FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
April 8, 2010
Ariel, WA

ACC Participants Present (15)

Eli Asher, LCFRB
Pat Frazier, WDFW
Diana Gritten-MacDonald, Cowlitz PUD
Adam Haspiel, US Forest Service
David Hu, US Forest Service
LouEllyn Jones, USFWS
Eric Kinne, WDFW
George Lee, Yakama Nation
Erik Lesko, PacifiCorp Energy
Jim Malinowski, Fish First (via teleconference)
Kimberly McCune, PacifiCorp Energy
Kate Miller, Trout Unlimited (via teleconference)
Todd Olson, PacifiCorp Energy
Frank Shrier, PacifiCorp Energy
Rich Turner, NMFS (via teleconference)

Calendar:

May 13, 2010	ACC Meeting	Merwin Hydro
June 10, 2010	ACC Meeting	Merwin Hydro

Assignments from April 8, 2010 Meeting:	**Status:**
Haspiel: Present more detailed design of the Pine Creek Instream aquatic fund project to the ACC when available.	**Pending**
Frazier: Schedule a meeting with PacifiCorp, Yakama Nation and WDFW to further discuss Habitat Preparation Plan fish distribution numbers and report back to the ACC.	**5/13/10 - Kinne to contact George Lee and report back to ACC.**
McCune: Email a copy of the DOE letter regarding the Mixing Zones request to Diana Gritten-MacDonald.	**Complete – 4/8/10**

Assignments from March 11, 2010 Meeting:	**Status:**
The next ACC meeting on Thursday, April 8, 2010 will be an aquatic fund project decision making meeting. Each ACC member must be present or have identified a proxy before the meeting.	**Complete – 4/8/10**
McCune: Confirm availability of the $2,000 in the large woody debris (LWD) fund to offset the expense of LWD hauling and email Haspiel (USFS).	**Complete – 3/11/10**
McCune: Email an invite to all interested parties to include site visit details to Swift Upper Release on Tuesday, March 30, 2010; meet at	**Complete – 3/17/10**

the Merwin Hydro Control Center at 10:00am and arrive at the site no later than noon.	

Assignments from April 9, 2009 Meeting:	**Status:**
ACC: Further investigate WDFW carcass survey methods established in 1978 and determine "next step" regarding modifications needed, if any, to the 1978 methods.	**Pending as of 5/13/10**

Opening, Review of Agenda and Meeting Notes

Frank Shrier (PacifiCorp Energy) called the meeting to order at 9:05am and requested a roundtable introduction for those participating via teleconference. Shrier reviewed the agenda for the day and requested any changes/additions. No changes or additions were requested.

Shrier requested comments and/or changes to the ACC Draft 3/11/10 meeting notes. No changes were requested. The meeting notes were approved without changes at 9:10am.

Monitoring and Evaluation (M&E) Plan Update

Shrier informed the ACC attendees that a Draft M&E Plan was provided to the ACC via email on March 31, 2010 for a 30-day review and comment period. It is published for viewing on the Lewis River website at:

http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensing/Lewis_River/2010_03-31_Final_Draft_Lewis_ME_Plan.pdf

Hard copies of the Plan were provided at today's meeting.

Shrier expressed in the email to the ACC that reviewers should pay particular attention to sections 2.1, 2.4, 2.15, 2.16, 2.17, 2.19 and 2.22. Comments are due on or before April 30, 2010.

Response to Flow Reductions or Interruptions Revised Document Discussion (Attachment A) – 6.1.6(c)

Erik Lesko (PacifiCorp Energy) provided an update of the *Response to Flow Reductions or Interruptions at the Swift Bypass Reach Upper Release Point and Canal Drain (*Plan*)* revised document, which was emailed to the ACC and the Services on March 18, 2010.

The revised Plan included a map and additional detail regarding the flow meter sensors and trouble alarm (see Section 2.1, Paragraph 3) in **Attachment A**, per the request of Eric Kinne (WDFW).

The ACC did not have any additional comments.

Aquatic Project Proposal Decision Meeting

Todd Olson (PacifiCorp Energy) reminded the ACC attendees that the intent of an Aquatic Project Decision-making meeting is to reach consensus in accordance with the

Aquatics Fund – Strategic Plan and Administrative Procedures, September 2005 and revised January 2009 as follows:

….The purpose of the meeting is to reach consensus on those projects that are to receive funding from the Lewis River Aquatics Fund. It is the intent of the Settlement Agreement Parties that the ACC shall strive to operate by consensus and in the case of the Aquatics Fund, strive to reach agreement on Resource Projects to be funded. "Consensus" for funding of a project is defined per the Lewis River Settlement Agreement definition: ""Consensus" means that all Parties participating in a committee or other decision-making group consent to a decision. Consent does not necessarily imply that a Party agrees completely with a particular decision, just that the Party is willing to go along with the decision rather than block the action." If consensus is not achieved at the meeting, additional meetings will be scheduled and conducted as soon as possible.

If the ACC cannot reach a resolution an additional meeting will be scheduled as soon as possible and if this option is not successful Arbitration Dispute Resolution (ADR) procedures are available.

Olson further stated that participation by ACC representatives is imperative at the Funding Selection meeting. ACC representatives must participate, or in the case of a known absence, provide a written proxy or a written response for the project(s) voting. Rich Turner (NMFS) indicated that Michelle Day (NMFS ACC representative) abstains.

This topic was momentarily delayed to give additional time for ACC representatives to get to the meeting.

