

SHORELINE AREA (Reach Code): Marine 1

REACH NUMBER: 27

Land Use	Current Land Use	Most of reach with SMP area undeveloped bluff adjacent to mixed uses that include residential and Industrial – industrial use is primarily the cement plant. Airport runway flyway in reach. (ref# 8, 54, 71)
	Zoning	43.3 acres residential, 42.8 acres water, 13.2 acres industrial, 0.2 acres heliport (ref# 54)
Potential Species Present	Wildlife species	Swans, seabird nesting, and dabbling duck and soft sediment shorebird concentration areas at the western edge of the reach. Diving bird concentration area offshore. Bald eagle winter foraging area. Ref# 3, 105)
	Fish species	Surf smelt and sand lance (spawning habitat), bull trout presumed, coho presumed. (Ref 393, 94)
	PHS species/habitat	Surf smelt (vulnerable aggregations, and species of recreational, commercial, or tribal importance that are vulnerable). Aforementioned bird species. (Ref# 3, 92, 105)
	TSE species	Bald eagle (FT). Chinook in bay, federally threatened ESU (FT & SC). Bull trout (FT) and Coho (FCo) presumed. (Ref# 92, 93 105)
	Invasive wildlife/fish species	No data
Physical Environment	Acres of land in reach	99.5 acres total with 43.3 acres of land and 56.2 acres of water. (Ref# 13)
	Aquatic vegetation	11.0 acres Green algae, 2.5 acres eelgrass, 1.1 acres salt marsh (Ref# 97, 98)
	Slope	Slopes from 20-100% dominate the shoreline for the majority of the reach. Areas of 0-10% present at northern extent. (Ref# 47, 103)
	Buildings	9 buildings covering 0.23 acres total (Ref# 16)
	Culverts/stormwater utilities	None identified (Ref# 41, 42, 40)
	Geology	Glacial marine drift and continental glacial outwash. Land slide hazard area indicated on slopes 15-35% or greater (Ref # 21, 51 63)
	Tributary Creeks	One stream outfall identified from aerial (Ref# 8, 42, 71)
	Impervious surface	44% pervious, 34% semi-pervious, 22% impervious (Ref# 12)
	Invasive plant species	No data
	Roads/transportation	No roads, railroad in SMP zone – 0.5 miles rail in reach (Ref# 35, 44, 46)
	Soils	Infiltration rates: 21.2 acres very slow (Hydrologic soils Group D), 13.3 acres slow (Group C). Erosion potential: 65.0 acres severe risk, 21.2 acres slight, 13.3 acres moderate (Ref# 51, 63)
	Topography	0' to 120' range; mean 22' (Ref# 47)
	FEMA	83.9 acres in 100 year floodplain/no floodway in reach (Ref# 19)
	Terrestrial Vegetation	Bluff vegetated with mixed predominately native shrubs. May contain invasive species such as blackberry – needs field confirmation. (Ref# 8, 71)
Marine Aquatic Function	Aquatic substrate type	37 acres mixed fines, 8.9 acres mud, 7.8 acres mixed coarse, 4.2 acres sand, 1.0 acres artificial (Ref# 3, 99)
	Creosote structures	None identified (Ref# 71, 99)
	In-water structures	1 structure (unknown type) (Ref# 8, 18, 71)
	Bulkheads	None identified, should be field confirmed (Ref# 8, 18, 71)
	DOE 303(d)	Inner Bay, no data. Outer Bay – Category 5 dissolved oxygen, Category 2 pH, Category 1 for Fecal coliform, pH, and temperature.(Ref# 81)
	Toxic sites/land fills	None indicated (Ref#79, 80)
	Bathymetry	-3.0' to 0.0' range; -0.1 mean (Ref# 25, 31)
Wave energy	Partially enclosed (Ref# 3, 99)	

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	Point source pollution	No data
	Waterways/dredge beds	None indicated (Ref# 3, 99)
	Drift cells	Northwest (Ref# 3, 99)
Marine Ereshor	Beach characterization	No data
	High-Low tide lines	18.0 acres
	Erosion/accretion zones	Eroding bluffs provide sediment source (Ref# 71, 8)
Historic & Cultural	Historic aerials	See Waterfront Futures website (Ref #99)
	Archeological sites	No data (Ref# 77)
	Historic sites	No data (Ref# 77)
	Parks & public access	None, public ownerships along portions of reach, but no formal access. (Ref # 33, 34, 36, 48)
Function Analysis	Reach Function	
	• Hydrologic	No indication of hydrologic impairment. (Ref# 1, 2, 5, 71)
	• Shoreline Vegetation	No indication of hydrologic impairment (some invasive plants could be present). (Ref# 1, 2, 5, 69, 70, 71)
	• Habitat	<ul style="list-style-type: none"> • Terrestrial Habitat – Unimpaired (Reach used by bald eagles) (Ref# 1, 2, 5, 69, 70, 71, 73, 74) • Intertidal Habitat – Unimpaired (High function for forage fish spawning habitat) (Ref# 1, 2, 5, 69, 70, 71, 73, 74) • Shallow Water and Deepwater habitat – Unimpaired (Swan use documented at north end. (Ref# 1, 2, 5, 71) • None identified (Ref# 1, 2, 5, 69, 70, 71)
	Limiting Factors	
	Functions	
	• Sustainable	All functions appear to be sustainable
• Not Sustainable	None	
Priority Actions	None identified for this reach (Ref# 1, 73)	
Current Enhancement Projects	None identified for this reach (Ref# 1, 73)	
Preservation/Enhancement Opportunities	None identified for this reach (Ref# 1, 73)	