

Attachment A

PRE-PROPOSAL FORM

Lewis River Aquatic Fund

1. Applicant organization.

Lower Columbia Regional Fisheries Enhancement Group

2. Organization purpose

501c3 nonprofit organization, designated as a regional fisheries enhancement group by WA State Legislature to *“To lead the process of salmon recovery in a way that ensures community involvement in habitat restoration so that abundant, naturally self-sustaining salmon and steelhead runs occur throughout the Lower Columbia River region”*.

3. Project manager (name, address, telephone, email, fax)

Tony Meyer 12404 SE Evergreen Highway Vancouver, WA 98683
360-852-1077 Tony@lcfeg.org

4. Project Title

Haapa Side Channel Habitat Restoration- Phase II

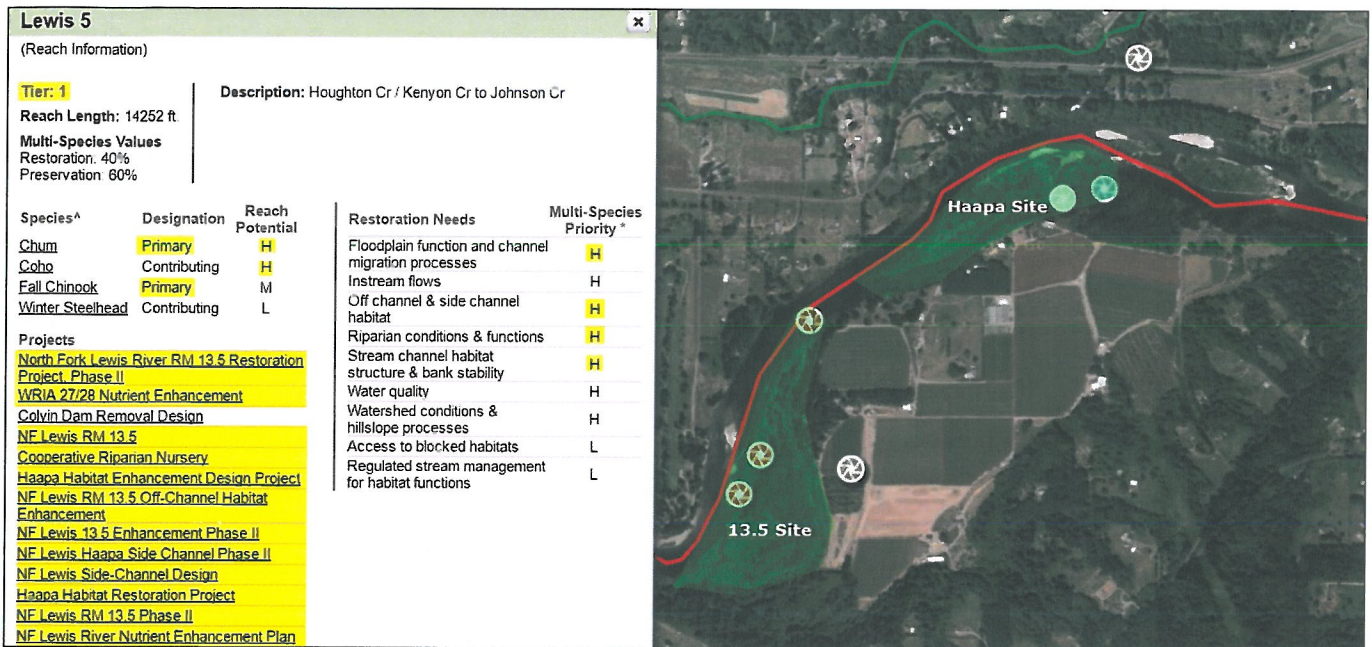
5. Summary of Project proposal

The Haapa Restoration project consists of multiple components including riparian restoration, floodplain roughening, mainstem LWD placements and creation of a new 2,700' long side channel. The riparian, floodplain roughening and mainstem LWD components were funded by SRFB/ ACC in 2014 and the project is currently in progress.

