



Sumas River Watersheds

- * *Johnson Creek*
- * *Saar Creek*
- * *Sumas River*



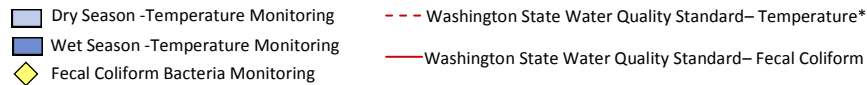
Water Quality in the Sumas River Watersheds

Water Quality Information for Sumas River Watersheds

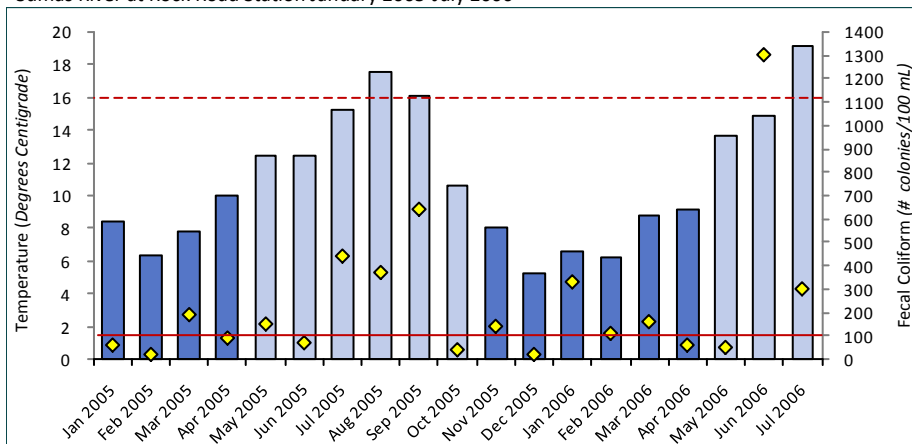
The Sumas River Watersheds include Johnson Creek and Sumas River, both of which have TMDLs established. The [Johnson Creek TMDL](#) submitted by Department of Ecology in 2000 is for dissolved oxygen and fecal coliform bacteria and the [Sumas River TMDL](#) established in 1996 is for biological oxygen demand, ammonia-nitrogen, and chlorine. The Sumas River remains on the Washington State 303(d) List of Impaired Waters as a Category 5 waterbody.

Fecal Coliform Bacteria and Stream Temperature

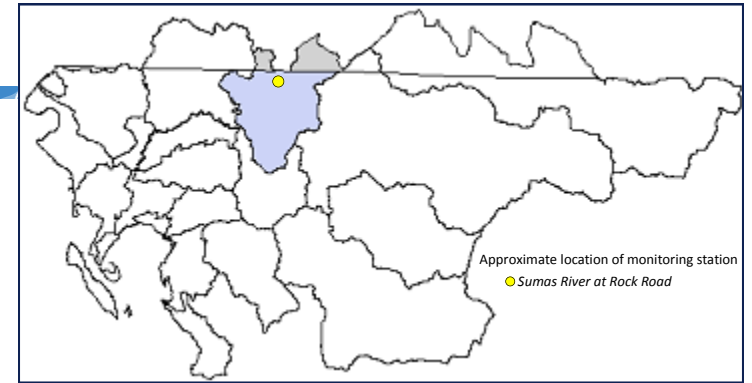
A search of the [Environmental Information Management System](#) water quality database, which is the data repository for environmental monitoring data, did not show data entries later than 2006. The following graph is a very limited snapshot of stream temperatures and fecal coliform bacteria levels at one monitoring station on the Sumas River based on four year old data.



Sumas River at Rock Road Station January 2005-July 2006*

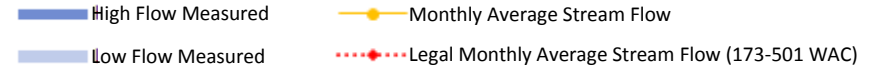


*Washington State water quality standard for Salmonid Spawning, Rearing, and Migration use category is 17.5 degrees Celsius. Table 602, 173-201 WAC use designation for Sumas River from Canadian border to headwaters is Spawning/Rearing.

