Lewis River Hydroelectric Projects Settlement Agreement
Aquatic Coordination Committee (ACC)
Meeting Agenda

Date & Time: **Thursday, April 9, 2015**
9:00 a.m. – 1:30 p.m.

Place: **Merwin Hydro Control Center**
105 Merwin Village Court
Ariel, WA 98603

Contacts: **Frank Shrier: (503) 320-7423**

Time	Discussion Item
9:00 a.m.	Welcome ➢ Review Agenda, 3/12/15 and 3/24/15 Meeting Notes ➢ Comment & accept Agenda, 3/12/15 and 3/24/15 Meeting Notes
9:15 a.m.	Swift Collection Operation Discussion; WDFW & NMFS Comments
9:45 a.m.	Smolt releases at LRH; first pass water and release options – Kinne/Lesko
10:15 a.m.	**Break**
10:30 a.m.	Production Numbers for 2016 Discussion – Spring Chinook
11:30 a.m.	Review the *Aquatic Fund Strategic Plan and Administrative Procedures, September 2013* Aquatic Fund Procedure; 2015/2016 Funding Cycle • Current funds available; future funds • Synthesis Matrix • Location/map of approved and/or implemented projects
12:00pm	**Working Lunch**
1:00 p.m.	o Study/Work Product Updates o Woodland Release Ponds - Status o Hatchery Upgrades - Status o Acclimation Ponds - Status o Merwin Upstream Passage – Status o Swift Floating Surface Collector – Status
1:15 p.m.	➢ Next Meeting's Agenda ➢ Public Comment Opportunity Note: all meeting notes and the meeting schedule can be located at: http://www.pacificorp.com/es/hydro/hl/lr.html#
1:30 p.m.	**Adjourn**

PLEASE BRING YOUR LUNCH

Join by Phone
+1 (503) 813-5252 [Portland, Ore.]
+1 (855) 499-5252 [Toll Free]

Conference ID: 5687805

FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
April 9, 2015
Merwin Hydro Control Center
Ariel, WA

ACC Participants Present (15)
Erik Lesko, PacifiCorp
Kim McCune, PacifiCorp (via conference)
Chris Karchesky, PacifiCorp
Frank Shrier, PacifiCorp
Adam Haspiel, USDA Forest Service
Peggy Miller, WDFW
Baker Holden, USDA Forest Service
Aaron Roberts, WDFW
Michelle Day, NMFS
Shannon Wills, Cowlitz Indian Tribe (via conference)
Eli Asher, Cowlitz Indian Tribe
Jeremiah Doyle, PacifiCorp

Guest
Allen Thomas, Columbian
Carol Serdar, WDOE (via conference)
Jim Pacheco, WDOE (via conference)

Calendar:

May 14, 2015	ACC Meeting	Merwin Hydro
June 11, 2015	ACC Meeting	Merwin Hydro

Assignments from April 9, 2015 meeting	
McCune: Research "undisclosed" ACC email distribution list and update ACC regarding outcome.	**Complete – 4/13/15**
McCune – Email the final document to the ACC: *Operational Guidelines in Consideration of Suspending Summer Operations at the Swift Floating Surface Collector*, March 17, 2015	**Complete – 4/13/15**
McCune – Mail CD of Synthesis Matrix to ACC.	**Complete – 4/13/15**
Shrier – Inform PacifiCorp to convene Flow Coordination Committee and develop a plan for dealing with draught conditions; include Ecology on invite list.	**Complete – 4/10/15**

Assignments from February 12, 2015 meeting	
Kinne/Lesko: Fish Release Procedure - Investigate if first pass water can be utilized from the adult sorting; temperature solution; costs associated and report to the ACC at March 2015 ACC Meeting.	**Complete – 4/9/15**

Opening, Review of Agenda and Meeting Notes
Frank Shrier (PacifiCorp) called the meeting to order at 9:10 a.m. and reviewed the agenda and assignments. All attendees introduced themselves for the benefit of those participating via conference call. Shrier expressed that he will add an update on current flows and drought conditions per the request of Washington Department of Ecology.

The March 12, 2015 meeting notes were reviewed and approved at 9:20 a.m. without change. However, The ACC would like an update from and timeline from WDFW of when they can expect the following assignment of February 13, 2014 to be completed:

Assignments from December 11, 2014 meeting	
Lesko: Follow up with WDFW and inquire about the status of the 2012/2013 lower river coho abundance survey data for 2013 H&S Annual Report. Information still pending as of 2/13/2014.	**As of 4/09/15 Kinne checking with WDFW**

Kim McCune (PacifiCorp) will finalize the March 12, 2015 meeting notes for posting to the Lewis River website.

The March 24, 2015 meeting notes were reviewed and approved with the following changes at 9:25 a.m.:

Page two, third paragraph will be edited to read as follows:

Pat Frazier (LCFRB) said that the aquatic funds are intended for supporting the reintroduction efforts. It was his opinion that funding projects into the tributaries downstream of Merwin reduces the benefits. Jim Malinowski (Fish First) expressed that he is sympathetic to Frazier's opinion.

And, page two, seventh paragraph has been edited to read as follows:

Michelle Day (NMFS) expressed that the Lewis River Side Channel 5 is a Tier 2.

McCune will finalize the March 24, 2015 meeting notes for posting to the Lewis River website.

Current Flows and Drought Conditions
Shrier informed the ACC that snow pack at 3,500 ft. elevation is at zero. PacifiCorp is nearing at the time to have a discussion with external stakeholders.

PacifiCorp is trying to fill the reservoirs; however inflow equals outflow so we can't do as much with reservoirs as we would like. There is currently a 21' storage hole at the project. PacifiCorp can move to 8' hole after April 15, 2015 according to the flood storage plan.

Down approx. 4' – Swift
Down approx. 12' – Yale
Down approx. 6' - Merwin

Minimum flow downstream of Merwin is 2,700 which was designated to provide rearing space for Fall Chinook in lower river.

Carol Serdar (WDOE) want to make sure 401 is being adhered to. It is imperative that Ecology is kept informed about any deviations from flows identified in the FERC license and the 401. Serdar would like both her and Jim Pacheco added to the Flow Coordination Committee invite list (jpac461@ecy.wa.gov).

Swift Collection Operation Discussion; WDFW & NMFS Comments
Chris Karchesky (PacifiCorp) informed the ACC that he incorporated all comments received from WDFW, NMFS and LCFRB into the *Operational Guidelines in Consideration of Suspending Summer Operations at the Swift Floating Surface Collector, March 17, 2015* (**Attachment A**) and will provide a final version to the ACC for its records.

The ACC formally approved the final document at 9:45 a.m.

Smolt Releases at LRH; First Pass Water and Release Options
Eric Kinne (WDFW) verified that first pass water is present at the proposed site from the sorting facility. WDFW is looking into the availability of a trough that could be temporarily placed at the site to hold a portion of the transported smolts to evaluate survival. The trough would be used periodically and is not intended for everyday use. The use of a trough would also require PacifiCorp to use a smaller tank that would not inundate the capacity of the trough. PacifiCorp is in the process of purchasing a smaller tank as the need is present based on the number of smolts at certain times of the year. The release of smolts from the temporary trough would be through the adult return to river pipe.

Production Numbers for 2016 Discussion – Spring Chinook
Aaron Roberts (WDFW): Marking Spring Chinook now and will have a better inventory estimate at the end of May. The current target release is 1.25 million smolts. The problem with spring Chinook at the hatchery is that they go through three smolting periods:

1st smolt 10/31 (water stays up in the 50s)
2nd smolt 11/27
3rd smolt 12/25

These spring Chinook use all their energy stores to go into smolt. At the end of each smolting the fish become deficient in nutrition making them susceptible to disease outbreaks. WDFW is currently moving to release these fish in the fall instead of spring. The most recent test release left in October and these fish looked really good. For 2015, WDFW plans on releasing 1.1 million fish in October.

Another 150,000 will be released in January 2016. However, WDFW will not be able to see the results of these early releases for 3 years. Best back-to-the-rack survival is the goal. Approximately 20% is expected loss from egg to smolt. The reason Aaron thinks the adult returns are different (less) than in the past is the hatchery facilities have undergone major renovations. The new raceways provide a better rearing environment but fish aren't very visible and with a large homogeneous population it's hard to spot signs of BKD outbreaks or other disease issue. The current rearing vessels will work great if fish not held too long. Thus, regarding the early release concept, Roberts invited all interested ACC participants to visit the hatchery and see the operations.

Break <10:20 a.m.>

Reconvene <10:30 a.m.>

Review the Aquatic Fund Strategic Plan and Administrative Procedures, September 2013 Aquatic Fund Procedure; 2015/2016 Funding Cycle

Current Funds available; future funds – Shrier provided a handout titled, Lewis River Habitat Projects paid for with PacifiCorp's Aquatics Fund (**Attachment C**) for ACC review. The document lists each project funded by name, location and the amount funded. Also included is the current balance of the Resource and Bull Trout funds and the estimate amount of funds available to 2029. In addition, Shrier provided a map indicating the location of each project that has been funded thus far.

Synthesis Matrix – Shrier provided a cursory review of the Synthesis Matrix that was an ACC effort in 2007. The ACC agreed that this is a useful tool and would like to review its content more thoroughly in preparation for the 2015/2016 funding cycle. PacifiCorp will provide a copy of the Synthesis Matrix CD and mail to the ACC participants. The ACC attendees reviewed the matrix briefly and its Tier 1 and Tier 2 definitions; benefits to specific species, original EDT Reach designations and discussed new fish passage information. McCune requested the ACC to determine in the coming months if they wish to proceed with the 2015/2016 aquatic funding cycle this year and if so, what changes if any do they wish to make to the *Aquatics Fund – Strategic Plan and Administrative Procedures, September 2013.* The 2015/2016 Aquatic Fund announcement will be made on or about September 3, 2015.

Eli Asher (Cowlitz Indian Tribe) expressed that he thought the funding process was a good one but from an outsider point of view he is not seeing substantive comment from the ACC and related participation during the comment periods.

Study/Work Product Updates

Lewis River 2014 Annual Report

PacifiCorp did not receive any comments on the Annual report and plans on filing it with FERC on April 9, 2015. All documents can be viewed on the Lewis River website at the following link: http://www.pacificorp.com/es/hydro/hl/lr.html# > License Implementation > Annual Reports > 2014 ACC/TCC Annual Report

Woodland Release Ponds

Project is delayed for one year as the DNR lease review process is a minimum of one year. PacifiCorp is pursuing the DNR land lease.

Hatchery Upgrades:

Two projects remain as part of Schedule 8.7 of the Settlement Agreement.

Speelyai Hatchery Intake Modifications: Project is on schedule for completion in 2015.

Lewis River Downstream Intake: Project is on schedule for completion by October 2015.

Acclimation Pond/Crab Creek Status
Crab Creek on schedule for a 2015 summer build. On schedule for operation in 2016. NMFS and the Forest Service consultation still pending but need completion soon to avoid construction delays.

Shrier mentioned that, given the discussion today about early release of spring Chinook, it would be a good idea to discuss moving the acclimation fish releases to late October as well. He would like to discuss this at the next ACC.

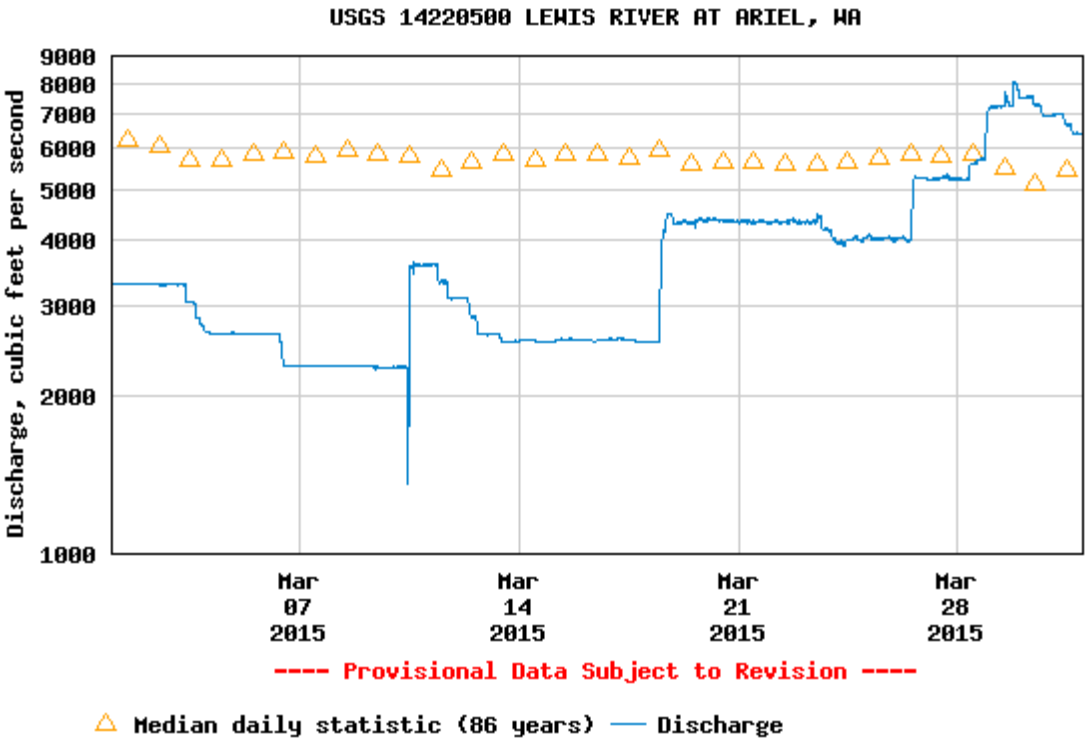
Merwin Fish Collection Facility and General Operations (Attachment B)
During the month of March, a total 481 fish were captured at the Merwin Fish Collection Facility; the majority (82%) of these fish were blank wire tag (BWT) supplementation winter steelhead (n=396) followed by hatchery winter steelhead (n=71). All hatchery steelhead were transported to Lewis River Fish Hatchery and processed by WDFW. A total 52 of 396 BWT winter steelhead were radio / archival tagged and returned downstream as part of the required Adult Trap Efficiency (ATE) study. The remainder of BWT winter steelhead were transported upstream in addition to five cutthroat trout and ten recaptured radio tagged steelhead. Six wild winter steelhead and two spring Chinook salmon were captured and held for brood stock collection at Merwin and Speelyai Fish Hatcheries. In addition, other species collected in March included one resident rainbow trout. The Merwin trap ran daily throughout the month of March.

The Auxiliary Water Supply (AWS) system, which can boost attraction flow up to 400 cfs, was operated daily. The Ladder Water Supply (LWS) was operated daily throughout the month of March.

River flow below Merwin Dam ranged between approximately 2,290 cfs to 8,060 cfs during March. One spill event at Merwin Dam was recorded on March 10, 2015.

Karchesky (PacifiCorp) informed that an planned outage is scheduled for the Merwin trap sometime in late-April. He will send out an email informing participants on the exact timing.

Discharge, cubic feet per second



Upstream Transport (Attachment B)
To date, 481 (334 m: 147 f) BWT winter steelhead have been transported and released upstream of Swift Reservoir (24 of which were captured via tangle net in the lower river as part of the Hatchery and Supplementation Plan Monitoring). In addition, six cutthroat trout exceeding thirteen inches have been transported upstream of Swift Reservoir.

Swift Floating Surface Collector (Attachment B)
A total of 4,612 juvenile fish were collected during the month of March. The majority (79 percent) of these fish were coho (n=3,644), followed by spring Chinook (n=588), hatchery rainbow trout (n=319), cutthroat trout (n=36), and steelhead (n=25). All hatchery rainbow trout and salmonid fry (<60mm) were returned back to Swift Reservoir. The FSC continuously ran throughout the month of March.

Adjourned at 12:45 p.m.

Agenda items for May 14, 2015

- Review April 9, 2015 Meeting Notes
- Aquatic Fund Procedure; 2015/2016 Funding Cycle
- Smolt releases at LRH; first pass water and release options
- Production Numbers for 2016 Discussion – Spring Chinook
- Discussion of acclimation pond fish releases and possibly moving that to a fall timeframe
- Study/Work Product Updates

Public Comment
None

Next Scheduled Meetings

May 14, 2015	June 11, 2015
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00 a.m. – 3:00 p.m.	9:00 a.m. – 3:00 p.m.

Meeting Handouts & Attachments

- Notes from 3/12/15 and 3/24/15
- Agenda from 4/9/15
- **Attachment A** - Operational Guidelines in Consideration of Suspending Summer Operations at the Swift Floating Surface Collector (FSC) – March 17, 2015
- **Attachment B** - Lewis River Fish Passage Report – March 2015
- **Attachment C** - Lewis River Habitat Projects paid for with PacifiCorp's Aquatics Fund

MEMO

Operational Guidelines in Consideration of Suspending Summer Operations at the Swift Floating Surface Collector (FSC)

Prepared by PacifiCorp

Reviewed and Accepted by the Aquatic Coordination Committee

Final: March 17, 2015

Background

As stipulated in the new operating License for the Lewis River Fish Passage Program (Phase I), PacifiCorp is required to operate the Swift Floating Surface Collector (FSC) daily on an annual basis for the duration of the License. This decision to operate the FSC continuously was originally made in large part given the limited amount of information at the time regarding anadromous fish run timing in the upper Lewis River Basin and how run timing may be affected by seasonal reservoir conditions. However, as more information becomes available, it is important to periodically evaluate the operational procedures of the FSC in order to ensure the facility is being operated in a manner beneficial to the capture and safe passage of out-migrating fishes.