This ACC proposed project has been significantly reduced in scope and budget from what was recently proposed to LCFRB and is focused on enhancement of the existing 5.2 acre off-channel habitat. This reduces the budget significantly (50%) and gives us the flexibility to focus on a single key habitat attribute identified in LCFRB and ACC guidance documents as a High priority in the NF Lewis. The proposed restorative action can stand on its own merits but we will request SRFB funds in 2017 to complete the entire side channel project as depicted in the attached design plans.

Multiple species utilize side and off channel habitat to complete one or more freshwater life-history stages and this type of habitat is in very limited quantity downstream of Merwin dam. In fact, side and off channel habitat is slowly disappearing due to cessation of habitat forming flows, sediment and woody debris all of which is severely curtailed as a result of the hydro system.

The proposed project is located in NF Lewis Reach 5 several hundred yards upstream of our proposed NF Lewis 13.5 Phase II project site which helps reduce construction costs. The two projects are located on the same side of the river on the inside of a long meander bend which provides protection from the effects of large flood events. Both project sites have been thoroughly vetted by Interfluve engineer Mike McAlister and Hydrologist Gardner Johnston using SRFB funds to complete the design phase of the project.



From LCFRB SalmonPort. Note Reach potential and Multi-Species Priority ratings for reach 5.+

Table 10. Tier 1 and Tier 2 EDT reaches, initial recommendations for restoration measures, and rationale for selecting specific restoration measures. This is a preliminary list and field surveys are needed to confirm specific measures and locations. Keefe et al. (2004) provided recommended restoration measures for Lower North Fork and tributaries.

Reach	Restoration Measure Recommended	Rational for selecting restoration measure
Lower North Fork		
Lewis 1 tidal A	Side channels, LWD, Riparian	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
Lewis 2 tidal B	Side channels, LWD, Riparian	Low wood, percent pools, poor riparian function, Keefe et al. (2004)
Lewis 2 tidal D	Side channels, LWD, Riparian	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
Lewis 3	Side channels, LWD	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
Lewis 4 A	Side channels, LWD	Island-braided channel type, low LWD
Lewis 4 C	Side channels, LWD	Island-braided channel type, low LWD

New Information Regarding Fish Transport into Lake Merwin and Yale Lake - June 2016

Reach 5 is a island braided channel type as indicated by the presence of islands adjacent to the Haapa project site. Although Reach 5 is not specifically called out in the table above, we believe the benefits to fish are virtually identical to Reach 4 given the same fish assemblage, water temperature regime and limiting factors in both reaches. ACC funds will be used to complete 100% of the backwater component and will be used to match SRFB to complete the remainder of the side-channel project.

6. Project location (including River/Stream and Lat/Long coordinates if available). Project is located near the town of Woodland, WA between RM 13.5 & 14.2 of the NF Lewis River. The project occurs in riverine mainstem, side channel and floodplain habitats. Coordinates are 455606.30N 122.3848.17W

7. Expected products and results (Please see attached design drawings).

ACC Phase II (**proposed project**) objectives include:

- Enhance 1,950' long backwater channel with large wood placements and select fill to increase channel diversity, complexity, stability and key fish habitat attributes;
- Enhance 5.6 acres of off channel habitat in preparation to conversion to a 2,700' long side channel for use by all Lewis River salmonids;
- Create 500' of complex edge habitat along right bank of backwater channel using buried slash to mimic submerged root mass.

LCFRB Phase II (**SRFB propose in 2017**) objectives include:

- Construct 1,350' side channel and associated placement of large wood to enhance channel stability including key fish habitat attributes (pools/ cover); connect to backwater channel resulting in 3,300' side channel.
- Construct 200' long groundwater fed alcove chum spawning and rearing channel;
- Install beaver dam analog at confluence of side and back water channels to encourage beaver use and increase key fish habitat attributes;

8. Benefits of proposed Project

This project will increase key habitat quantity and diversity along the main stem of the NF Lewis River adjacent to and downstream of documented, highly productive spawning areas used by Chinook, steelhead, coho and chum salmon. At full build out the project will provide increased spawning for all NF Lewis salmonids including chum salmon which will benefit from a new 200' long groundwater fed spawning channel. Coho, steelhead, spring chinook and to a lesser extent fall chinook and chum juveniles will benefit from the increased rearing habitat created as a result of enhancing off and side channel habitat.