Habitat Preparation (HPP) Plan Update

Lesko informed the ACC that the HPP was provided to the ACC via email on April 6, 2010 for a 30-day review and comment period (**Attachment B**). The only changes from last year's HPP relate to a regulatory change, which is reflected in the Harvest Restrictions section and spring Chinook transport reflected in the Transportation Number (goal) section. **Comments are due on or before May 7, 2010.**

Kinne commented on the "at least" transportation number in the HPP text below. After general discussion regarding total number and transportation goals it was determined that a meeting with PacifiCorp, Yakama Nation and WDFW is in order to further discuss fish distribution numbers and report back to the ACC. Olson noted that the transportation number is dependent on in-season determination and is a target number. Kinne commented that the ACC may want to consider transport of more fish (coho specifically), but WDFW is certainly not thinking we are going to use a number like 9,000 fish.

Transportation Number (goal): The total number of salmon to be transported from the traps (in 2010) will be at least 2,000 adults. This number may comprise a combination of both coho and Chinook salmon. Females shall have priority over males when selecting fish for transportation, and shall comprise at least 50 percent of the total. A high percentage of females will facilitate redd construction, and thereby, help meet the plan objective of gravel tilling.

Mixing Zones Requested for Swift Collector Bridge Pile Installation Discussion

Shrier informed the ACC attendees that PacifiCorp will be placing 13 bridge piles in the reservoir which includes drilling into the reservoir bottom and sucking of sediment from drilled holes. Short-term and temporary turbidity impacts associated with this project appear to be unavoidable and were described in more detail in a letter to the Washington Department of Ecology (DOE) on April 5, 2010. PacifiCorp requested a short-term amendment of the turbidity standard to better accommodate construction of the Swift Reservoir Fish Facility.

The time period of the mixing zone would correspond to the In-Water Work Period for In-Water Construction below the OHWM, which is proposed to be from May 1 through September 30 in the years 2011 and 2012.

Diana Gritten-MacDonald (Cowlitz PUD) requested a copy of PacifiCorp's letter to DOE.

Aquatic Project Proposal Decision Meeting (cont'd)

Olson informed the ACC attendees that the Lewis River Aquatic Fund ACC Evaluation Matrix, dated March 29, 2010 (Attachment C) contains all comments received to date (both formal and informal). Today's comments and decisions will be captured in the same matrix. The ACC decisions for each project are reflected below. For additional comment detail please refer to Attachment C.

Applicant	Project Title	Funding Request	Decision
Cowlitz Indian Tribe	Eagle Island Habitat Enhancement	$74,300	Yes (resource funds)
Lower Columbia Fish Enhancement Group	NF Lewis RM 13.5 Off-Channel Habitat Enhancement	$212,720	No
USDA Forest Service	Pepper-Lewis Side Channel Instream Habitat Restoration	$41,300	Yes (resource funds)
USDA Forest Service	*Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead	$65,000	Yes (½ resource funds & ½ bull trout funds)
USDA Forest Service	2010 Nutrient Enhancement on Pine Creek	$30,776	No
U.S. Fish & Wildlife Service	Bull Trout Population Structure and Habitat Use in Tributaries to Swift Reservoir and the NF Lewis River	$59,500	No

*The ACC would like to review more detailed design when available.

<Break 10:50>
<Reconvene 11:00am>

Study Updates

Shrier, Lesko, and Doyle provided the following study updates:

Hatchery Upgrades –

Lewis River Hatchery Ponds 13 & 14 – PacifiCorp has worked with WDFW with regards to needing more time for the construction window. If this project is further delayed it will delay moving forward with the Pond 16 project in 2011 to 2012. PacifiCorp is working to get a contractor hired and work started soon.

Merwin Hatchery – Moving forward; construction to start soon on rearing ponds.

Speelyai Burrows Pond (2nd Bank) – Designs are finalized and construction is to be this year.

Speelyai Spawning Building - Moving forward; need to get pond wall up so it can be filled and used for holding spring Chinook adults.

Swift Net Pens – Net pen nets have been received, delivery of structure is on schedule.

Hatchery & Supplementation Plan Subgroup – Final Wild Winter Steelhead 2010 Annual Operating Plan was provided to the ACC on April 7, 2010. The H&S 2009 Annual Report was provided to the ACC on February 24, 2010, comments are due on or before April 26, 2010. In regards to the 2010 activity we are currently at the peak of the collection curve; collection so far includes 15 fish via in-river netting and 9 from the trap (1 female, 8 males). We are doing much better than last year at this time. Getting a lot of Cedar creek fish now; genetic analysis is working. PacifiCorp will make in-season decision if fish have to be held too long if ripe.

Release Pond Status – Working with property owner to secure easement. A right of entry agreement is in place and surveyor crew has been on site.

Acclimation Pond Plan – PacifiCorp is completed another version of the Plan; currently going through internal review. NEPA to the Forest Service is planned by late fall 2010. May miss some of the species surveys this year. If so, will be done spring 2010.

ACC/TCC 2009 Annual Report – Distributed for comment on March 29, 2010; comments due on or before April 27, 2010.

Swift Upper Release – Watered up on March 30, 2010; DOE was in attendance. Flowing well at 76 cfs. All revegetation looks good and budding out.

New Topics
None

Agenda items for May 13, 2010

- Review April 8, 2010 Meeting Notes
- Monitoring and Evaluation Plan Comments
- Nutrient Enhancement Discussion
- Hatchery & Supplementation Plan Annual Operating Plans for coho and Chinook
- Study/Work Product Updates

Public Comment
None

Next Scheduled Meetings

May 13, 2010	June 10, 2010
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00am – 3:00pm	9:00am – 3:00pm

Meeting Adjourned at 11:50 a.m.

