

County: Whatcom
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Chuckanut Pollution Identification and Correction Program

2015 Final Report

Prepared by WCPW Staff

For the Whatcom Marine Resources Committee

North Chuckanut Bay is a recreational shellfish harvesting area with elevated bacteria levels and has been closed to recreational shellfish harvest since 1997. The MRC has been working with the Whatcom County Health Department, Whatcom County Public Works – Natural Resources, Washington Department of Health, citizen volunteers, and the local community to conduct intensive water quality sampling (in both the freshwater and marine water), establish a community driven Pollution Identification and Correction Program, and ultimately restore the recreational shellfish area.

The goal of this project is to characterize fecal coliform levels within the Chuckanut watershed and seasonal variation of those bacteria levels to identify sources of pollutants, suggest water quality improvement projects, attain water quality standards, and protect beneficial uses (including recreational shellfish harvesting). Seven freshwater sites and five marine sites are sampled on either a monthly or bi-monthly basis, simultaneously. Page 3 features a map of the sampling stations. Surface grab samples are taken to measure fecal coliform bacteria and flow is estimated to calculate bacterial loadings to the marine environment. Salinity is measured at all marine stations and those freshwater stations with tidal influence. (Photo by Eleanor Hines, salinity check)



The MRC has conducted twenty-one sampling events since October 2015 using local volunteers and Whatcom County Public Works staff. All volunteers were trained in water quality sampling



by the MRC. MRC staff are in consistent communication with County Health and Department of Health staff, sharing water quality data, and inquiring about any recommended revisions to the sampling regime. The Department of Health needs at least thirty water quality samples in order to make a determination on delegating state resources towards opening of the shellfish harvest area. The MRC has collected thirty-one samples from most of the sampling stations since the project started in February 2015. The project is expected to continue through August 2017 in order to conduct bracket monitoring to narrow down potential sources and attain samples while Whatcom County Health works to assess the status of OSS systems in the area. The MRC will also continue targeted education and outreach in conjunction with Whatcom County's PIC program. The goal is to be able to emphasize steps the community has made to successfully improve water quality in the bay. (Photo by Holly Faulstich: Eleanor Hines and Barb Francis ready to sample)



The MRC coordinated one education and outreach event at N. Chuckanut Bay during this grant period. In November of 2015, the MRC partnered with the Nooksack Salmon Enhancement Association (NSEA) to conduct a Salmon Tour at North Chuckanut Bay. This public event provided an opportunity for residents of the area and visitors to learn about the spawning chum salmon that return every fall to Chuckanut Creek and about MRC efforts to improve water quality in the bay. This event was a part of NSEA's popular series of public Salmon Tours that have been offered every fall for three years during the spawning season of chum salmon.



MRC Member Doug Stark educates attendees about nearshore life in Chuckanut Bay. Photo credit: Rachel Benbrook

Approximately 40-50 people attended the event, with many walking down from the local community and others taking a NSEA shuttle from the North Chuckanut Trailhead. Attendees were greeted by five naturalists from NSEA, as well as MRC volunteers who conducted beach walks and shared information about the MRC's water quality monitoring program. Additionally, a representative from Whatcom County Health was on hand to educate folks about the relationship between water quality and healthy shellfish harvest areas. The City of Bellingham provided an historical overview of N. Chuckanut Bay, including photos and stories.



Chum salmon carcass on the beach at North Chuckanut Bay. Photo credit: Rachel Benbrook.

During the event, a few fish were observed jumping in the bay and two chum carcasses were visible on the beach, providing a great opportunity to talk to visitors about salmon and their use of nearshore habitats. Several visitors identified themselves as residents of the Chuckanut Village community, and it was great to see this target audience represented at the event. Visitors were treated with hot drinks, snacks, and hands-on activities including a button maker where kids could decorate buttons that read "Proud to be a North Chuckanut Bay Steward".

This event was sponsored by the Whatcom Community Foundation. A copy of the invitation is included in this report.

129 volunteer hours were spent on this project during this grant year. Water quality sampling has been successful due to this volunteer commitment. Whatcom County has a large kayaking community and several volunteers interested in citizen science and the health of their local waterways and fish populations. Community events will be successful in this area if local organizations can continue to partner together to teach a broader message about all the components to healthy marine and freshwater ecosystems.