***Off-Channel Fish Benefits**

Coho:

- Increased area for fry colonization, age 0 and 1+ juvenile rearing
- Increased area and function of key habitat (off and side channel habitat)
- Increased habitat diversity, complexity and access to prey items

Steelhead:

- Increased area for fry colonization, age 0 and 1+ juvenile rearing
- Increased area and function of key habitat (side channel habitat)
- Increased habitat diversity, complexity and access to prey items

Chinook:

- Increased area for fry colonization and age 0 rearing (Fall Chinook)
- Increased area for age 1+ juvenile rearing (Spring Chinook)

Chum:

- Increased area for fry colonization

***Spawning, egg incubation and adult holding benefits will occur upon completion of SRFB funded side channel connection. If not funded then off-channel benefits will persist as described above.**

9. Project partners and roles.

LCFEG- Project sponsor responsible for implementing project.

WA-DOC- Will provide donated labor to fasten LWD, other tasks as needed.

WDFW- Fish Program input to final design.

WDFW- Habitat Program input to final design, permitting.

DNR-SOAL- Input to final design, ROE.

Kysar & Loomis- Input to final design, ROE, donations of labor/ materials.

LCFRB- future grant funding.

PacifiCorps- Input to final design, contracting, ACC funding, large wood materials.

Interfluve- Engineering/ design services.

10. Attach signed landowner(s) acknowledgment form(s), if applicable

See attached.

11. Community involvement (to date and planned).

The structures installed at this location will be pinned together using crews from the Larch Mountain Correctional Facility. These volunteer offenders will get hands-on construction experience as well as education about salmon ecology. Plants for this project will be potted by students at Hudson Bay High School and installed by offender crews. These students will be given a hands-on lesson on the benefits of the riparian zone to salmon and will pot willow cuttings into 14” deep Deepots. LCFEG will raise the plants at our nursery in Washougal, WA. LCFEG will solicit letters of support for this project from Fish First, CCA and Clark-Skamania Fly Fishers if requested to submit a full proposal.

12. Procedure for monitoring and reporting on results.

The project will be monitored regularly the first 3 years following construction and following any large flood events thereafter. A final report will be submitted following project completion. Monitoring will consist of photo documentation of project function, juvenile fish use and adult spawning counts.

13. Project schedule (anticipated start date, major milestones, completion date).

Project Tasks	Date Complete
Project start	01-2017
Solicit SRFB funds to complete side channel portion	04-2017

Update design, acquire permits & materials	01-2017 thru 07 2018
Construction start	08 thru 09-30 2018
Monitor function, restore & maintain riparian	11 thru 07 2019
Acquire materials, contractor, complete construction	08 thru 09-30 2019
Monitor function, restore/ maintain riparian	11 thru 07 2020
Maintenance (if necessary)	08 thru 09-30 2020
Monitor, maintain riparian	11 thru 07 2021
Project Complete	12-2021

14. Funding requested

See attached budget. **ACC funds will be used to complete 100% of the backwater component and as match for SRFB funding to complete the remainder of the side-channel project.**

15. Type and source of other contributions (Identify cash (C) and/or in-kind (IK), and status, pending (P) or confirmed (Co)).

IK-Co – Donated labor–Riparian plants (Hudson Bay High School)

IK-Co – Donated labor—pinning logs to pilings (DOC-Larch)