After two years of operation, it has been shown that warm surface water temperature in Swift Reservoir correlates to both a reduction in the rate of target species collected by the FSC and an increase in mortality rates. This correlation has been observed from early-July when the spring out-migration period is coming to a close and remains prevalent through September. During this period, surface water temperatures in the reservoir exceed 18^0C and the reservoir becomes thermally stratified. Fish numbers collected at the FSC throughout the summer and early fall remain almost non-existent due to these prevailing warm conditions, however those fish that are collected experience a high rate of mortality. By mid-October reservoir surface water temperatures begin to cool and shortly after fish collection numbers at the FSC begin to increase.

During the December 2014 monthly coordination meeting, PacifiCorp presented these finding to the Aquatic Coordination Committee (ACC). Included in the meeting was discussion on the need for turning the FSC off during this critical time period, particularly when surface water temperatures increase beyond what is thermally tolerated by anadromous salmonids. (The visual references used during this discussion are included at the end of this document). It was also discussed that this outage period would allow PacifiCorp to complete annual maintenance activities on the FSC and prepare the facility for winter operation. The following section is a summary of the protocols agreed upon by the ACC that would be used to guide operational decisions for turning the FSC off in the summer and back on in the fall.

New Operational Protocols

It was agreed that an adaptive management type approach would be best mode of operation for determining when to turn the FSC off each year. The reason for this is that conditions can change from year to year, and that full reintroduction has not yet been established. PacifiCorp will notify the ACC prior to the maintenance outage for the FSC that coincides with warm surface water.

- Key criteria and assumptions that will be considered for suspending daily operations of the FSC in the Summer:
    - Maximum daily water temperature recorded in the FSC surpasses 18^0C;
    - Daily catch rates in the FSC have decreased by 25 percent or more daily over the course of a weeks' time;
    - Daily rates recorded for collection mortality (S_{COL}) or transport mortality (S_{TRANS}) exceed the standard of 0.5 percent for three consecutive days.

- Returning the FSC to daily operation in the fall:
    - The FSC will be returned to service after scheduled maintenance activities are completed and will occur no later than the fifteenth day of October (In the future, this date may need to be adjusted earlier if it is shown that fish begin out-migrating earlier once full reintroduction has been established.) ;
    - Maximum daily water temperature recorded in the FSC remains below 18^0C for three consecutive days;

Visual references provided during the December 2014 ACC meeting:

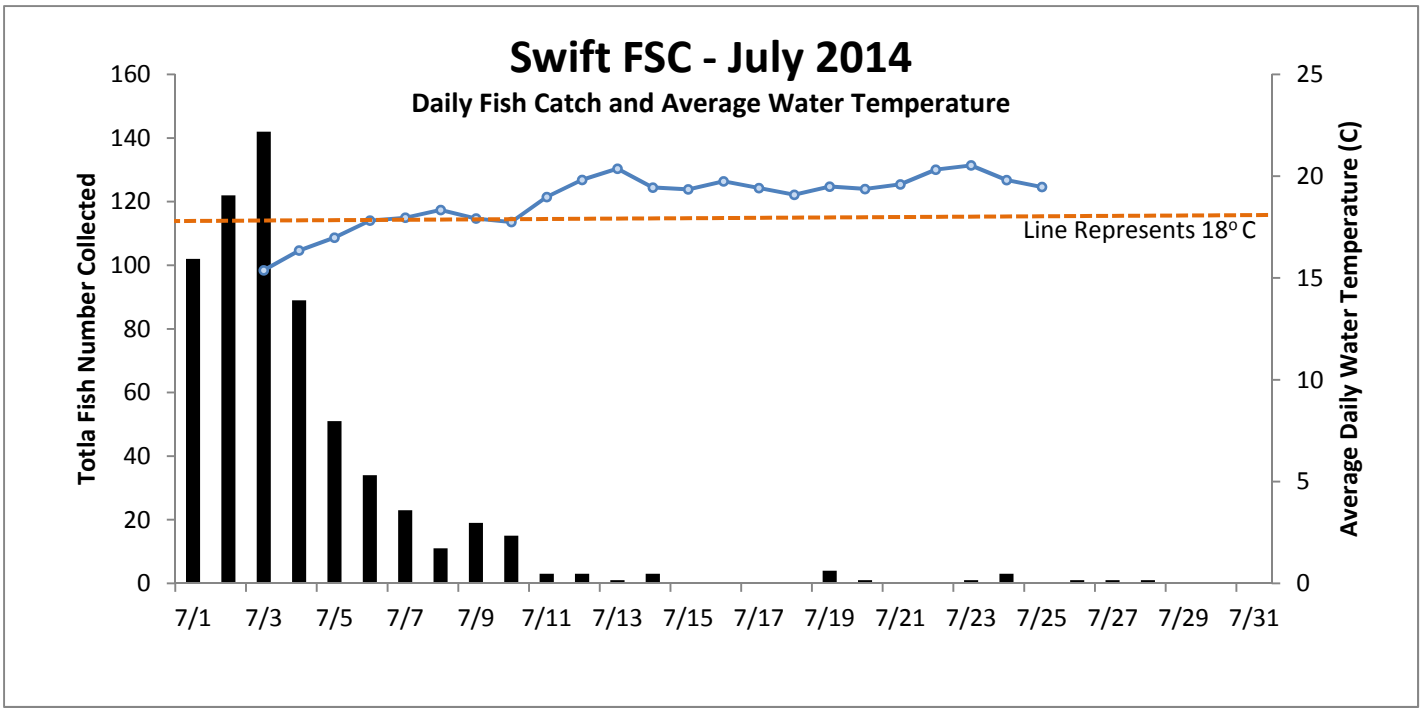
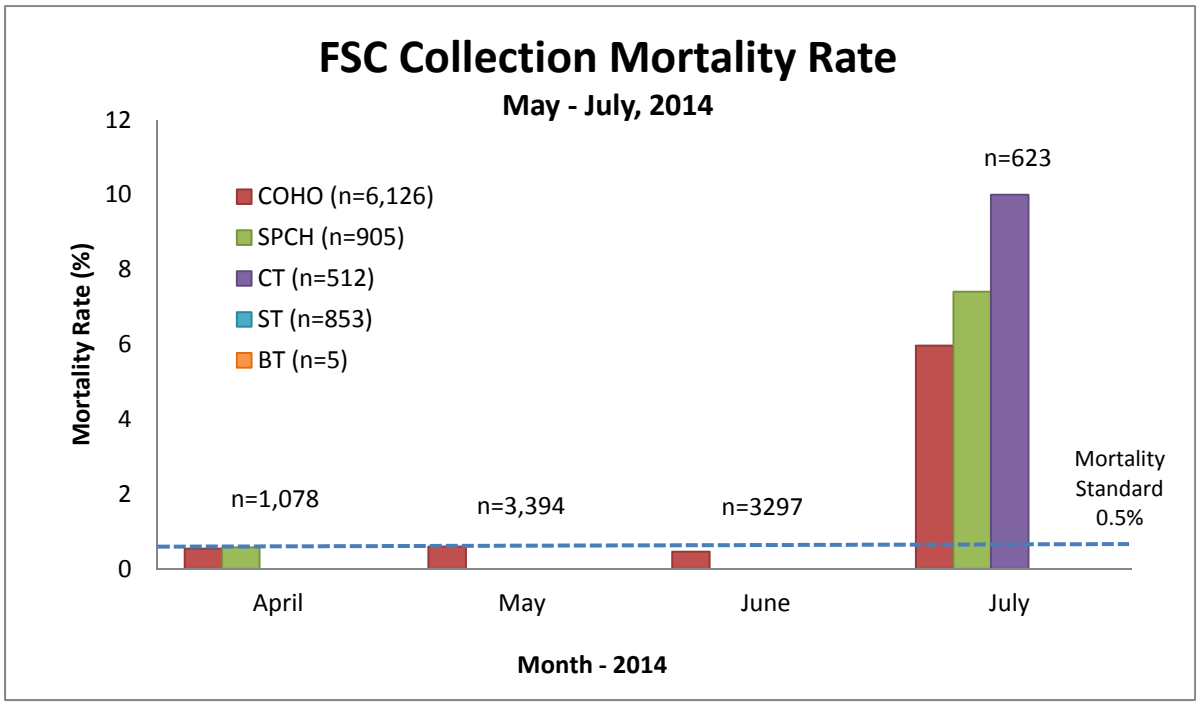


Figure 1. Daily total catch of smolts at the Swift FSC in July 2014.



Firgure 2. Monthly mortality rates recorded for all target species at the Swift FSC during spring 2014. The dotted line represents the mortality standard of 0.5%.

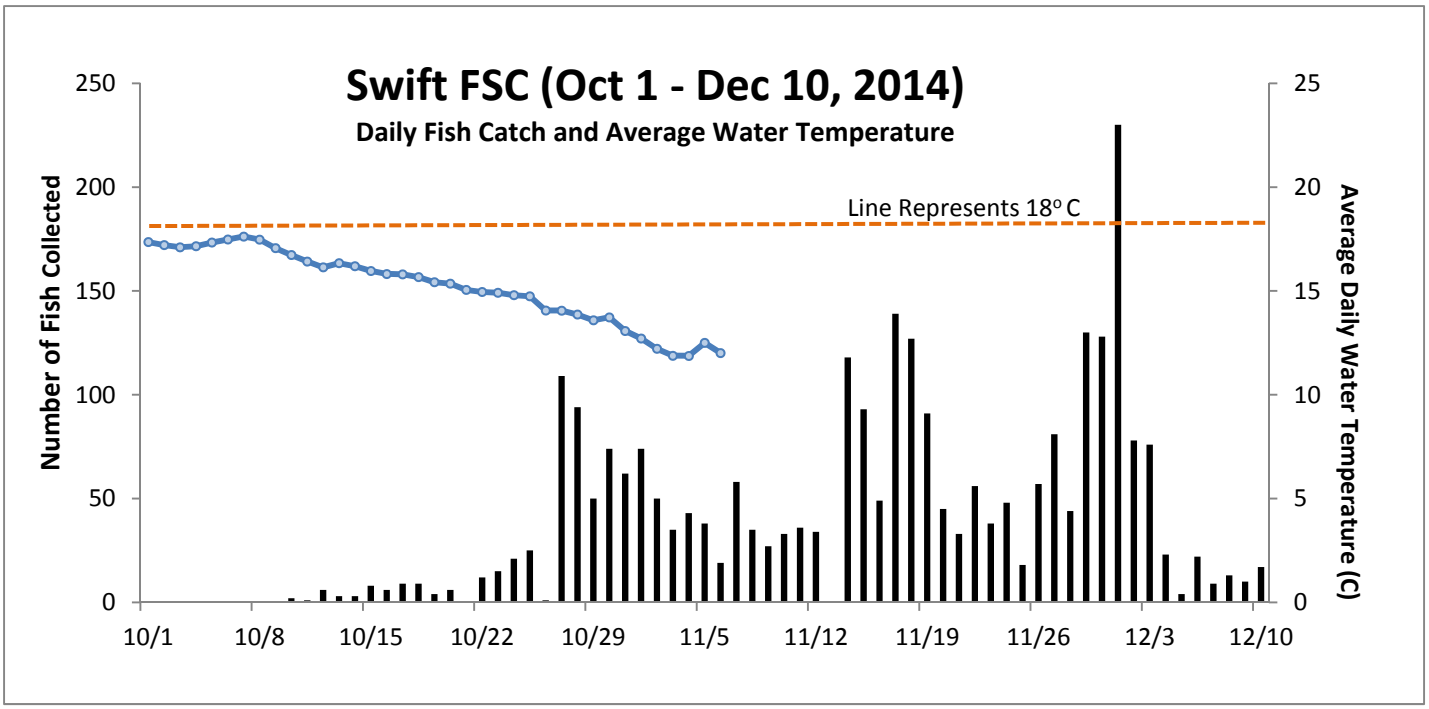


Figure 3. Daily total catch of smolts at the Swift FSC during October through early December, 2014.

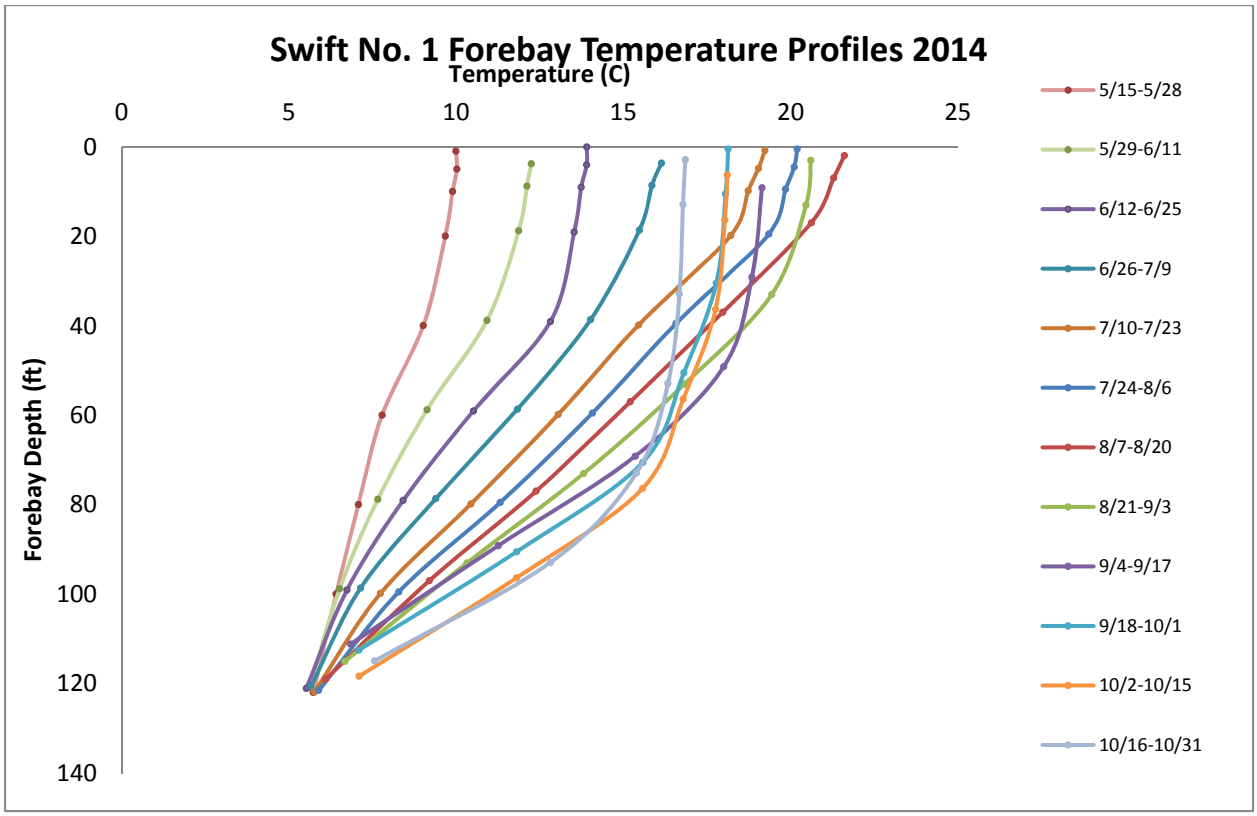


Figure 4. Swift Reservoir forebay temperature profiles (May – Oct, 2014).