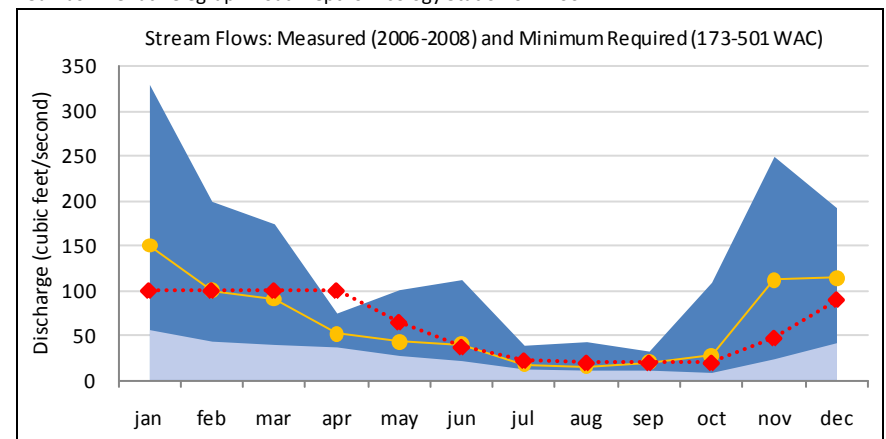


Measured Stream Flow and Minimum Instream Flows

The Washington State Department of Ecology has monitored Sumas River flows using a manual stage station from April 2003 through September 2009. According to the Department of Ecology website, the objective for this gage was to develop a hydrograph that would be useful in addressing international flow issues.



Sumas River at Telegraph Road Dept. of Ecology Station 01D100*



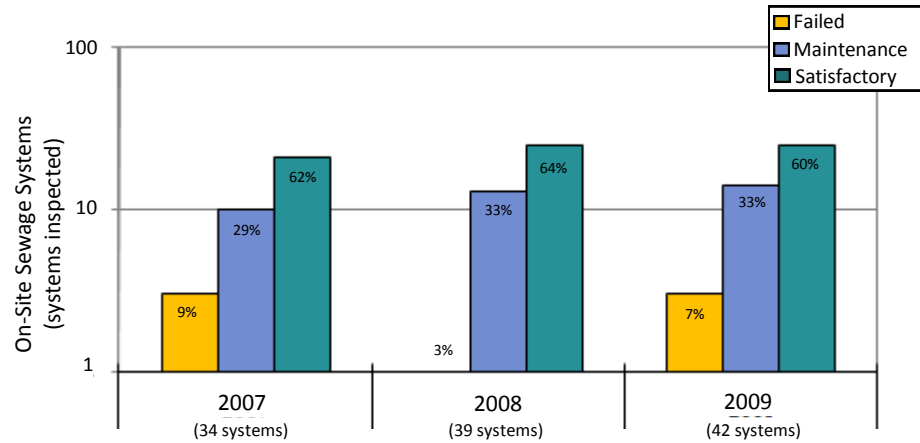
*The Sumas River flow station #01D100 may not be the Chapter 173-501 control station for the Sumas River. Nonetheless, the minimum stream flow requirements apply to the entire stream management reach, which is identified as "from U.S./Canada border to headwaters including all tributaries".



Improving Water Quality

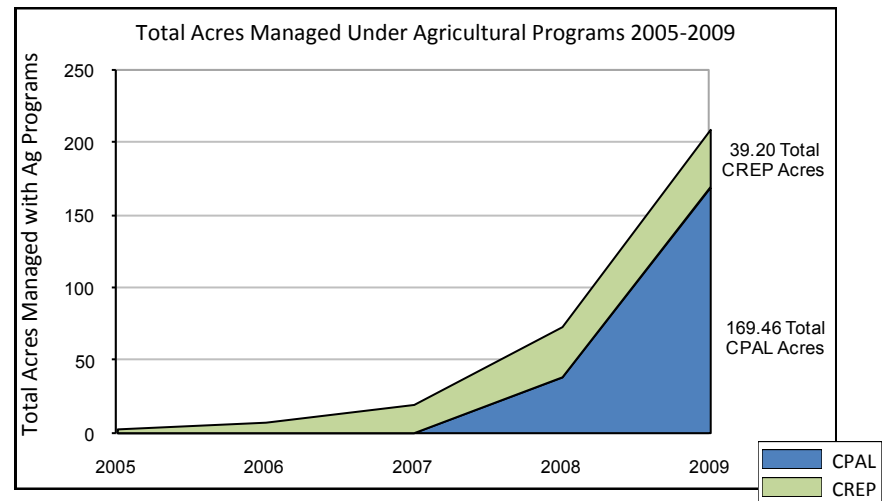
On-Site Sewage System Evaluations

When not functioning properly, on-site sewage systems are sources of bacteria and nutrient contamination in surface and ground water. To help protect and improve water quality, there are [operation and maintenance requirements](#) for on-site systems. These requirements include an inspection of on-site systems. The graph to the right shows the number of on-site systems inspected each year from 2007-2009 and the percent of those systems that were failing, needed maintenance, and that are satisfactory. The total number of on-site systems in Sumas River Watersheds is not known.



