Description of Salmon Creek Estuary Restoration Project
Discovery Bay, Jefferson County, WA

Project overview:

The project is Phase IV of an on-going ecosystem restoration effort in the Snow / Salmon Creek watershed. Past restoration efforts were focused on habitat improvements of Salmon Creek upstream of the proposed project. The current phase focuses on estuary restoration and re-establishment of saltmarsh and tidal channel habitat.

Through the construction process, five derelict buildings and over 48,000 cubic yards of material will be removed, resulting in the immediate creation of approximately 11 acres of accessible estuarine habitat and approximately 1100 meters of newly constructed tidal channels. Additional development of channels over time will yield a total gain of over 5200 meters of tidal channels spread out over the 11 acres. The increased tidal prism will allow natural processes to re-form productive salt marsh and blind tidal channels in areas currently cut off from the natural process. The increased estuarine habitat will improve diversity of native salt marsh vegetation, decrease pasture grasses and invasive vegetation, increase presence of benthic and terrestrial insects, which are forage for salmonids and shorebirds, increase number of rearing channels for juvenile salmonids and provide greater of area of cover from predators.

<u>North site:</u>

The north portion of the project site includes an old log peeling and veneer mill. Wood waste was placed atop the historic estuary at the head of Discovery Bay mid-century during a brief history of log peeling and veneer making at the site. Ground water seeping through the wood waste 'leaches' natural chemicals from the wood waste that become toxic in such large quantities. Leachates are creating toxic conditions for aquatic life in an existing tidal channel adjacent to the wood waste pile. In order to improve water quality, the wood waste must be removed prior to construction of the estuarine surface. Backfilling will be necessary to achieve the final elevation as the historic surface has subsided under the weight of the wood waste, and deeper areas suggest pits were dug to accommodate the wood waste.

- Building demolition
- Removal of debris / trash
- Removal of sawdust waste
- Removal of excess fill
- Backfill of sawdust removal sites, where deeper than final grade elevation, with gravel and native soils (from south project site)
- Re-grade to establish saltmarsh plants (approx. +7.5' MLLW)

South Site:

The second site is located to the south has historically been graded and used for pasture. The site is bordered by Salmon Creek. Material will be removed and the site will be graded to salt marsh elevation. Some of the material will be moved to an upland disposal site on the same property, some will be used for backfill at the wood waste site, and some will be hauled off site.

- Remove excess fill to grade to saltmarsh elevation (approx. +7.5'MLLW)
- Excess fill moved to WDFW upland property on north side of creek (accessed by a temporary bridge)
- Excavate tidal channels

This project will take place on lands owned by Washington Department of Fish and Wildlife. The project involves partnerships with many local, state, federal and tribal agencies.