

Final Project Report
Project: Colewort Creek Restoration Project Final Design Phase
LCREP Grant # 20-2012



*Grantor: Lower Columbia River Estuary Partnership (EP)/ Bonneville Power
Administration (BPA)*
Grantee: CREST

Introduction

The Colewort Creek Restoration site is located in the Lewis and Clark National Park approximately 1.5 miles from Youngs Bay.

Tidal wetlands are one of the most impacted habitats in the Youngs Bay watershed and are a priority for restoration. Flood control measures, including filling and ditching, have fragmented the available wetland habitat for salmonids in Youngs Bay, and throughout the Lewis and Clark River basin.

In 2007, CREST partnered with the National Park Service (NPS) to replace a tidegate under the roadway at the Colewort Creek site with a bridge. This restoration improved the function of the wetland complex. However, 15 acres in the southern portion have higher elevations from historic filling. In this area, replacement of the bridge alone was not sufficient for reestablishing natural hydraulic patterns, or restoring the wetland for functional salmonid habitat.

CREST and the NPS propose to maximize habitat conditions through enhancement of the existing tidal marsh, restoration of filled wetlands, and reconnection of isolated areas with tidal hydrology. Utilizing these techniques will address limiting factors in the Lewis and Clark River such as lack of off-channel habitat, altered nutrient exchange processes, and availability of preferred habitat.

Funding will be utilized to progress the preliminary designs to 100% level design plans for this restoration project.



Figure 1. Colewort Creek Project Location

Activities Completed

Preliminary designs for the Colewort Creek Restoration Project were completed in 2011 through funding provided by the NPS. Vigil- Agrimis was the engineering firm selected to complete the preliminary designs. Development of phase I designs included completing a topographic survey of the site, and conducting a hydraulic and hydrologic analysis of the site and surrounding areas, as well as conducting an alternatives analysis of potential restoration opportunities.

The preliminary design information was presented to the Colewort Creek technical advisory committee (TAC). A scoping meeting was also held in December of 2011 to give the public the opportunity to learn about the project and comment on the potential restoration alternatives. Both TAC members and the public utilized the information provided in the preliminary project designs to select a preferred project alternative. The preferred alternative included a slightly modified version of Alternative 1, with the additional enhancement options to the wetland area north of the main tidal channel. This alternative was chosen because it would provide the greatest habitat benefits at an expense that does not exceed a feasible budget for a project of this size.