Handouts

- Final Agenda
- Draft ACC Meeting Notes 3/11/2010
- **Attachment A** – Response to Flow Reductions or Interruptions at the Swift Bypass Reach Upper Release Point and Canal Drain (revised), dated March 18, 2010
- **Attachment B** – Draft Habitat Preparation Plan, dated April 6, 2010
- **Attachment C** - Lewis River Aquatic Fund Utilities Evaluation Matrix, dated March 29, 2010

RESPONSE TO FLOW REDUCTIONS OR INTERRUPTIONS

at the

SWIFT BYPASS REACH

UPPER RELEASE POINT AND CANAL DRAIN

FINAL

1 Introduction

Section 6.1.6 (c) of the Lewis River Settlement Agreement stipulates the requirement to deliver plan(s) to the U. S Fish and Wildlife Service, National Marine Fisheries Service (collectively the "Services"), Washington Department of Fish and Wildlife (WDFW) and the Lewis River Aquatic Coordination Committee (ACC) prior to establishing flows into the Swift bypass reach. This plan provides the procedures for flow interruptions at either the Canal Drain or the Upper Release Point whether planned or unplanned. Section 6.1.6 (a) and (b) of the agreement provides separate sections for both emergency and non-emergency events as follows:

Non-emergency

"If a non-emergency maintenance or replacement of release point facilities is required, and such activities could decrease or interrupt scheduled releases, the Licensees shall notify the Services, WDFW, and the ACC as far in advance as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water."

Emergency

"If emergency maintenance or replacement of release point facilities is required, or if any other event of Force Majeure occurs, and such activities or such event will decrease or interrupt scheduled releases, the Licensees shall notify the Services, WDFW, and the ACC as soon as practicable. The Licensees shall utilize temporary replacement facilities (e.g., pumps, siphons) for the period of potential flow reduction or interruption to maintain release of scheduled amounts of water to the extent practicable under such emergency or Force Majeure conditions. The Licensees shall take action to maintain or replace the release point facilities and to restore their normal operation as soon as is practicable."

2 Upper Release Point

2.1 Overview

The Upper Release is located just downstream of the Swift No. 1 powerhouse consists of an approximately 500-foot long siphon pipe that draws water from the Swift No. 2 Canal and discharges at a concrete outlet structure into a fish spawning channel. A siphon was installed at the Upper Release site because subsurface conditions prevented the installation of a gravity system. The invert of the siphon inlet is at elevation 586. The inlet has a removable trash rack and a 48-inch by 108-inch slide gate. The inlet gate can be operated locally by an electric actuator. The siphon outlets though a 48-inch by 48-inch slide gate. The outlet gate is controlled by an electric actuator that has local and automatic control. The invert outlet of the siphon pipe is elevation at 588. The outlet structure weir has an elevation of 591.75. The siphon is primed from a 4-inch waterline from the cooling water piping in the Swift No.1 Plant with excess water flowing through a priming vent. A vacuum pump system cycles as necessary to remove air that may collect in the pipe. Seal water for the vacuum pump is provided by a 1-inch waterline from the cooling water piping in the Swift No.1 Plant.

The flow from the Upper Release is controlled by the downstream slide gate. The slide gate is an AC motor operated steel gate which is powered from a control panel located on the intake structure. The panel has a push button control to raise and lower the gate and a selector switch for 'local', 'off', or 'remote' operations. In remote setting, the Programmable Logic Control (PLC) will automatically lower or raise the gate. In the local setting, the operator uses the push buttons to raise or lower the gate. The gate can be operated manually if AC failure occurs or for a tag-out safety point by the use of a hand wheel placed on the end of the worm gear for the head gate. In remote control, the gate position is controlled by the PLC to maintain flows above the minimum required flow.

The Upper Release electrical feed is provided a single 480-volt breaker from the Swift Motor Control Center 3. The breaker energizes an exterior 480- volt panel and 480/120-volt transformer to power the Upper Release equipment. The siphon also has an internally mounted ultrasonic flowmeter. The 8-path flowmeter has a complete set of redundant sensors installed in the pipe. While these sensors are very reliable, in the event a sensor malfunctions, the flowmeter will continue to operate with less precision and a trouble alarm will be sent to the control operator. The signal cables from the malfunctioning sensor can be switched to the redundant sensor at the flowmeter panel located in the Swift 1 Powerhouse. Switching to a redundant sensor can be performed without any flow disruption.

The Upper Release is a siphon such that after it is started, it does not need power to release flow. A loss of power would result in an inability to automatically vary and measure flow. Power disruptions at Swift 1 are rare, and of short duration.

The status of the Upper Release is relayed by the Swift 1 plant control system to the Hydro Control Center (HCC) at Merwin. HCC is staffed 24/7 to monitor plant status. Alarm conditions

at the Upper Release would result in an on-call operator being dispatched to assess the alarm and take corrective actions if necessary.

2.2 Emergency Flow Reduction Procedure:

In the event of an emergency flow reduction or interruption the PLC system will alarm at the Hydro Control Center (HCC) located near Merwin dam at Merwin headquarters. The HCC operator will initiate remote operation of the Swift dam spill gate to reestablish flow and prevent potential fish loss. The amount of flow to be released from the spill gate is not precise or accurate. However, sufficient flow will be provided initially (through visual observation) and verified as soon as practical with a staff gage to ensure the amount of flow is meeting minimum flow requirements of the Combined Flow Schedule.

Once flow has been established via the spill gate, the Licensees will evaluate the reason for the flow reduction. The siphon will be brought back on line as soon as possible. If the issue cannot be resolved within five days, the Licensees will make plans to temporarily pump or siphon water from the power canal to reestablish flows into the bypass. Once flows are reestablished from the power canal through the temporary siphon or pumps the spill gate will be closed.

Notifications and documentation will be provided per the Lewis River Settlement Agreement Section 6.1.6.

2.3 Non-Emergency Flow Reduction Procedure:

Planned events require prior notification to the WDFW, Services and ACC. For non-emergency (planned) outages, the Licensees will use temporary pumps or siphons to convey water to the bypass (i.e., no use of spill gates will occur) prior to any planned outage. Temporary pumps or siphons will be in place until the upper release point is functional and providing flow as stipulated in the Combined Flow Schedule. In the rare event that the temporary pump or siphon fails, the Swift No. 1 spill gate will be cracked open to provide sufficient flow and will be operated as described in Section 2.2 above.

