Citizen science demonstrates need and importance at Whatcom County beaches

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WHAT IS THE SURFRIDER FOUNDATION?  
The Surfrider Foundation is a grassroots non-profit environmental organization that works to protect and preserve the world's oceans, waves, and beaches. Through a network of chapter activists, Surfrider has several programs to support their mission, including the Blue Water Task Force (BWTF).

WHAT IS THE BLUE WATER TASK FORCE?  
BWTF is a volunteer run water quality monitoring and education program that has over 35 chapters operating to protect public health across the nation. The program has grown significantly over the past several years, with over 5,000 samples taken in 2016. Our local chapter has been monitoring Bellingham’s most popular beaches for over 10 years.

WHERE WE MONITOR:
- Nooksack River Delta
- Locust Beach
- Little Squalicum Beach
- Padden Creek
- Mud Bay
- Larrabee State Park

MONITORING PROCESS:
- 3 samples are collected monthly at each field site during high tide
- Samples are processed in the lab at the Post Point Wastewater Treatment Plant
- 24 hours later the samples are analyzed for the fecal coliform bacteria, Enterococcus

FUTURE BWTF GOALS:
Due to the success at Larrabee State Park of new partnerships, consistent sampling and increased public awareness, our chapter would like to implement these methods to achieve EPA’s swimming standard at Little Squalicum Beach and remove the permanent swimming advisory. The graph below portrays monthly enterococcus indicator bacteria levels at Little Squalicum in 2017 for the BWTF Program. The Ecology BEACH program also found that four of the fifteen sampling events during the 2017 swim season were above the safe swimming standards (www.ecology.wa.gov). The improvement project can be done by empowering citizen scientists to take action on water quality issues, collaboration with local stakeholders, government agencies, and concerned citizens, and a partnership with RE Sources for Sustainable Communities to assist with their Poop Patrol program which educates the public on fecal coliform pollution. Whatcom County currently has a population of 40,000 dogs that generate 30,000 pounds of poop daily (www.re-sources.org/pooppledge). Joining the Squalicum Clean Water Project and working upstream of Little Squalicum Beach with Poop Patrols at the dog park will help to stop the contamination at its source.