Lewis River Fish Passage Report

March 2015

Merwin Fish Collection Facility and General Operations

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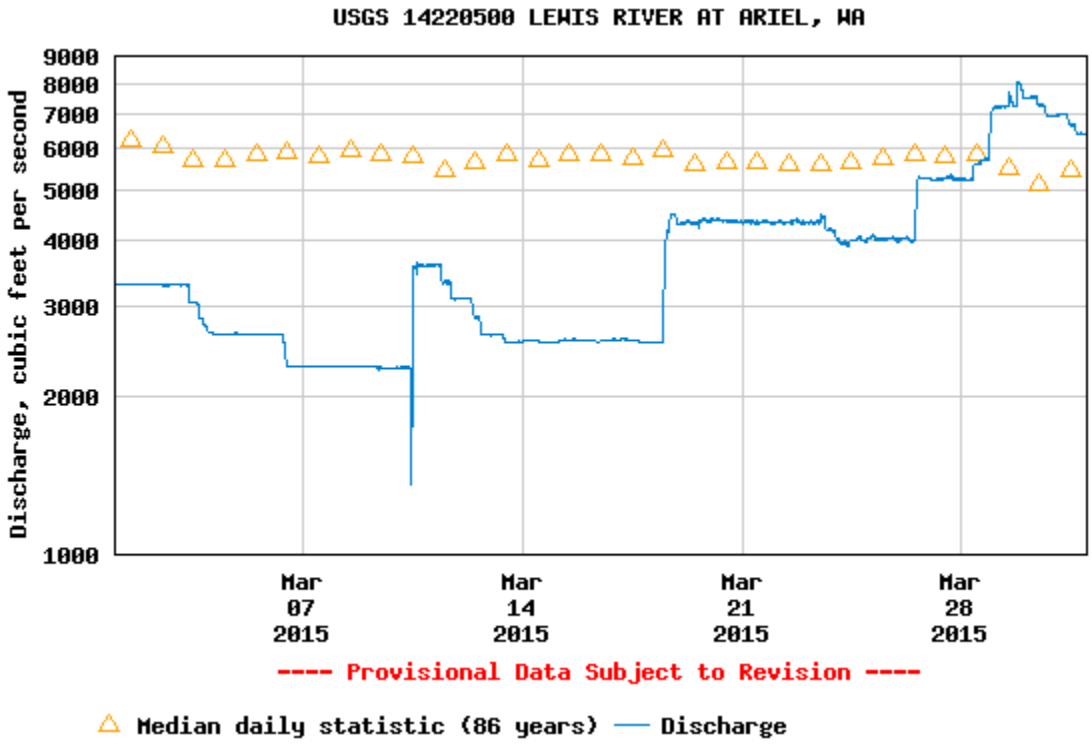

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Swift Floating Surface Collector

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Fish Facility Report
Merwin Adult Trap
March 2015

Reporting Date	Spring Chinook [1]										
	AD-Clip			RT Recap		Wild			TOTAL		
	M	F	JK	M	F	M	F	JK	M	F	JK
01-Mar									0	0	0
02-Mar									0	0	0
03-Mar									0	0	0
04-Mar									0	0	0
05-Mar									0	0	0
06-Mar									0	0	0
07-Mar									0	0	0
08-Mar									0	0	0
09-Mar									0	0	0
10-Mar									0	0	0
11-Mar									0	0	0
12-Mar									0	0	0
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14-Mar									0	0	0
15-Mar									0	0	0
16-Mar									0	0	0
17-Mar									0	0	0
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23-Mar									0	0	0
24-Mar									0	0	0
25-Mar									0	0	0
26-Mar									0	0	0
27-Mar		1				1			1	1	0
28-Mar									0	0	0
29-Mar									0	0	0
30-Mar									0	0	0
31-Mar									0	0	0
Monthly	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**
Annual	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**

Reporting Date	Early Coho																
	AD-Clip			RT Recap		CWT			Wild			Wild Recap			TOTAL[3]		
	M	F	JK	M	F	M	F	JK	M	F	JK	M	F	JK	M	F	JK
01-Mar															0	0	0
02-Mar															0	0	0
03-Mar															0	0	0
04-Mar															0	0	0
05-Mar															0	0	0
06-Mar															0	0	0
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30-Mar															0	0	0
31-Mar															0	0	0
Monthly	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reporting Date	Late Coho														
	AD-Clip			CWT			Wild			Wild Recap			TOTAL[3]		
	M	F	JK	M	F	JK	M	F	JK	M	F	JK	M	F	JK
01-Mar													0	0	0
02-Mar													0	0	0
03-Mar													0	0	0
04-Mar													0	0	0
05-Mar													0	0	0
06-Mar													0	0	0
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28-Mar													0	0	0
29-Mar													0	0	0
30-Mar													0	0	0
31-Mar													0	0	0
Monthly	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual	**3**	**2**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Reporting Date	S. Steelhead						W. Steelhead								Fall Chinook									Sockeye [2]		Chum		Cutthroat (>13 inches)	Cutthroat (< 13 inches)	Rainbow (< 20 inches)	Bull Trout (> 13 inches)	Bull Trout (< 13 inches)	Daily Total
	Fresh		Recap		Wild		AD-Clip		BWT		RT Recap		Wild		AD-Clip			Wild			Recap												
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	JK	M	F	JK	M	F	JK	M	F	M	F						
01-Mar							2	2	3	3																							**10**
02-Mar							1	1	6	3																							**11**
03-Mar							1	1	2	2				1																			**7**
04-Mar								2																									**2**
05-Mar																																	**0**
06-Mar							2		4																								**6**
07-Mar							1	1	1	2																							**5**
08-Mar							1		2	1																							**4**
09-Mar							1		1	2																							**4**
10-Mar									2																								**2**
11-Mar							1																										**1**
12-Mar							1																										**1**
13-Mar							1	1	5	4																		1					**12**
14-Mar							4	1	8	4			1																				**18**
15-Mar									8	4																							**12**
16-Mar								1	10	2																							**13**
17-Mar									7	1																							**8**
18-Mar								1	1																			1					**3**
19-Mar							1	4	24	12																				1			**42**
20-Mar							2	3	29	8	1																						**43**
21-Mar							3	4	13	4																							**24**
22-Mar							2		11	11		1																1					**26**
23-Mar							2	1	14	5	1	1																2					**26**
24-Mar							3	1	14	8	1																						**27**
25-Mar							1	2	8	7		1																					**19**
26-Mar								1	10	4	1			1																			**17**
27-Mar								1	5	6																							**14**
28-Mar							1	2	14	8			1	1																			**27**
29-Mar							1		4	1																							**6**
30-Mar							6		38	18	1	1																					**64**
31-Mar							2	1	17	5		1		1																			**27**
Monthly	**0**	**0**	**0**	**0**	**0**	**0**	**40**	**31**	**261**	**125**	**5**	**5**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**481**
Annual	**0**	**1**	**0**	**0**	**0**	**0**	**623**	**405**	**336**	**167**	**5**	**5**	**9**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**10**	**0**	**0**	**1584**

[1] Only hatchery verses wild distinctions are currently being made. All hatchery fish are labeled as "AD-Clip".

[2] Juvenile sockeye are unsexed and recorded as males.

[3] Total counts do not include recaptured salmon.

Wednesday, April 1st, 2015

PACIFICORP ENERGY
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Fish Facility Report

Swift Floating Surface Collector

March 2015

	Coho			Chinook			Steelhead				Cutthroat			Bull Trout			Planted	
Day	**fry**	**parr**	**smolt**	**fry**	**parr**	**smolt**	**fry**	**parr**	**smolt**	**kelt**	**fry**	**< 13 in**	**> 13 in**	**fry**	**< 13 in**	**> 13 in**	**Rainbow**	**Total**
01	50	6	2	0	0	8	0	0	0	0	0	0	0	0	0	0	6	**72**
02	10	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	1	**21**
03	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**8**
04	20	7	2	0	0	3	0	0	1	0	0	0	0	0	0	0	2	**35**
05	30	7	3	0	0	2	0	0	0	0	0	0	0	0	0	0	2	**44**
06	5	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**12**
07	10	8	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**21**
08	20	6	2	0	1	6	0	0	0	0	0	0	0	0	0	0	0	**35**
09	100	9	1	0	0	11	0	0	0	0	0	0	0	0	0	0	1	**122**
10	300	9	1	0	3	26	0	0	0	0	0	2	0	0	0	0	4	**345**
11	50	2	1	0	6	12	0	0	0	0	0	0	0	0	0	0	4	**75**
12	200	9	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**213**
13	600	27	10	0	3	9	0	0	1	0	0	0	0	0	0	0	14	**664**
14	800	14	4	0	8	43	0	0	0	0	0	0	0	0	0	0	13	**882**
15	500	21	3	0	4	25	0	0	0	0	0	2	0	0	0	0	10	**565**
16	30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**31**
17	200	48	39	0	0	47	0	0	2	0	0	6	0	0	0	0	17	**359**
18	75	13	2	0	7	46	0	0	0	0	0	0	0	0	0	0	12	**155**
19	40	11	3	0	13	11	0	2	1	0	0	4	0	0	0	0	13	**98**
20	30	11	9	0	0	16	0	0	2	0	0	6	0	0	0	0	11	**85**
21	0	1	6	0	1	21	0	0	0	0	0	1	0	0	0	0	10	**40**
22	1	3	2	0	1	36	0	0	1	0	0	2	0	0	0	0	43	**89**
23	100	6	7	0	0	26	0	0	1	0	0	1	0	0	0	0	19	**160**
24	20	9	5	0	0	12	0	0	0	0	0	2	0	0	0	0	12	**60**
25	10	6	11	0	0	53	0	0	4	0	0	1	0	0	0	0	36	**121**
26	2	2	12	0	0	64	0	0	1	0	0	3	0	0	0	0	30	**114**
27	0	0	10	0	0	13	0	0	4	0	0	1	0	0	0	0	21	**49**
28	0	2	6	0	3	4	0	1	0	0	0	2	0	0	0	0	16	**34**
29	0	0	8	0	0	9	0	0	3	0	0	0	0	0	0	0	12	**32**
30	20	2	5	0	0	15	0	0	0	0	0	3	0	0	0	0	1	**46**
31	0	2	2	0	0	11	0	0	1	0	0	0	0	0	0	0	9	**25**
Monthly	3228	247	169	0	53	535	0	3	22	0	0	36	0	0	0	0	319	**4612**
Annual	5778	3997	582	0	158	1485	0	11	28	0	0	175	4	0	9	0	466	**12693**

PACIFICORP ENERGY
A PACIFICORP COMPANY

Wednesday, April 1st, 2015

Lewis River Habitat Projects paid for with PacifiCorp's Aquatics Fund

Project Name	Year	Location	Funding
Muddy River Tributary Road Decommission	2006	1	$46,000
Pine Creek Nutrient Enhancement	2006	2	$37,889
Fish Passage Culvert Replacement	2007	3	$80,000
Dispersed Camping & Day Use Road Restoration	2007	4	$79,000
Martin Access Riparian Forest and Off-channel Habitat Enhancement	2007	5	$75,000
Pine Creek Nutrient Enhancement	2007	6	$43,150
Panamaker Crk Road Closure & Culvert Replacement	2008	7	$13,580
Muddy River Habitat Improvement	2008	8	$117,000
Mud Creek Enhancement	2008	9	$43,500
Pine Creek Nutrients	2009	10	$41,000
Clear Creek Habitat Restoration	2009	11	$106,000
NF Lewis R. Habitat Enhancement	2009	12	$190,000
Plas Newydd Habitat Enhancement	2009	13	$50,000
Spencer Cr. Road Decommissioning	2009	14	$33,000
Eagle Is. Habitat Enhancement	2010	15	$74,300
Pepper-Lewis side-channel Restoration	2010	16	$41,300
Pine Cr. Instream structures	2010	17	$65,000
Eagle Is. Habitat Enhancement	2011	18	$85,000
Lewis R. side-channel near Muddy R.	2011	19	$42,000
Muddy R. Mainstem Restoration	2011	20	$43,000
Muddy R. Side-channel Restoration	2011	21	$39,000
Clearwater Cr. Habitat Restoration	2012	22	$128,000
Lewis R. side-channel III Restoration	2012	23	$50,000
Lewis R. side-channel near Little Cr.	2013	24	$60,000
Little Creek Fish Habitat Restoration	2013	25	$69,000
Survey of Bull Tr. Habitat features	2013	-	$59,226
Cedar Creek Reach 1A	2013	26	$53,000
Lewis R. side-channel Restoration	2014	27	$84,000
Haapa Habitat Enhancement *funding and contract not yet complete	2014	28	$40,000*
NF Lewis R. mile 13.5 habitat enhancement *funding and contract not yet complete	2015	29	$45,000*
Lewis R. side-channel 5 *funding and contract not yet complete	2015	30	$82,000*
		Total	$1,901,945

7.5 Lewis River Aquatics Fund	Year	Resource Fund	Bull Trout	7.1 LWD Fund
Current Balance as of 12/31/2014	2014	$ 1,775,511	$652,857	$52,500*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2015	$125,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2016	$125,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2017	$125,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2018	$125,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2019	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2020	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2021	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2022	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2023	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2024	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2025	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2026	$225,000	0	$12,000*
PacifiCorp and Cowlitz PUD AQ Fund contributions	2027	$225,000	0	$12,000*
Cowlitz PUD AQ Fund contribution	2028	$25,000	0	$12,000*
Cowlitz PUD AQ Fund contribution	2029	$20,000	0	$12,000*
Total		**$4,345,511**	**$652,857**	**$232,500***

**includes $2,000 annual contribution for LWD transport*

7.1.1 Funding. Within 180 days after Issuance of the New License for the Merwin Project and annually thereafter, PacifiCorp shall make available in a Tracking Account up to $2,000, which may be disbursed to qualified entities to defray the costs of LWD transportation and placement in the Lewis River Basin (the "LWD Fund"). The unspent balance of the LWD Fund in any year shall be carried forward and made available in subsequent years, in addition to the annual amount of $2,000. In addition, within 180 days after Issuance of the New License for the Merwin Project and annually thereafter, PacifiCorp shall contribute $10,000 to the Aquatics Fund (Section 7.5) that will be earmarked for LWD projects in the mainstem of the Lewis River below Merwin Dam that benefit anadromous fish. If there are not sufficient LWD projects, or if the LWD program is suspended as provided in Section 7.1.4 below, PacifiCorp, at the request of the ACC, shall use the funds for other Aquatics Fund projects that benefit anadromous fish in the mainstem of the Lewis River below Merwin Dam and then for other projects in the Lewis River Basin below Merwin Dam. For any LWD project below Merwin Dam, PacifiCorp shall provide for the transportation of LWD at its own expense to a staging area provided by the entity or individual carrying out the project.

7.5 Aquatics Fund. PacifiCorp and Cowlitz PUD shall establish the Lewis River Aquatics Fund ("Aquatics Fund") to support resource protection measures ("Resource Projects"). Resource Projects may include, without limitation, projects that enhance and improve wetlands, riparian, and riverine habitats; projects that enhance and improve riparian and aquatic species connectivity that may be affected by the continued operation of the Projects; and projects that increase the probability for a successful reintroduction program. The Aquatics Fund shall be a Tracking Account maintained by the Licensees with all accrued interest being credited to the Aquatics Fund. PacifiCorp shall provide $5.2 million, in addition to those funds set forth in Section 7.1.1, to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below. Cowlitz PUD shall provide or cause to be provided $520,000 to enhance, protect, and restore aquatic habitat in the Lewis River Basin as provided below; provided that Cowlitz PUD's funds may only be used for Resource Projects upstream of Swift No. 2, including without limitation the Bypass Reach. The Licensees shall provide such funds according to the schedules set forth below.

7.5.1 PacifiCorp's Contributions.

a. PacifiCorp shall make funds available as follows: on each April 30 commencing in 2005, $300,000 per year until 2009 (a total of $1.5 million).

b. For each of the Merwin, Yale, and Swift No. 1 Projects, PacifiCorp shall make one-third of the following funds available as follows after the Issuance of the New License for that Project: on each April 30 commencing in 2010, $300,000 per year through 2014 (a total of $1.5 million); on each April 30 commencing in 2015, $100,000 per year through 2018 (a total of $400,000); and on each April 30 commencing in 2019, $200,000 per year through 2027 (a total of $1.8 million); provided that, for any New

License that has not been Issued by April 30, 2009, the funding obligation for that Project shall be contributed annually in the same amounts but commencing on April 30 following the first anniversary of Issuance of the New License for that Project.

c. PacifiCorp shall contribute $10,000 annually to the Aquatics Fund as set forth in Section 7.1.1. (Life of license)

7.5.2 Cowlitz PUD's Contributions. Cowlitz PUD shall make or cause to be made funds available as follows: $25,000 per year on each April 30 following the first anniversary of the Issuance of the New License for the Swift No. 2 Project through the April 30 following the 20th anniversary (2028) of the Issuance of the New License for the Swift No. 2 Project (a total of $500,000); and a single amount of $20,000 on the April 30 following the 21st anniversary (2029) of the Issuance of the New License for the Swift No. 2 Project.

7.5.3 Use of Funds. Decisions on how to spend the Aquatics Fund, including any accrued interest, shall be made as provided in Section 7.5.3.2 below; provided that (1) at least $600,000 of such monies shall be designated for projects designed to benefit bull trout according to the following schedule: as of April 30, 2005, $150,000; as of April 30, 2006, $100,000; as of April 30, 2007, $150,000; as of April 30, 2008, $100,000; and on or before the April 30 following the fifth anniversary (2013) of the Issuance of all New Licenses, $100,000; and such projects shall be consistent with bull trout recovery objectives as determined by USFWS; (2) fund expenditures for the maintenance of the Constructed Channel (Section 4.1.3) shall not exceed $20,000 per year on average; (3) if studies indicate that inadequate "Reservoir Survival," defined as the percentage of actively migrating juvenile anadromous fish of each of the species designated in Section 4.1.7 that survive in the reservoir (from reservoir entry points, including tributary mouths to collection points) and are available to be collected, is hindering attainment of the Overall Downstream Survival standard as set forth in Section 3, then at least $400,000 of such monies shall be used for Resource Projects specifically designed to address reservoir mortality; and (4) $10,000 annually shall be used for lower river projects as set forth in Section 7.1.1. Projects shall be designed to further the objectives and according to the priorities set forth below in Section 7.5.3.1.

"Adjusted for Inflation" means that the stated dollar amount shall be adjusted according to the following formula:

AD = D x (NGDP/IGDP)

WHERE:

AD = Adjusted dollar amount as of April 30 of the year in which the adjustment is made.

