

## Attachment A

### PRE-PROPOSAL FORM

#### *Lewis River Aquatic Fund*

#### **1. Applicant organization.**

Lower Columbia Fish 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

Cell: 360-852-1077; tony@lcfeg.org

#### **4. Project Title**

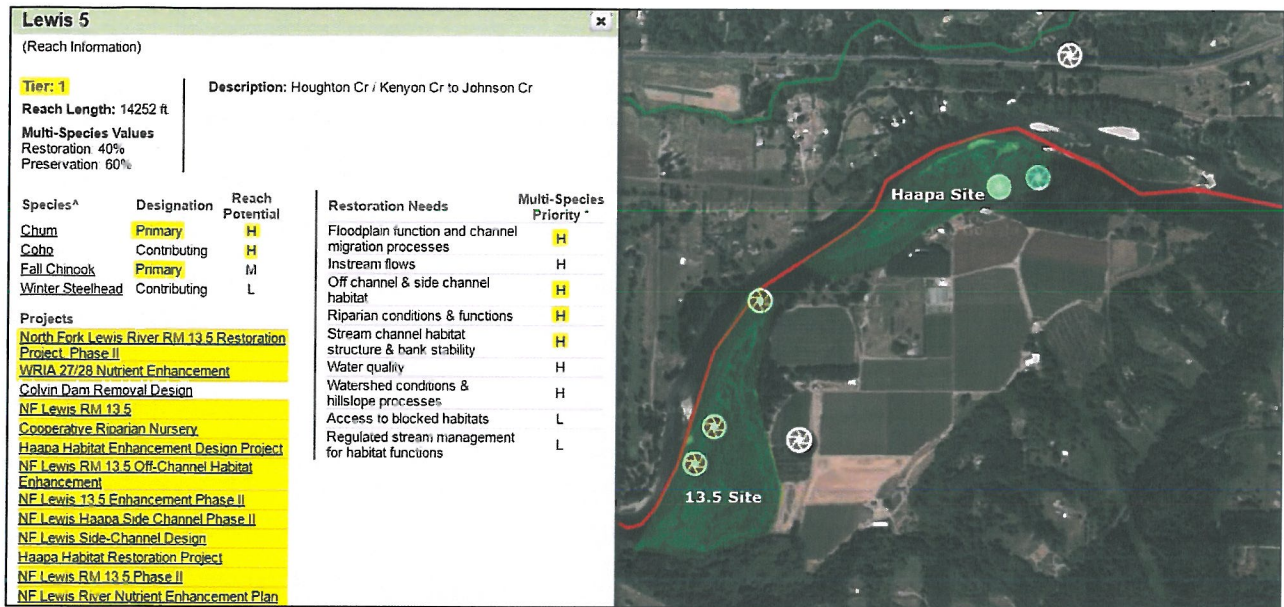
NF Lewis 13.5 River Braiding Project

#### **5. Summary of Project proposal**

This project was previously funded by Pacificorps in 2015 with the requirement to match ACC funds against SRFB funds. ACC funds were returned when we were unable to acquire SRFB match due in part to a significant reduction in the regional allocation. This proposal requests funding from ACC to complete a discreet portion of the previous project with matching contributions provided by LCFEG.

Like our SRFB Haapa Phase II proposal, this 13.5 proposal has been reduced in scope from what was proposed to LCFRB to focus on a single key habitat attribute identified in LCFRB and ACC guidance documents, both of which emphasize the importance of side channel habitat. Multiple species utilize side 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 13.5 project is located in NF Lewis Reach 5 several hundred yards downstream of the proposed ACC Haapa project site. 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 work. Phase I of 13.5 has been completed (SRFB & ACC funding), and Phase I of Haapa is underway also using funds provided by SRFB and ACC. If funded by ACC, the proposed 13.5 project will create a 1,200' long side channel with perennial flow and large wood cover designed to increase spawning and rearing habitat for multiple species and age classes.



