Appendix D Wetland and Stream Photographs

# WETLAND PHOTOS



Wetland 5-1: north end of wetland in I-5 right-of-way (ROW), looking south. Himalayan blackberry is overgrowing wetland; scattered willows and American brooklime is also present.



Wetland 6-2: northeast end of the wetland near the outlet of Massey Creek, looking east. Vegetation consists of young black cottonwood trees, blackberry, and salmonberry.



Wetland 6-2: east end of the wetland near the outlet of Massey Creek, looking west. Vegetation consists of young black cottonwood trees, blackberry, and salmonberry.



Wetland 6-3: looking south. Small depression that was sparsely vegetated during March 2014 site visit. Himalayan blackberry fringes the perimeter.



Wetland 6-4: eastern portion of wetland looking south. Forested vegetation community comprised of young red alder, Himalayan blackberry, and reed canarygrass.



Wetland 12-1: representative conditions in south portion of McSorley Creek wetland outside of FWLE alternatives. Mature forest consisting of black cottonwood, Sitka spruce, and red alder is predominant. See McSorley Creek stream photos for wetland conditions at McSorley Creek on east side of SR 99.



Wetland 12-1 (McSorley Creek Wetland): southeast corner of wetland in I-5 ROW. Vegetation in ROW is primarily red alder and salmonberry. Sitka spruce/western hemlock forest is in interior of wetland, west of the I-5 ROW.



Wetland 12-1 (McSorley Creek Wetland): north portion wetland in I-5 ROW, looking south. Vegetation in this portion of the wetland is predominantly small-fruited bulrush, reed canarygrass, and young alder saplings.



Wetland 12-2: overview of wetland looking south from north boundary. Emergent community consists of soft rush, *Glyceria*, and cat-tail. Red alder and cottonwood trees surround the perimeter. Surface water drains from the wetland via vertical drain in photo background.



Wetland 16-1: looking south. Excavated feature dominated by reed canarygrass. Inlet in background discharges to Redondo Creek.



Wetland 17-2: looking south from S 304th Street. Forested community is dominated by red alder. Redondo Creek flows through wetland.



Wetland 17-2: northeast from S 270th Street. Forested community is dominated by red alder.



Wetland 20-3: looking northeast. Scrub-shrub wetland dominated by redosier dogwood.



Wetland 24-2: eastern portion of wetland. Scrub-shrub wetland dominated by salmonberry, reed canarygrass, and slough sedge.



Wetland 25-2: looking south from northern end. Forested community is dominated by red alder.



Wetland 25-2a: looking west from eastern end. Dominated by red alder saplings.



Wetland 25-5: looking south. Emergent wetland dominated by reed canarygrass



Wetland 26-1: emergent community in north portion of wetland, dominated by reed canarygrass.



Wetland 27-1: forested community in south portion of wetland. Red alder and black cottonwood are predominant, with slough sedge and spirea understory.



Wetland 27-1: scrub-shrub community in north portion of wetland. Spirea, willows and slough sedge are predominant. The north portion of the wetland was inundated by at least 2 feet.



Wetland 27-2: emergent wetland dominated by reed canarygrass and slough sedge.



Wetland 27-2: emergent wetland dominated by reed canarygrass and soft rush.



Wetland 28-2: looking south. Dominated by salmonberry



Wetland 28-3: looking south. Emergent community dominated by soft rush, and bentgrass.

### **STREAM PHOTOS**

### Massey Creek



The eastern portion of Massey Creek in the study area is shallow and poorly defined with multiple channels through the wetland.



Massey Creek looking downstream where it forms a single, shallow channel with low, poorly defined banks.



Vertical drain at the west end of the Massey Creek reach in the study area. This structure conveys the creek into a pipe system under an apartment complex and roadway and poses a complete passage barrier to fish.

# **McSorley Creek**



McSorley Creek looking upstream where it emerges from large forested wetland on the east side of SR 99.



McSorley Creek alongside SR 99 where it enters a 4-foot-wide concrete box culvert under the highway.



McSorley Creek looking upstream at the culvert exit on the west side of SR 99. Channel is overgrown in small area between the highway and a hotel parking lot.



McSorley Creek looking downstream from culvert under stormwater/utility drive on west side of SR 99.

#### **Redondo Creek**



Redondo Creek exit culvert under Dash Point Road and SR 99. This culvert poses a passage barrier to fish. The photo was taken during the field visit in January 2014 when conditions were dry and flows in the creek were very low.



Redondo Creek exiting the culvert under the utility corridor drive. This culvert poses a fish passage barrier.



Redondo Creek downstream of utility corridor drive has good riffle habitat and gravel substrate. There is no pool habitat in this reach and the reach is isolated due to an impassable vertical drain at the downstream end where it crosses under Redondo Way.



Redondo Creek grated inlet at downstream end of stream alongside Redondo Way.



Redondo Creek exit at seawall on Puget Sound shoreline.

#### **Bingaman Creek**



Bingaman Creek trash rack at culvert entrance on south side of S 288th Street.



Bingaman Creek reach south of S 288th Street looking upstream. I-5 sound wall is at the left edge of the picture.



Bingaman Creek right bank eroding next to sound wall along Bingaman Creek reach south of S 288th Street.



Bingaman Creek bank erosion next to mobile home park along Bingaman Creek reach south of S 288th Street.



Bingaman Creek reach north of S 288th Street looking downstream to culvert under I-5.



Bingaman Creek reach north of S 288th Street through forested area alongside I-5.



Scoured drops in the Bingaman Creek channel, downstream (east) of I-5, are 3 to 4 feet high, and form a natural fish passage barrier downstream of the project reach.

### **Unnamed Stream along I-5**



Small unnamed stream in the I-5 right-of-way south of Kent-Des Moines Road. A narrow riparian corridor of conifers is on the left bank, but vegetation has been removed on the right bank along the I-5 road prism.



Small unnamed stream in I-5 right-of-way south of Kent-Des Moines Road. A channelized segment flows east from Wetland 20-2 next to I-5.

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