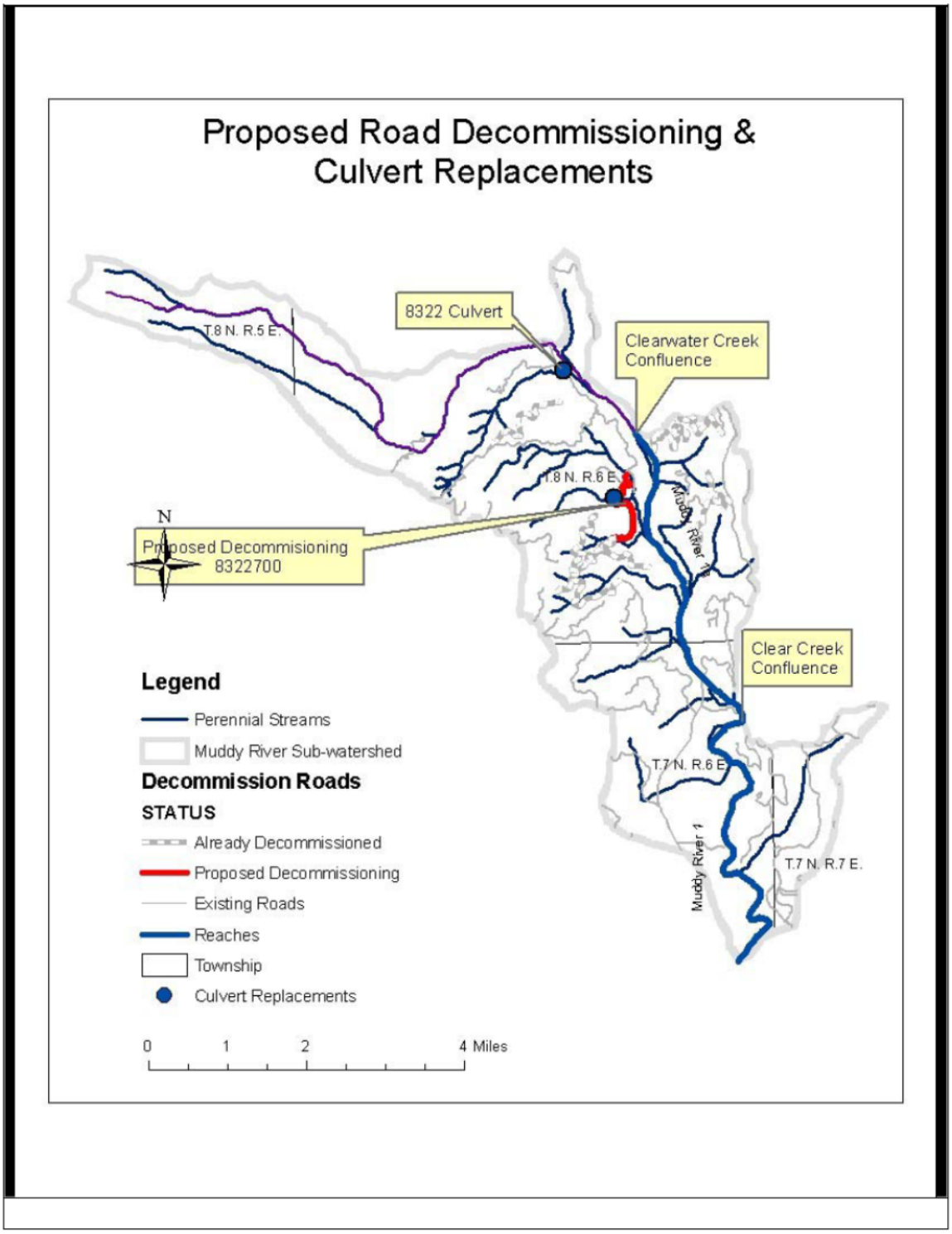
D = Dollar amount prior to adjustment.

IGDP = GDP-IPD for the fourth quarter of the year prior to the previous April 30 adjustment date.

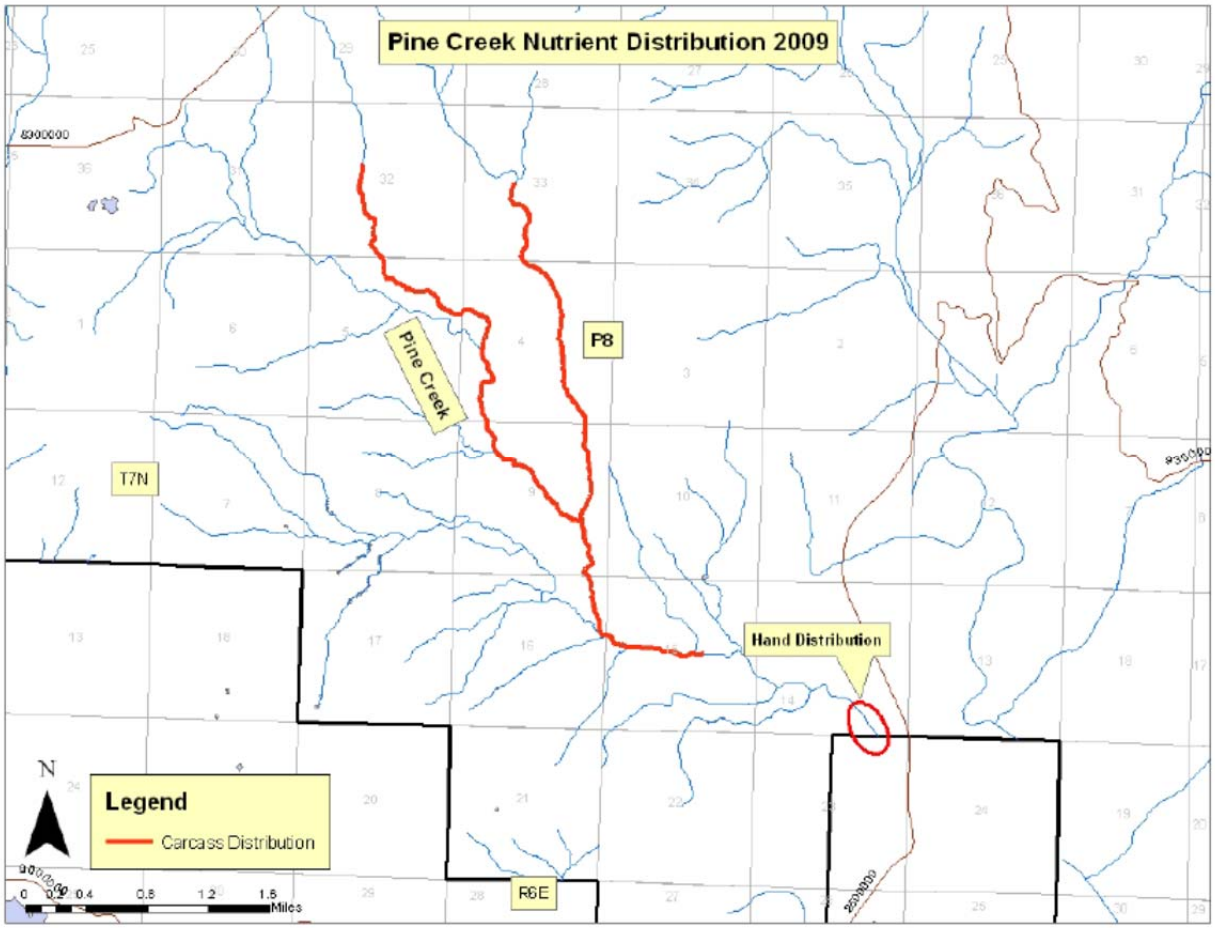
NGDP = GDP-IPD for the fourth quarter of the year prior to the current April 30 adjustment date.

"GDP-IPD" is the value published for the Gross Domestic Product Implicit Price Deflator by the U.S. Department of Commerce, Bureau of Economic Analysis (being on the basis of 2000 = 100), in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by the Parties. If the base year for GDP-IPD is changed or if publication of the index is discontinued, the Parties shall promptly make adjustments or, if necessary, select an appropriate alternative index to achieve the same economic effect.

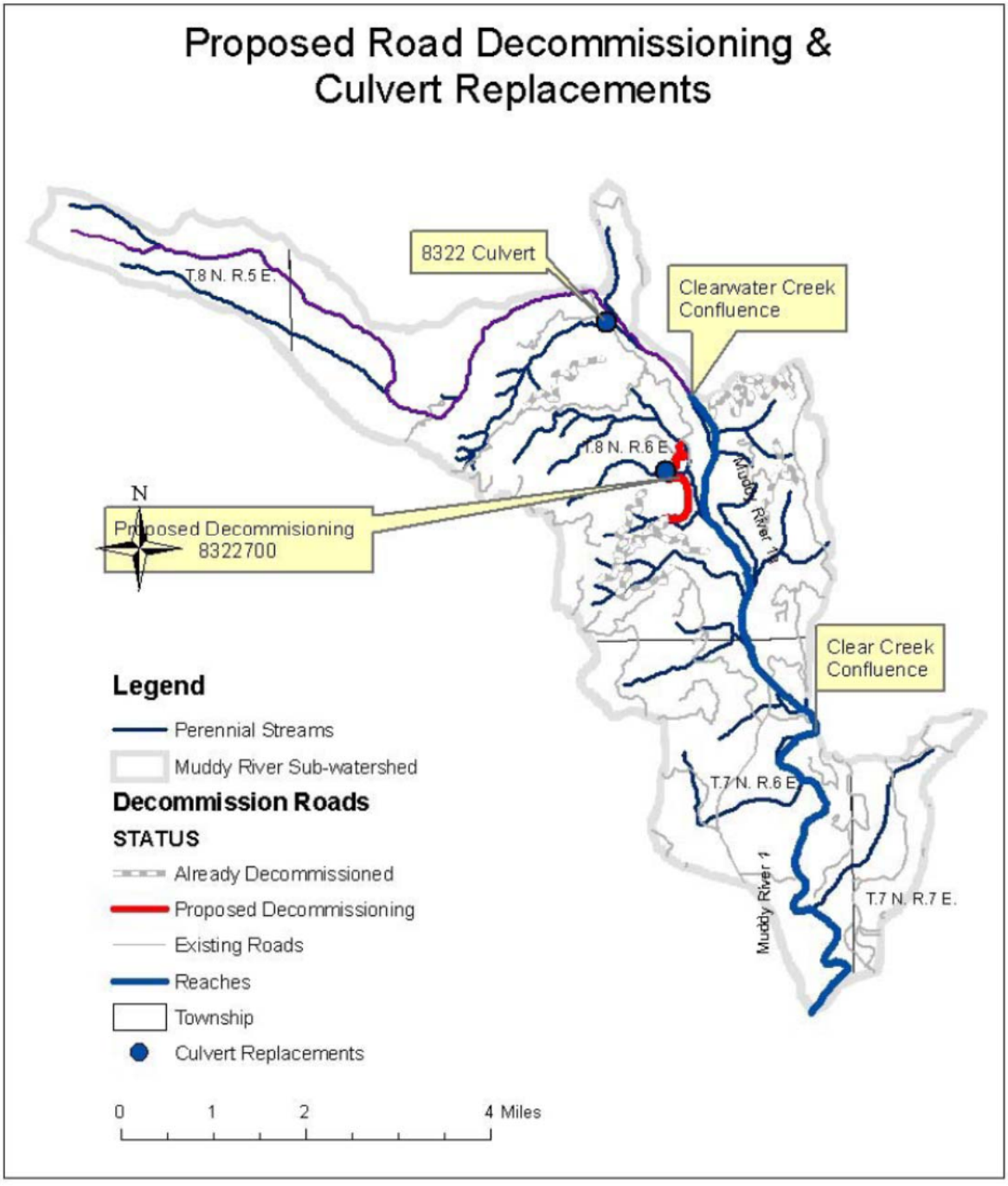
If a sum is stated in 2003 dollars, then the first adjustment shall be as of April 30, 2004. If a sum is stated in 2004 dollars, then the first adjustment shall be as of April 30, 2005.



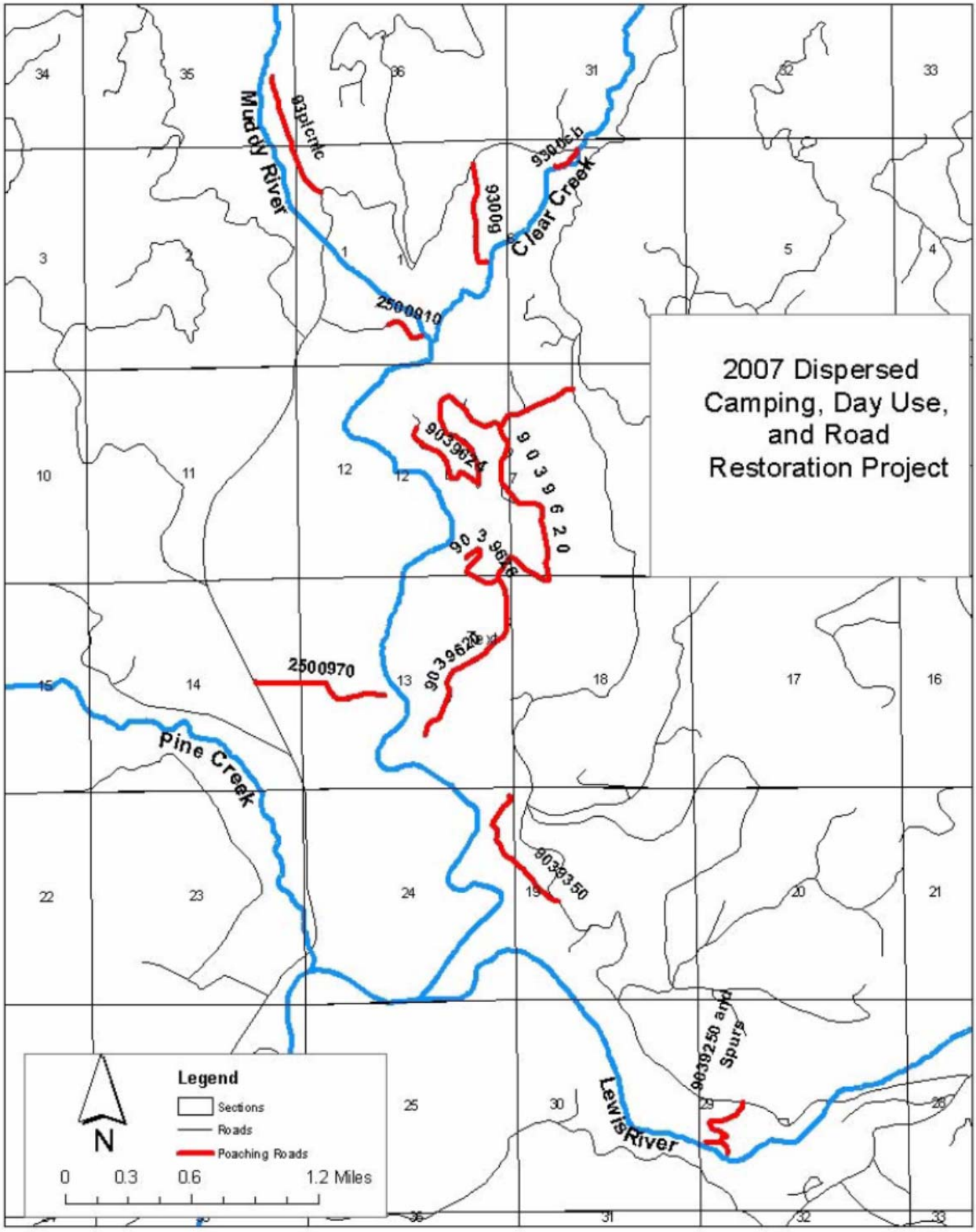
2006 road decommission



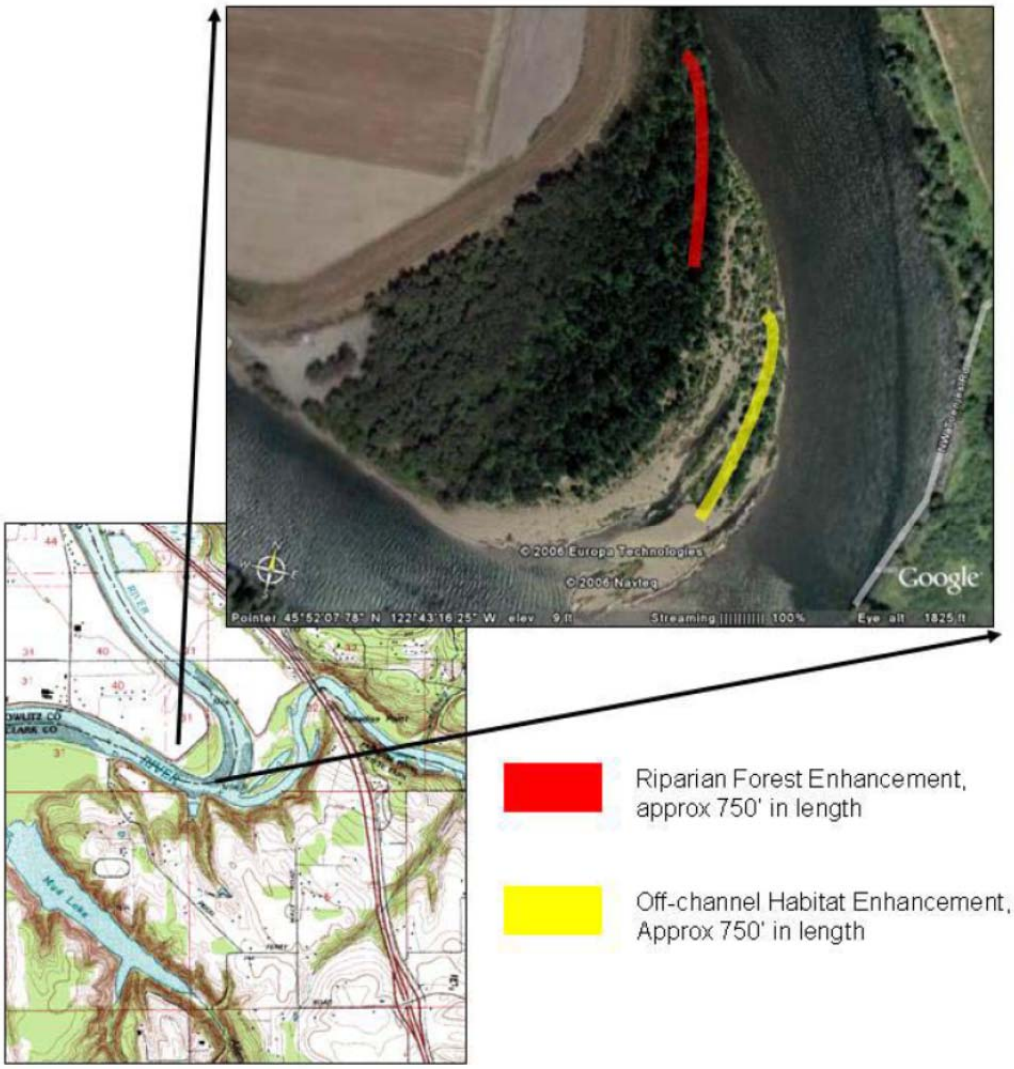
Pine Creek Nutrient Enhancement – same area for 2006 and 2009