Riparian Vegetation and Agricultural Programs

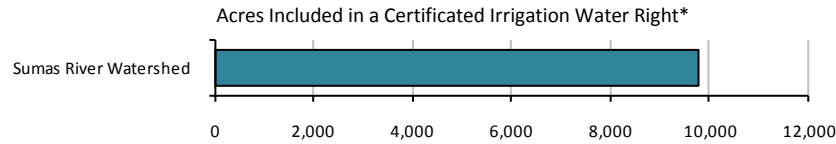
CREP (Conservation Reserve Enhancement Program) and CPAL (Conservation Program on Agricultural Land) are two programs available to landowners that can help improve water quality. CREP can help improve water quality by restoring riparian areas along streams. Shaded streams help lower stream temperatures in the summer months. CPAL is a program that helps landowners involved with agricultural activities to continue operating within critical area ordinance requirements. The graph below shows the total number of acres being managed under CREP or CPAL.



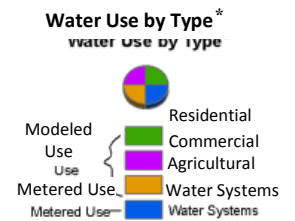
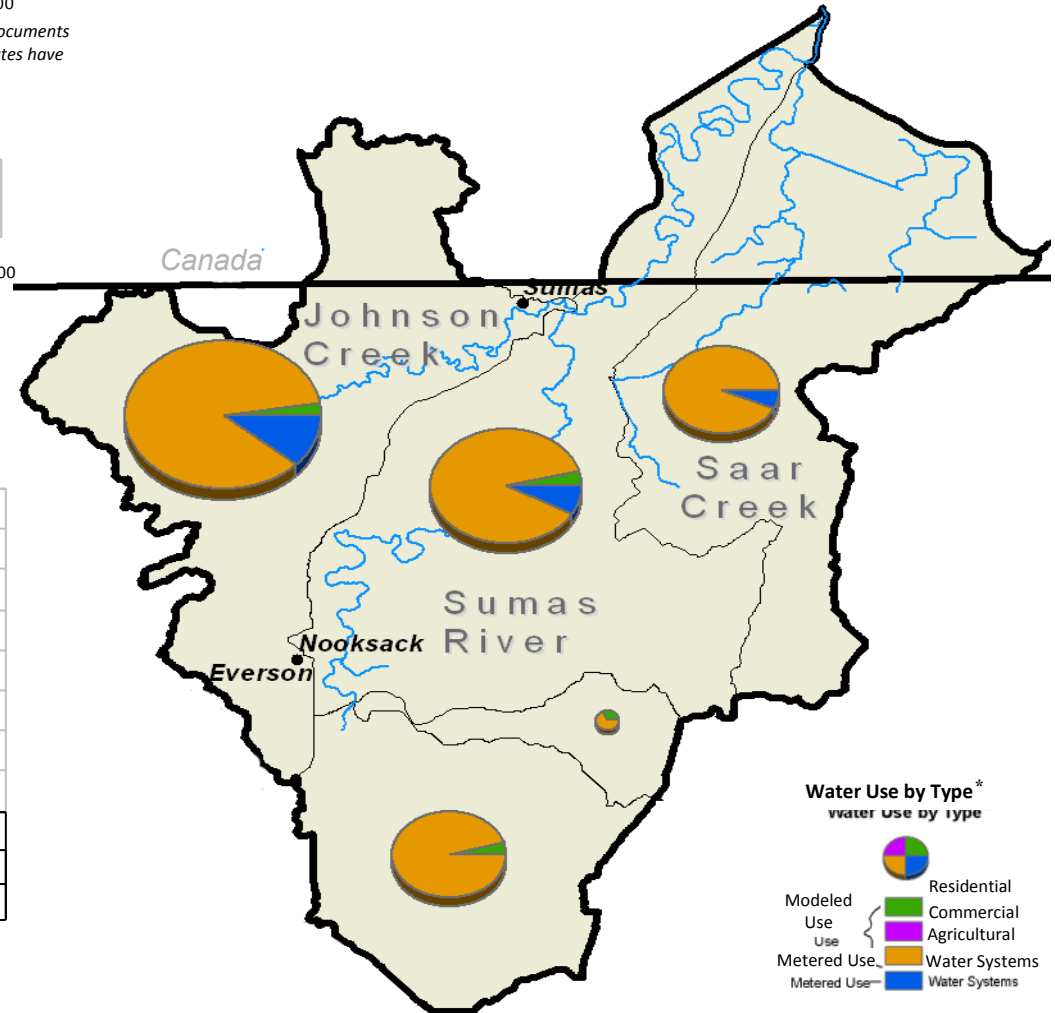
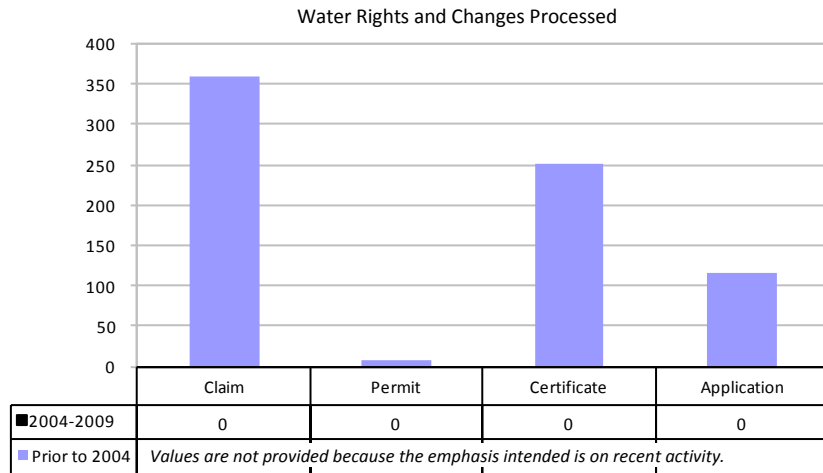
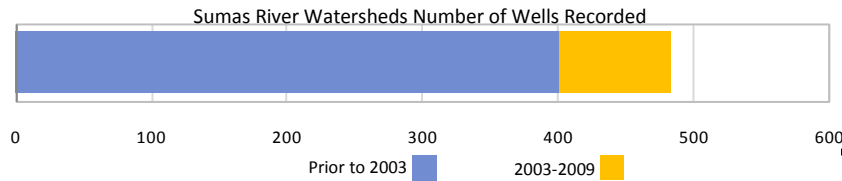
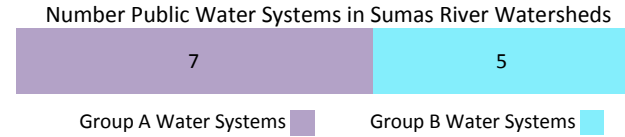
Approaches and sources for data displayed in this report are provided in a separate technical appendix at <http://wria1project.whatcomcounty.org>



Understanding Water Use and Availability



*Area covered equates to area included in a water right "place of use." Due to overlapping and superseding documents irrigation acreage permitted within the "place of use" may be less than "acres covered". Water right certificates have not been assessed to know if they are still valid.