3 Canal Drain

3.1 Overview

The canal drain is located approximately one mile from the Swift No. 1 tailrace. The canal drain was part of the original construction. The drain consists of a 30-inch corrugated metal pipe (CMP) that was lined in 2005 to reduce corrosion. The inlet is at approximately at elevation 585 feet and does not have a trash rack. There is an Armco Slide Gate Model 20-10C on the inlet that is operated manually with a hand wheel. The drain discharges into the Constructed Channel that was required by the FERC license.

Since the required flow release from the canal drain remains constant throughout the year (14 cfs), the canal drain opening will be fixed to release required flows at the lowest possible canal stage in the canal. Canal stage will be monitored at HCC and an alarm will sound when the water stage approaches the minimum level. Flow from the canal drain can be verified by a rated staff gage located in

the Constructed Channel near the Canal Drain discharge. The current rating table for the staff gage is located in Appendix A.

3.2 Emergency Flow Reduction Procedure

The canal drain is a gravity-fed pipe with a manual gate. Failure of this type of equipment is highly unlikely. In the event of the canal becoming devoid of water in an emergency, there would be a delay in the amount of time before the Constructed Channel would not be receiving 14 cfs of water from the power canal drain. It is estimated that the power canal has sufficient water volume to last up to 3 days at 14 cfs flow rate from the canal drain. If other problems occur such as a blockage or pipe collapse that result in an unplanned loss of flow, the Licensees will, as soon as practical, install temporary pumps or siphons to provide a minimum of 14 cfs flow into the constructed channel. Because there would be a delay in setting up temporary pumps or siphons, the Licensees will conduct fish salvage of the constructed channel at any time a flow interruption or reduction occurs that is not resolved in 30 minutes or less. The Licensees will transport any stranded fish into the bypass reach or power canal. Notification to the WDFW, Services and ACC will be made as soon as possible following any emergency event.

3.3 Non-Emergency Flow Reduction Procedure

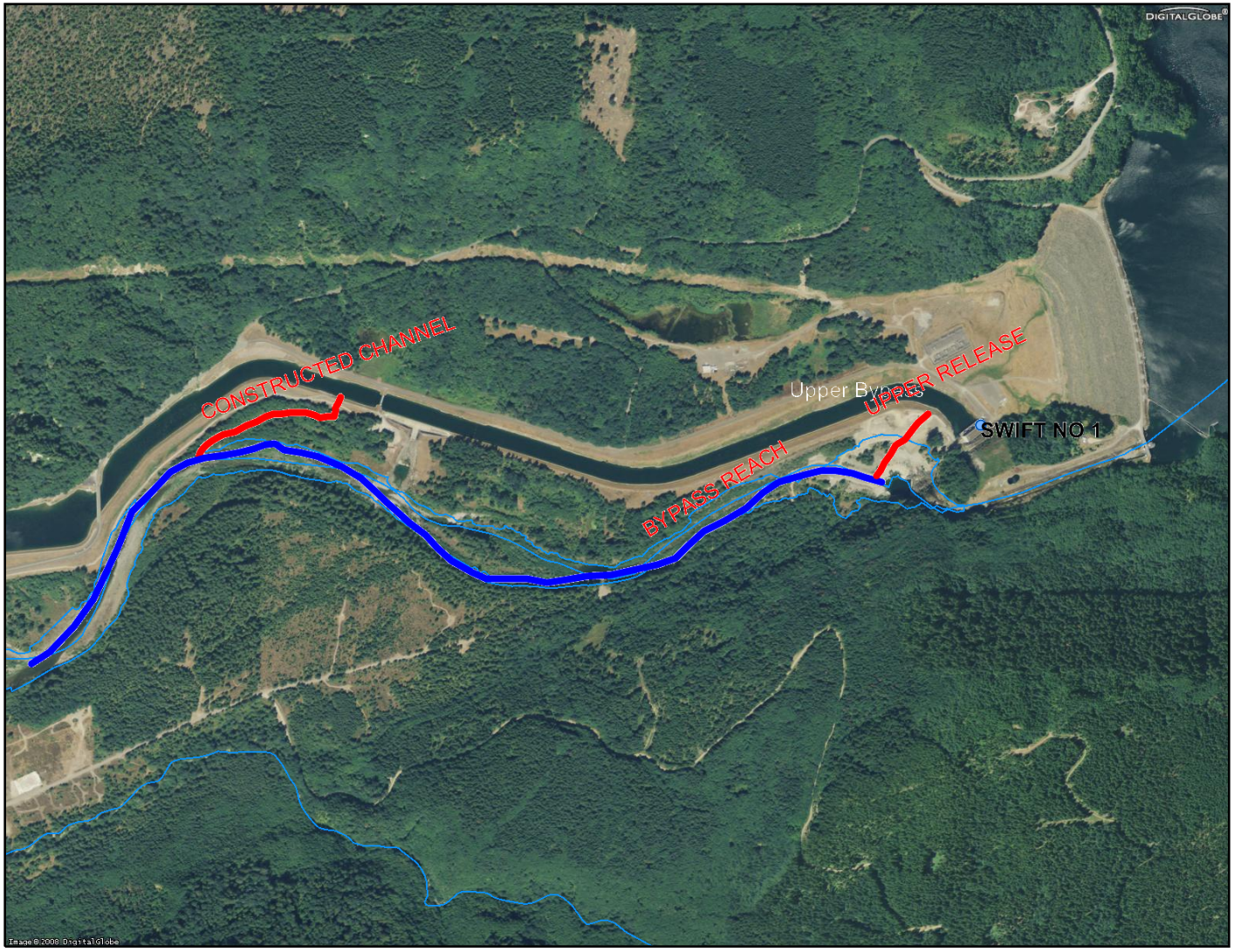
Planned events require prior notification to the WDFW, Services and ACC. For non- emergency (planned) outages, the preference would be to maintain continuous 14 cfs flow into the Constructed Channel via the power canal drain. In any event that this is not possible the Licensees will use temporary pumps or siphons to maintain a continuous 14 cfs flow into the Constructed Channel.