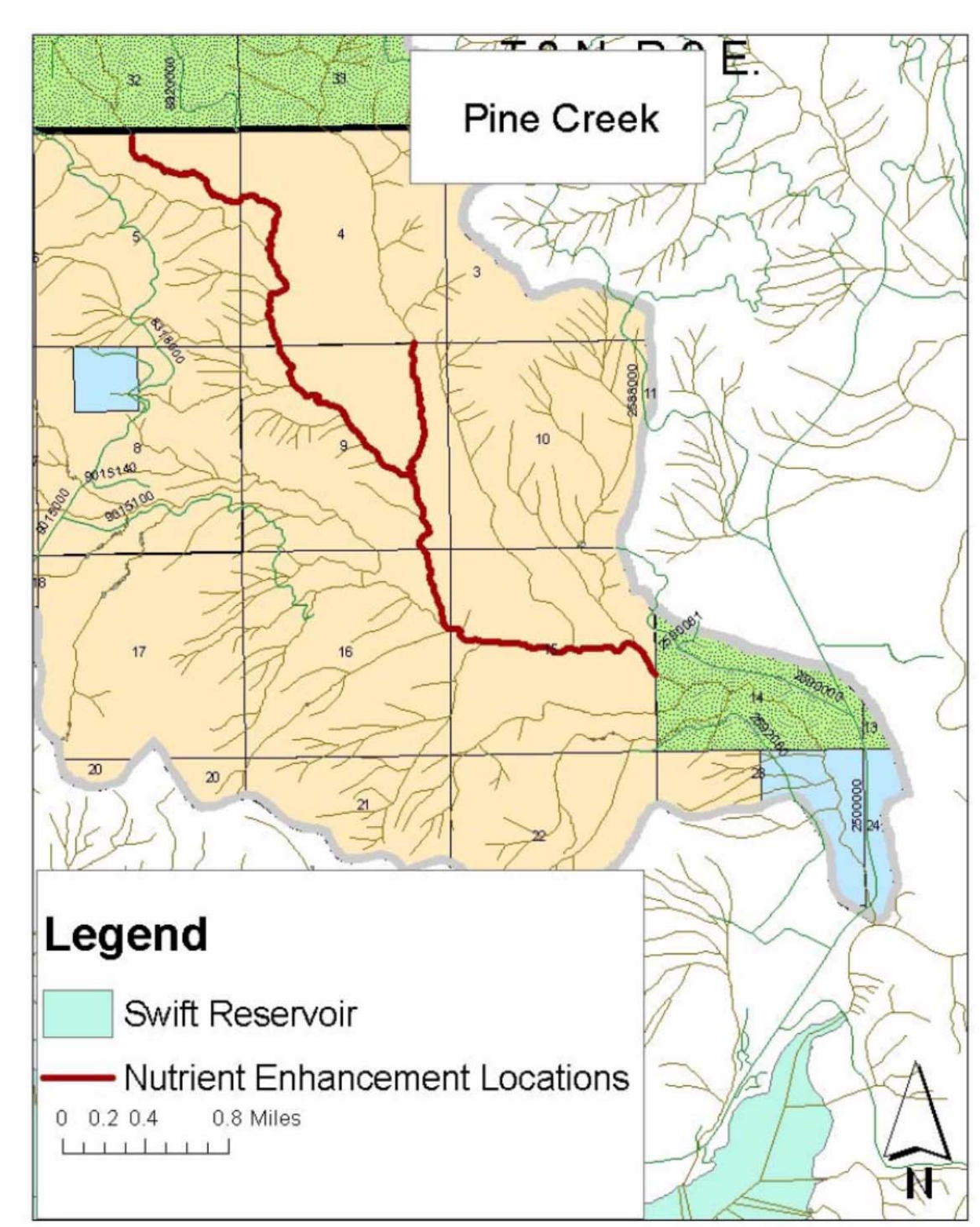
2006 Culvert Replacement



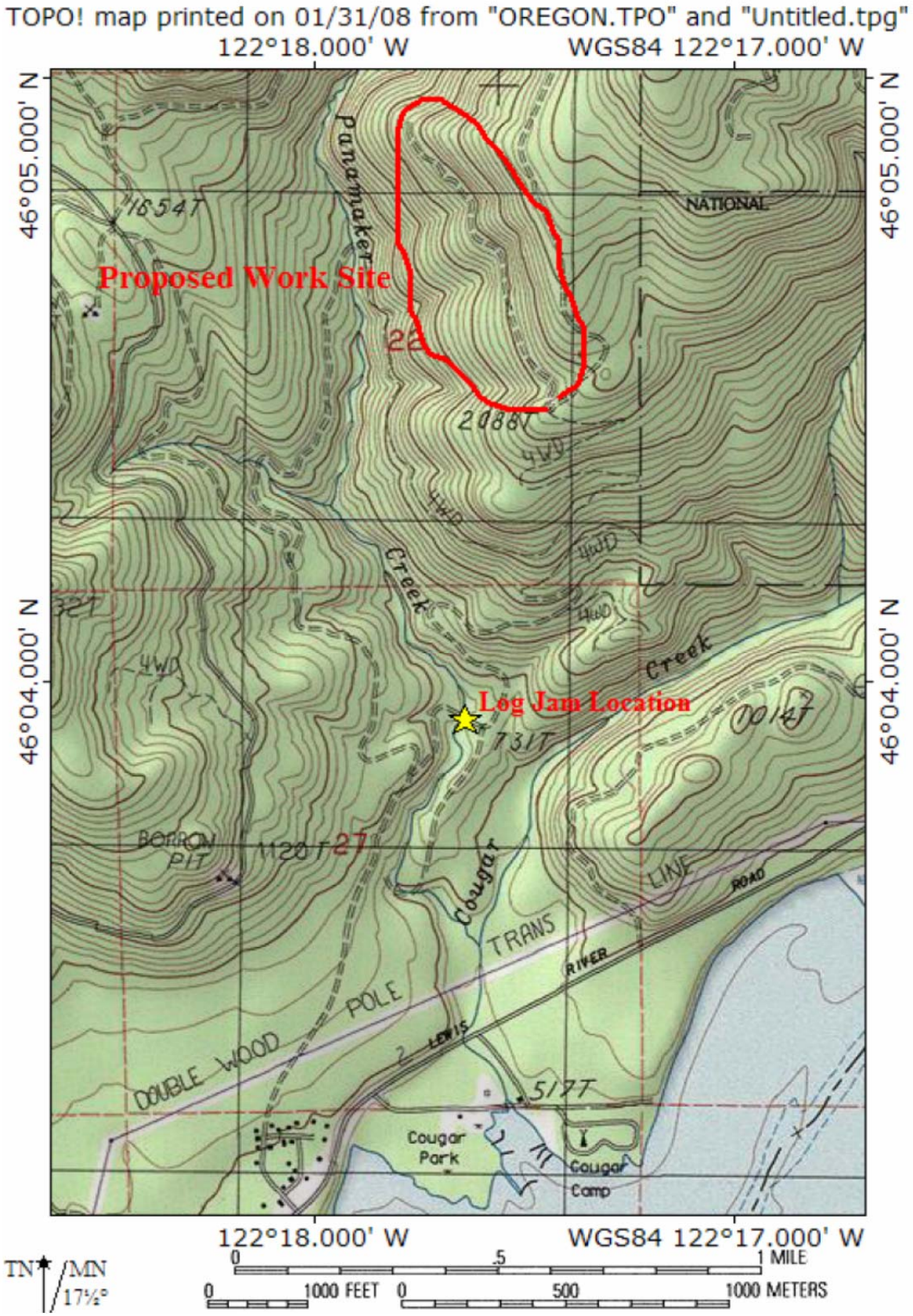
2007 Dispersed camping/road decommissioning



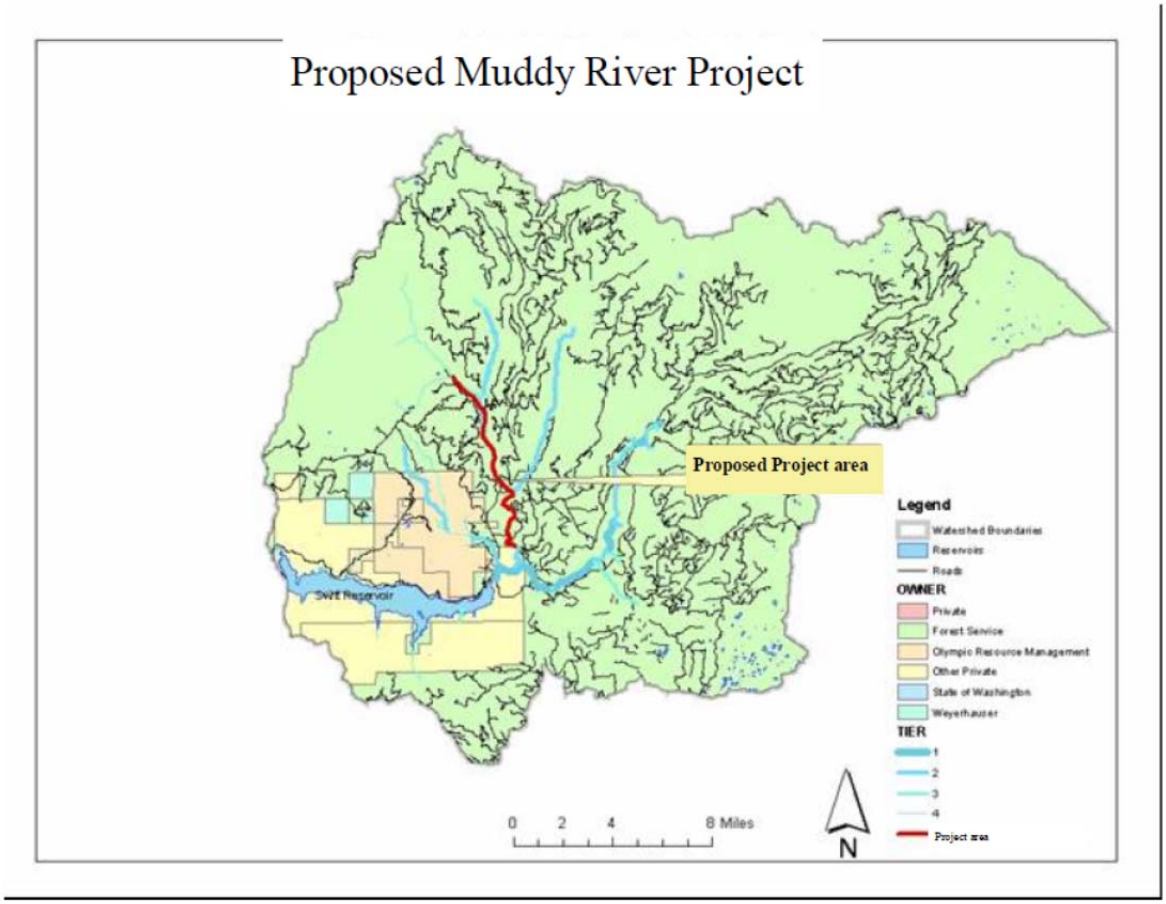
2007 Martin Access Riparian and Off-Channel Habitat Enhancement



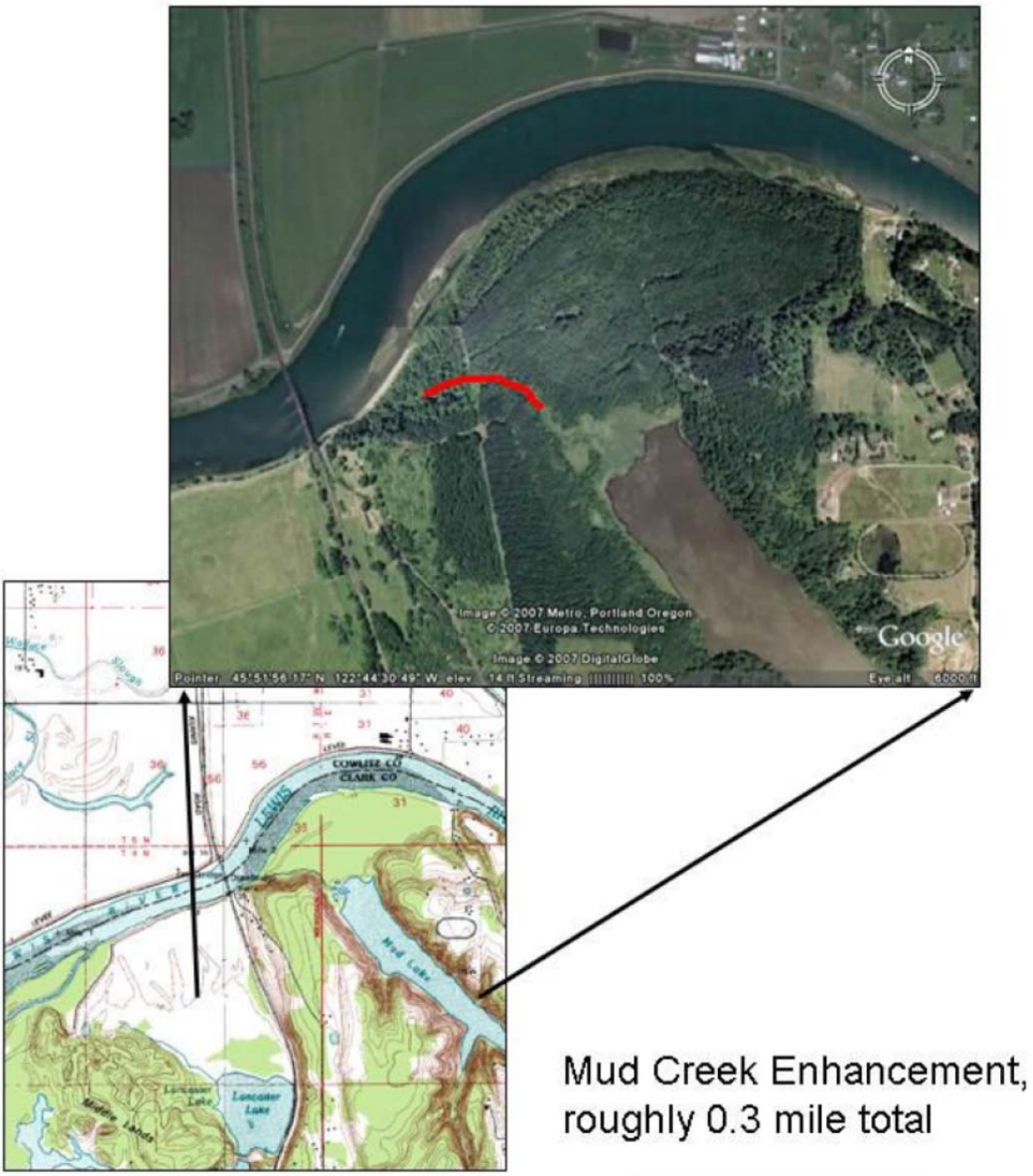
2007 Pine Creek Nutrient enhancement



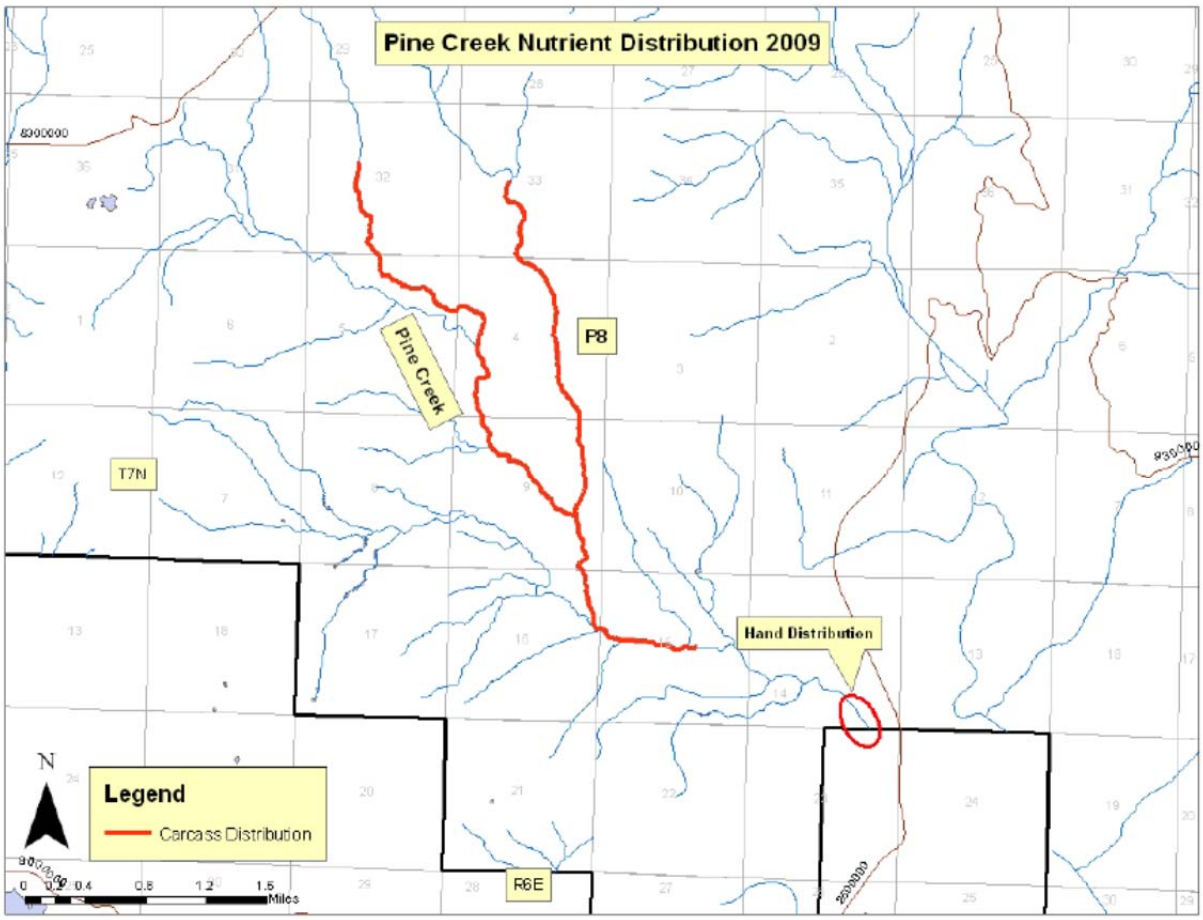
2008 Panamaker Cr road closure and Culvert replacement