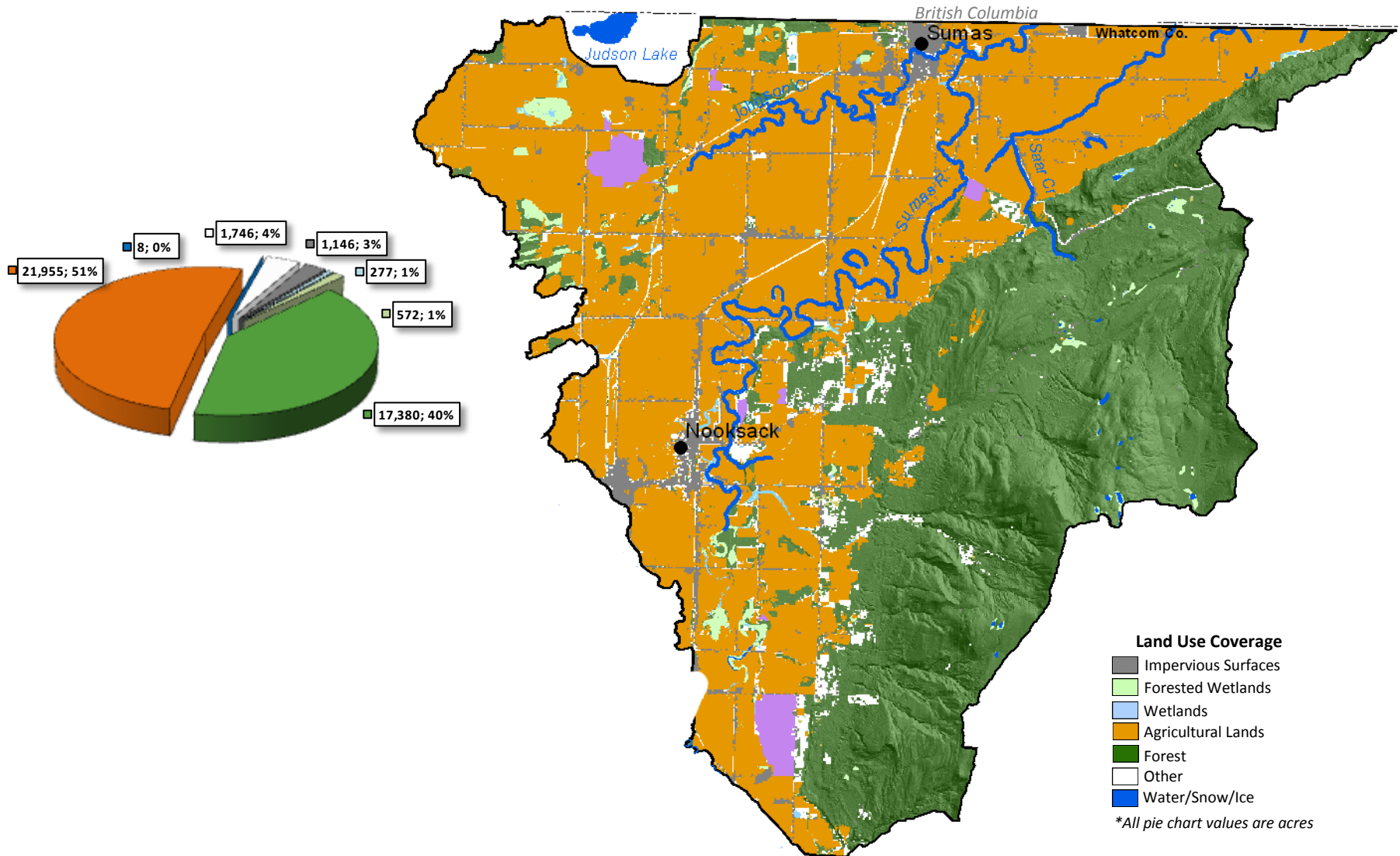


*The pie chart size reflects the relative volume of water use across all of WRIA 1.

Approaches and sources for data displayed in this report are provided in a separate technical appendix at <http://wria1project.whatcomcounty.org>