Cash—SRFB grant (LCFRB)\

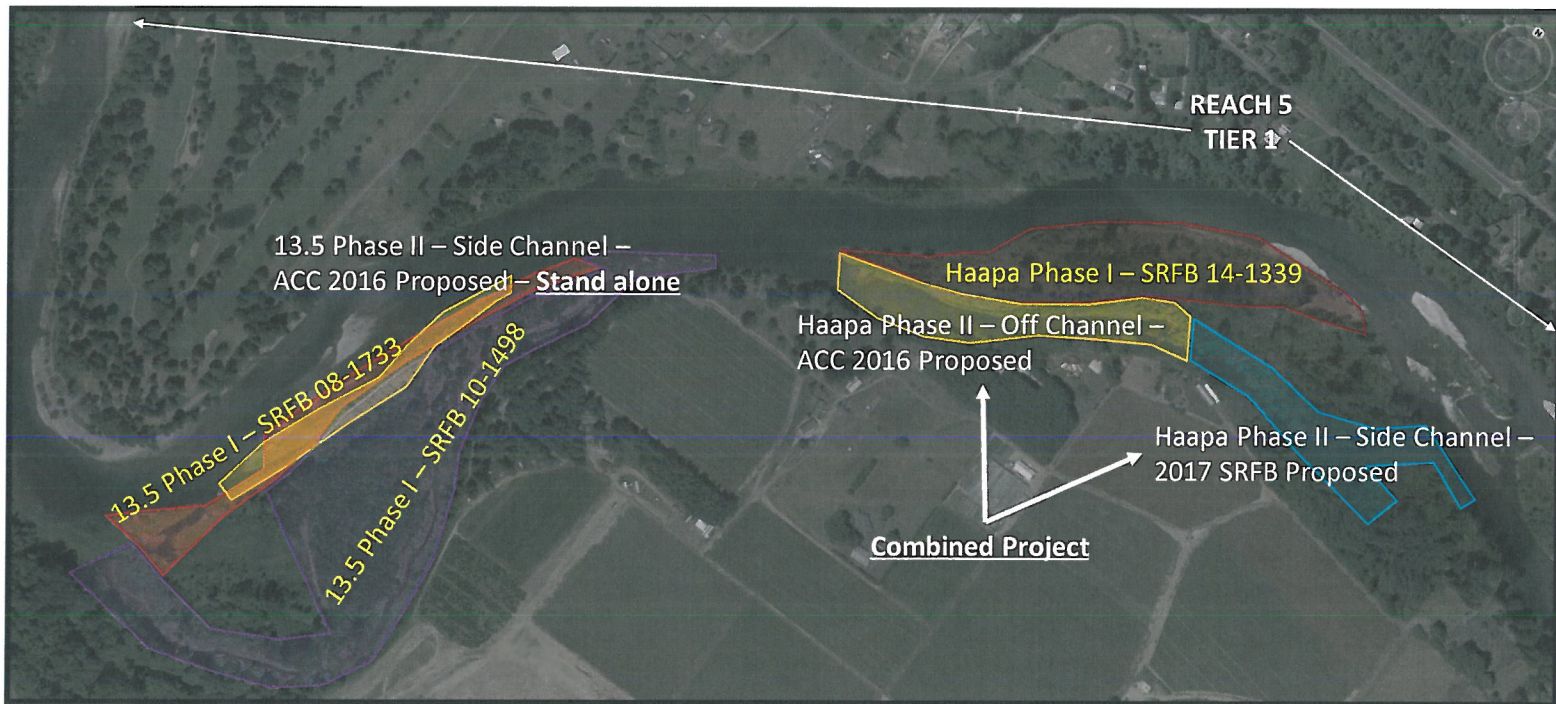
16. If you have technical assistance needs for this project, please briefly describe such needs.