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
<b>Lower North Fork</b>		
<b>Lewis 1 tidal A</b>	Side channels, LWD, Riparian	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
<b>Lewis 2 tidal B</b>	Side channels, LWD, Riparian	Low wood, percent pools, poor riparian function, Keefe et al. (2004)
<b>Lewis 2 tidal D</b>	Side channels, LWD, Riparian	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
<b>Lewis 3</b>	Side channels, LWD	Low wood, percent pools, moderate riparian function, Keefe et al. (2004)
<b>Lewis 4 A</b>	Side channels, LWD	Island-braided channel type, low LWD
<b>Lewis 4 C</b>	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 at the Haapa project site and as a result of the side channel constructed at RM 13.5. Although Reach 5 is not specifically called out in the table above, we believe the benefits to fish are virtually identical given the same fish assemblage, water temperature regime and limiting factors in both reaches. As currently proposed, 13.5 is a simple, straightforward and inexpensive project with excellent benefits to multiple fish pops. ACC funds will be used to complete 100% of this project.

**6. Project location** (including River/Stream and Lat/Long coordinates if available).  
River Mile 13.5; 45.93106662/ -122.65298368

**7. Expected products and results** (Please attach any drawings).

1200' side channel with complexity structures comprised of woody materials: rootwads; pilings; and regular and large diameter logs. See attached concept drawing and photos.

**8. Benefits of proposed Project**

This project will increase habitat diversity along the main stem of the NF Lewis River immediately adjacent to a documented, highly productive spawning area used by steelhead, coho and chum salmon. The existing adjacent habitat consists of a 3,450' side channel along the south bank (SRFB Project # 10-1498) as well as complexity structures placed along 1,630' of the main stem NF Lewis (SRFB Project # 08-1733). The wood structures placed adjacent to the mainstem shoreline effectively created a new side channel used by multiple species for spawning and rearing purposes. Spawning and juvenile rearing at both sites has been documented by Pacificorp, WDFW, LCFEG staff and the adjacent landowner (Sam Kysar).

The proposed project builds on our previous work by creating 1,200 LF of new side channel habitat including LWD complexity structures to increase the quantity and quality of spawning and rearing habitat available to steelhead, coho and Chinook. This project also eliminates a chronic stranding related mortality site by providing perennial flow conditions.

The project takes advantage of existing site conditions which minimize excavation necessary to create the new perennial side channel. Project simplicity and previous design work by Interfluve engineer Mike McAlister minimizes design budget and expedites permitting and construction. This project will be designed, permitted and constructed using 100% ACC funding with a modest match in labor and materials provided by LCFEG and the Kysar family.

**Fish Benefits**

Coho:

- Increased spawning area and egg incubation success
- 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
- Eliminates stranding mortality

Steelhead:

- Increased spawning area and egg incubation success
- 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
- Eliminates stranding mortality

Chinook:

- Possible increase in spawning area and egg incubation success
- Increased area for fry colonization and age 0 rearing (Fall Chinook)
- Increased area for age 1+ juvenile rearing (Spring Chinook)
- Eliminates stranding mortality

Chum:

- Increases spawning area and egg incubation success
- Increased area for fry colonization
- Eliminates stranding mortality

**9. Project partners and roles.**

Kysar family – Landowner—materials donation—slash/ LWD

WA Department of Natural Resources – State Owned Aquatic Lands – Landowner

WA State Department of Corrections – Larch Correctional Facility – Donated labor

Hudson Bay High School – Donated labor

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

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

- 2017 – Update design and acquire permits; stockpile materials
- 2018 – Construction (August)
- 2018 – Riparian Plant installation (November-December)
- 2018/19 – Site visit(s) to evaluate project's response to flooding/ fish use
- 2019 – Project maintenance (August)
- 2019/2020 – Complete as-built and submit final report
- Monitoring On-going

**14. Funding requested.**

See attached cost estimate. ACC funds will be used to complete 100% of this 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)

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

Interfluve engineer Mike McCalister will complete final design and provide construction oversight.

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

There are signs at the inlet structure and downstream end of the previously installed side channel approximately 500' up- and down-stream of the proposed side channel. No additional signage will be installed at this project.



09-2016 Site visit with landowners and engineer to evaluate project function at 13.5 High volume spawning evidenced by hummocks in stream bed. Numerous juveniles observed around LWD structures and in deeper pockets between old redds.

