Apr 27th, 4:30 PM - 5:00 PM

Tahlequah Soft Shore Project Tahlequah Ferry Terminal

Rick Huey
Wa State Ferries

Design by Nature: Restoring the Tahlequah Ferry Terminal Shoreline

Rick Huey and Adrienne Stutes, Washington State Ferries
Bianca Perla, Vashon Nature Center

Introduction

In the summer of 2021, recognizing that shoreline armoring has impacts to fish and marine invertebrate habitat in Puget Sound (Dethier et al. 2016), failing creosote and concrete bulkheads were removed from the Washington State Ferry property at Tahlequah, Vashon Island, WA.

Other restoration activities included: shoreline regrading, anchoring large woody debris, removing invasive species and planting shoreline with native species.

The shoreline is being monitored by the Vashon Nature Center to examine how habitat changes pre and post restoration.

Materials and methods

Beach sediment and stream cobble placed on the regraded site. Compost and native plantings completed.

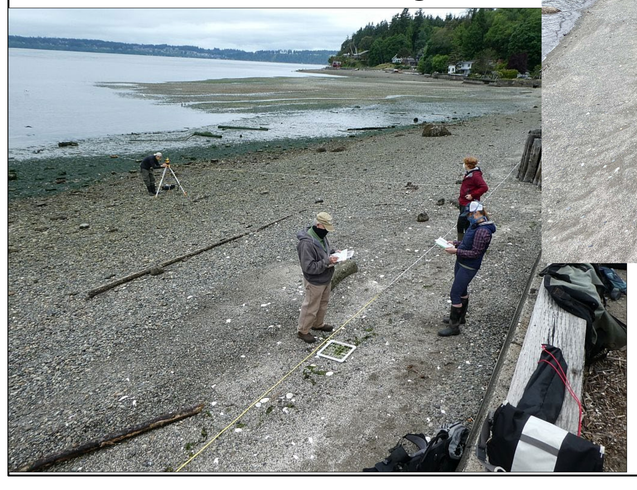
Shoreline Monitoring Toolbox Protocols (including forage fish surveys) used for all data collection.

Monitoring and beach profile completed pre-construction (Perla, 2020). Monitoring will continue in Year 2, 3 and 6 post-construction.

Pre-construction bulkheads

Post-construction/post-storms

Pre-construction monitoring



Conclusions

Beach profile is changing as anticipated, just faster than expected. Storms and extreme high tides have accelerated wood recruitment to the shoreline.

Volunteer Monitoring: June 2020-June 2021-- 18 volunteers and 198 people volunteer hours.

June 2021-March 2022-- 20 volunteers and 82 people volunteer hours.

Age range of volunteers: 10-78 years old

Literature cited

Megan N. Dethier, Wendel W. Raymond, Aundrea N. McBride, Jason D. Toft, Jeffery R. Cordell, Andrea S. Ogston, Sarah M. Heerhartz, Helen D. Berry. 2016. Multiscale impacts of armoring on Salish Sea shorelines: Evidence for cumulative and threshold effects, Estuarine, Coastal and Shelf Science, Volume 175, 2016, Pages 106-117, ISSN 0272-7714, https://doi.org/10.1016/j.ecss.2016.03.033

Perla, B. 2020. Tahlequah Restoration Monitoring Report: Pre-restoration baseline. Prepared by Vashon Nature Center for Washington State Ferries. 57 pp.

Acknowledgments

Design, permitting and construction: Washington State Ferries Project Team, King County.

Shoreline monitoring: Vashon Nature Center, volunteers, interns and Vashon High School students.

Further information

Please **see:**
https://vashonnaturecenter.org/project/shorelines/

Adrienne Stutes: stutesa@wsdot.wa.gov

Bianca Perla: bianca@vashonnaturecenter.org