

Harper Estuary Restoration Project Update

December 29th, 2016



Washington Department of
FISH and WILDLIFE



Construction Update

All Estuary excavation has been completed. Plantings will be installed mid-January in order to give time for the sediment to react to reshaping and will maximize plant survival. As of the last update, the contractors have;

- Removed industrial fill on the south side of Olympiad Drive
- Excavated a tidal connection to the wetland to the east of the Olympiad culvert
- Placed large woody material on the newly shaped spit

Estuary Fill Removal

The Construction contractor, Orion Marine, has completed the removal of contaminated industrial fill including bricks and placed gravel, replacing them with clean fill. During removal it was discovered that bricks had been used to build the historical road out onto the spit. This layer of brick was discovered beneath the planned elevation of excavation and allowed the contractor to operate equipment on the spit. Test digs below the bricks showed that the soils would not support equipment, and the decision was made to leave the layer of bricks. All areas of the estuary have been tested, and are now clean of contaminated soils. Because clean bricks were allowed to remain in place, the dynamic nature of the adjusting estuary and marsh will likely expose more bricks.



Before and after of fill excavation on the North side of Olympiad drive where relict road was removed



Before and after of fill excavation on south side of Olympiad drive

Tidal Connection to Freshwater Wetland

Due to the relict road being built on the sand spit, a freshwater wetland developed in what was historically salt marsh habitat. Since the connection channel has been established, tidal inundation will slowly convert the wetland back to salt marsh. Cattails and other freshwater plants will die off and be replaced with pickle weed and other salt tolerant native species. Keep an eye on the channel as it migrates up into the newly restored salt marsh. This is a rare opportunity to see how dendritic (branched, resembling a tree) channels form in a natural setting.

Large Woody Material Installation

115 large logs, 1/2 with root wads were placed, unanchored on the restored spit on the North side of Olympiad drive. These logs were sourced from the Chimacum area, where they were being removed for either firewood, or a project like this. Logs were placed with a random overlapping pattern to help keep them from floating off the spit. The logs will likely shift, and eventually start catching gravels and sands that are migrating along the face of the spit.



Connection channel to wetland east of Olympiad culvert



Excavator placing large wood with root wads after fill was removed



Area where bulkhead was removed at the northern end up the project area