**RESTORATIO**

**N**

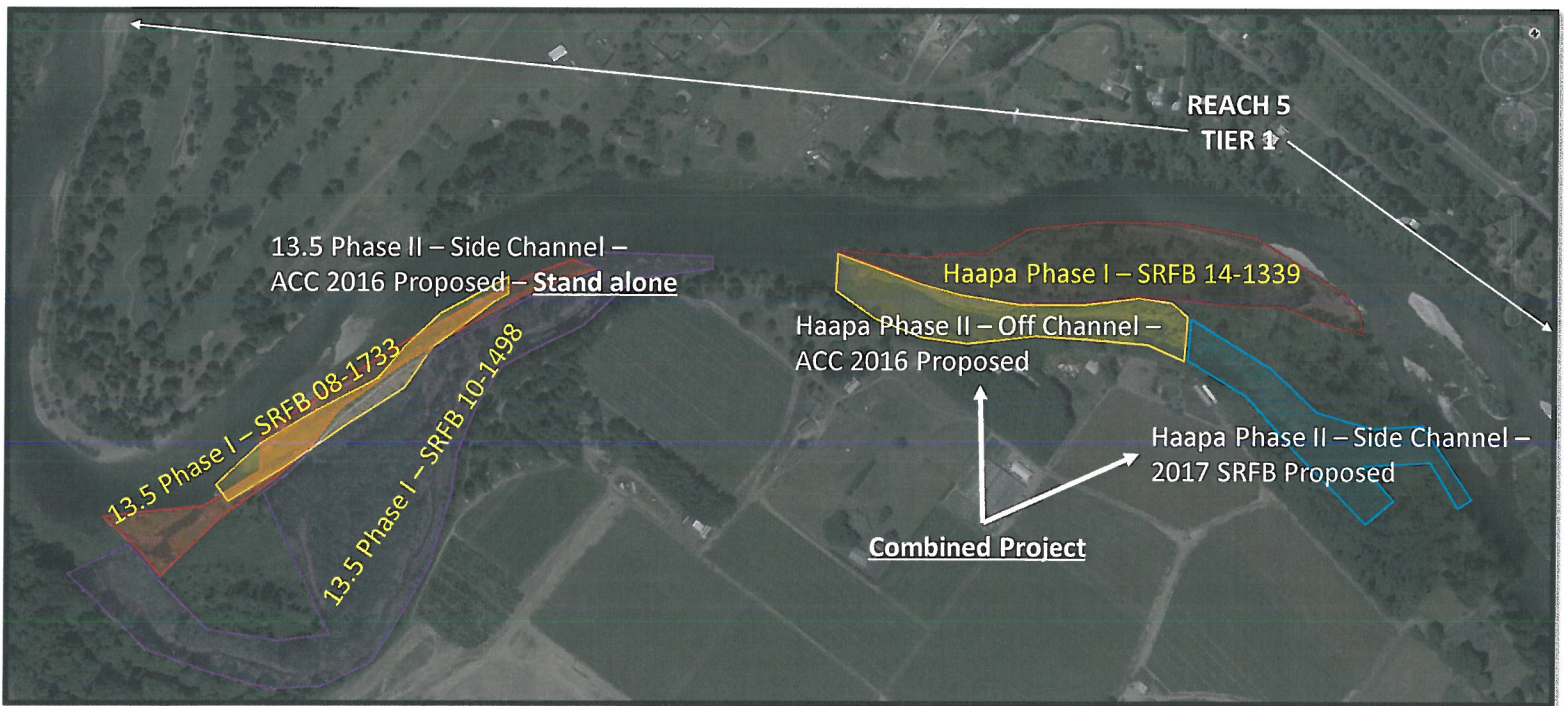
					OVERALL PROJECT	GRANT REQUEST	MATCH				
					<i>Budget must account for all costs to complete the project</i>		<i>Enter only the amount of the grant request</i>		<i>The Grant Request and Match should equal the total project cost and Budget. Check cell should be 0. Sponsors must account for all sources and types of match need to complete the project.</i>		
					Amount	Amount	Match	Source (Grant, Cash, Materials, Labor, Volunteers, etc)	Match Type (federal, state, local)		
<b>Construction</b>											
Category (choose one)	Task Description	Qty	Rate								
Construction	<i>LWD-Pilings</i>	140.00	\$	150.00	\$	21,000	\$	21,000	\$	-	
Construction	<i>LWD-Medium rootwads</i>	50.00	\$	400.00	\$	20,000	\$	20,000	\$	-	
Construction	<i>LWD-Regular logs (20-28" x 40')</i>	15.00	\$	250.00	\$	3,750	\$	3,750	\$	-	
Construction	<i>Slash (end dump load)</i>	10.00	\$	1,000.00	\$	10,000	\$	6,000	\$	4,000	Landowner Local
Construction	<i>LWD-Large logs (&gt;30" x 40')</i>	5.00	\$	400.00	\$	2,000	\$	2,000	\$	-	
Construction	<i>Excavation</i>	1,000.00	\$	5.00	\$	5,000	\$	5,000	\$	-	
Construction	<i>LWD-Installation</i>	1.00	\$	35,000.00	\$	35,000	\$	35,000	\$	-	
Construction	<i>Mob/Demob</i>	2.00	\$	1,500.00	\$	3,000	\$	3,000	\$	-	