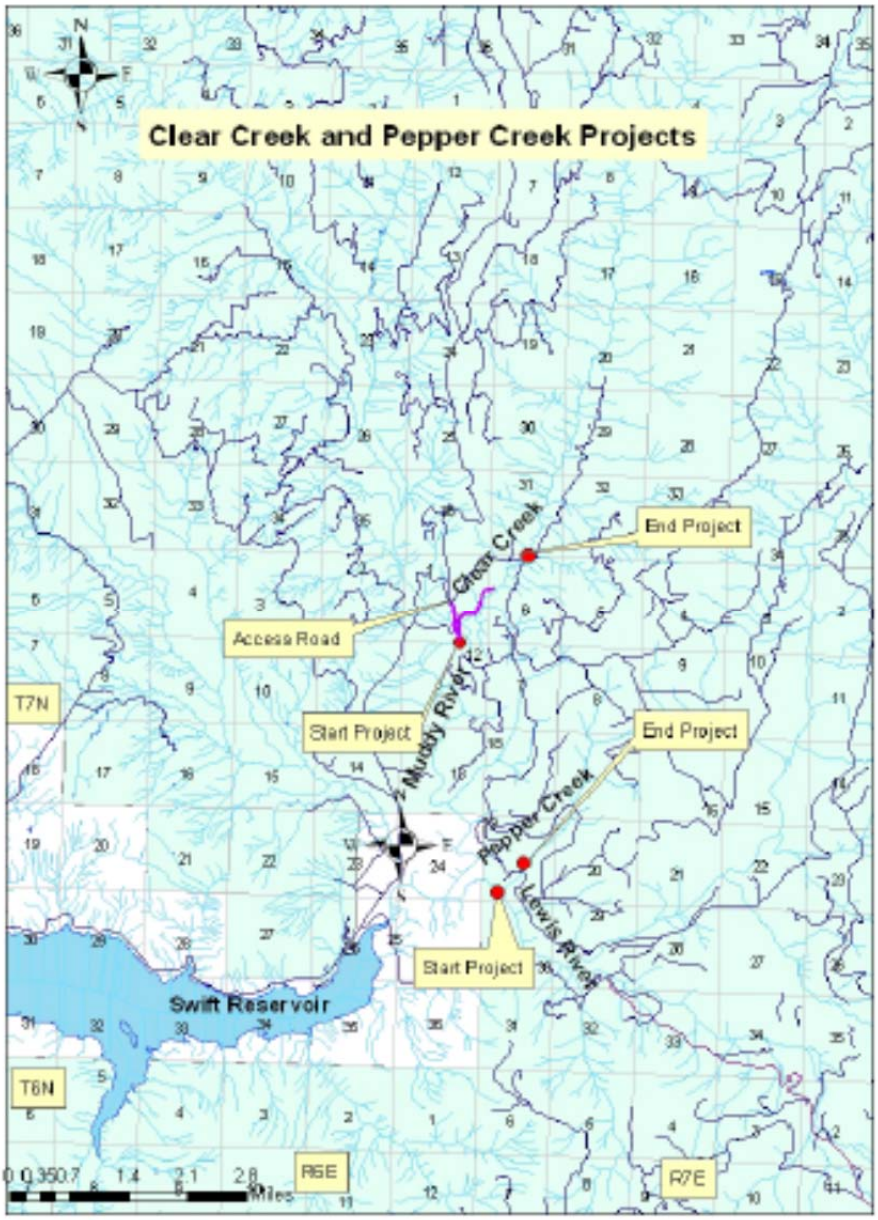
2008 Muddy River Habitat Improvement



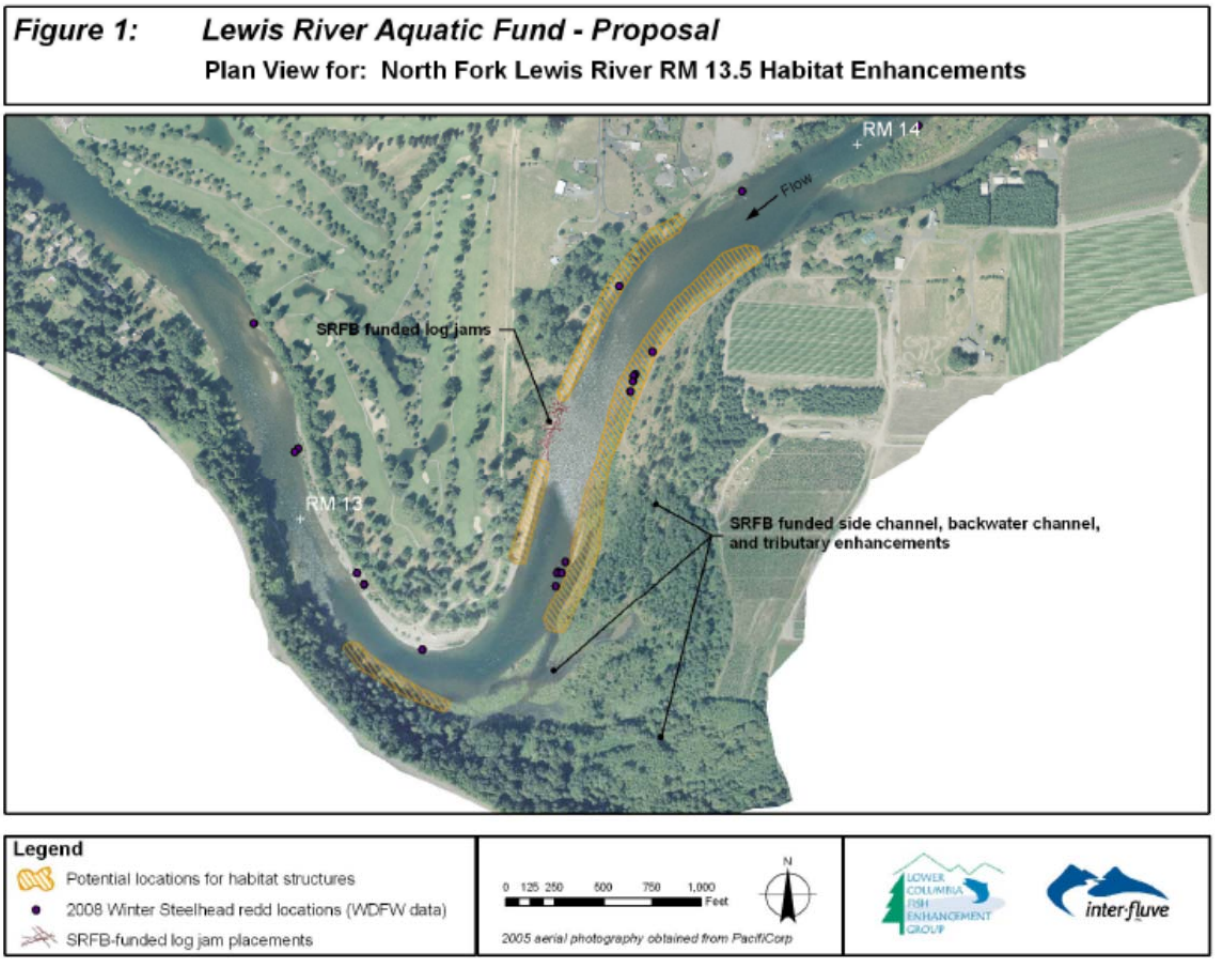
2008 Mud Cr. Enhancement



2009 Pine Cr. Nutrient Enhancement

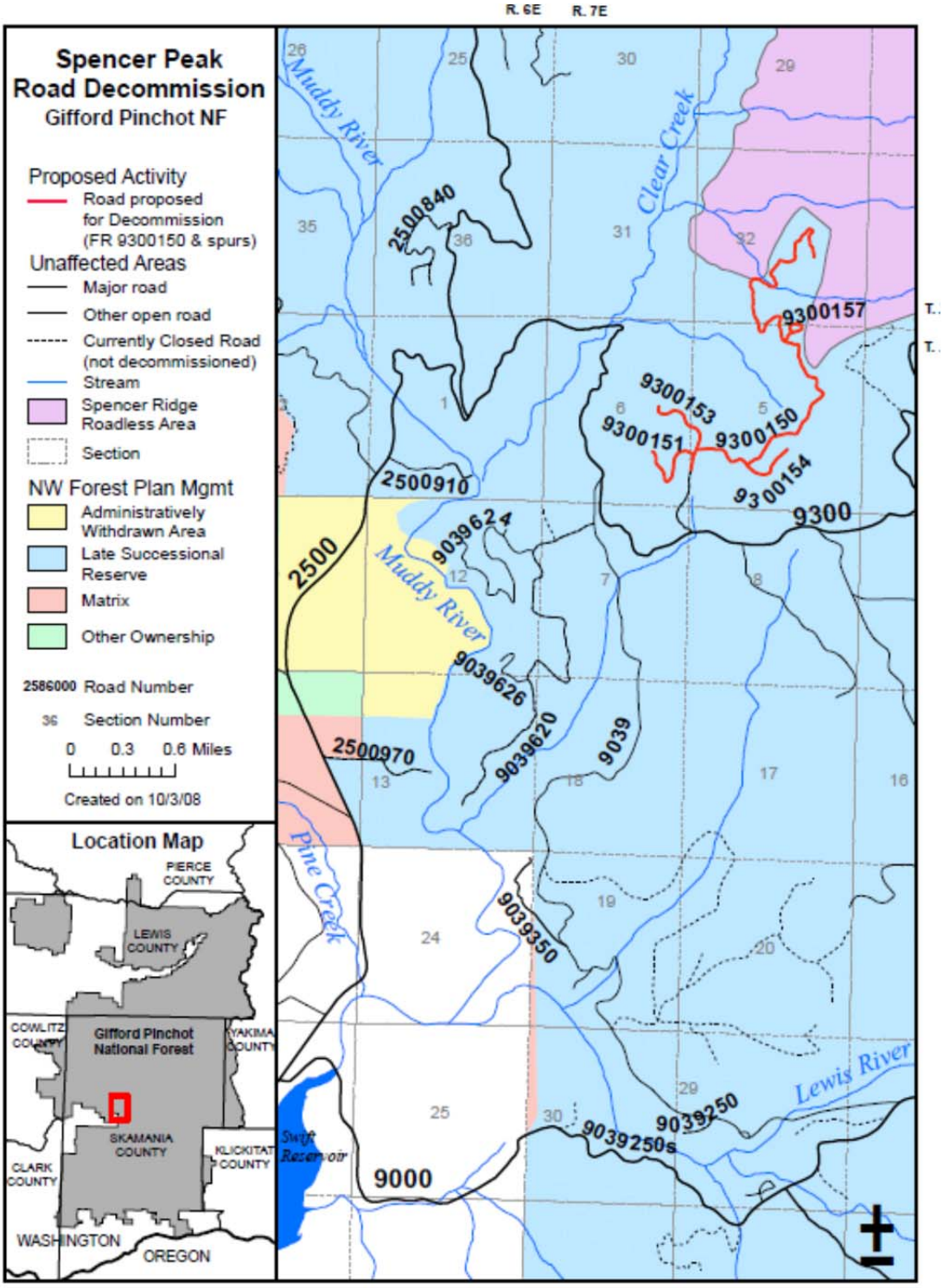


Map 1: Project Vicinity Map

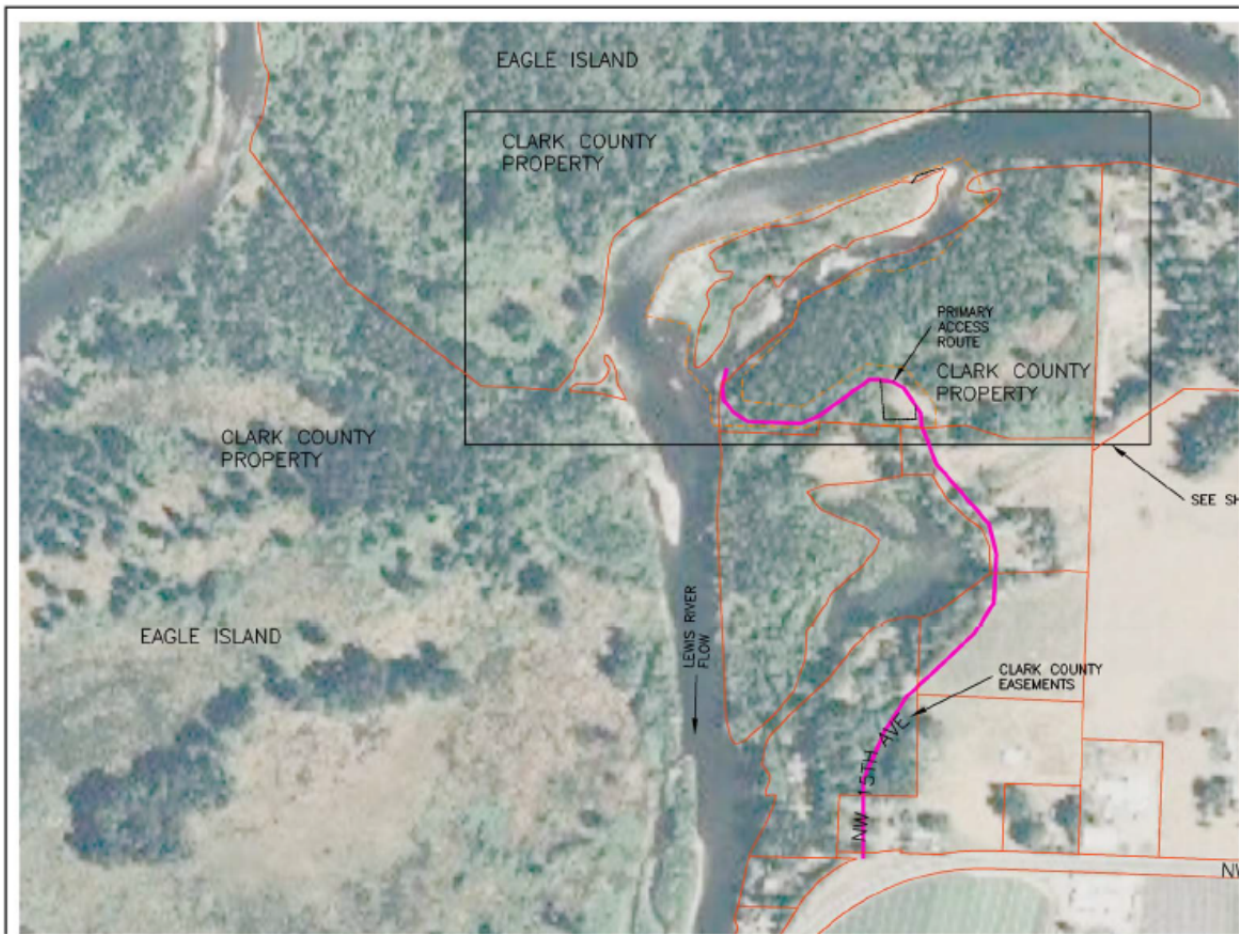


NF Lewis River Habitat Enhancement

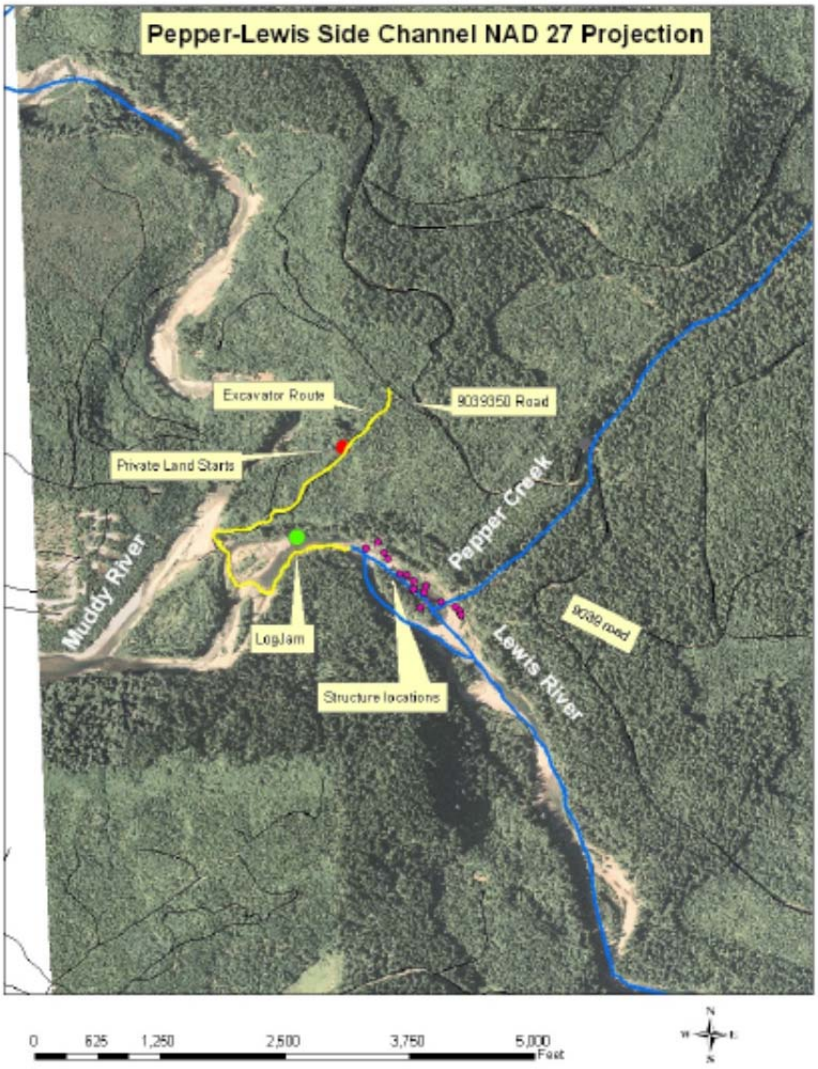
2009 Plas Newyyd Habitat Enhancement



2009 Spencer Cr. Road Decommissioning



2010 Eagle Is. Habitat Enhancement



