

SHORELINE AREA (Reach Code): SQUALICUM 4

REACH NUMBER: 4

Land Use	Current Land Use	Public park (Ref# 8,37,71)
	Zoning	16.5 acres public, 0.2 acres industrial (Ref# 54,104)
Potential Species Present	Wildlife species	In nearly 100% of the reach: presence of garter snakes and lizards, urban and some non-urban mammals, an equal mix of urban and non-urban birds, native amphibians, and large and medium animal movement easy. (Ref# 61,69,70,105)
	Fish species	Chinook, Coho, Chum, Sea-run Cutthroat, Steelhead. Presumed for bull trout. (Ref# 69,70,94,105)
	PHS species/habitat	Almost 100% of reach has habitat for breeding/rearing/wintering use by multiple PHS or SC. (Ref# 24,92,93,105)
	TSE species	Bull trout (FT), Chinook (FT & SC), Coho (FCo), and Cutthroat (FCo). (Ref# 92,92,105)
	Invasive wildlife/fish species	No data
Physical Environment	Acres of land in reach	16.8 with 16.3 acres of land and 0.5 acres of water (Ref# 13)
	Aquatic vegetation	No data
	Slope	The lower portion of the reach has a narrow width of slope class 20-35% and 35-50% directly adjacent to the creek. The remainder of the reach is gently sloping, classes 2-5% and 5-20%, up to creek channel and beyond steeper slopes in lower reach. (Ref# 21)
	Buildings	One covering 0.07 acres
	Culverts/stormwater utilities	Sewer mains located along major roads in the reach. No stormwater discharge points are indicated, however based on existing drain lines, 2 discharges are possible. (Ref# 39,40,41,42)
	Geology	Continental glacial outwash and continental sedimentary rock (Ref# 21,103)
	Tributary creeks	One un-named creek (#5), which is regulated under COB Wetland and Stream Ordinance. (Ref# 8,57,59,71)
	Wetlands	(Ref# 11,52)
	Impervious surface	53% pervious, 40% semi-pervious, 7% impervious (Ref# 12)
	Invasive plant species	No data
	Roads/transportation	Guide Meridian at southern terminus of reach. Some internal park roads and trails. Total of 0.2 miles or 0.4 acres of roads. (Ref# 14,35,36,44,45,46)
	Soils	The lower half of the reach has moderate filtration/runoff soils (Hydrologic soil Group B). Soils in the upper half of the reach have slow filtration (Group C). (Ref# 51,63)
	Topography	78' to 124' range; 96' mean. (Ref# 47)
	FEMA	7.7 acres in 100 year floodplain, 3.4 acres in the floodway (Ref# 19)
	Terrestrial Vegetation	Approximately half the reach has a mature native forest with emergent trees. Deciduous and coniferous forest dominates along the stream reach in the park, and the width of forested buffer varies in the park. Vegetation beyond forest is mowed grass. 100% of the forested community is predominantly native vegetation of medium quality. (Ref# 8,20,71)
Riparian Function	DOE 303(d)	Category 5 Polluted Water listed for fecal coliform, temperature, dissolved oxygen, zinc and pentachlorophenol. Category 2 Water of Concern listed for pH and temperature. (Ref# 83,89)
	Channel confinement	Unconfined (Ref# 22,23)
	Channel gradient	<1% (Ref# 22,23)
	Channel migration zone	Migration unlikely due to use of property as public park (Ref# 22,23,94)

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	Creosote structures	No data
	Fish passage blockages	None indicated (Ref# 15,94)
	In-water structures	Foot path over creek in park (Ref# 8,18,43,71)
	LWD presence	Incomplete data
	Non-point source pollution	No data
	Point source pollution	No data
	Riffle/pool analysis	No data
	Aquatic substrate type	At Cornwall Park: 68% cobble, 20% coarse gravel, 10% fine gravel, 3% sand. (Ref# 86)
	Toxic sites/land fills	None indicated (Ref# 80)
Historic & Cultural	Historic aerials	No data
	Archeological sites	No data
	Historic sites	None indicated (Ref# 77)
	Parks & public access	2.2 acres of community park – within Cornwall Park. (Ref# 33,34,36,48,54)
Function Analysis	Reach Function	
	<ul style="list-style-type: none"> Hydrologic Shoreline Vegetation Habitat 	<p>Impaired. Hydrology is flashy.</p> <p>Slightly impaired in the southern half of the reach. Functioning in upper half (native forest, except northern most extent which is herbaceous).</p> <p>Terrestrial: functioning in forested areas; slightly impaired elsewhere.</p> <p>Stream: slightly impaired, sandstone formation natural barrier for some fish species (chum).</p>
	Limiting Factors	<ul style="list-style-type: none"> Water quality Natural fish barrier (sandstone formation)
	Functions	<p>All three functions sustainable.</p> <p>Hydrology most likely can not be improved beyond current levels.</p>
	Priority Actions	<ul style="list-style-type: none"> Canopy cover improvements in lower half and upper most extent of reach. Water quality improvement
	<p>Current Enhancement Projects</p> <p>Preservation/Enhancement Opportunities</p>	<p>None are recorded for this reach.</p> <ul style="list-style-type: none"> Stormwater treatment and detention Habitat improvement in upper reach. <p>(Ref# 4,24,61,69,70,71,75,89 for above)</p>