Construction	<i>LWD Instal. Materials: all thread, nuts, washers, etc.</i>	1.00	\$	8,000.00	\$	8,000	\$	8,000	\$	-	
Construction	<i>Riparian Plants- D6D willow</i>	2,000.00	\$	2.50	\$	5,000	\$	-	\$	5,000	Volunteers-HBHS Local
Construction	<i>Planting Materials: potting soil, pots, trays, water, etc.</i>	1.00	\$	500.00	\$	500	\$	500	\$	-	
Construction	<i>Crew Labor - Installation (Hrs)</i>	1,000.00	\$	15.00	\$	15,000	\$	-	\$	15,000	Volunteers-DOC Local
Construction	<i>DOC Crew Supervision - Installation (Days)</i>	20.00	\$	225.00	\$	4,500	\$	4,500	\$	-	
Construction	<i>LCFEG Crew Supervision - Installation (Days)</i>	20.00	\$	300.00	\$	6,000	\$	6,000	\$	-	
Construction	<i>Construction Oversight - Installation (Days)</i>	8.00	\$	350.00	\$	2,800	\$	2,800	\$	-	
Construction	<i>Crew Labor - Maintenance (Hrs)</i>	200.00	\$	15.00	\$	3,000	\$	-	\$	3,000	Volunteers-DOC Local
Construction	<i>DOC Crew Supervision - Maintenance (Days)</i>	4.00	\$	225.00	\$	900	\$	900	\$	-	
Construction	<i>LCFEG Crew Supervision - Maintenance (Days)</i>	4.00	\$	300.00	\$	1,200	\$	1,200	\$	-	
Permits	<i>HPA, DAHP, NW27</i>	1.00	\$	5,000.00	\$	5,000	\$	5,000	\$	-	
					\$	-	\$	-	\$	-	
					\$	-	\$	-	\$	-	
<b>\$Total</b>					\$	151,650	\$	124,650	\$	27,000	