4 Reporting

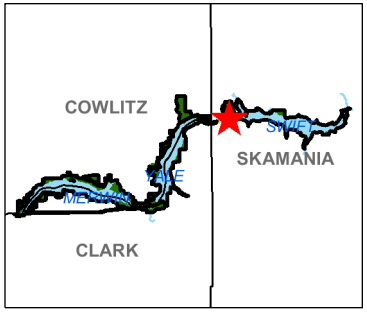
The Licensees shall document the duration (in days or hours), rate (in cfs), and volume (in acre-feet) of flow reduction to the extent practicable, and shall provide such documentation to the Services, WDFW, and the ACC. If any unplanned events occur, Licensees will report event and actions taken to the parties as soon as practicable. All events will be identified in the subsequent Aquatic Coordination Committee – Terrestrial Coordination Committee Annual Report.

Notifications for both emergency and non-emergency events shall be in compliance with Section 6.1.6 (a) and (b) of the Settlement Agreement.

Constructed Channel and Upper Release locations



0 1600 3200 4800 ft.



Legend

Generation Facilities

- Hydro
- Geothermal
- Thermal
- Wind
- Biomass

Major Streams

N

Scale: 1:16,272

Appendix A – Staff Gage Rating Table for Canal Drain

Rating Table 4.0

PacifiCorp Hydro Resources
Swift Canal Drain

Staff No. A
Table Created: 12-11-09
Rating to be used after 12-10-09

Stage (ft)	Discharge (cfs)										ΔQ per 0.1 ft Stage
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	
1.5	3	4	4	5	5	6	6	7	7	8	5.1
1.6	8	9	9	10	10	11	11	12	12	13	5.1
1.7	13	14	14	15	15	16	17	17	18	18	5.1
1.8	19	19	20	20	21	21	22	22	23	23	5.1
1.9	24	24	25	25	26	26	27	27	28	28	5.1
2	29	29	30	30	31	31	32	32	33	33	5.1
2.1	34	34	35	35	36	37	37	38	38	39	5.1
2.2	39	40	40	41	41	42	42	43	43	44	5.1
2.3	44	45	45	46	46	47	47	48	48	49	5.1
2.4	49	50	50	51	51	52	52	53	53	54	

Note: Rating based on flow data collected between 1.67 ft and 2.0 ft on the staff gage.

Operations and Resource Planning
JLK

DRAFT 2010 Habitat Preparation Plan
North Fork Lewis River

Prepared by PacifiCorp Energy

1.0 Introduction

The Lewis River Settlement Agreement (Section 7.4) calls for the following plan development to take place within six months after the effective date:

Habitat Preparation Plan. "PacifiCorp shall develop a plan (the "Habitat Preparation Plan") in Consultation with the ACC to release live adult hatchery anadromous salmonids into Swift Reservoir, Yale Lake, and Lake Merwin for the purpose of preparing the habitat in those locations for the reintroduction of anadromous salmonids. The objective of the Habitat Preparation Plan will be to make possible (1) nutrient enrichment in the waters through decay of the adult hatchery fish and, (2) tilling of the gravel by the released hatchery adults as they attempt to spawn. The number, sex, and species of hatchery adult salmonids shall be determined as part of the Habitat Preparation Plan. PacifiCorp's performance obligation under the Habitat Preparation Plan shall be limited to placing live adult hatchery anadromous salmonids for a period of five years in each of Swift Reservoir, Yale Lake, and Lake Merwin, commencing in each case five years prior to expected completion of the downstream fish passage facility from that reservoir. PacifiCorp shall implement the Habitat Preparation Plan at Swift Reservoir beginning as soon as practicable after the Habitat Preparation Plan is finalized and at the other reservoirs as provided in the Habitat Preparation Plan. PacifiCorp shall implement this program only to the extent there are excess hatchery fish available beyond those required for the Hatchery and Supplementation Plan described in Section 8. PacifiCorp shall not be required to pass or collect the progeny of hatchery adult anadromous salmonids introduced under the Habitat Preparation Plan unless and until collection and transport facilities for such progeny are constructed in accordance with Section 4. For the Merwin and Yale Projects, PacifiCorp's obligations under this Section 7.4 shall cease if the Yale Downstream Facility or Merwin Downstream Facility, respectively, will not be constructed pursuant to Section 4.1.9."

The purpose of this plan is to provide the logistical information and methods necessary to collect, transport, and distribute excess hatchery fish to the Lewis River upstream of Merwin dam. The transportation of adult hatchery fish into the upper basin is intended to meet thefollowing objectives: (1) to prepare the stream gravels (through redd construction) and (2) to provide nutrient enhancement to potential rearing areas prior to formal supplementation and construction of juvenile collection facilities. It is anticipated that the components of this plan may be modified from year to year based predominately on run size and stock availability.

For purposes of implementing this plan, release locations for transported fish will change based on completion of juvenile collection facilities planned at all three hydroelectric projects. According to the settlement agreement schedule (Section 7.4: Habitat Preparation Plan) and with issuance of Federal Energy Regulatory Commission licenses in 2008, excess hatchery fish will be transported to Swift reservoir from 2007 through 2011, to Yale reservoir from 2016 through 2020 and to Merwin reservoir from 2020 through 2024. This schedule will provide nutrient enhancement and spawning gravel preparation for formal reintroduction efforts as described in Section 4.0 of the Settlement Agreement.

