

**SHORELINE AREA (Reach Code): WHATCOM 4**

**REACH NUMBER: 15**

|                           |                                |   |
|---------------------------|--------------------------------|---|
| Land Use                  | Current Land Use               | Light industrial. Undeveloped parcels south of creek and buffers on north side of creek provide a large area of vegetated, pervious land in an area dominated by industrial uses with large buildings and large paved parking areas. (Ref# 8,37,71)   |
|                           | Zoning                         | 24.8 acres industrial (Ref# 54,104)   |
| Potential Species Present | Wildlife species               | In 50% of the reach: presence of urban and some non-urban mammals; a variety of predominantly non-urban birds, native amphibians, and garter snakes and lizards with some denning habitat. 50% of the reach offers the possibility of large and medium animal movement. (Ref# 61,69,70,105)   |
|                           | Fish species                   | Bull trout, Chinook, Coho, Chum, Sea-run Cutthroat, Pink, Sockeye, Steelhead (Ref# 69,70,94,105)  |
|                           | PHS species/habitat            | 50% 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# 92,93,105)   |
|                           | Invasive wildlife/fish species | No data   |
| Physical Environment      | Acres of land in reach         | 24.8 acres total with 23.4 acres of land and 1.4 acres of water (Ref# 13)   |
|                           | Aquatic vegetation             | No data   |
|                           | Slope                          | Channel becomes much less incised and unconfined with slope class of 2-5% dominating. Some very narrow areas along the creek have slope classes of 20-35%. (Ref# 21)  |
|                           | Buildings                      | 14 covering 2.09 acres total (Ref# 16)  |
|                           | Culverts/stormwater utilities  | 5 culverts. One detention facility (0.47 acres). Four stormwater discharge points. Sewer mains in lower portion of reach. Storm drain lines at upper extent of reach. Utilities in this reach are concentrated at both ends of the reach. The center section is relatively clear or the structures are at the outer edge of the SMP. (Ref# 39,40,41,42) |
|                           | Geology                        | Glaciomarine drift. Seismic Hazard Area (geologic units). (Ref# 21,103)   |
|                           | Tributary creeks               | Two – one north (Fever Creek #8 & 9), one south (Lincoln Creek #22-24) both located at lower end of reach. Both creeks are regulated under the COB Wetland and Stream Ordinance. (Ref# 8,57,59,71)  |
|                           | Wetlands                       | (Ref# 11,52)  |
|                           | Impervious surface             | 50% impervious, 41% semi-pervious, 9% pervious (Ref# 12)  |
|                           | Invasive plant species         | No data   |
|                           | Roads/transportation           | No roads within SMA – only paved parking areas and internal access roads. Total of 0.1 acre of roads is indicated. (Ref# 14,35,36,44,45,46)   |
|                           | Soils                          | Hydric soils, very low filtration with high potential for runoff (Hydrologic soil Group D). (Ref# 51,63)  |
|                           | Topography                     | 51' to 77' range; 61' mean. (Ref# 47)   |
|                           | FEMA                           | 24.1 acres in 100 year floodplain, 2.5 acres in the floodway (Ref# 19)  |
|                           | Terrestrial Vegetation         | Buffer width is substantial through this reach. Vegetation is dominated by herbs with scattered areas of shrubs and trees (mostly deciduous). Approximately 50% of the reach is predominantly native vegetation habitat that is of high quality. Mature tree canopy is sparse. (Ref# 8,20,71)   |
| Riparian Function         | DOE 303(d)                     | Category 5 Polluted Waters listed for dissolved oxygen, fecal coliform, and temperature. Category 2 Water of concern for pH and pentachlorophenol. TMDL for fecal coliform. (Ref# 56,85,89)   |
|                           | Channel confinement            | Unconfined (Ref# 22,23)   |
|                           | Channel gradient               | <1% (Ref# 22,23)  |

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|                     | Channel migration zone  | Some potential may be available on the city owned property east of I-5. (Ref# 22,23,94)   |
|                     | Creosote structures   | No data   |
|                     | Fish passage blockages  | Potential blockage located at southern terminus of reach (sewer line crossing) (Ref# 15,94)   |
|                     | In-water structures   | None indicated (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   | No public access. However, the city owns a large track of land south of and adjacent to the creek. This property has the potential for enhancement. (Ref# 33,34,36,48,54)   |
| Function Analysis   | <b>Reach Function</b>   |   |
|                     | <ul style="list-style-type: none"> <li>Hydrologic</li> <li>Shoreline Vegetation</li> <li>Habitat</li> </ul> | <p>Impaired. Hydrology is flashy.</p> <p>Slightly impaired. Vegetation is present but structure is limited.</p> <p>Slightly impaired. A more natural channel is present in this reach. Some quality habitat with habitat features and structure is present.</p>   |
|                     | <b>Limiting Factors</b>   | <ul style="list-style-type: none"> <li>Water quality</li> <li>Up-stream development</li> <li>Hydrology</li> </ul>   |
|                     | <b>Functions</b>  | <p>All functions could be sustainable with some improvements</p> <p>Hydrology- most likely can not be sustained beyond current condition.</p>   |
|                     | <b>Priority Actions</b>   | <ul style="list-style-type: none"> <li>Restoration of riparian vegetation, particularly planting of trees to enhance canopy cover</li> <li>Addition of in-water structures</li> <li>Water quality improvement</li> <li>Stormwater treatment and detention</li> </ul>  |
|                     | <b>Current Enhancement Projects</b>   | Restoration of the shoreline and riparian vegetation has taken place along the south side of the creek for the entire length of this reach.   |
|                     | <b>Preservation/Enhancement Opportunities</b>   | <ul style="list-style-type: none"> <li>Preserve vegetated buffers and wetlands</li> <li>Enhance the structural diversity of the buffer, particularly the addition of trees and shrubs</li> <li>Control invasive, non-native species</li> <li>Restore native vegetation along the north side of the creek</li> </ul> <p>(Ref# 24,49,50,61,69,70,71,89 for above)</p> |