

SHORELINE AREA (Reach Code): Marine 11 Fairhaven Industrial
REACH NUMBER: 37

Land Use	Current Land Use	Water associated industrial business dominates, Alaskan Ferry Terminal, fish processing and dry dock (Ref# 8, 54, 71)
	Zoning	15.3 acres water, 12.2 acres industrial, 0.5 acres public (Ref# 54)
Potential Species Present	Wildlife species	16.9 acres of mustelid and 13.1 acres of pinneped habitat; pigeon guillemot nesting in old dock structures (Ref# 3, 70, 71, 105)
	Fish species	Sand lance and surf smelt spawning at western edge northern edge of Marine Park. Presumed presence of Coho and Bull trout. (Ref# 3, 70, 71, 105)
	PHS species/habitat	pigeon guillemot nesting in old dock structures (Ref# 3, 70, 71, 105)
	TSE species	Chinook in bay (FT & SC). Coho (FCo) and Bull trout (FT) presumed. (Ref#92, 93)
	Invasive wildlife/fish species	Starlings roosting under docks at Ferry Terminal and vicinity. (Ref# 71)
Physical Environment	Acres of land in reach	27.9 acres total with 11.7 acres of land and 16.2 acres of water (Ref# 13)
	Aquatic vegetation	1.5 acres green algae, 0.1 acres salt marsh (belongs on reach 12 digitizing error), small patch of eelgrass at mouth of Padden lagoon (Ref# 97, 98)
	Slope	0-5% slopes dominate, small areas of 20-34% slopes also present adjacent to the shoreline. (Ref# 47, 103)
	Buildings	23 buildings covering 3.2 total acres (Ref# 16)
	Culverts/stormwater utilities	No storm water facilities or lines, no sewer lines in reach. No retention basins listed. (Ref# 40, 41, 42)
	Geology	Artificial fill and disturbed land. Seismic hazard area (man-made fill) is indicated (Ref# 21, 51, 63)
	Tributary Creeks	None indicated (Ref#8, 42, 71)
	Impervious surface	96% impervious, 4% semi-pervious, 0% pervious (Ref# 12)
	Invasive plant species	No data
	Roads/transportation	0.2 miles (0.3 acres) road, 0.4 rail (Ref# 34, 44, 46)
	Soils	17.5 acres of soil with very slow infiltration rates and high runoff potential (Hydrologic soil Group D). 27.9 acres of soil with high risk of erosion (all of reach). (Ref# 51, 63)
	Topography	0' to 17' range; 6' mean (Ref# 47)
	FEMA	15.3 acres in 100 year floodplain, 0.1 acres in floodway (Ref# 19)
	Terrestrial Vegetation	None in majority of reach. Some lawn at Marine Park(Ref# 8, 71)
Marine Aquatic Function	Aquatic Substrate type	3.5 acres artificial, 1.3 acres mixed fines, 0.2 acres mixed coarse (Ref# 3, 99)
	Creosote structures	Treated structures near Padden Creek outlet and in industrial waterway. (Ref# 71, 73, 74, 99)
	In-water structures	Docks at Fairhaven terminal, Fairhaven boatyards, railroad crossing of Padden Lagoon – 9 docks total, concrete boat ramp at Fairhaven boatyard, piles for docks. (Ref# 71, 73, 74, 99)
	Bulkheads	Entire reach has bulkhead. (Ref# 71, 73, 74, 99)
	DOE 303(d)	Inner Bay, no data. Outer Bay – Category 5 dissolved O2, Category 2 pH, Category 1 for Fecal coliform, pH, and temperature. (Ref# 81)
	Toxic sites/land fills	None indicated (Ref# 79, 80)
	Bathymetry	-27.0-0.0 range; -6.5' mean (Ref# 25, 31)
	Wave energy	0.4 acres open, 4.6 acres partially enclosed (Ref# 3, 99)
	Point source pollution	No data
	Waterways/dredge beds	None identified(Ref# 3, 99)
Drift cells	South (Ref# 3, 99)	

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Marine Foreshore	Beach characterization	No data
	High-Low tide lines	0.1 acres of potential beach in Padden lagoon. 1.9 acres beach from hi-low water marks
	Erosion/accretion zones	None observed
Historic & Cultural	Historic aerials	See Waterfront Futures website
	Archeological sites	No data
	Historic sites	None indicated (Ref# 77)
	Parks & public access	Fairhaven boat ramp, Ferry terminal, south edge of reach touches Marine Park. (Ref# 33, 34, 36, 48)
Function Analysis	Reach Function	(Ref# for following 1, 2, 5, 69, 70, 71)
	<ul style="list-style-type: none"> Hydrologic 	Impaired by rip rap associated with railroad tracks and industrial shoreline armament.
	<ul style="list-style-type: none"> Shoreline Vegetation 	Impaired – absent in most areas
	<ul style="list-style-type: none"> Habitat 	<ul style="list-style-type: none"> Terrestrial – impaired – no habitat cover or connectivity Intertidal – impaired – limited by shoreline armament. Shallow water and deep water habitat – Shallow water habitat limited. Deep water habitat moderate to high function.
	Limiting Factors	<ul style="list-style-type: none"> Shoreline armament both from industrial use and railroad Lack of shoreline vegetation Lack of significant intertidal habitat Existing zoning and land use not compatible with most habitat functions.
	Functions	<ul style="list-style-type: none"> Sustainable Not Sustainable
	Priority Actions	Deep water habitat functions Hydrology, shoreline vegetation, and terrestrial, intertidal and shallow habitat functions not expected to be sustainable with current land use and zoning.
Current Enhancement Projects	See preservation/ enhancement section. Action # 24 was rated as a high priority action. (Ref# 73)	
Preservation/Enhancement Opportunities	None identified	
	Preservation/Enhancement Opportunities	Remove fill, pier and floating dock immediately north of the Padden Lagoon outlet to provide additional habitat for eelgrass (BBDP action # 24). (Ref# 73)