2.0 Plan Components

Stock Selection:

Coho Salmon: In 2010, PacifiCorp Energy anticipates using early (type S) coho salmon for transportation into the upper watershed. It is expected that some late (type N) coho will be selected during transportation activities; however, this stock will not be deliberately selected for transportation.

The selection of early coho has several biological advantages over other species returning to the Lewis River, which include the following:

- Early coho salmon historically used the Lewis River headwaters and tributaries in which to spawn.
- Competing uses (e.g., nutrient enhancement, tribal, in-river harvest and food banks) for returning adults are less compared to other species.
- Coho salmon are able to negotiate complex passage barriers, thus distribution of adults from their release point is maximized.
- Transportation survival of coho is high relative to other species.
- Early coho salmon returns are sufficient to achieve transportation goals of the plan.

The current hatchery broodstock collection goals for early coho are 1,277 adults. The ratio of females to males is 60:40. Table 1 provides trapping results for both early and late coho salmon.

Spring Chinook Salmon: The use of spring Chinook for transportation will depend on meeting both broodstock needs at the hatchery and subsistence and ceremonial needs of the Yakama Nation. If both of these needs are met and surplus spring Chinook are available, then these fish will be used to partially meet the transportation goal of 2,000 salmon for the Habitat Preparation Plan.

The addition of spring Chinook is beneficial to meeting the objectives of the Habitat Preparation Plan in that spring Chinook are likely to select mainstem spawning sites. This will enhance distribution of nutrients and gravel tilling in the upper basin as coho most often spawn in the tributaries. In addition, the release of spring Chinook early in the season will allow biologists to record their location during their annual bull trout snorkel surveys of the upper basin. This information will be helpful in understanding summer holding habitats preferred by spring Chinook prior to spawning.

If no spring Chinook are available for the Habitat Preparation Plan, then all fish transported will be comprised of early coho salmon. Table 1 and Figure 1 provide the numbers of coho and Chinook salmon returning to the Merwin dam and Lewis River Hatchery traps in the Lewis River between 1998 and 2007.

Table 1. Trap results for early (Type S), late (Type N) coho and spring Chinook salmon captured at the Merwin dam fyke and Lewis River hatchery ladder: 1998-2008. (Source: WDFW Hatchery Escapement Reports available at http://wdfw.wa.gov/hat/escape/escape.htm)

	Lewis River Trapping Results					
	Coho				Spring Chinook	
	Type S		Type N			
Year	Adults	Jacks	Adults	Jacks	Adults	Jacks
1998	7,142	3,528	10,817	2,089	1,188	11
1999	14,962	2,343	17,724	6,757	846	78
2000	17,031	7,281	23,106	10,910	777	50
2001	38,783	1,291	60,873	533	1,178	53
2002	17,334	8,177	6,294	6,212	1,869	58
2003	38,367	1,932	21,896	2,569	3,037	357
2004	22,134	1,438	13,944	1,713	4,172	350
2005	21,458	2,544	21,386	2,156	1,986	219
2006	19,972	2,419	22,095	2,233	2,053	217
2007	18,672	3,552	20,309	3,082	4,134	9
2008	24,308	7,283	20,553	3,251	1,384	49

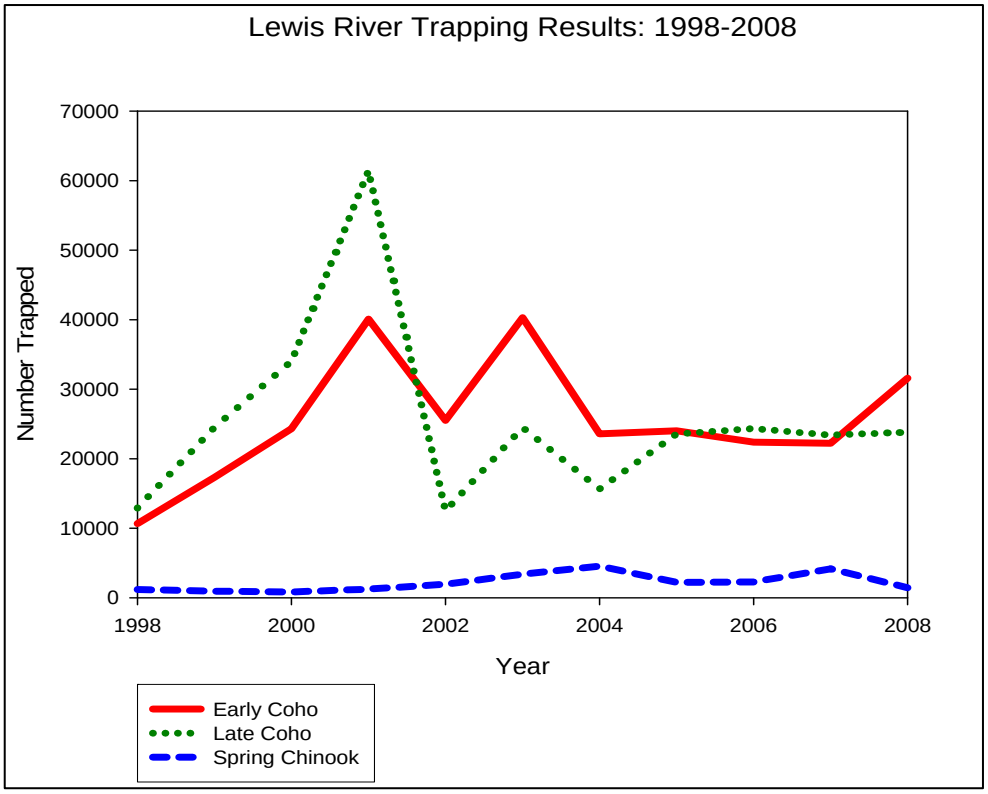


Figure 1: Graphical representation of Lewis River trapping results by species derived from Table 1.

