

## Steelhead Haven Landslide Remediation

### Project Details



**Project Status:** Closed Completed since 10/29/2010

**Project Type:** Restoration

**Project Sponsor:** Stillaguamish Tribe of Indians

**Funding Board:** Salmon Recovery Funding Board

#### Funding

Salmon State Projects: \$494,860  
**Total RCO Grant:** \$494,860 (49%)  
 Sponsor Match: \$513,921 (51%)  
**Total Agreement:** \$1,008,781 (100%)

#### Links

Original Project Agreement  
 Amendments: 2  
 Attachments: 32 files

Stillaguamish Tribe of Indians; Steelhead Haven Landslide Remediation (#04-1634) 11/10/2006, Attachment #40456, Steelhead Haven Aerial

### Project Description

One of the primary factors limiting Chinook production in the Stillaguamish watershed is fine sediment input before and during spawning and incubation. As stated by the Washington Department of Fisheries in the 1970's, "The principal factor limiting salmon production within the North Fork is sedimentation resulting from a major clay slide. Below that point, heavy silt deposits cover most of the gravel riffles, making them unsuitable for successful spawning and egg incubation. This condition also inhibits natural cycles of aquatic insect growth, reducing food production, and consequently lowering the holding and rearing capacity of the stream below." Sediment from the slide is filling pools, and shallowing and widening the overall channel network, resulting in increased temperature, brought about by reduced shading and groundwater interception. This habitat loss and water quality impact will continue until the sediment source is reduced and the channel storage is increased. The purpose of this project is to isolate the river from the landslide thereby eliminating the undercutting of the slide and creating channel storage behind a large wood revetment. The project goal is to build the revetment 500' from the toe of the slide, move the river south of the revetment and isolate the landslide from the river eliminating the direct sediment discharge. A feasibility report is complete (#99-1687N). Reducing sediment to a level the river can flush will be the measure of effectiveness, along with increased spawning and survival.

### Project Contacts

**Project Sponsor:** Stillaguamish Tribe of Indians

**Project Contact:** Pat Stevenson  
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 (360) 631-0946

**Lead Entity:** Stillaguamish Lead Entity

**Funding Agency:** Recreation and Conservation Office

**Project Manager:** Elizabeth Butler  
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### Project Location

**General Area:** North Fork Stillaguamish, river mile 20.4

**Waterbody:** North Fork Stillaguamish River, Stillaguamish River

**County:** Snohomish

**Legislative Districts 2002:** 39

**Legislative Districts 2012:** 39

**Congressional Districts 2002:** 02

**Congressional Districts 2012:** 01

**Salmon Recovery Regions:** Puget Sound

**DNR Watershed Units (WAU):** Hazel

**4th Field Catalog Units (HUC):** Stillaguamish

**WRIA:** Stillaguamish

**Sections:** 01

**Township:** T32NR07E

**Coordinates:** 48.28328110  
 -121.84333001



### Worksites

Worksite Name	Scope of Work	Actual Restoration Cost
Steelhead Haven Landslide (#1)	Architectural & Engineering (A&E), Channel structure placement, Obtain permits, Other restoration activities,	\$1,095,270

## Properties

Worksite Name	Property Name	Landowner Type
Steelhead Haven Landslide (#1)	Property 1 - Property - Worksite #1	State Government
		<b>Total</b>

## Project Metrics (Outcomes, Benefits)

Category / Work Type / Metric

Final

### Restoration Metrics (rolled up from Worksite level)

#### Instream Habitat Project

##### Channel structure placement

Miles of Stream Treated for channel structure placement	0.38
Pools Created through channel structure placement	2
Number of structures placed in channel	1

##### Streambank stabilization

Miles of Streambank Stabilized	0.38
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#### Permits

##### Obtain permits

Number of permits required for implementation of project	6
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## Project Milestones

Milestone Name	Target Date	Description
Project Start	03/31/2005	
Applied for Permits	07/31/2005	
Monitor/Steward Plan Submitted	12/31/2005	
A&E Plans Submitted	03/31/2006	
Construction Started	07/15/2006	
Construction Complete	08/15/2007	Project has been completed. Conducting final site maintenance.
Annual Project Billing	07/31/2009	
Agreement End Date	10/31/2009	
Proposed Completion Date	10/31/2009	Complete repairs/maintenance of revetment
Final Docs/Billing to Mgmt Agy	09/30/2010	

## Project Attachments

Attachment Type	Attachment Title	Attach Date
Agreement - State	04-1634 Agreement.pdf	02/13/2012
Application authorization	Application Authorization.jpg	07/20/2004
Design document	steelhead haven plans 2 of 2.pdf	09/30/2010
Design document	Steelhead haven plans 1 of 2.pdf	09/30/2010
Design document (as built)	post-constr structure elev measurements.pdf	02/27/2008
Evaluation proposal	Steelhead Haven Eval Proposal.pdf	07/20/2004
Final project report	Final Report 2/24/10.pdf	07/20/2010
Lease	DNR land use authorization.DOC.pdf	07/20/2010
Map	monitoring maps.doc.pdf	07/20/2010
Map	Steelhead Haven Landslide Aerial Photo.pdf	07/27/2004
Memos and correspondence	Community meetings.DOC.pdf	07/20/2010
Memos and correspondence	SRFB Cost Change Request for Steelhead Haven 02-7-05.pdf	03/16/2005
News Article	News article.DOC.pdf	07/20/2010
News Article	News Article 12/23/04.pdf	01/28/2005
Photo	steelhead haven repair 092309.jpg	10/23/2009
Photo	close up view Jan 2008.jpg	09/03/2008
Photo	us end revetment Jan 2008.jpg	09/03/2008
Photo	close up ds end revetment Jan 2008.jpg	09/03/2008
Photo	d/s end revetment Jan 2008.jpg	09/03/2008
Photo	overview of revetment Jan 2008.jpg	08/21/2008
Photo	Steelhead haven1.jpg	11/30/2006
Photo	steelheadhaven.jpg	11/30/2006
Photo	steelhead haven2.jpg	11/30/2006
Photo	Steelhead haven good view.jpg	11/30/2006
Photo	Steelhead Haven.jpg	11/30/2006
Photo	Steelhead Haven Aerial.jpg	11/14/2006
Project partnership form	Project Partner Contribution.jpg	07/20/2004
Project presentation	2009 Year-in Review of Stillaguamish Projects.ppt	07/20/2010

Project presentation	2007 Presentation River Restoration NW Symposium .ppt	03/17/2010
Project presentation	04-2009 Conference Powerpoint.ppt	02/26/2010
Project presentation	Construction Site Inspection Photos 08-23-06.ppt	10/11/2006
Stewardship plan	STEWARDSHIP PLAN.doc	07/17/2010

Date of last change: 03/27/2014