

## MONITORING PLAN - SQUALLY BEACH

**PROJECT:**  
Squally Beach

**LOCATION:**  
Inner Turning Basin, Hylebos Waterway,  
Commencement Bay,  
Tacoma, Washington.

**DESIGN OBJECTIVES:**  
Enhance intertidal area for juvenile  
salmonid migration.  
Create interstices for invertebrates.  
Establish backwater ponds to increase  
intertidal saltmarsh area.  
Protect and preserve the site for natural resources.



**CRITERIA:** PSC 1,2,4; BSC 1-9

### **SITE SUMMARY:**

The project site is located waterward of Marine View Drive near the middle of the Hylebos Waterway on property owned by the Puyallup Tribe. The site is approximately 0.66 acres, and contained blackberry bushes, some hardwood trees, and a strip of intertidal marsh vegetation approximately three feet wide. The site supported a small fringe marsh and low-gradient mudflats that provide habitat for benthic, or bottom-dwelling organisms important to the food chain. These organisms are of particular importance to shorebirds and juvenile salmon. The project restores intertidal habitat by excavating about 2,000 cubic yards of material, grading an area north of the existing vegetation line, and planting intertidal vegetation. Runoff from the hillside on the north side of Marine View Drive, which forms the eastern project boundary, has been intercepted and routed through the project site in a dendritic channel pattern. Freshwater inputs would lower salinity and encourage growth of species that tolerate brackish conditions. Substrate enhancement is a component of the project depending on the nutrient availability of the existing materials.

### **VOLUNTEER OPPORTUNITIES:**

To be defined prior to conducting sampling activities.

**REFERENCE / COMPARISON SITES:** Based upon approval of the Trustee Council, appropriate reference sites will be selected for various sites and various criteria. For example: plant vigor (**BSC3**) would incorporate comparison data from a site adjacent to Squally Beach along the inner Hylebos mudflat, Elliott Bay monitoring data and data reported for Coastal America sites; Fish (**BSC7**) sampling results could be compared to historical data gathered by the Puyallup Tribe of Indians in Commencement Bay and the Muckleshoot Indian Tribe in the Duwamish and data gathered at Coastal America sites. Invertebrates (**BSC8**) inhabiting restored areas could be compared to the Outer Hylebos mudflat - provided that grain size is appropriate. Bird usage (**BSC9**) could be compared across all sites and include the Duwamish Waterway restoration projects.