

Chuckanut Creek Watershed Summary Sheet

Landscape Setting	Landscape Setting	<ul style="list-style-type: none"> The Chuckanut Creek SMA is 91.80 acres in size. The drainage is situated at the toe of Chuckanut Mountain and approximately half of it is located within the city limits. The majority of the watershed is heavily forested, and is part of the only remaining forested corridor in Washington State that extends from the Cascade Mountains to the marine system. <p>(Ref# 8,13,37,47,71 for above)</p>
	Geology	<ul style="list-style-type: none"> Continental sedimentary material and bedrock. Chuckanut Creek is naturally confined within a narrow ravine that is not conducive to significant channel migration. Sides of the ravine range between 20% and 100% slopes. Many of the ravine slopes are mapped by Whatcom County Critical Areas maps as Landslide Hazard Areas. <p>(Ref# 21,22,23,103 for above)</p>
	Soils	<p>Dominant soils include Squalicum- Chuckanut- Nati soils. Soils are moderately deep to very deep, moderately well drained, with a slight to moderate risk of erosion.</p> <p>(Ref# 51,47,63 for above)</p>
Land Use	Current Conditions Outside City Limits	<p>The upper reaches are in unincorporated Whatcom County, and flow through low density single family parcels. Low to moderate impacts within the watershed have been associated with past timber harvest and construction of Interstate 5.</p> <p>(Ref# 8,16,33,34,71,104 for above)</p>
	Zoning Outside City Limits	<p>Rural and commercial forestry and recreational open space, with small areas of rural residential with a density of one unit per 5 acres.</p> <p>(Ref# 104 for above)</p>
	Current Conditions Within City Limits	<p>Single family residential and public areas. Arroyo Park dominates the central portion of the drainage.</p> <p>(Ref# 8,16,33,34,71 for above)</p>
	Zoning Within City Limits	<p>Residential property east and west of Arroyo Park is currently under-developed in part due to lack of sanitary sewer service to the area.</p> <p>(Ref# 54,104 for above)</p>
	Transportation and Utilities	<p>Major roads are Chuckanut Drive (State Road 11), Old Samish Road, and smaller residential roads which access Chuckanut Village.</p> <p>(Ref# 35,36,39,44,45,46 for above)</p>
	Public Access	<p>Chuckanut Bay and Arroyo Park. Arroyo Park is maintained in a natural condition and includes foot trails which connect to the interurban trail system and to other trails on Chuckanut Mountain, a foot bridge crossing Chuckanut Creek, and limited parking.</p> <p>(Ref# 33,34,36,48,54 for above)</p>
	Shoreline Modifications	<ul style="list-style-type: none"> Very few modifications were identified along Chuckanut Creek within the city limits. No bulk heads were identified. Two road crossings are present, one at Okanogan Street and the Chuckanut Drive crossing. Wooden foot bridges: few in Arroyo Park, two in Chuckanut Village, and one near the city limits. The watershed is dominated by pervious surfaces supporting mixed coniferous/deciduous forests.

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		(Ref# 8,12,15,18,43,71,94 for above)
Critical Areas	Wetlands	<ul style="list-style-type: none"> Scattered small (0.1 to 1.0 acre) palustrine forested and scrub-shrub wetlands located along Chuckanut Creek, and increase in size and frequency near the mouth. A variety of palustrine emergent, shrub-shrub, and forested wetland interspersed within Reach 1. A saltwater marsh located at the mouth of Chuckanut Creek. NWI wetlands mapped outside of SMA, but they are infrequent and high in watershed. <p>(Ref# 11,52 for above)</p>
	Streams	<p>Chuckanut Creek is the primary stream. A number of tributary streams feed into Chuckanut Creek along its length.</p> <p>(Ref# 8,38,57,71 for above)</p>
	Frequently Flooded Areas	<p>A small area at the mouth of Chuckanut Creek in the FEMA floodplain, but not in the floodway. All other areas are not indicated on the FEMA floodplain/ floodway maps.</p> <p>(Ref# 19 for above)</p>
	Steep Slopes	<p>Chuckanut Creek is in a ravine with 20% to 100% side slopes which are indicated as "Landslide Hazard Areas".</p> <p>(Ref# 21,103 for above)</p>
	Wildlife	<ul style="list-style-type: none"> Priority habitats identified include riparian habitat and wetlands. Documented fish species in the drainage include: Chum and coho salmon, winter steelhead and sea-run cutthroat. Potential habitat bull trout (FT) and Coho salmon (FCo). Area is adjacent to and flows into a hard-shell shellfish beds and winter bird concentrations areas in the bay. Bald eagle nesting territory is indicated near, but not in the SMA. <p>(Ref# 24,61,69,70,92,93,94,105 for above)</p>
Ecological Functions	Overall Function	<p>Overall Chuckanut Creek is proving most ecological functions at a high level. High quality habitat to a wide variety of wildlife and fish species.</p> <p>(Ref# 71 for above)</p>
	Hydrologic	<p>The hydrologic functions of the Chuckanut Watershed appear unimpaired.</p> <p>(Ref# 71 for above)</p>
	Shoreline Vegetation	<ul style="list-style-type: none"> System is Unimpaired. Riparian vegetation is dominated by second growth mixed coniferous/ deciduous forest. Reaches 1 and 3 also include residential lawn and ornamental gardens. The vegetation community is dominated by a diverse number of native plants.

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	<ul style="list-style-type: none"> • Non-native, invasive plants reported in low frequencies, and include knotweed, teasel, ivy, and herb Robert. <p style="text-align: right;">(Ref# 8,20,71,100 for above)</p>
<p>Habitat</p> <ul style="list-style-type: none"> • Terrestrial • Instream 	<ul style="list-style-type: none"> • Terrestrial habitat is mostly unimpaired. • Wildlife species associated with mixed coniferous forests are well represented. • No priority species have been specifically identified but could be present. • The Watershed is well connected to other high quality habitats and drainages and is part of the only remaining forested corridor that extends from the Cascade Mountains to the marine system. • Wide range of habitat features, complex structure, and well connected to other large tracts of high quality habitat. • Slightly impaired by high Fecal coliform levels and low dissolved oxygen levels, but functioning at a high level for other functions. • Anadromous trout and salmon use Chuckanut Creek for spawning, migrations, and rearing. • Water quality standards are being met for most parameters, with the exception of fecal coliform and dissolved oxygen. • Chuckanut Creek is listed by DOE as a Category 5 polluted waters for fecal coliform and dissolved oxygen, Category 4 impaired water for low flow, and Category 2 water of concern for pH and temperature. • No biological degradation of aquatic life was indicated based on in-stream invertebrates. • In-stream structure is complex and provides high quality fish habitat. <p style="text-align: right;">(Ref# 20,24,61,71,89 for above)</p>
<p>Limiting Functions</p>	<ul style="list-style-type: none"> • Water quality (Fecal coliform and dissolved oxygen) <p style="text-align: right;">(Ref# 71,89 for above)</p>
<p>Priority Actions</p>	<ul style="list-style-type: none"> • Repair of failing septic drainfields and/or connection with City sewer system. <p style="text-align: right;">(Ref# 71 for above)</p>
<p>Current Enhancement Projects</p>	<ul style="list-style-type: none"> • None identified.
<p>Preservation/Enhancement Opportunities</p>	<ul style="list-style-type: none"> • Maintain forested buffers. • Enhance areas with reduced buffer widths • Control of invasive plant species populations to maintain control <p style="text-align: right;">(Ref# 71 for above)</p>