Technical assistance will be provided by Interfluve engineer Mike McAlister

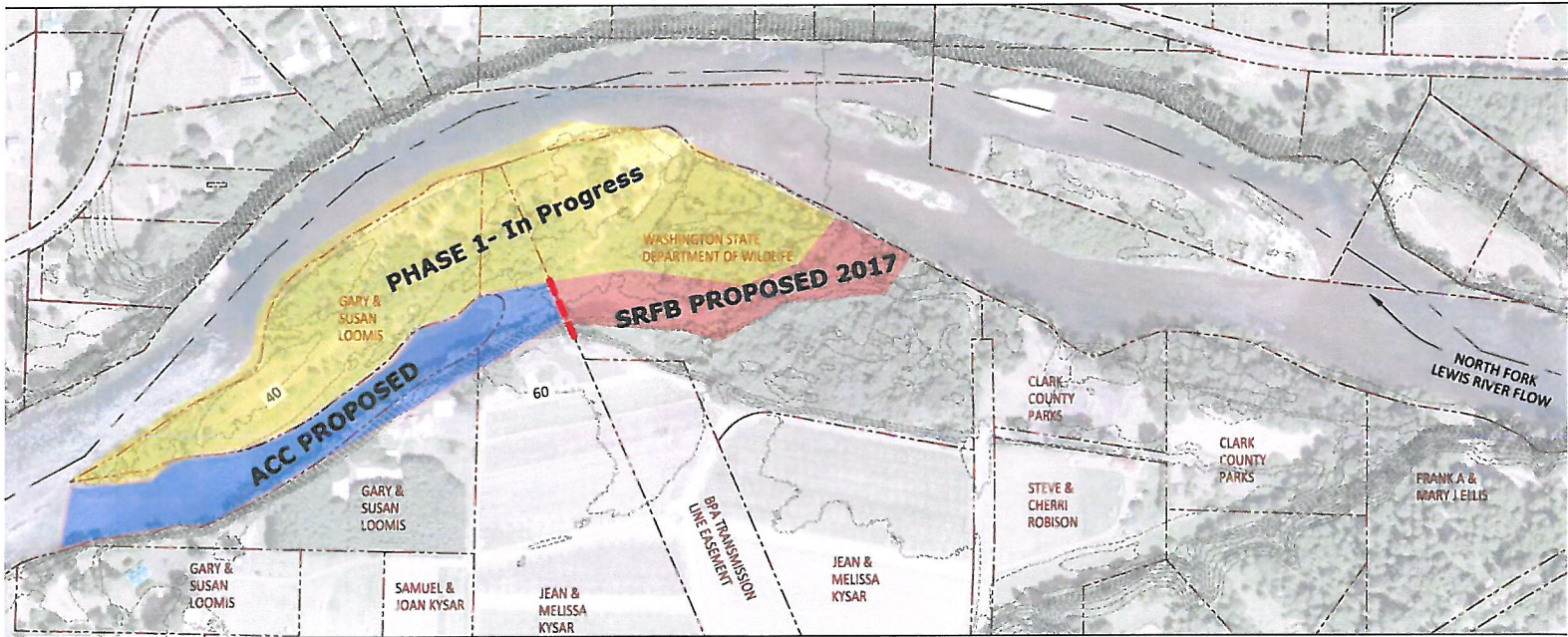
17. If any boating hazards/public safety are an issue please note if any signage requirements.

No signage will be necessary for this phase of the project. SRFB funds will be used to create new signage when the side channel is connected to the mainstem.

LOWER COLUMBIA FISH ENHANCEMENT GROUP 2016 ACC GRANT APPLICATIONS: NF Lewis 13.5 River Braiding *and* Haapa Phase II Project Locations