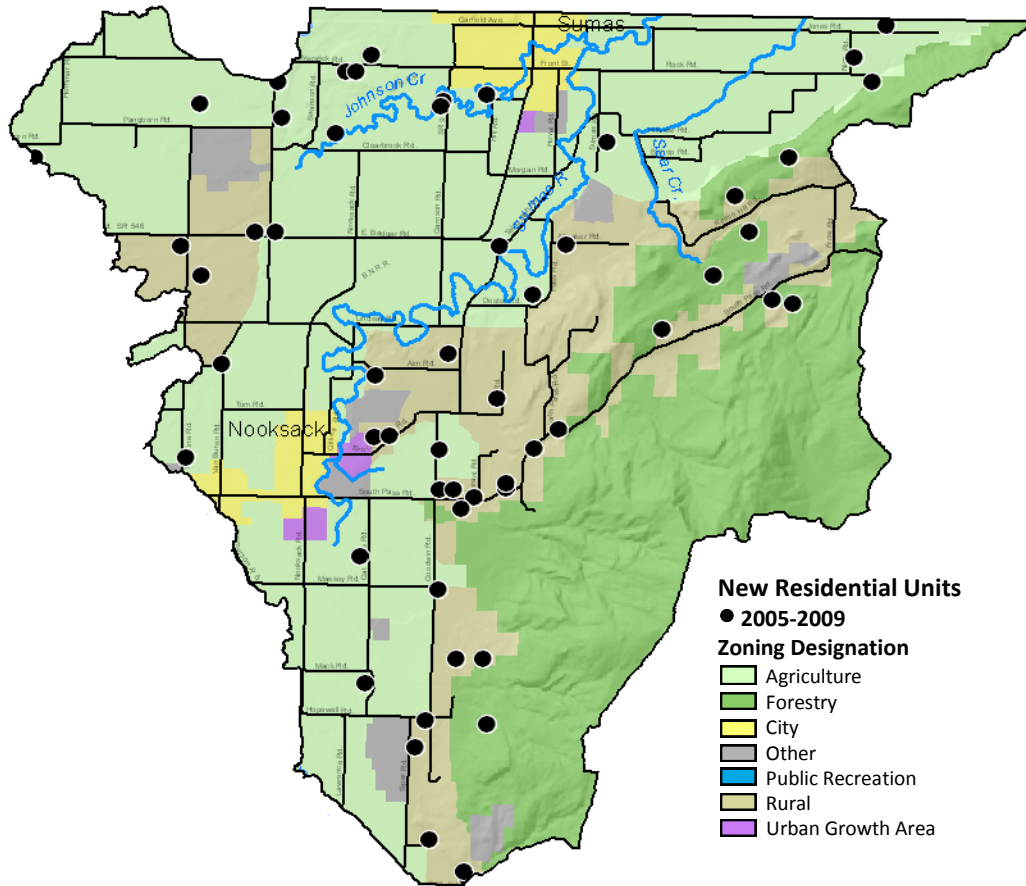
Land Cover and Land Use in Sumas River Watersheds



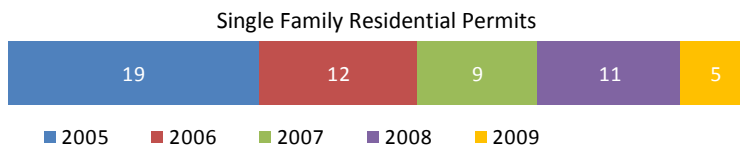
Land cover in British Columbia is not shown or included in acreage displayed in pie chart.



Permit Activity and Zoning

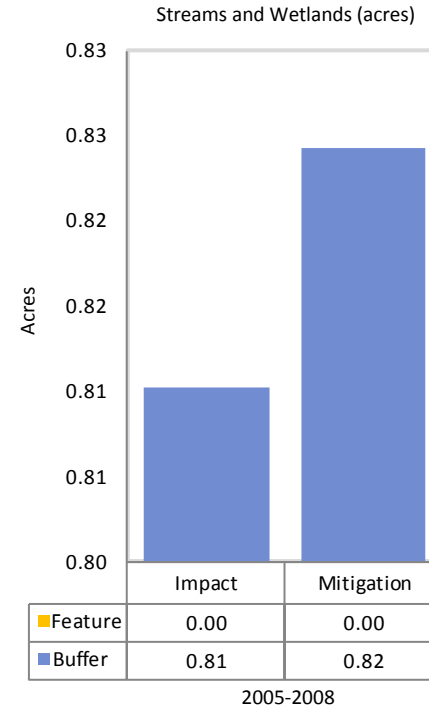


*Zoning designation and permits in British Columbia are not shown. Permit data do not include cities.



Mitigation for Land Disturbance in Critical Areas

The graphs below show cumulative impacts of development projects to critical area features and buffers in the Sumas River Watersheds, as well as the required mitigation for those impacts. 2005-2008 is shown because that is the timeframe for which there are complete records under the Critical Areas Ordinance and Shoreline Management Program.