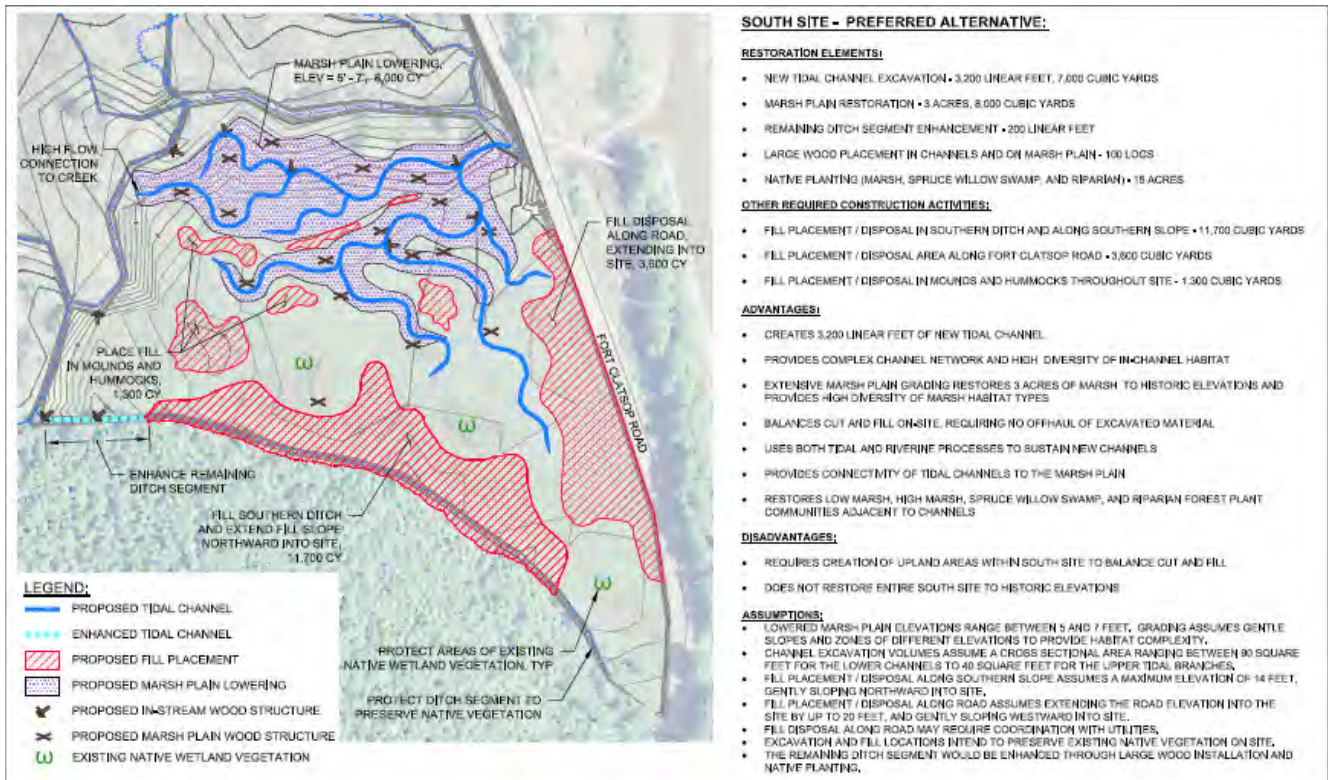


Figure 2. Colewort Creek Project Preferred Alternative

Once the preferred alternative was chosen, Vigil-Agrimis began work on the 30% designs for the Colewort Creek Wetland Restoration. The 30% level design drawings were completed in January of 2012. Restoration methods identified in the designs included restoring over 3 acres of marsh plain to historic elevations on the southern site by removing fill material, excavating 3,200 linear feet of new tidal channels, and placing the excavated fill in the ditches along the southern and eastern perimeters of the property to create hummocks for topographic diversity. The area north of the main tidal channel will also be enhanced by deepening existing ditches, creating new meandering tidal channels, and removing invasive reed canary grass from 2.5 acres in the northeastern corner of the project site. The restoration plans also call for installing large woody debris throughout the project site, and revegetating all disturbed areas with native wetland and riparian plants.

In March, 2012, Vigil- Agrimis was contracted again to complete the final designs for the Colewort Creek Wetland Restoration. Completed work for the final design phase of the Colewort Creek Project includes construction drawings and specifications with sufficient detail to use for the implementation phase of this project. It also includes a construction cost estimate for the entire implementation phase. The final designs were delivered to CREST in June 2012.

