

SHORELINE AREA (Reach Code): SQUALICUM 5

REACH NUMBER: 5

Land Use	Current Land Use	Hobby farm- pasture and some plant propagation. (Ref# 8,37,71)
	Zoning	16.58 acres residential multi-family/institutional, 4.1 acres industrial, 1.4 acres institutional. (Ref# 54,104)
Potential Species Present	Wildlife species	In 65% of the reach: presence of garter snakes and lizards; urban and some non-urban mammals; equal mix of urban and non-urban birds; native amphibian; and large and medium animal movement is 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	Approximately 65% of the 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# 92,39,105)
	Invasive wildlife/fish species	No data
Physical Environment	Acres of land in reach	22.1 acres total with 21.5 acres of land and 0.6 acres of water (Ref# 13)
	Aquatic vegetation	No data
	Slope	Reach is relatively flat; slope class 2-5% dominates. Creek located in center of outwash valley. (Ref# 21)
	Buildings	16 buildings covering 1.17 acres total (Ref# 16)
	Culverts/stormwater utilities	Culvert at upper limit of reach under Birchwood Avenue. Sewer mains and stormwater drains located along Birchwood Avenue. No stormwater discharge points are indicated, however based on existing drain lines, 2 discharges are possible. (Ref# 39,40,41,42)
	Geology	Majority is continental glacial outwash and small portion in the southeast corner of the reach is glaciomarine drift. Seismic Hazard Areas (geologic unit). (Ref# 21,103)
	Tributary creeks	Squalicum creek old channel – water now diverted through Bug Lake. Squalicum Creek is regulated under COB Wetland and Stream Ordinance and the Shoreline Master Program. (Ref# 8,57,59,71)
	Wetlands	(Ref# 11,52)
	Impervious surface	60% semi-pervious, 22% impervious, 18% pervious (Ref# 12)
	Invasive plant species	No data
	Roads/transportation	Birchwood Avenue within SMA on north side of creek. Total of 0.3 miles or 1.0 acres of road. (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 are hydric with very slow filtration/high runoff potential (Group D). (Ref# 51,63)
	Topography	96' to 130' range; 98' mean. (Ref# 47)
	FEMA	18.2 acres in 100 year floodplain, 3.4 acres in the floodway (Ref# 19)
	Terrestrial Vegetation	Surrounding land use is agriculture. Scattered trees and shrubs are located along the creek. Herbaceous grasses and weedy species dominate vegetation just beyond the creek. Approximately 65% of reach is indicated as predominantly native vegetation of medium quality (Nahkeeta data – numbers seem a little high). (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. (Ref# 83,89)
	Channel confinement	Unconfined (Ref# 22,23)
	Channel gradient	<1% (Ref# 22,23)

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	Channel migration zone	Good migration zone available. Flood plain developed with agriculture type use. Potential to allow migration between roadway and edge of flood zone to south. (Ref# 22,23,94)
	Creosote structures	No data
	Fish passage blockages	None listed. Culvert under Birchwood Ave is impassable during low flows. (Ref# 15,94)
	In-water structures	Culvert at upper end of reach under Birchwood Ave. (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	No data
	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	None indicated (Ref# 33,34,36,48,54)
Function Analysis	<p>Reach Function</p> <ul style="list-style-type: none"> Hydrologic Shoreline Vegetation Habitat <p>Limiting Factors</p> <ul style="list-style-type: none"> Zoning Current land use Water quality Low flow fish blockage at culvert under Birchwood Ave Beaver impacts on enhancement planting <p>Functions</p> <ul style="list-style-type: none"> Sustainable Not Sustainable <p>Priority Actions</p> <ul style="list-style-type: none"> Preservation of floodplain south of Birchwood Ave Culvert passage improvement at Birchwood Ave Water quality improvements <p>Current Enhancement Projects</p> <p>Shoreline vegetation planting projects</p> <p>Preservation/Enhancement Opportunities</p> <ul style="list-style-type: none"> Enhancement plantings to improve habitat diversity and structure (with beaver protection) Stormwater treatment and detention In-stream structures 	<p>Impaired. Hydrology is flashy.</p> <p>Impaired. Native vegetation is limited</p> <p>Impaired. Habitat is extremely limited</p> <p>All three functions sustainable with improvements.</p> <p>Hydrology most likely can not be improved beyond current levels.</p> <p>(Ref# 4,24,61,69,70,71,75,89 for above)</p>