2010 Pepper-Lewis Side Channel Restoration

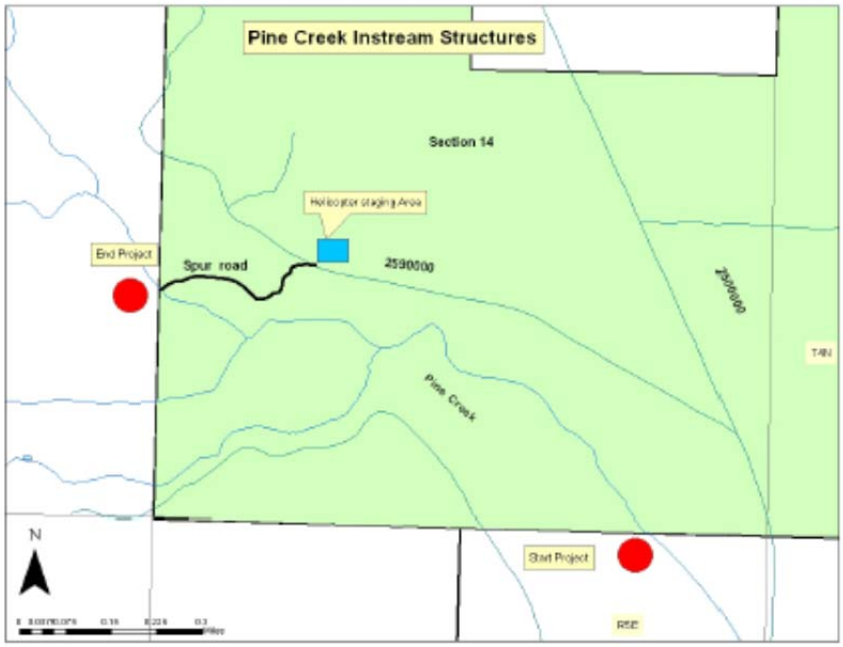
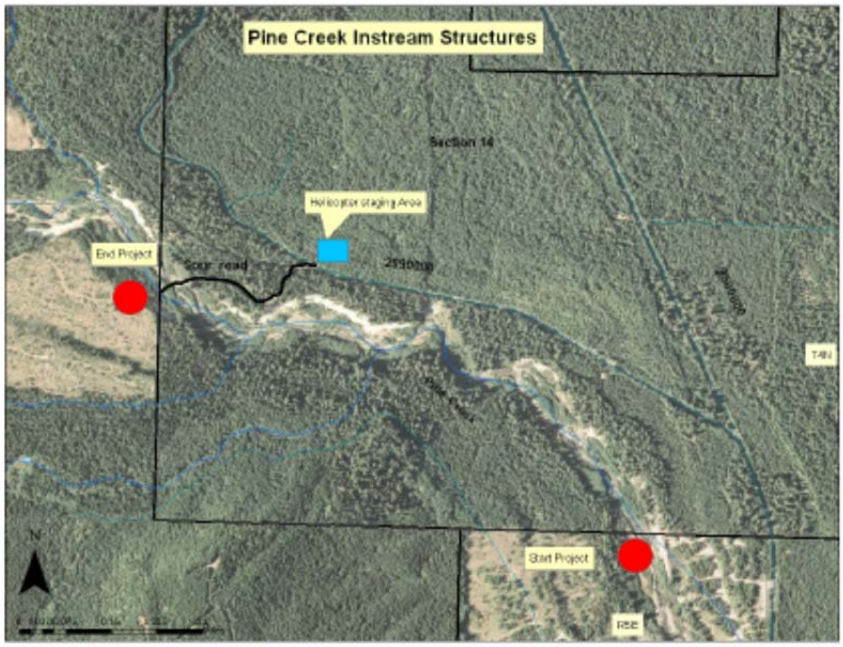
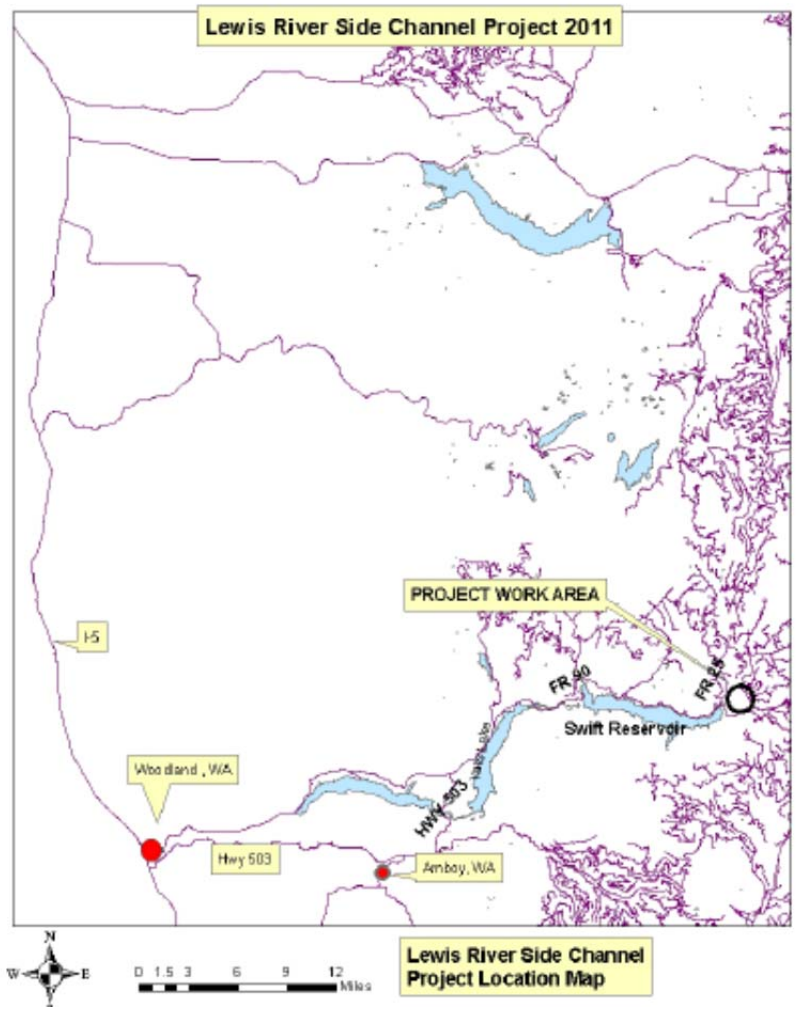


Figure 1. Map of project area

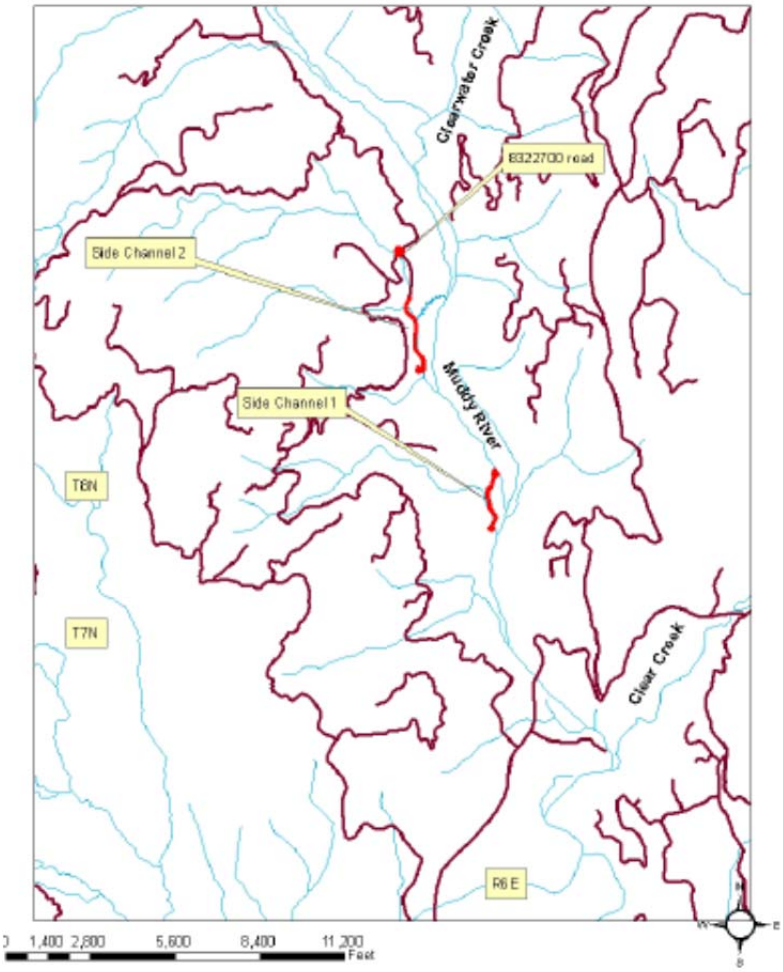


2010 Pine Creek Instream Structures

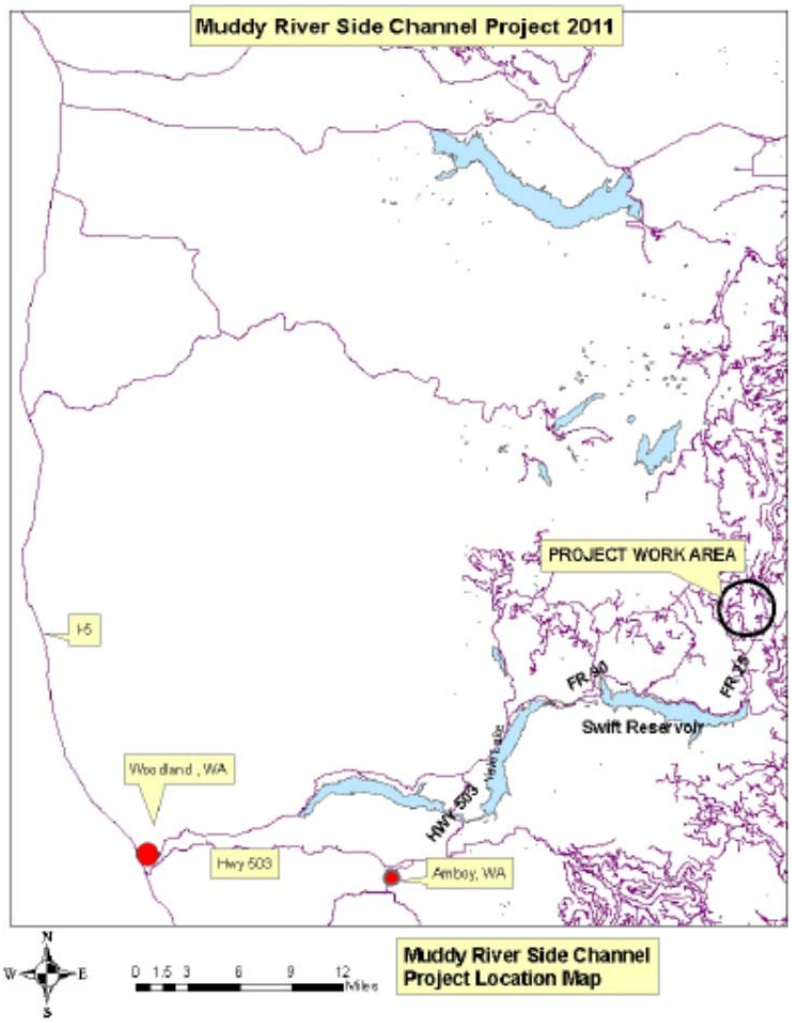
2011 Eagle Is. Habitat Enhancement



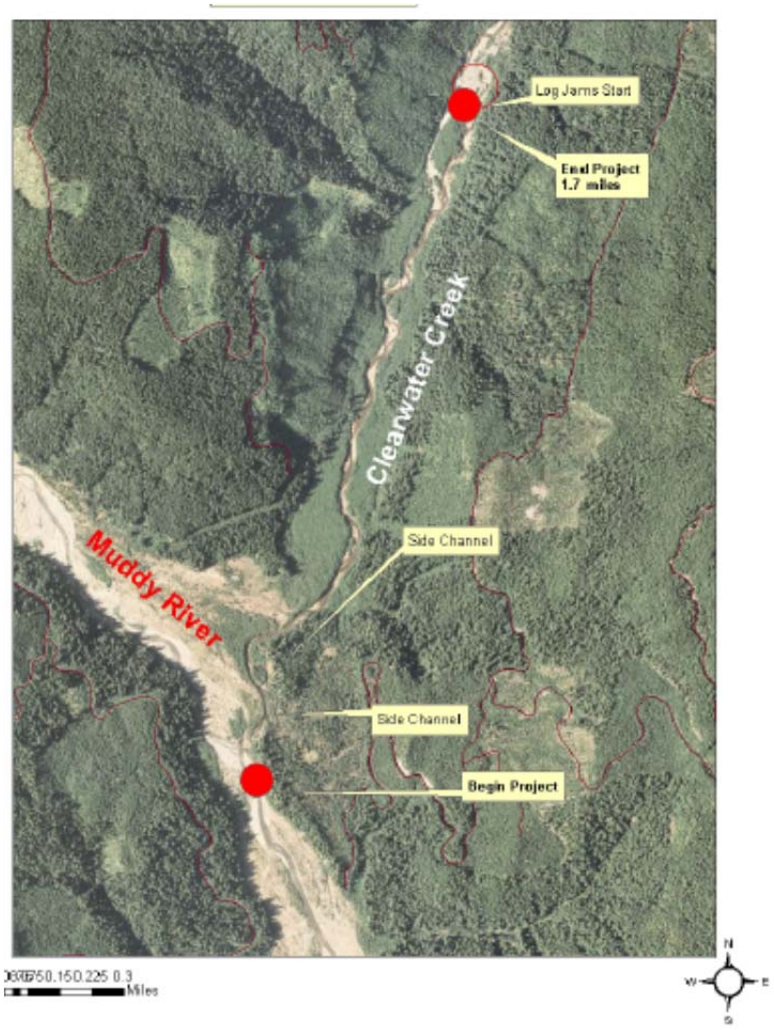
2011 Lewis River side-channel near Muddy R. Log placement