Collection Methods: Collection of salmon will take place at both the Lewis River and Merwin traps located at the Lewis River hatchery and base of Merwin dam, respectively. The Lewis River trap along with fish from the Merwin trap will continue to be used for broodstock collection, nutrient enhancement programs (other than included in this plan) and food bank needs. In selecting adult fish for transportation, fish shall be in good health and have no puncture wounds. Any fish with eye trauma (e.g., scrapes, lacerations or fungus) shall not be transported upstream. Fish should be bright and firm to help ensure maximum geographic distribution of fish and eventual carcasses in the upper watershed.

Transportation Number (goal): The total number of salmon to be transported from the traps (in 2010) will be at least 2,000 adults. This number may comprise a combination of both coho and Chinook salmon. Females shall have priority over males when selecting fish for transportation, and shall comprise at least 50 percent of the total. A high percentage of females will facilitate redd construction, and thereby, help meet the plan objective of gravel tilling.

Transportation Vehicles: Fish tanker trucks will be used for transportation activities. Hatchery or PacifiCorp Energy staff will use existing hatchery vehicles to meet the transportation goal in 2010. Each fish tanker truck may complete up to four trips per week. Each 1,500 gallon truck can transport up to 120 adult salmon per trip, or up to 480 salmon per week.

Schedule: The schedule for coho will begin in September and continue for a period of up to five (5) weeks. The exact start dates will vary based on run timing and size projections. For Chinook salmon, transportation activities may begin as early as May and continue through July.

Release Points: Swift boat ramp will be used as the primary release point during transportation activities upstream of Swift reservoir. If reservoir levels are too low for planting of fish from the Swift boat ramp, the Eagle Cliff bridge, Swift Dam, Muddy River or bridge crossing near the Curly Creek confluence (Curly Creek bridge) shall serve as alternates to the Swift boat ramp.

Pathogen Screening: According to Washington Department of Fish and Wildlife (WDFW) disease policy, in-basin fish transfers do not require pathogen screening. Therefore, fish that are transported from either the Merwin or Lewis River trap upstream will not be tested.

Harvest Restrictions: The fishing season on Swift reservoir upstream to the Eagle Cliff Bridge begins the last Saturday in April and extends to October 31. Landlocked salmon rules apply which means anglers that incidentally catch or target salmon are allowed retention of those salmon as part of their normal trout bag limit. Retention of any fish upstream of the Eagle Cliff Bridge is prohibited; however catch and release angling is open from the first Saturday in June through October 31. Harvest of Chinook salmon is more concerning than for coho Because Chinook would be released at a time when fishing pressure is traditionally near its peak. During the September and October period when coho are being released into the upper watershed, angling pressure is traditionally very light. Enforcement should be a priority if spring Chinook are used in 2010 to reduce the possibility of over harvesting of these fish.

3.0 Plan Modifications

On an annual basis, this plan shall be reviewed and modified if necessary by the Aquatics Coordination Committee. PacifiCorp Energy, in consultation with the WDFW and Yakama Nation, will present the plan to the ACC for approval each year. ACC comments to this plan will be attached to the final each year as Attachment A.