<b>Administrative, Architechtural &amp; Engineering</b>											
Category	Task Description	Qty	Rate								
Administrative	<i>Audit, accounting, insurance, etc.</i>	1.00	\$	15,000.00	\$	15,000.00	\$	15,000	\$	-	
Preliminary design	<i>Complete design</i>	1.00	\$	7,000.00	\$	7,000.00	\$	7,000	\$	-	
Other	<i>Engineer Constr. Oversight</i>	5.00	\$	1,200.00	\$	6,000.00	\$	6,000	\$	-	
			\$	-	\$	-	\$	-	\$	-	
			\$	-	\$	-	\$	-	\$	-	
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			\$	-	\$	-	\$	-	\$	-	
			\$	-	\$	-	\$	-	\$	-	
<b>\$Total</b>					\$	28,000	\$	28,000	\$	-	

<b>AA&amp;E Budget Check</b>		
A&E maximum	\$	45,495
A&E validation	\$	17,495

GTOTAL	\$	179,650	\$	152,650	\$	27,000
				Project Total	\$	179,650
		ACC Percentage		Match Percentage		
		84.97%		15.03%		

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

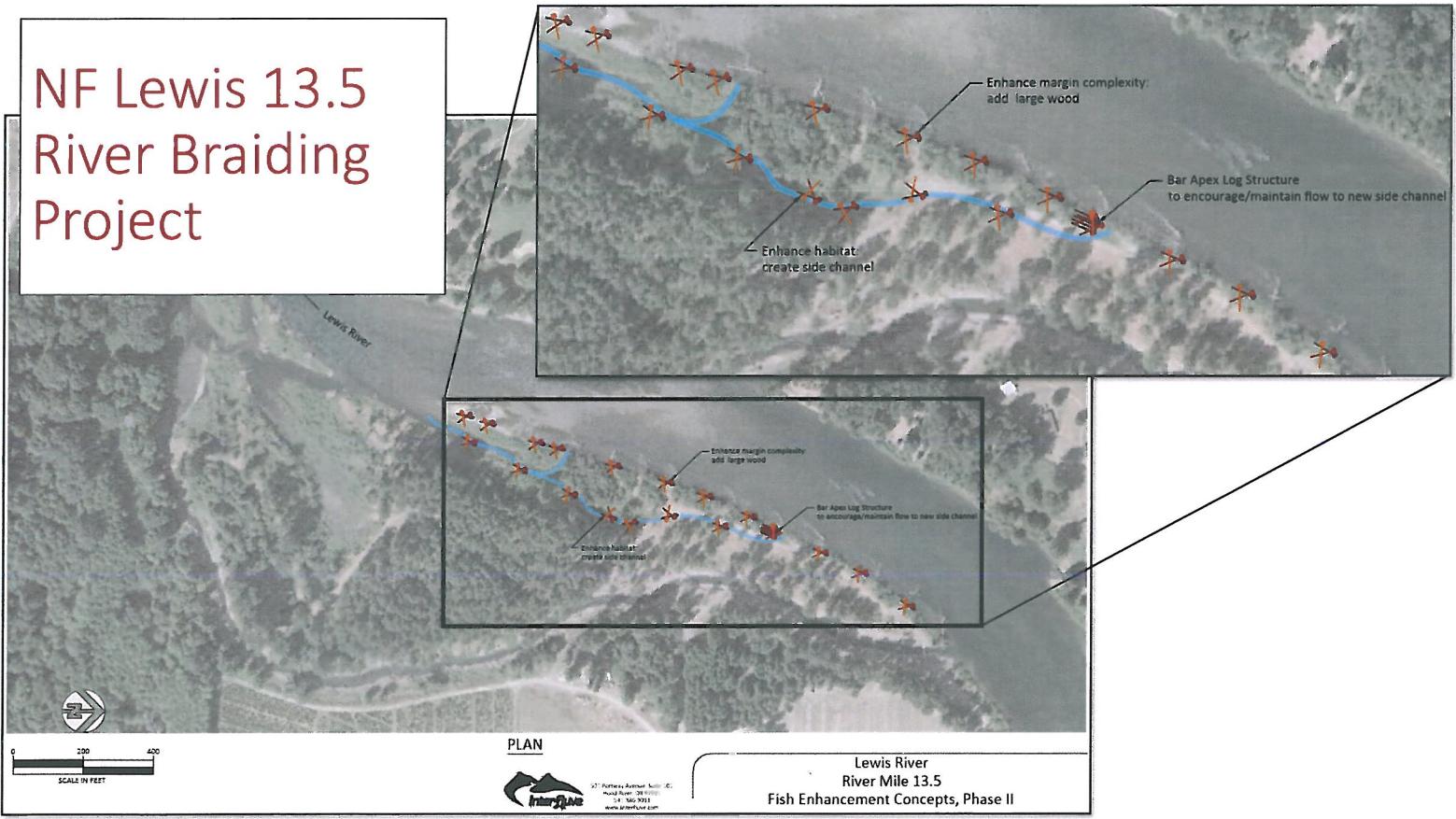


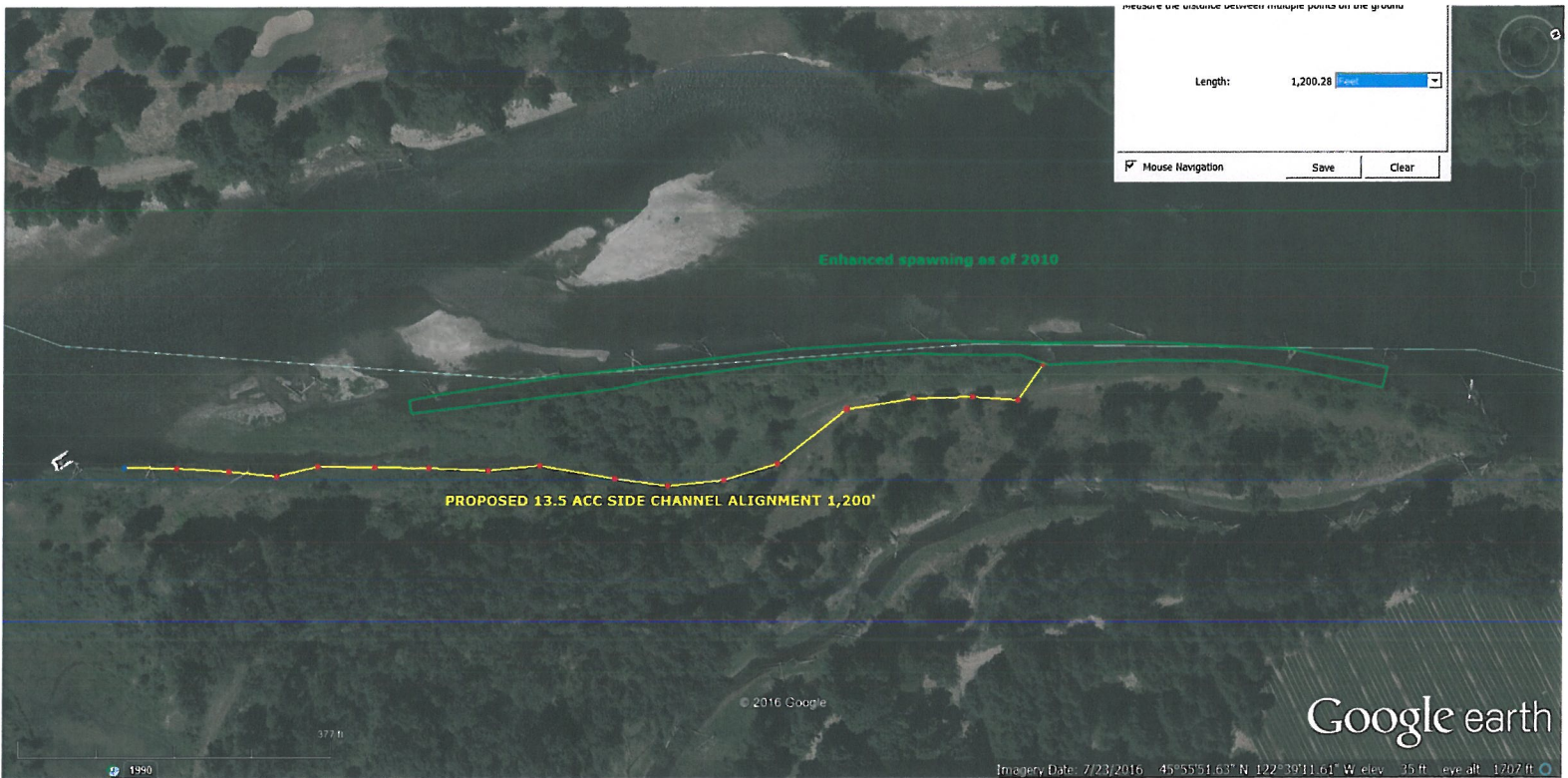
# NF Lewis 13.5 River Braiding Project- PROPOSED



