

SHORELINE AREA (Reach Code): SQUALICUM 2

REACH NUMBER: 2

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|---------------------------|--------------------------------|---|
| Land Use | Current Land Use | Land use includes: residential, undeveloped forest, major arterials, inactive industrial use (is becoming a city park). Limited commercial use in some areas at outer extent of SMP. (Ref# 8,37,71) |
| | Zoning | 47.1 acres residential single-family, 10.6 acres commercial, 10.3 acres industrial, 8.0 acres residential multi-family. (Ref# 54,104) |
| Potential Species Present | Wildlife species | Wildlife presence in this reach includes: Garter snakes in 70%, only urban mammals in 36%, no mammals in 54%, no mammals known in 10%, equal mix of urban and non-urban birds in 44%, urban birds in 24%, and native amphibians in 45% of the reach. Large and medium animal movement is possible in 44% of the reach, and movement of fish and birds is easy in 25%. (Ref# 61,69,70,105) |
| | Fish species | Bull trout, Chinook, Coho, Chum, Sea-run Cutthroat, and Steelhead. Presumed for Bull trout above culverts at mid-reach under the roadway. (Ref# 69,70,94,105) |
| | PHS species/habitat | 35% of reach has habitat for breeding and/ or rearing, and 10% of reach has habitat for foraging or other non-breeding activity for PHS or SC. (Ref# 24,92,93,105) |
| | 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 | 76 acres total with 73.2 acres of land and 2.8 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, 35-50%. Creek presently flows close to the south valley wall. Valley becomes dramatically wider in the center portion of the reach, slope class in this area is 2-5%. (Ref# 21) |
| | Buildings | 102 covering 3.12 acres total (Ref# 16) |
| | Culverts/stormwater utilities | One detention facility (0.02 ac). Long culvert under roadway near old cement plant. Long culvert under Northwest Drive. Sewer mains follow the creek through entire reach. No stormwater discharge points are indicated, however based on existing drain lines 3 discharges are possible. (Ref# 39,40,41,42) |
| | Geology | Continental glacial outwash and glaciomarine drift. Mine Hazard Areas. (Ref# 21,103) |
| | Tributary Creeks | None indicated |
| | Wetlands | (Ref# 11,52) |
| | Impervious surface | 45% pervious, 31% impervious, 24% semi-pervious (Ref# 12) |
| | Invasive plant species | No data; Traveler's Joy and English ivy observed. (Ref# 71) |
| | Roads/transportation | Squalicum Parkway shadows creek through entire reach and is located within SMA. Total of 1.5 miles of road and 1.1 miles of rail road or 7.7 acres of transportation routes. (Ref# 14,35,36,44,45,46) |
| | Soils | A variety of soils are found in this reach. The immediate creek area tends to be hydric, very low filtration/high runoff potential (Hydrologic soil Group D). This soil type dominates the lower half of the reach. An area of high filtration/low runoff (Group A) is located along the northern part of the reach in the lower half. The upper reach has moderate filtration and runoff outside of the hydric soils along the creek (Group B). (Ref# 51,63) |
| | Topography | 9' to 91' range; 53' mean. (Ref# 47) |
| | FEMA | 34.6 acres in 100 year floodplain, 10.8 acres in the floodway (Ref# 19) |
| Rip area | Terrestrial Vegetation | Mixed deciduous/coniferous forest for majority of reach. 44% of reach: equal mix of native and naturalized non-native plants, medium quality native plant |

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| | | community; overstory is young forest. 24% of reach: habitat is man-controlled monoculture, no native plant community; overstory is sparse. (Ref# 8,20,71) |
| | DOE 303(d) | The lower half of reach (up to culvert under the parkway) is Category 5 Polluted Water listed for dissolved oxygen, temperature and fecal coliform. Category 2 Water of Concern for pH. The area near the industrial property is Category 5 for zinc. Tributary, Baker Creek is Category 5 listed for fecal coliform and dissolved oxygen; and Category 2 listed for temperature and pH. (Ref# 83,89) |
| | Channel confinement | Moderately confined (Ref# 22,23) |
| | Channel gradient | 1-2% (Ref# 22,23) |
| | Channel migration zone | Some migration is available through this reach (Ref# 22,23,94) |
| | Creosote structures | No data |
| | Fish passage blockages | Possible blockage at culverts in mid reach near cement plant area (two long culverts under roadway) – possible blockage for some fish species. (Ref# 15,94) |
| | In-water structures | Culverts under roadway on parkway. Culvert under Northwest Drive. (Ref# 8,18,43,71) |
| | LWD presence | Incomplete data, however, present in various amounts and sizes through entire reach (Ref# 10,71) |
| | Non-point source pollution | No data |
| | Point source pollution | No data |
| | Riffle/pool analysis | No data |
| | Aquatics substrate type | No data |
| Historic & Cultural | Toxic sites/land fills | None indicated (Ref# 80) |
| | Historic aerials | No data |
| | Archeological sites | No data |
| | Historic sites | None indicated (Ref# 77) |
| | Parks & public access | 4.7 acres of public open space – 4.5 acres of open space and 0.2 acres of trail property. Large park area to be developed along the middle of the reach. Most of the park property is not in the SMA. (Ref# 33,34,36,48,54) |
| Function Analysis | Reach Function | Impaired. Hydrology is flashy. |
| | <ul style="list-style-type: none"> Hydrologic Shoreline Vegetation Habitat | Slightly Impaired. Invasive vegetation present; Traveler's joy and English ivy. |
| | Limiting Factors | Impaired. Reach is functioning at some levels as a corridor for fish and wildlife. <ul style="list-style-type: none"> Existing infrastructure – Squalicum Parkway, long culverts (under Squalicum Parkway and Northwest Road) Water quality Narrow corridor width – increases difficulty with edge effect |
| | Functions | All three function sustainable with improvements. |
| | <ul style="list-style-type: none"> Sustainable Not Sustainable | Hydrology most likely can not be improved beyond current levels. |
| | Priority Actions | <ul style="list-style-type: none"> Invasive vegetation control and removal Water quality improvement |
| | Current Enhancement Projects | Shoreline vegetation planting projects |

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Preservation/Enhancement Opportunities

- Culvert improvements
 - Stormwater treatment and detention
 - Possible habitat connection with new park development
- (Ref# 4,24,61,69,70,71,75,89 for above)