2011 Muddy R. mainstem Restoration

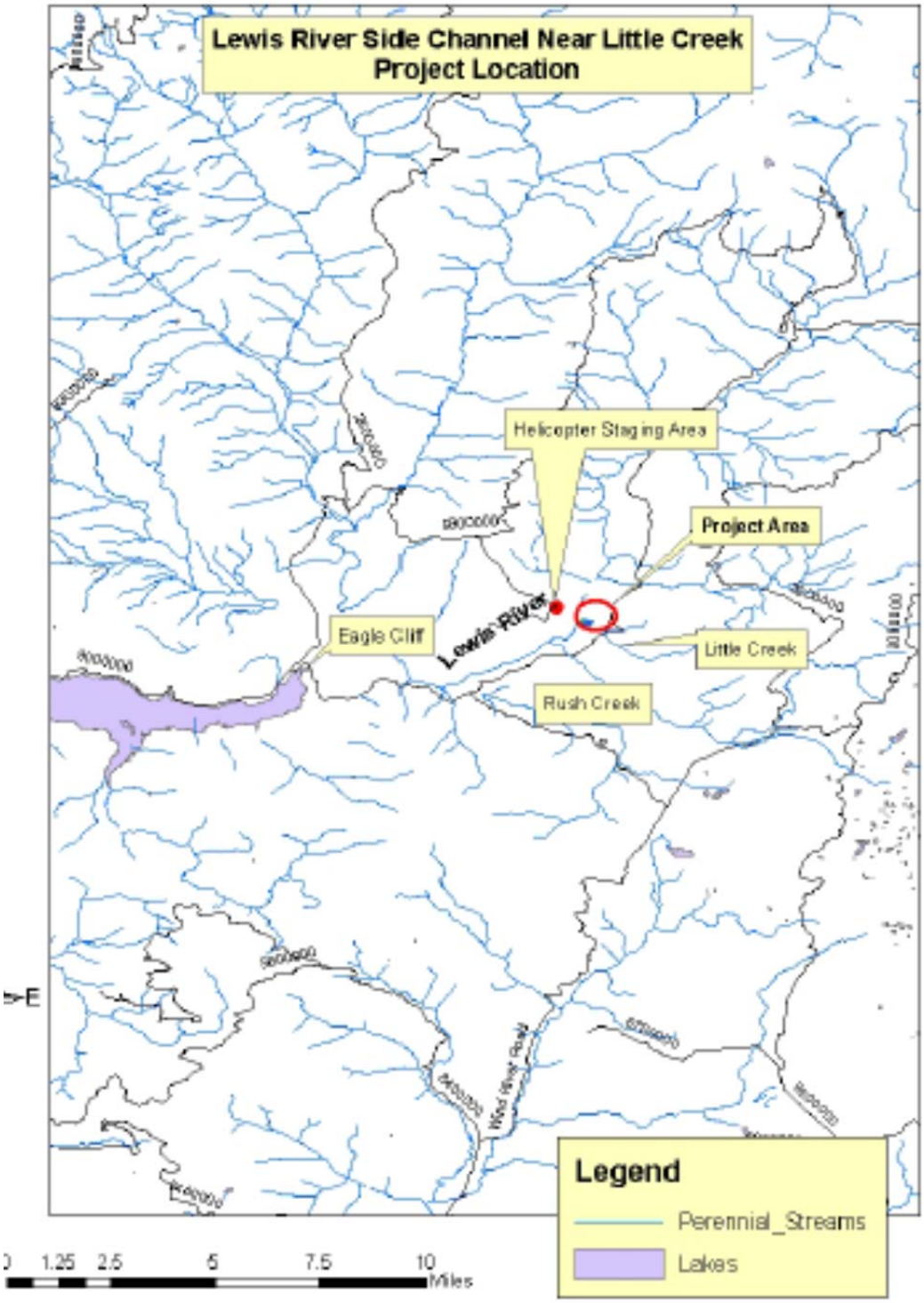


2011 Muddy River side-channel restoration

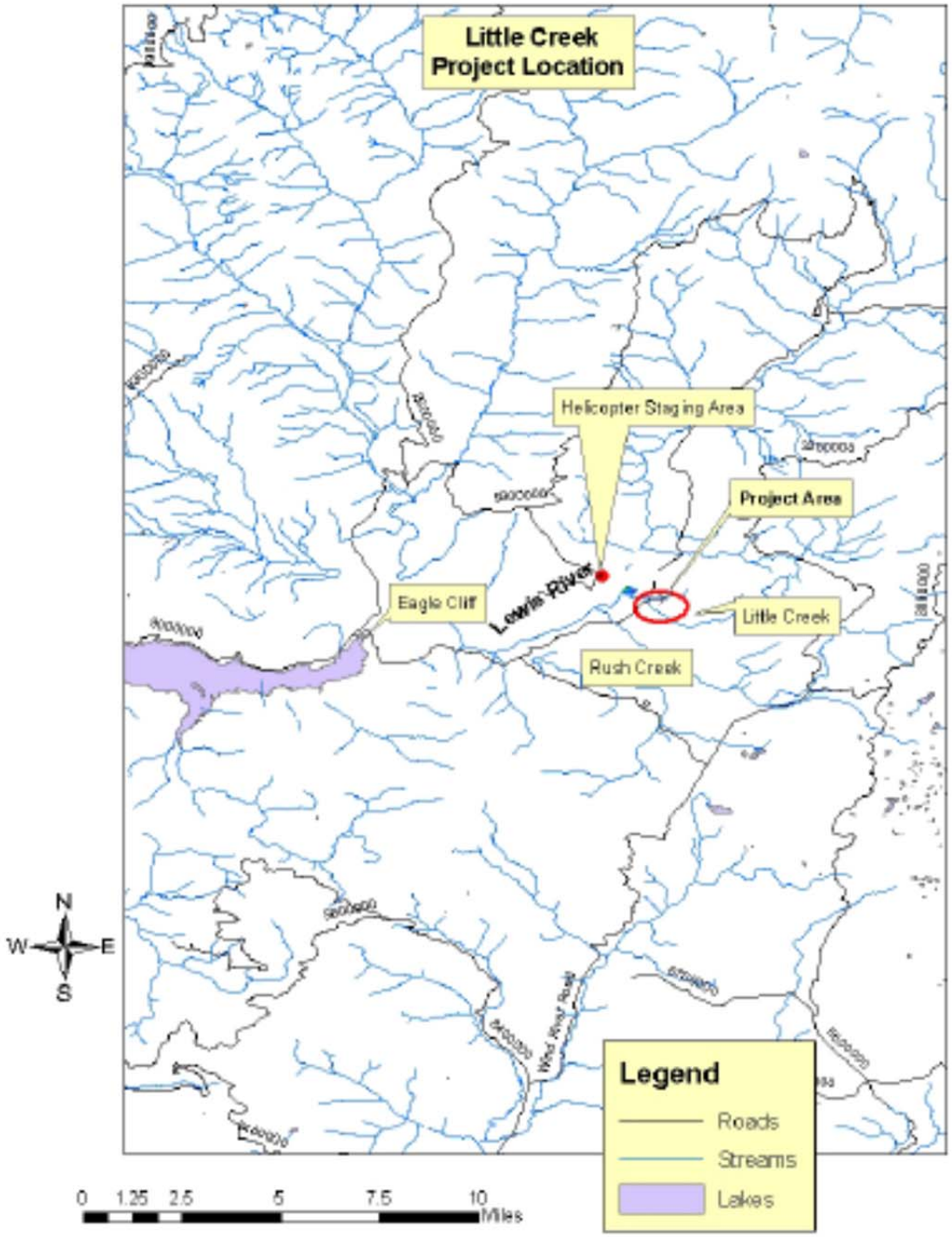


2012 Clearwater Cr. Habitat Restoration

2012 Lewis R. side-channel III restoration



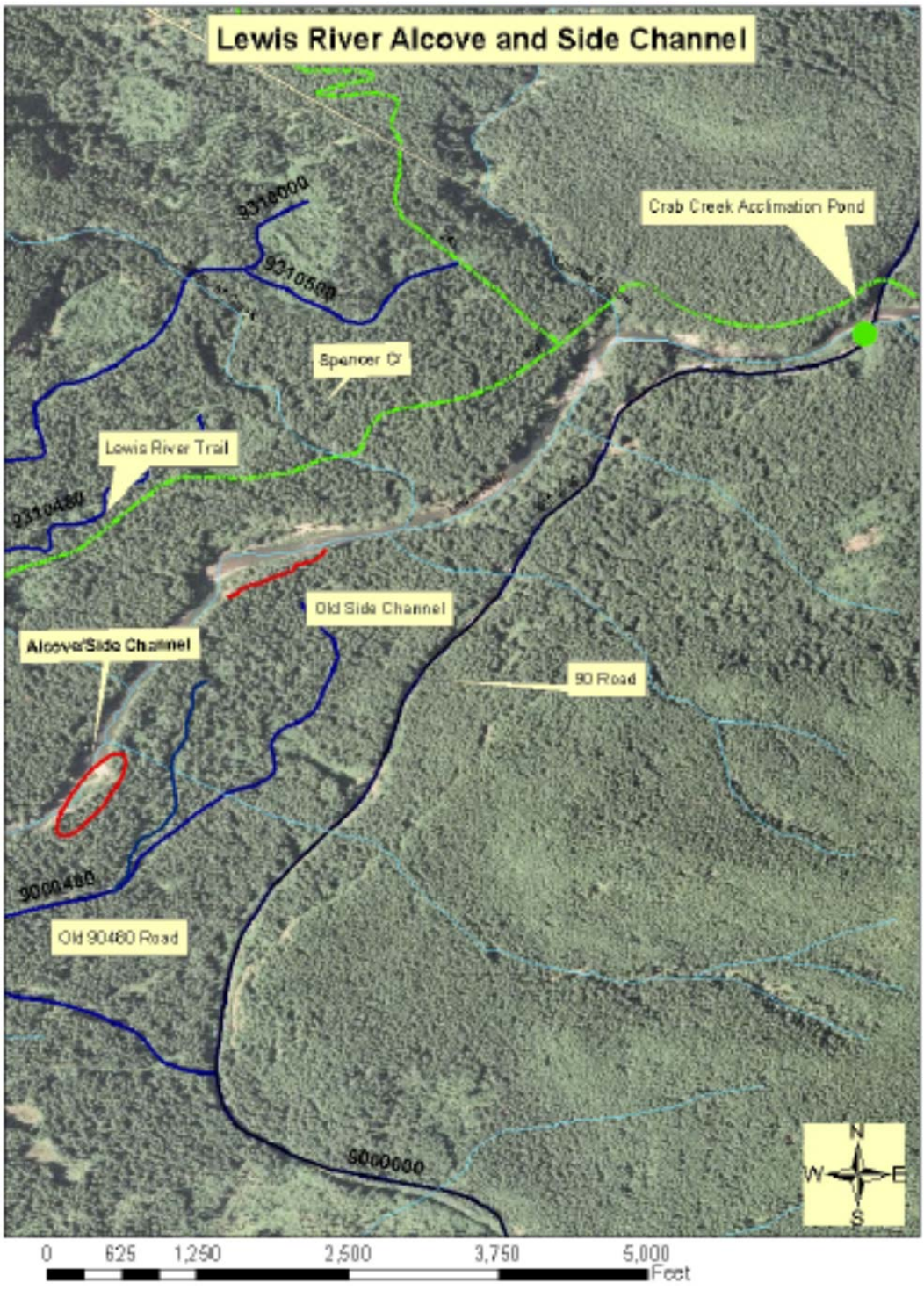
2013 Lewis R. side-channel near Little Cr.



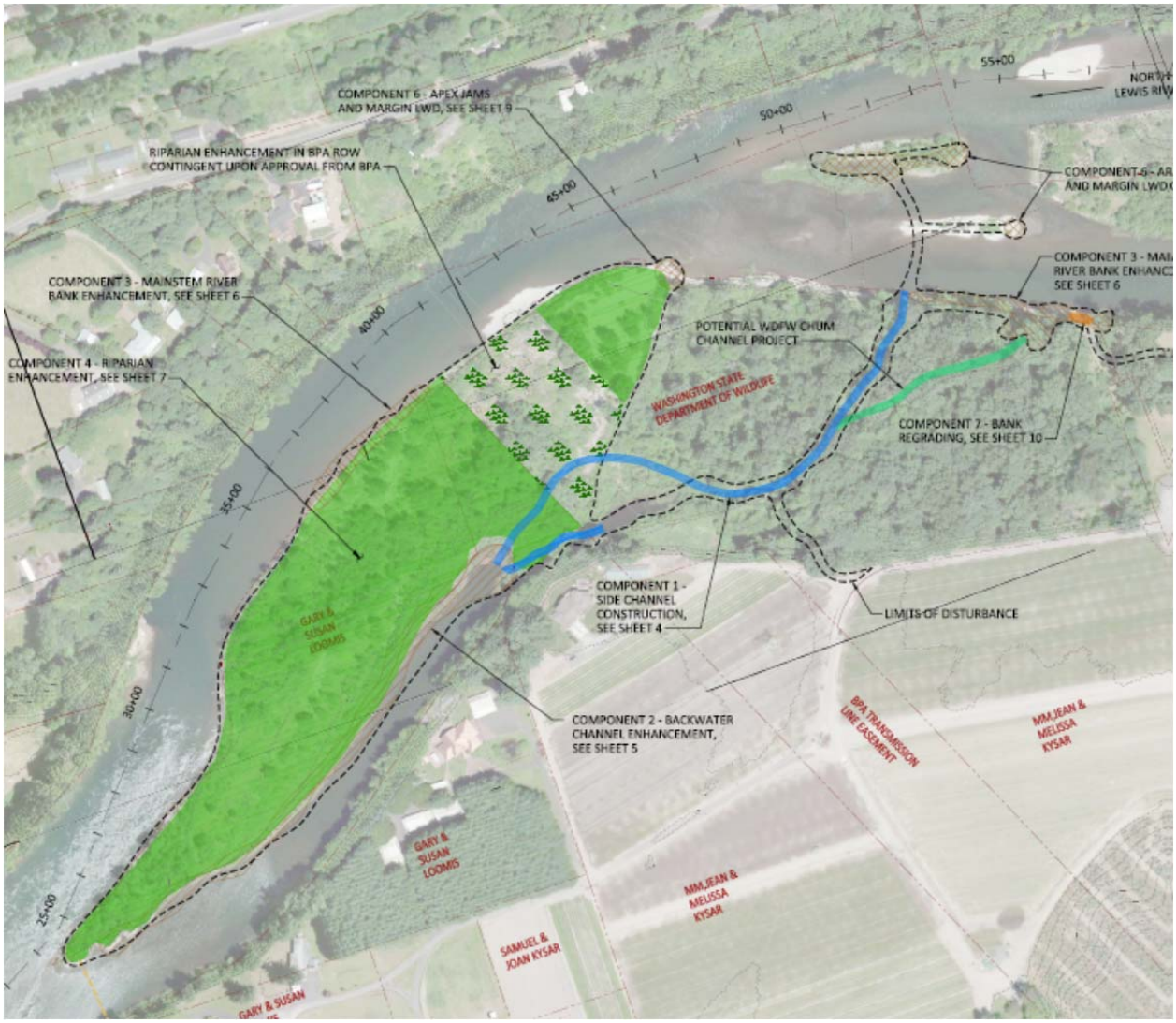
2013 Little Cr. Fish habitat restoration

Vicinity and Site maps

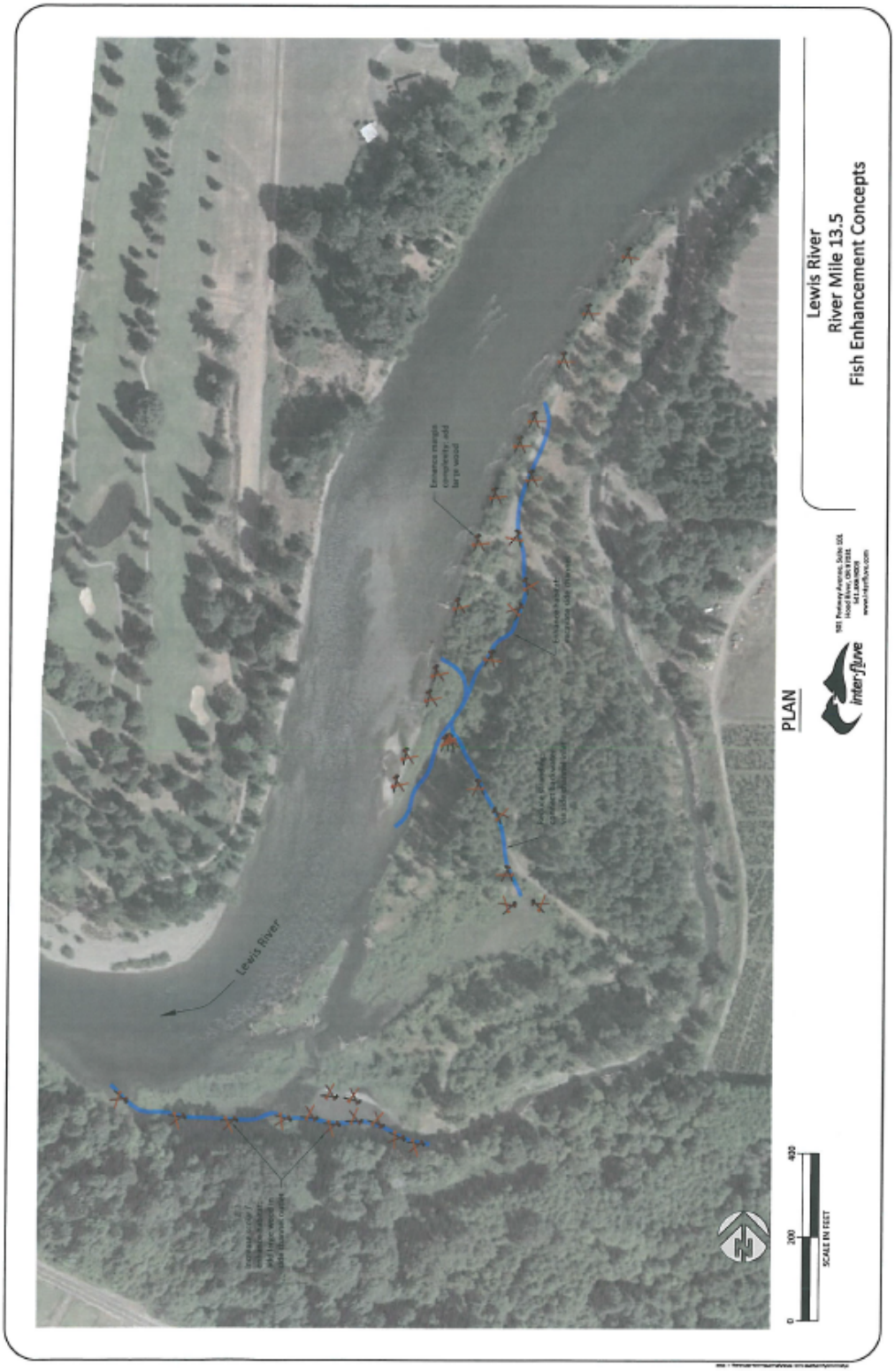
2013 Cedar Cr. Reach 1A log placement



2014 Lewis R. side-channel



2014 Haapa Habitat Enhancement



2015 Lewis R. mile 13.5 habitat enhancement

2015 Lewis R. side channel 5