

FIDALGO BAY SOFT
SHORE BANK
STABILIZATION AND
FORAGE FISH
HABITAT
RESTORATION

Samish Indian Nation Presentation for 2011 Science
Conference

LOCATION



Project Location



History

- ▣ Fidalgo Bay 1575 Acres
- ▣ Traditional Homeland for the Samish People
- ▣ 2001-2002 Phase I condos were built; damage incurred
- ▣ 2003 –Archaeology Investigation
 - Preliminary Investigation
 - ▣ The work documented a midden, at least 200 m parallel to the shore and 20 m inland, and as much as a meter thick in places. Part of larger site.

Ancestral Remains

- ▣ 2003 – Human remains discovered in cut bank
- ▣ 2005 – Human remains interred in new location during Cascadia Archaeology excavation.
- ▣ Some of the artifacts suggest that the site dates to the Locarno Beach period, ca. 3,400-2,400 years ago, older than most shell middens in the Puget Sound-Straits region.
- ▣ Exact location of burials is unknown.

History

- ▣ 2005 – Permits were issued for temporary soft shore armoring to protect the site.



Before soft shore armoring (February 05)



After soft shore armoring (July 05)

History

- ▣ 2006 – Due to improper installation, soft shore armoring fails in less than 6 months.



January 2006

Phase II

- ▣ 2008 – Cove at Fidalgo LLC applies for Phase II of the Condo Project
 - 18 additional condos
 - Tribe comments on permit
 - ▣ Phase I not complete due to failure of shoreline stabilization.
 - ▣ Tribe insists that bank stabilization be completed prior to Phase II.

Prior to Construction

- ▣ January 2009 – 5 Feet of Shoreline Lost in 4 Years



Samish Takes Lead Role

- ▣ February 2009: Developer, refuses required shoreline stabilization due to economic downturn. No condos, no project;
- ▣ Samish requests to fulfill project requirements with existing engineered plans and permits;
- ▣ Must find adequate funding to move forward
- ▣ Find qualified contractor and archeology firm

Project Funding Partners

Funding Partners

- ▣ Washington State Department of Archeology and Historic Preservation
- ▣ Northwest Straits Commission Tribal Fund
- ▣ Samish Indian Nation Tribal Council
- ▣ Shell Puget Sound Refinery/NWSC Foundation
- ▣ Port of Anacortes
- ▣ City of Anacortes
- ▣ Washington State Department of Natural Resources

Project Starts

- ▣ **September 3, 2009**
 - **Shoreline Excavation and Construction**
 - **Coastal Geologic Services/Skagit Conservation District**
 - **Equinox Research and Consulting International**



Pathway Built

Due to the soft beach, we had to build a path for the excavator to walk down so that we could get the work started on the far end. We could not construct the drift sills until this path was made.



Further into the project, tides became an issue



Drift Sills

- 8 large root wads
- 24 ecology block buried into the beach.
- Chained Down



Early Mornings

Archeologists required to be on site for all potential activities that might disrupt the bank or area



Before and After

First Phase Complete

- 1475 tons of 3-3.75" rock
- 375 tons of pea gravel
- Final layer of 132 tons of washed sand. Once the path was built, a smaller tracked cat was brought in to transport material.

- Large voids in the Our biggest void was 14' long!
- Forage fish on beach as we placed final load



Difficulties for Phase 1

- Soft beach
- Lag time between original survey and work/ greater beach loss/more material



- Large voids that were unmapped
- Tides
- Off load areas

Phase 2 Plants

- ▣ Spring of 2010
 - 50 Yards of soil/30 in front of condos, 20 more at west end
 - Over 500 Native plants
 - Youth from Cap Sante Alternative High School



Plants

- ▣ Ocean Spray, golden and red currant, rose, snowberry, salal



Project Partners

- ▣ All the funding and contract agencies mentioned earlier;
- ▣ Samish Tribal Council for their support in seeing the vision with this project and allocating the much needed funds so we could move forward;
- ▣ Stillaguamish Banksavers for the plants;
- ▣ Cap Sante Alternative High School (hardworking kids on a wet day!)
- ▣ Bill Bailey and Rosie James/Cayou for their spiritual guidance throughout this project

- ▣ *We could not have met our project goals without the incredible networking it took to make this project happen.*

Next.....

- ▣ Extend the project an additional 500 feet onto Samish Tribal Lands.....