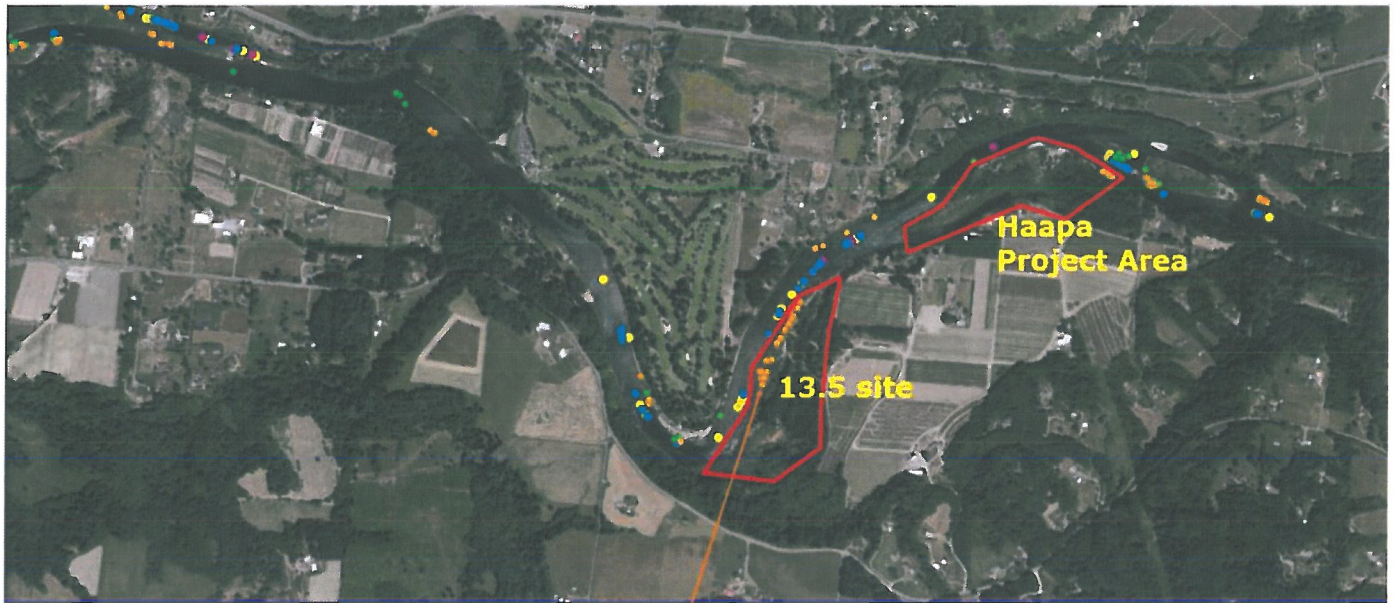


# NF Lewis 13.5 River Braiding Project





Spawning Habitat Area Created 2011 Highlighted in Green  
PROPOSED Side Channel Habitat Highlighted in Yellow



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

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



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

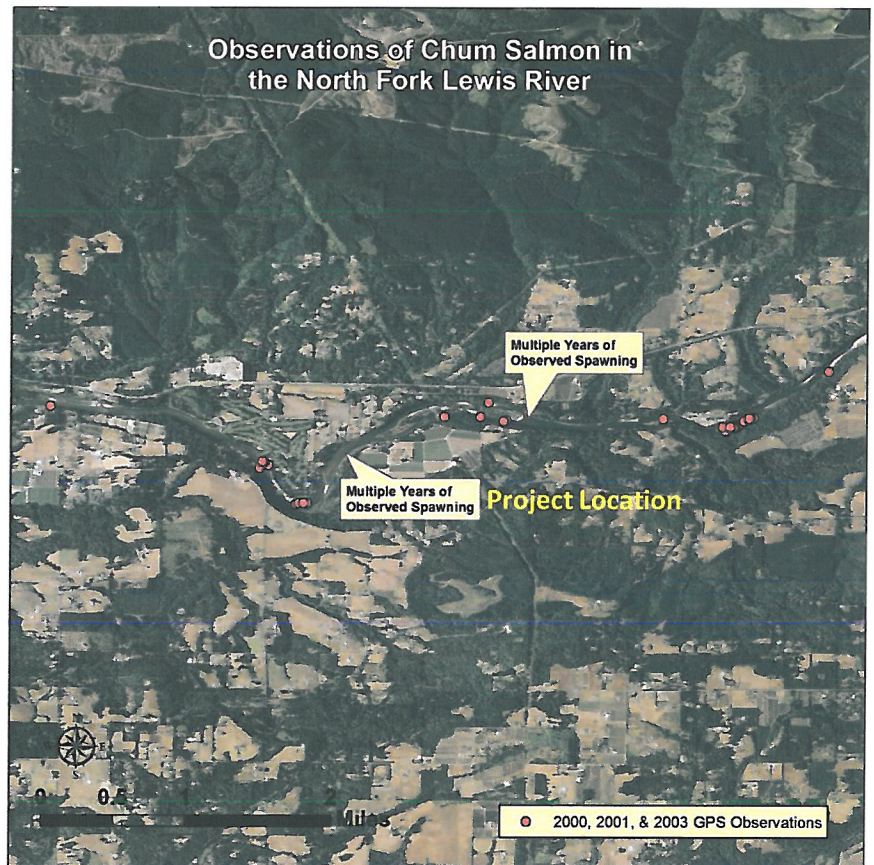
### Observations of Chum Salmon in the North Fork Lewis River