Haapa Project Location- ACC PROPOSED

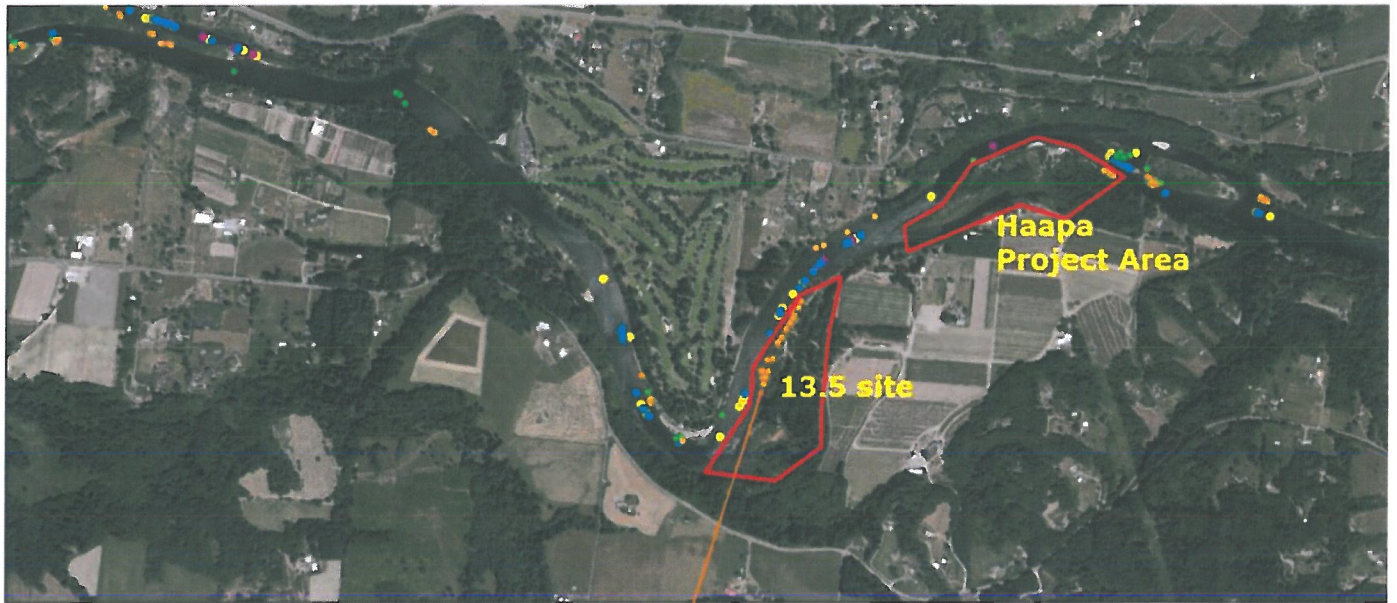




ACC--PROPOSED Off-Channel Enhancement 2016

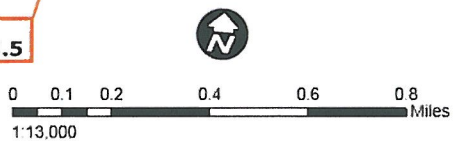
Google earth

Imagery Date: 7/23/2016 45°56'07.50" N 127°30'55.21" W elev: 33 ft eye alt: 2414 ft



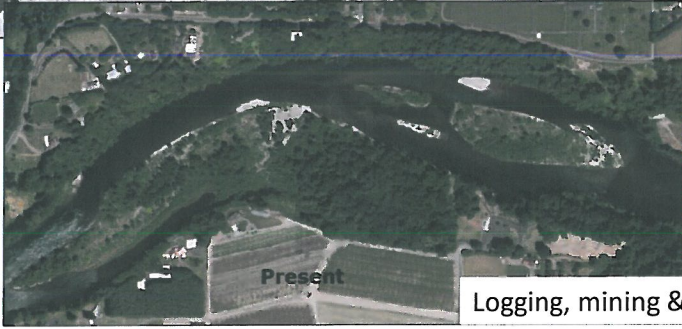
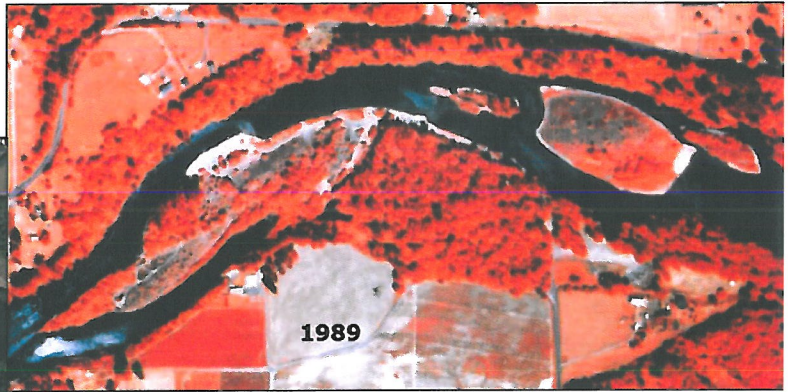
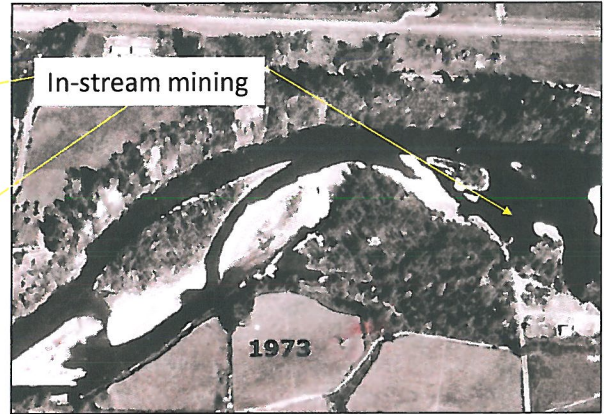
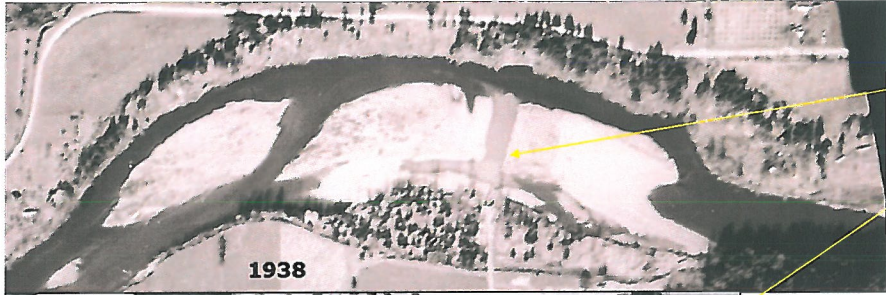
Steelhead Redd Locations, Lewis River, WA
2008-2012 Surveys

