Northwest Straits Marine Conservation Foundation
Skagit Marine Resources Committee

Skagit Restoration Initiative

Annual workplan for Natural Resources Damages Settlement payment from Kimberly-Clark, Scott Paper Mill Site, to the Northwest Straits Marine Conservation Foundation

Provided to the Washington Department of Ecology, January 30, 2010

Workplan Objective: Restoration of sediment transport processes and forage fish spawning habitat at March's Point, Fidalgo Bay and Padilla Bay, Skagit County

Workplan Period: May 1, 2010 through April 30, 2011

Workplan Projects Description: March's Point, in Skagit County, is a small peninsula extending northward with Fidalgo Bay to the west and Padilla Bay to the east. Its cusp was formed by the convergence of two net shore-drift cells. The March's Point nearshore provides numerous habitats for species ranging from sea grasses and macroalgae, to shellfish, fish and wildlife. March's Point nearshore hosts several target species identified by the Fidalgo/Guemes Area Technical Committee: Pacific herring, surf smelt, all life stages of all salmon species including cutthroat, dolly varden and steelhead, Dungeness crab, hardshell clams, flatfish and birds (waterfowl and shorebirds) (Antrim et al. 2003). Like all nearshore environments in Puget Sound, March Point plays a critical role in salmon recovery in the Puget Sound Chinook Evolutionarily Significant Unit. Viability of Puget Sound Chinook requires functioning nearshore and marine habitats (Redman et al. 2005).

The Skagit Marine Resources Committee (MRC) has been exploring ways to restore ecosystem functions and process at March's Point for years. In 2004, the MRC worked closely with People for Puget Sound on the 'Skagit Bays Blueprint' project, which inventoried potential nearshore habitat restoration projects throughout Fidalgo, Skagit, and Padilla Bays. The MRC commissioned a study by Coastal Geologic Services in 2007 to look more closely at sediment and geomorphological processes at March's Point and to identify and prioritize potential restoration projects. The Skagit River Systems Cooperative, which provides natural resource management services for the Sauk-Suiattle Indian Tribe and the Swinomish Indian Tribal Community, has also identified projects to restore processes and habitats on a system wide scale at March's

Point. The MRC is using the Skagit Restoration Initiative to implement many of the projects previously identified as important for marine and nearshore resources in Skagit County.

This first annual workplan of the Skagit Restoration Initiative focuses on restoration of sediment transport processes and improvement of forage fish spawning habitat at March's Point. The activities outlined herein are part of a larger effort by the MRC and the Skagit River Systems Cooperative to treat March's Point as one system and improve and restore both sediment transport processes and habitat functions of the nearshore throughout the system.

Project 1 addresses impaired sediment transport processes in the Northeast part of March's Point, specifically at a boat launch on property owned by Tesoro Refining. The treatment area is part of drift cell SK-E-2, identified by Johannessen and MacLennan (2007), with a northern drift, stretching 7,597 feet from N. Texas Road to the cusp of March's Point.

According to historical records, accretion appears to have occurred on the south side of the boat launch between the years of 1886 and 1978 (Johannessen 2007). Since then, the rocky groins on either side of the boat ramp have prevented longshore drift from carrying sediment from the south to the north side of the ramp. In addition, it appears that erosion and beach coarsening has occurred, which likely resulted from scour caused by waves reflecting off of the groins. The shoreline is now predominantly composed of coarse sediment and pebbles. Ideal forage fish spawning habitat is composed of a mixture of coarse and fine sediments. Surf smelt were documented to spawn on the pocket beach immediately south of the southern groin and at the cusp of the Point, both areas immediately adjacent to the beach just north of the northern groin at the boat ramp (Pentilla, 2005).

The project involves removing groins associated with the old boat ramp located about 600 feet south of the cusp of March's Point, removing scattered riprap from the beach, and interplanting native shoreline vegetation. Approximately 400 feet of shoreline will be treated. Removal of the groins will restore longshore sediment transport which appears to have been altered after the boat ramp was constructed in 1978.