#### 13.5 Spawning:

- Documented high use by winter steelhead post 2011 project completion (PacifiCorp)
- Documented use by chum (PacifiCorp)
- LCFEG/ landowner observations of Chinook and coho spawning
- WDFW has not provided documentation

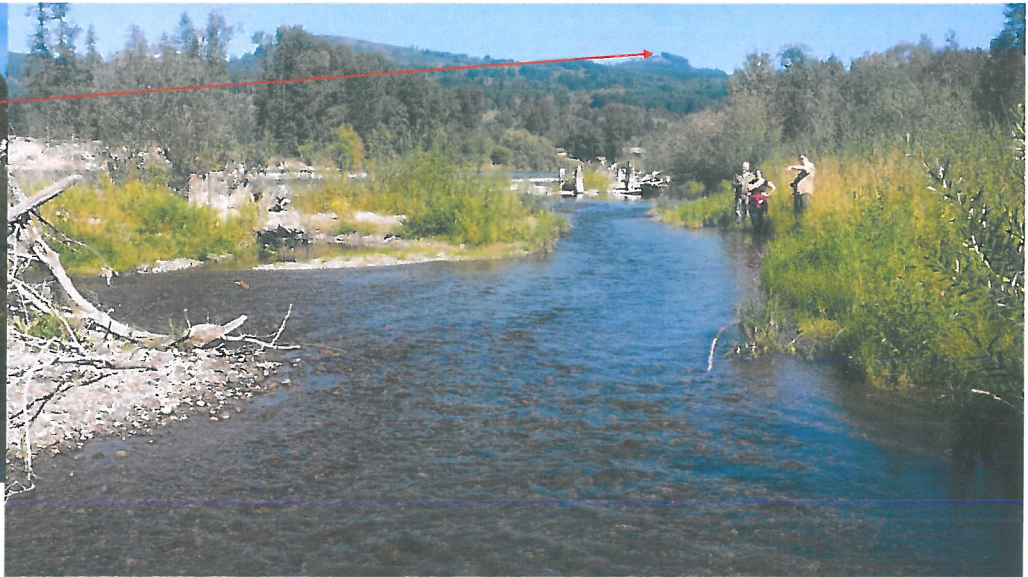
#### 13.5 Juvenile Rearing

- LCFEG land based and snorkel observations of juvenile Chinook, coho and steelhead using both side channel habitats





RM 13.5 LWD installed 2010



09-2016- Note development of bar material around LWD forming natural side channel. Spawning occurs between LWD and shoreline.



NF Lewis 13.5 mainstem margin spawning area 09-2016. Note continuous redds along channel margin. Proposed side channel is located behind willow vegetation will parallel mainstem spawning area.



View downstream of proposed side channel during winter high water event. 2/3 of side channel flows in a ORV road



Proposed side channel inlet 03-2015





Proposed side channel- View upstream toward inlet



Proposed side channel at mid point, view upstream



Lower portion of proposed side channel- view down stream  
Significant numbers of juveniles stranded in channel when high flows subside