- Steelhead 2008
 - Steelhead 2009
 - Steelhead 2010
 - Steelhead 2011
 - Steelhead 2012
- Post project- 13.5**



File: G:\work\comp\1\file_013808\1\16 Lewis_River\LEWIS_RIVER_02062013.mxd 2/1/2013

Steelhead spawning at RM 13.5 increased dramatically after placement of wood along shoreline in 2011



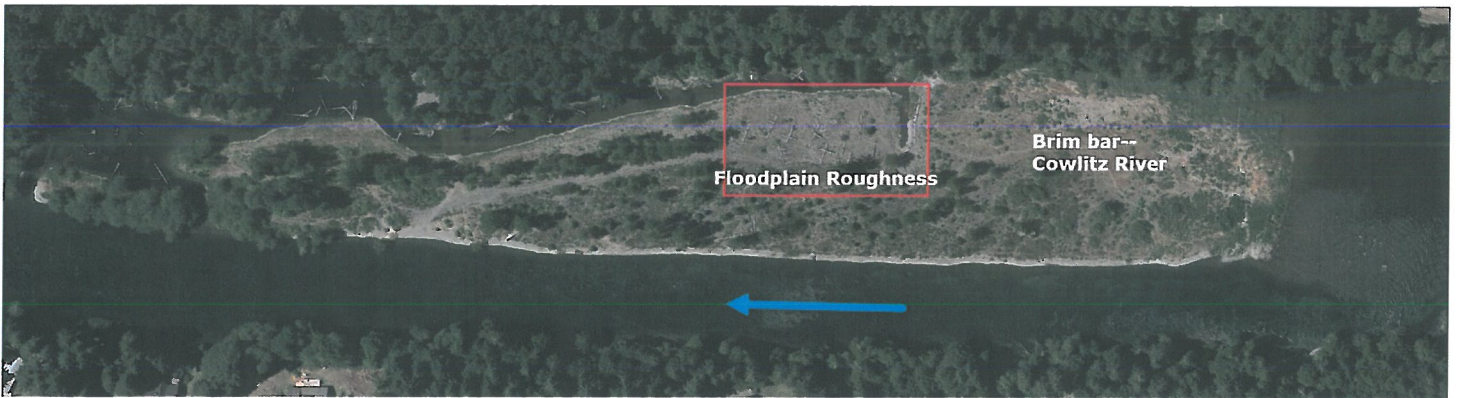
Logging, mining & dams= gradual loss of habitat diversity & channel simplification



Haapa Phase I Riparian began winter 2015



Haapa Phase I LWD structures & roughness elements scheduled to be installed Fall 2016



