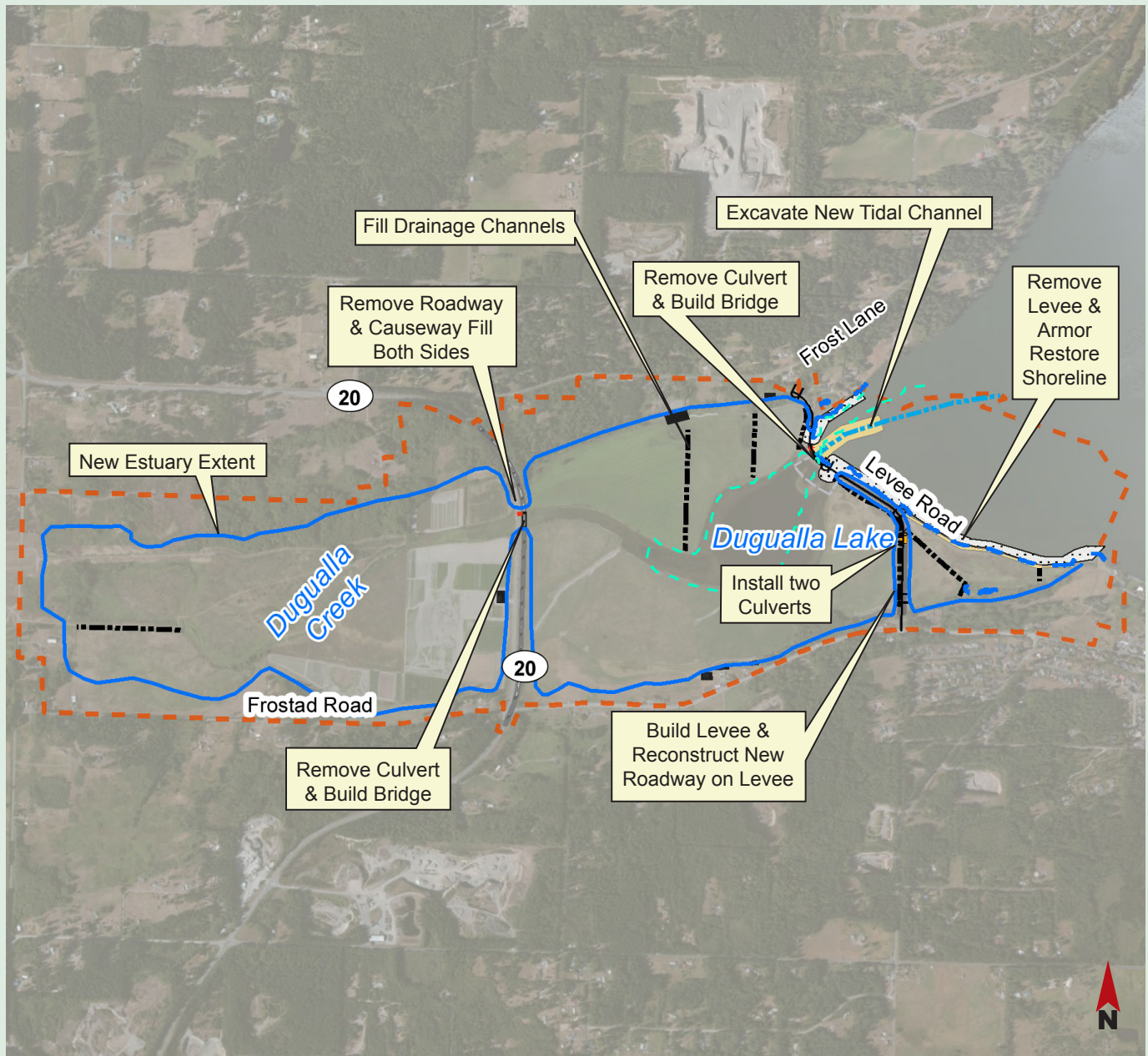


Image above depicts major project features. See design report for additional details.

SOURCE: ESA (2011); USDA-NAIP (2009)

Key Design Elements

The restoration returns historical tidal inundation to Dugwalla Bay by removing the tide gate and pumping system, excavating a starter channel, and allowing tidal flow into the existing lake. Two barrier beaches, historically defining the tidal channel entrance, will be created and a new 750-foot-long bridge will allow vehicle passage along Dike Road. Portions of the road will also be raised out of the newly inundated floodplain. A 200-foot-long bridge will replace a culvert under State Route 20.

Site Summary Statistics

- Area of Restored Process: 572 acres
- Total Project Cost: \$92.2 million



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