



# Livingston Bay

Livingston Bay is at the head of extensive mudflats on Camano Island and adjacent to the biologically productive Port Susan Bay. Prior to 1880, the entire estuary was converted from salt marsh behind a sand and pebble beach to agricultural use by the construction of dikes and drainage channels. The restoration would acquire farmland properties and re-establish tidal inundation to 250 acres by excavating a large channel where it was historically located. A tidal channel network would be established within the site and drainage ditches would be filled. A new flood protection dike would be constructed to prevent inundation of the Livingston Bay Community at the east end of the bay.



IMAGE: Google Earth (2007)

## Processes Restored

- Natural erosion and accretion of beaches.
- Natural formation of tidal channels in estuaries.
- Unrestricted movement of saltwater through tidal channels in estuaries.
- Accumulation and retention of organic material from plants and aquatic animals.
- Unrestricted movement and migration of fish and wildlife.
- Natural exposure to wind and wave action.

## Conditions Improved

- Restored coastal embayment 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.
- Improved public access to the shore and recreational opportunities.



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

## Key Design Elements

The restoration would create an opening in the beach at the western end of the bay. A network of starter channels would be excavated to initiate tidal marsh development. Internal drainage ditches would be filled and internal dikes would be lowered. The pump station and associated power poles and lines would be removed. A new flood protection dike would be constructed along the north side of East Livingston Bay Shore Drive to prevent inundation of the Livingston Bay Community. The dike slopes would be planted with riparian vegetation.

## Site Summary Statistics

- Area of Restored Process: 245 acres
- Total Project Cost: \$12.1 million

*For more detailed information regarding this conceptual design, please visit our website at [www.pugetsoundnearshore.org/cdr.html](http://www.pugetsoundnearshore.org/cdr.html).*