

SHORELINE AREA (Reach Code): SQUALICUM 3

REACH NUMBER: 3

Land Use	Current Land Use	Residential development south of the creek. Major transportation and railroad, on north side of the creek. (Ref# 8,37,71)
	Zoning (acres)	9.1 acres residential single family, 3.9 acres residential multi-family, 1.9 acres commercial, 0.3 acres public. (Ref# 54,104)
Potential Species Present	Wildlife species	Wildlife species present in the reach include: Garter snakes in 57%, only urban mammals in 18%, mix of urban and non-urban in 37%, urban birds in 18%, mix of urban and non-urban birds in 38%, native amphibians in 56%. Large and medium animal movement is possible in approximately 37%, and movement is easy for fish and birds in 18%. (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	37% of reach has habitat for foraging and other non-breeding activity, and 18% of the reach has the potential for PHS or SC species present sporadically. (Ref# 24,92,92,105)
	TSE species	Bull trout (FT), Chinook (FT & SC), Coho (FCo), and Cutthroat (FCo). (Ref# 92,93,105)
	Invasive wildlife/fish species	No data
Physical Environment	Acres of land in reach	15.2 with 14.9 acres of land and 0.3 acres of water (Ref# 13)
	Aquatic vegetation	No data
	Slope	Overall, creek flows through glacial drift valley. Lower floor of glacial channel is wide and relatively flat (slope class 2-5%), which allowed for possible channel migration before human development in the valley. Valley walls are steep, 20-35%. The creek channel tends to tighten-up in this reach with steep slopes immediately adjacent to the creek; less migration possible. (Ref# 21)
	Buildings	21 covering 0.54 acres
	Culverts/stormwater utilities	Partial culvert at confluence of Baker Creek with Squalicum. Culvert of some sort (or bridge) under Guide Meridian. Sewer mains follow the creek through entire reach. No stormwater discharge points are indicated, however based on existing drain lines, 7 discharges are possible. (Ref# 39,40,41,42)
	Geology	Continental glacial outwash and glaciomarine drift. Seismic Hazard Areas (geologic unit) (Ref# 21,103)
	Tributary creeks	Baker Creek (#4); and a small un-named drainage channel (#5) that enters Squalicum Creek west of the Guide Meridian and south of Squalicum Parkway. Both are regulated under COB Wetland and Stream Ordinance. (Ref# 8,57,59,71)
	Wetlands	(Ref# 11,52)
	Impervious surface	38% pervious, 35% impervious, 27% semi-pervious (Ref# 12)
	Invasive plant species	No data. Traveler's Joy observed. (Ref# 71)
	Roads/transportation	Squalicum Parkway shadows creek up to Guide Meridian, which is the upper limit of the reach. Railroad grade next to parkway. Total of 0.5 miles of road and 0.2 miles of railroad or 2.2 acres of transportation routes. (Ref# 14,35,36,44,45,46)
	Soils	The majority of the reach has moderate filtration and runoff soils (Hydrologic soil Group B). The lowest extent of the reach is mapped as hydric soils with very low filtration/high runoff potential (Group D). (Ref# 51,63)
	Topography	58' to 97' range; 82' mean. (Ref# 47)
	FEMA	3.1 acres in 100 year floodplain, 2.1 acres in the floodway (Ref# 19)

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	Terrestrial Vegetation	Mixed deciduous/coniferous forest with shrub understory. Residential property within SMA includes lawn; lawn does not abut the creek in any portion of the reach. 37% of the reach is an equal mix of native and naturalized non-native plants with a medium quality native community; overstory is young forest with shrub and ground cover. 18% of the reach has predominately non-natives with some natives mixed in, low quality plant community; overstory is sparse. (Ref# 8,20,71)
Riparian Function	DOE 303(d)	Lower portion of Reach Category 5 for zinc. Upper portion of Reach Category 4 Impaired Water based on bio-assessment for degradation of aquatic life based on invertebrates. (Ref# 83,89)
	Channel confinement	Unconfined (Ref# 22,23)
	Channel gradient	<1% (Ref# 22,23)
	Channel migration zone	Limited due to road and residential development (Ref# 22,23,94)
	Creosote structures	No data
	Fish passage blockages	None listed. Possible partial blockage in Baker Creek. (Ref# 15,94)
	In-water structures	Un-known structure under Guide Meridian. Culvert at Baker Creek (Ref# 8,18,43,71)
	LWD presence	Incomplete data, however, possible due to source in buffer. (Ref# 71)
	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> <p>Functions</p> <ul style="list-style-type: none"> Sustainable Not Sustainable <p>Priority Actions</p> <p>Current Enhancement Projects</p> <p>Preservation/Enhancement Opportunities</p>	<p>Impaired. Hydrology is flashy.</p> <p>Slightly Impaired. Invasive vegetation present, particularly Traveler's joy.</p> <p>Impaired. Reach is functioning at some levels as a corridor for fish and wildlife.</p> <ul style="list-style-type: none"> Existing infrastructure – Squalicum Parkway Water quality Narrow corridor width – increases problems associated with edge effect <p>All three function sustainable with improvements.</p> <p>Hydrology most likely can not be improved beyond current levels.</p> <ul style="list-style-type: none"> Invasive vegetation control and removal Water quality improvement <p>Shoreline vegetation planting projects</p> <p>Stormwater treatment and detention</p> <p>(Ref# 4,24,61,69,70,71,75,89 for above)</p>