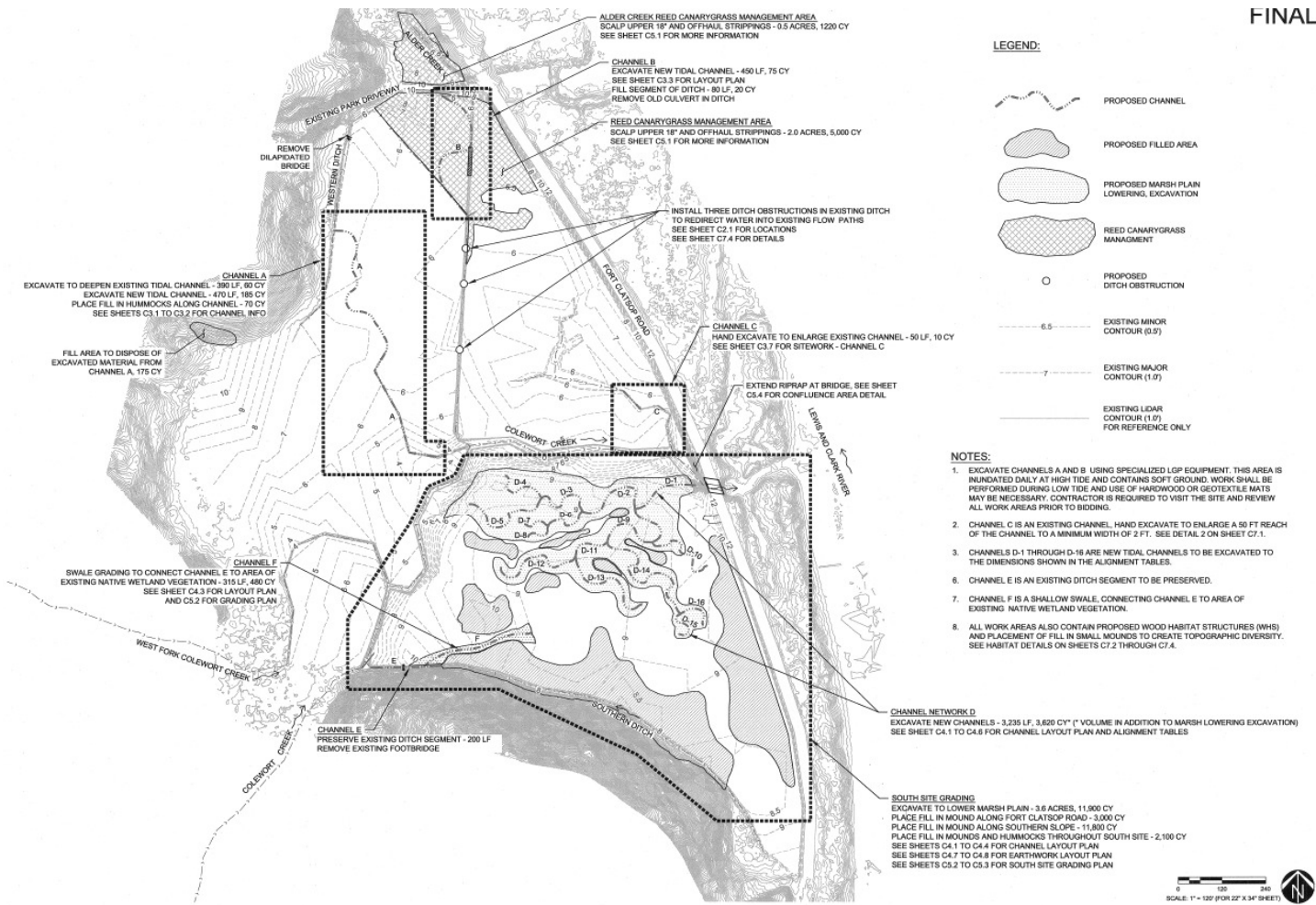


Figure 3. Final Project Designs

Permit applications were submitted in January 2012. An environmental assessment of the project actions was completed in May of 2012. A public comment meeting for the environmental assessment was held on June 19th, 2012. Community feedback on the project was positive.

Implementation for the Colewort Creek Wetland Restoration occurred between August 6th, and October 5th of 2012. All in-water work was completed during the permitted in-water work window of July 15th to September 30th. Thompson Bros. Excavating was hired to complete the construction work for the Colewort Creek Wetland Restoration.



Figure 4. Excavation of New Tidal Channels at Colewort Creek



Figure 5. Confluence of Colewort Creek and the New Tidal Channel Network Immediately After Project Completion

Revegetation of disturbed areas of the project site is currently underway. The National Park Service planted over 10,000 Wapato bulbs in the reed canary scrape down area immediately following construction. CREST and NPS are partnering to plant the remaining disturbed areas with a variety of native wetland, riparian and upland plant species. A community volunteer planting event is scheduled for Saturday December 8th, 2012.

Pre-project Monitoring Activities

This site is part of a long-term monitoring plan. Data previously collected during the past five years was utilized for pre-project monitoring at the Colewort Creek site. Available data at the site includes water quality data, fish presence surveys, channel transects, prey availability and vegetation surveys from 2007 to 2012.

Fiscal Administration

Accounting for this project has been sent separately. At this time, \$1,165.87 remains in the grant budget. Remaining funds exist in the “finalize engineering plans” and “fiscal management and overhead” elements. The remaining funds will be utilized for the remaining invoices for contracted engineering services, as well as additional fiscal management hours and overhead expenses.

All cash match for the Colewort Creek Final Design Phase came from the National Park Service.

Colewort Creek Final Design Phase Budget Summary

Budget Category (e.g. personnel, supplies, contractual, etc.)	EP/ BPA Funds 20-2012	Matching Contributions	Total EP Grant Expense	Nature (cash or in-kind) and Source of Match
Amount Awarded	\$70,568.00	\$32,000		
Draft Engineering Plans	\$36,231.00	\$31,711.48	\$36,231.00	NPS- From Preliminary Design Phase
Finalize Engineering Plans	\$26,403.00	\$0	\$25,769.00	
Fiscal Management and Overhead	\$7,934.00	\$0	\$6,309.28	
Total Spent to Date		\$31,711.48	\$68,309.28	