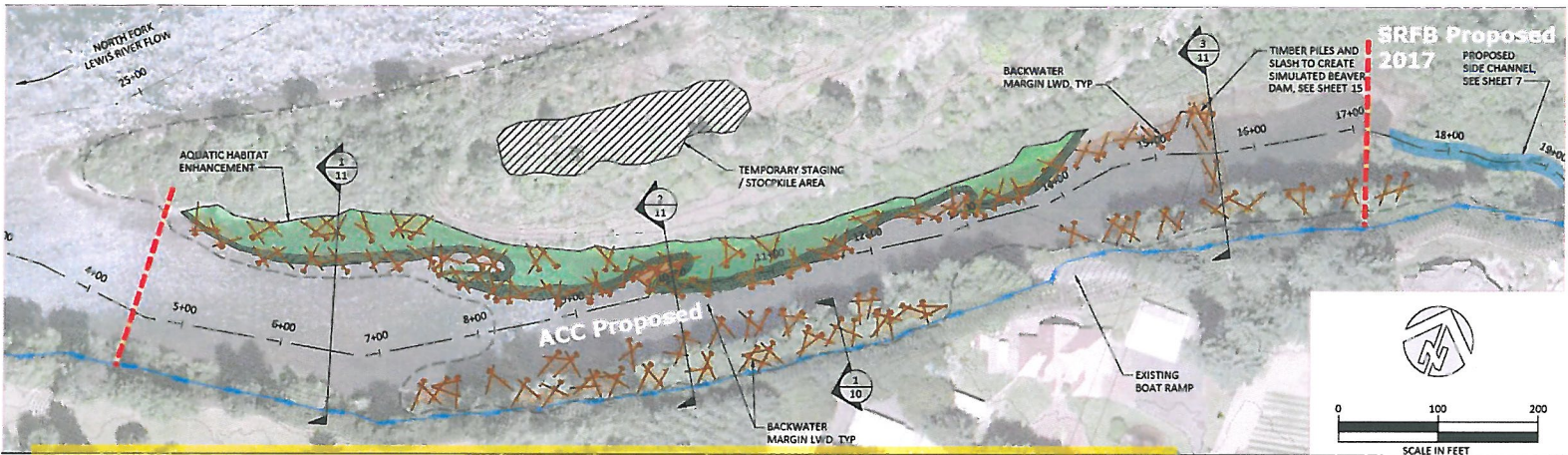


Haapa Off-Channel habitat is devoid of in-stream cover and lacks channel margin diversity

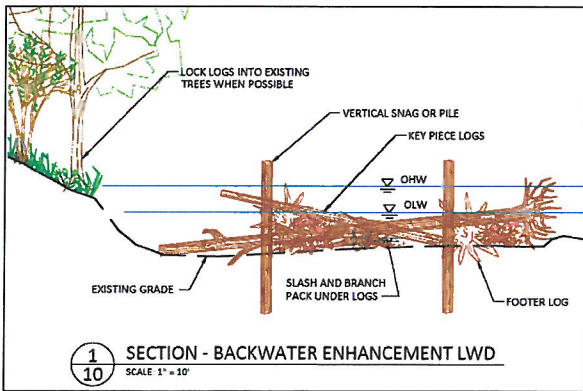


ACC funds will be used to increase in-stream cover and channel margin diversity similar to these photos





Note fill placed to enhance channel margin diversity originates from side channel excavation



CONSTRUCTION QUANTITIES	
ITEM	QUANTITY
FILL	3815 CY
18-24" DBH x 40' LONG, LOG WITH ROOTWAD	168 EA
18-24" DBH x 40' LONG, LOG WITHOUT ROOTWAD	130 EA
10" MIN DIA x 20' LONG, LOG WITHOUT ROOTWAD	200 EA

- QUANTITIES NOTES:**
1. ALL MATERIALS QUANTITIES ARE BASED ON IN-PLACE CONDITION DETERMINED BY THE PRE-PROJECT CONDITION COMPARED AGAINST THE PROJECT FINAL CONDITION.
 2. CONTRACTOR SHALL ALLOW FOR EXPANSION OF EXCAVATED MATERIAL AND COMPACTION OF PLACED MATERIAL AT NO ADDITIONAL MEASURE OR COST TO THE OWNER.
 3. MEASUREMENTS BY WEIGHT OR TRUCK MEASUREMENT SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL.