Engineered design is complete and permitting is in process. The project involves removing 700 cubic yards / 1150 tons of rock and concrete blocks from two existing groins and disposing them offsite. The work also includes removing about 10 cubic yards / 16 tons of scattered riprap debris from the surrounding beach. The work will be done using a large tracked excavator or crane operating from an existing boat ramp and a small, bobcat-type loader operating on the beach. Holes left after riprap removal will be allowed to fill in with natural tidal and wave action. 6500 square feet of backshore south of the removed groins will be inter-planted with native vegetation to enhance habitat and deter erosion.

Project 2 will improve forage fish spawning habitat at West March's Point beaches by placing beach material with the appropriate mixture of coarse and fine sediments at four locations along West March's Point. Funding secured through the Texaco Restoration Trust Fund is currently paying for design and permitting work for nourishment activities. Skagit Restoration Initiative funding will expand the area of beaches receiving nourishment material.

Design and permitting are in process. The project will involve placement of 1,850 tons of nourishment material in locations that require supplementation or expansion during the scheduled 2010 nourishment placement. The initial nourishment locations were selected base on recommendations by Johannessen and MacLennan (2007). Beach nourishment of sediment-starved beaches is identified as a first step to improve forage fish spawning habitat. Restoration of sediment transport processes at these beaches will be explored in subsequent years.

Remaining funds will be set aside for future projects that will continue the system-wide approach to habitat and sediment transport process restoration at March's Point. A number of projects have been identifies and will be carried out in future years.

Below is a list of studies and reports that identify priority projects for restoring habitat, coastal processes and sediment transport in March's Point:

- Antrim, LD, AB Borde, RM Thom, and JA Southard. 2003. *Plan for habitat protection, restoration, and enhancement for Fidalgo Bay and Guemes Channel*. Prepared for the City of Anacortes by Battelle Marine Sciences Laboratory. Sequim, WA.
- Johannessen, J. and A. MacLennan. March 6, 2007. "*March's Point Geomorphic Assessment & Restoration Prioritization*"; Study prepared for the Skagit County Marine Resources Committee (MRC) by Coastal Geologic Services, Inc. http://www.nwstraits.org/uploadBibliography/SKA-2007-0022_MarchPt-Restore-CGS-Final_Report.pdf
- Beamer, E. and A. McBride. 2007. *North Fidalgo Island Nearshore Habitat Restoration Vision*, Skagit River System Cooperative.
- People for Puget Sound. April 30, 2004. "*Northern Skagit County Bays and Shoreline Habitat Conservation and Restoration Blueprint*"; Habitat Planning Tool Prepared for Skagit County MRC. http://www.nwstraits.org/uploadBibliography/Compressed2005SkagitBayBlueprint.pdf

Other references:

Penttila, DE. 2005. *Documented spawning areas of the Pacific herring, surf smelt, and Pacific sand lance in Skagit County, Washington*. Washington Department of Fish and Wildlife, LaConner.

Redman, Scott, Doug Myers and Dan Averill, editors. 2005. *Regional Nearshore and Marine Aspects of Salmon Recovery in Puget Sound*.

Workplan:

Project 1.0 Restore sediment transport processes at East March's Point boat ramp

- Task 1.1 Obtain all permits necessary for project implementation
- Task 1.2 Remove boat ramp groin and beach riprap
- Task 1.3 Interplant native vegetation in backshore area of beach
- Task 1.4 Develop and implement long-term monitoring plan

Project 2.0 Restore forage fish spawning habitat at West March's Point beaches

- Task 2.1 Execute contract with Skagit River Systems Cooperative for beach nourishment placement
- Task 2.2 Place 1,850 tons of beach nourishment materials at sediment starved beaches of West March's Point
- Task 2.3 Coordinate with Skagit River Systems Cooperative to develop and implement a long-term monitoring plan

Budget:

Task 1.0	$ 60,000
Task 2.0	$ 43,000
Set aside	$ 9,500
Overhead	$ 12,500
Total	**$125,000**