Approaches and sources for data displayed in this report are provided in a separate technical appendix at <http://wria1project.whatcomcounty.org>

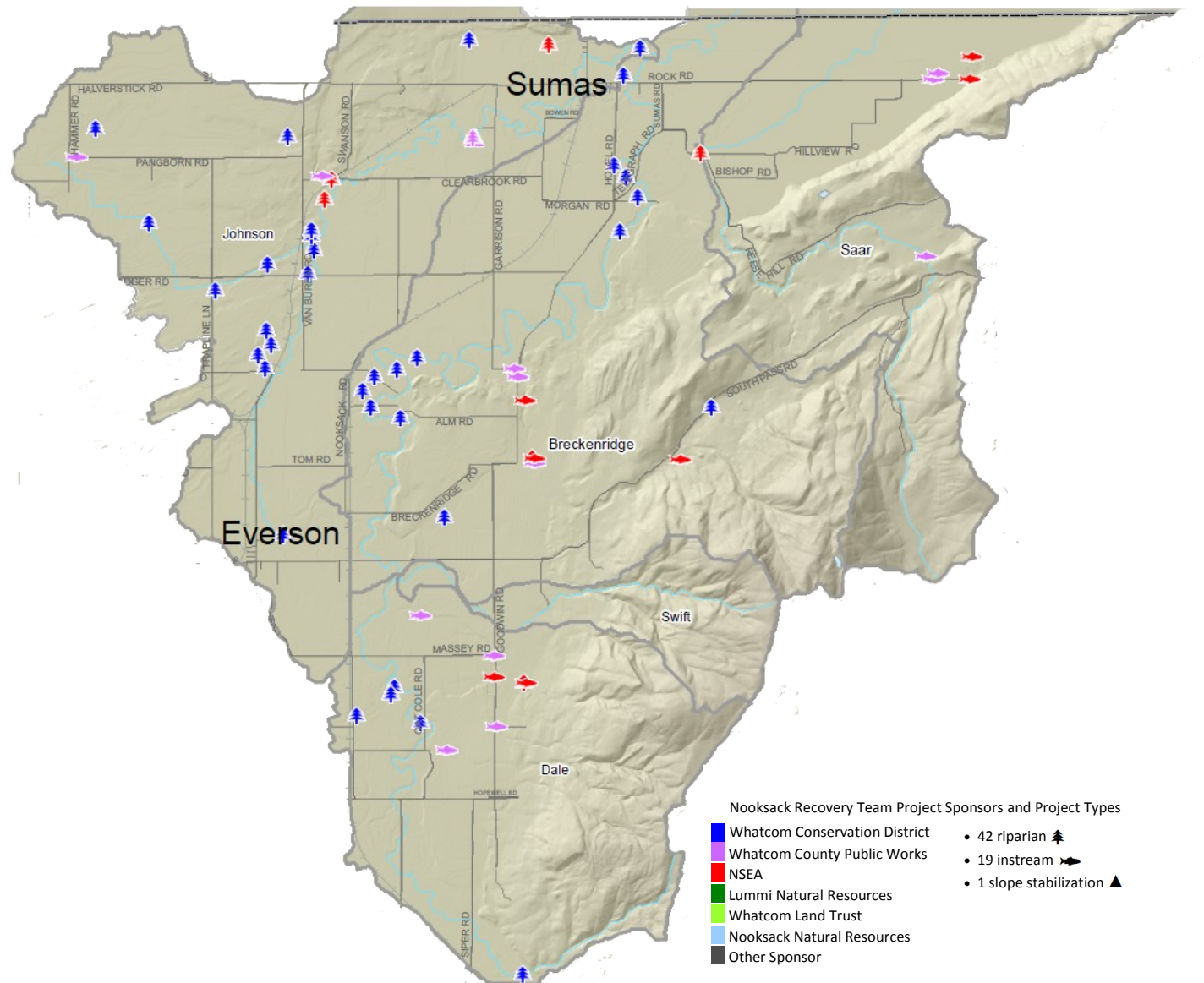


Fish Habitat

Watershed extends north into British Columbia and drains to Fraser River

Sumas River Watersheds Fish Habitat

Fish presence in the Sumas River Watersheds includes chum, coho, and cutthroat salmon. The 2002 [Salmon and Steelhead Habitat Limiting Factors in WRIA 1, The Nooksack Basin](#) reports that habitat conditions in the Sumas Watersheds are degraded. A number of organizations and governmental entities are working to restore fish habitat in these watersheds. The map to the right shows a distribution of fish habitat restoration projects completed between 1986-2008. The majority of these projects were completed by Nooksack Salmon Enhancement Association, Whatcom Conservation District, and Whatcom County Public Works.



Source: Nooksack Recovery Team project map and database.