It's All in the Watershed

Planning for the future of the South Fork Valley

Nestled between the eastern slope of Stewart Mountain and the Foothills of the Cascades, the South Fork Nooksack River flows through a valley dominated by farms, floodplain forests, and wetlands. Because it relies on snow melt from the Twin Sisters, rather than glacial melt, the South Fork is more susceptible to water quality issues related to low flows in the late summer. Land use within the South Fork Nooksack Valley is primarily a combination of commercial forestry and agriculture creating a dynamic community throughout the valley. Every aspect of life here is water dependent.

Water issues in the South Fork are primarily tied to seasonal changes in hydrology driven by precipitation and snow pack. Human factors and a changing climate are exacerbating the natural fluctuations in water quantity that have shaped the Valley's ecosystem. Expanding the riparian forest and restoring wetland habitat within the historic floodplain will help improve both water quantity and quality within the South Fork Nooksack River.

Returning healthy forests along the South Fork and its tributaries is essential to maintaining cool, clean, and consistently flowing water. Mature trees help to shade the water and stabilize the soil, keeping the water cool and preventing sediment from eroding into the stream. These trees also contribute to the amount of woody debris in the water creating larger pools for both salmon habitat and cold water storage. Lengthening timber harvest rotations could be one of the most effective ways to increase instream flow in the South Fork Nooksack River. Recent hydrological modeling work suggests that the impact of allowing a forest to grow 100 years (above the current average of around 40 years) would increase water flow by fifty percent in the summer time, when flows are low and the demand for water is high.

Floodplain reconnection and wetland restoration are key components of improving watershed health within the South Fork Nooksack River . Wetland systems provide excellent flood control by allowing more water to be stored out of the main river channel and underground. Recharging groundwater and the slow release of water from wetlands creates more availability of water later in the summer for fish, farms, and people. Groundwater also tends to be colder than surface flows and when exchanged with the river can substantially lower overall water temperatures in the South Fork. Whatcom Land Trust is working to protect Duck Pond and Mustoe Marsh, two wetland complexes providing benefits to water health in the South Fork.

Today, the South Fork Community is working hard to collaborate on issues affecting their watershed. The South Fork Nooksack River Community Watershed Project began in January of 2017 with funding from the Bureau of Indian Affairs (BIA) and the Environmental Protection Agency (EPA) to create a framework for education and dialog around water issues within the South Fork Nooksack Valley. Local residents were looking for a way to become more informed about water issues within their community and advocated for open dialog on how to conserve all of the aspects which make the area special. Whatcom Land Trust was one of many South Fork Valley property owners and neighbors to participate in this process along with the Nooksack Tribe, Whatcom County, and local citizens. In September 2017, participants in the planning project formed the South Fork Watershed Education Committee with the goal of organizing public forums to inform the community on topics such as water quality, forestry and agriculture in relationship to watershed health.

Substantial research has been completed on the South Fork Watershed, plans are evolving, and education is ongoing. The South Fork Nooksack Valley community and its many partners, including Whatcom Land Trust, are on their way to finding solutions which will balance land use and water quality for the future generations of plants, wildlife, and people who call this place home.

If you are interested in learning more please visit the South Fork Community Watershed Project's website: southforknooksack.com

Water Protection in the South Fork

Past: **Whatcom Land Trust, and its partners have been very successful in protecting land along the South Fork Nooksack with property acquisitions, conservation easements and restoration efforts. Edfro Creek, Nesset Farm, and Riverstead are just a few of the projects working to preserve riparian and wetland habitats within the SFNV.**

Present: **Skookum Creek provides 22 percent of the August streamflow to the South Fork and with 33 percent of its watershed located within the current high elevation snow zone, its cold water is critical to salmon and other species who utilize the South Fork. Whatcom Land Trust is currently in the process of acquiring over 1,200 acres of land along Skookum Creek to restore and protect in perpetuity.**

Future: **There is always work to be done when it comes to protecting our precious water resources here in Whatcom County. Whatcom Land Trust is constantly on the lookout for new, innovative projects which meet the goal of providing clean, cold, consistent water for all.**

Frog egg mass