Lewis River Aquatic Fund - ACC Evaluation of 2009/2010 Project Proposals

ACC Decision		Applicant	Project Title	Funding Request	WDFW	Fish First	LCFRB	Yakama Nation	USFS	Cowlitz Indian Tribe	USFWS	NMFS	Trout Unlimited	Utilities
Yes - Resource funds	1	Cowlitz Indian Tribe	Eagle Island Habitat Enhancement	$ 74,300.00	Supports this project.	Supports this project given ACC funds are seed money for other sources.	This project is located in Lewis 4B, the highest priority reach in the entire basin. This reach has high potential for all four listed salmon and steelhead populations, and wood placement and side channel habitat enhancement are both high benefit project types for multiple species. The budget demonstrates impressive leverage. The sponsor submitted engineered plans with the application. ***We support full funding for this project.***	Supports this project.	Concerned about high cost of additional funds needed. Otherwise supports this project.	Neutral but want to consider lower river projects.	Supports this project.	Abstains	Absent	Project is part of greater restoration of Eagle Island. High value towards Lewis River recovery goals. Supports funding this project.
No	2	Lower Columbia Fish Enhancement Group	NF Lewis RM 13.5 Off-Channel Habitat Enhancement	$ 212,720.00	Supports this project but the price tag is really high. Would support in a phased approach. With other fund sources available for this portion of the river not sure it should come out of ACC funds. Does not support.	Does not support this project; too much money spent below Merwin. Would support only small % of cost.	This project is located in Lewis 5, a Tier 1 reach according to LCFRB's Habitat Strategy. Enhancement of off-channel habitat is rated a high priority project type. The level of information provided by the sponsor is insufficient to determine long term certainty of success of the project. In spite of pre-proposal comments requesting missing designs, they were not included with the final proposal. The sustainability of the proposed side channel as a stand-alone project was not supported by the application materials. The sponsor's assurance that the landowner would conduct periodic excavation to maintain the project was not reassuring. We are also concerned over the high request amount in light of available funding. ***We do not support funding this project.***	Does not support this project.	Concerned about high cost of project. Would consider funding in part. Does not support funding at full cost.	Neutral but want to consider lower river projects.	Concerned about the high cost of this project and the sustainability. Does not support this project.	Abstains	Tiered approach would be better. Does not support this project.	Funds should not be used for noxious weed control. Cost seem high, not much in-kind support. Support flow through (future) option, but habitat currently has inlet and outlet and is currently being used. Project addresses lack of off-channel habitat in lower river. LCFRB high priority area for restoration. Improves riparian area. Land owner participation. Funds are for construction; design and permitting covered by in-kind or others. Does not support this project.
Yes - Resource funds	3	USDA Forest Service	Pepper-Lewis Side Channel Instream Habitat Restoration	$ 41,300.00	Concerned about the cost share of trees and the administrative staff expense. Generally supports. Concerns about size of wood used in this project. In the future, clarification of staff expense would be helpful. Would like to see cost of trees, time and staff as an in-kind expense.	Supports this project. Agrees with WDFW concerns.	The Pepper-Lewis side channel is located in Lewis 19, a Tier 1 (high priority) reach in the LCFRB Habitat Strategy. Instream wood placement and side channel habitat enhancement are high priority project types. The sponsor's presentation on the level of flow from the main channel has alleviated concerns about structure anchoring and security. We suggest that a match calculation would be more accurately characterized by subtracting the logging and hauling cost requested from the ACC ($11,000) from the market value of the wood ($16,100). ***We support full funding for this project.***	Supports this project.	Supports this project.	Supports this project.	Supports this project.	Abstains	Supports this project.	Project will also benefit juvenile spring Chinook as well as immature bull trout. Project based on Tier 1 reach and EDT analysis and ACC Synthesis Matrix. Project has most of the permitting completed. It has significant in-kind contributions. Supports funding this project.
Yes - 1/2 Resource funds and 1/2 Bull Trout funds	4	USDA Forest Service	Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead	$ 65,000.00	Good project; concerned about structures staying intact and stability of river channel. Supports. In the future, clarification of staff expense would be helpful. Would like to see cost of trees time and staff as an in-kind expense.	Supports this project.	This project appears to be in Pine Creek 2 a Tier 2 reach according to the LCFRB Habitat Strategy. Wood placements, which EDT indicates would have high-multi species benefits in this reach, would likely benefit coho and spring Chinook as well as bull trout and steelhead. The quality of the proposal would have been greatly improved with more detailed design concepts. Given the discussion of wood stability in this system, and the differentiation between required minimum size of anchored versus unanchored key pieces, we recommend that the sponsor return to the ACC prior to releasing construction funds with more detailed designs. We suggest that a match calculation would be more accurately characterized by subtracting the logging and hauling cost requested from the ACC ($11,000) from the market value of the wood ($20,000). ***We support full funding for this project.***	Supports this project.	Supports this project.	Supports this project.	Supports this project.	Abstains	Supports this project given expected results.	No mention of coho in the write-up, they will benefit in the future from this if project is successful as well. Redd superimposition concerns would not be between bull trout and STHD as they spawn in different habitat and STHD spawn 5 months later. Superimposition concerns would be between bull trout and coho as their spawn time directly overlaps and they dig redds in the same margin areas. Question the efficacy of placing LW into such a wide, unstable floodplain and stability of structures. Immediate benefit to bull trout, future benefit to other re-introduced species. Significant in-kind contributions. Supports funding this project.
No	5	USDA Forest Service	2010 Nutrient Enhancement on Pine Creek	$ 30,776.00	Timing issue, do we really know where nutrients need to be placed at this point prior to reintroduction? Is Pine Creek the best location to conduct nutrient enhancement. Reluctant to support.	Big proponent of nutrient enhancement. Helicopter too expensive but we are not doing nearly enough re addition of nutrients. Perhaps the use of volunteers and use of analogs will reduce the costs. Focus should be on reintroduction areas. This project is not the right project at this time.	This project is located in Pine Creek and P8. Portions of Pine Creek are rated Tier 2 (medium priority for salmon and steelhead) and P8 is rated Tier 4 (low priority for salmon and steelhead) according to LCFRB's Habitat Strategy, and LCFRB recognizes the importance of nutrient enhancement as a Medium priority project type for salmon and steelhead. Considerable uncertainties limit our confidence that nutrient enhancement is an appropriate treatment for Pine Creek at this time. The sponsor has not demonstrated that food is the primary limiting factor for juvenile bull trout in Pine Creek, and a brief literature review did not result in conclusive information on juvenile bull trout forage requirements. Since anadromous reintroduction has not been implemented, the project will not benefit other populations. We do not believe that occasional nutrient enhancement efforts will result in long term benefits, and that an annual funding source must be developed for any long term program to be effective. While we support nutrient enhancement in cases where it is warranted, ***we do not support funding this project.***	How do we benefit from this project given USFS practices? Clear cutting and sediment could cover up the enhancement efforts of nutrient placement and LWD structures.	Supports funding a revised project without helicopter cost.	Does not support this project; benefit to cost ratio is not worth it.	Supports this project but will not stand in the way if the ACC decides not to fund.	Abstains	Abstains	Project has permits, and carcasses should be available. Concern benefit is only for bull trout until re-introduction of salmon and steelhead and is therefore short-lived. Not sure project addresses a limiting factor for bull trout. Does not support funding this project.
No	6	US Fish & Wildlife Service	Bull Trout Population Structure habitat Use in Tributaries to Swift Reservoir and the NF Lewis River	$ 59,500.00	Does not support a monitoring study project. Project has some value but is not an on-the-ground project. Mainly depends on existing data and will provide limited new data for funds expended.	Neutral - does not support this project but will not stand in the way if others do.	The project does not lead to on-the-ground improvements, and therefore is not consistent with fund objectives. ***We do not support funding this project.***	Supports this project using BT funds but will not stand in the way if the ACC decides not to fund.	Project's research focus is not a 2010 priority. Not clear how information may be used over the next 5-10 years. Does not support funding this project in 2010.	Supports the concept but leaning toward concurring with the Utilities, does not support.	We do not currently have available data on bull trout like we do for other species. Although this study is not a perfect fit, the ACC should discuss how information on bull trout habitat use can be gained. Will not stand in the way of ACC saying "no" to this project.	Abstains	Echo comments of the ACC that the aquatic funds are not intended for these types of projects. Does not support.	Prohibitive costs and benefit is limited over existing knowledge or alternative methods. Data gathering. Only benefits bull trout - can't make the benefits connection to other listed species. Project does not provide tangible on-the-ground benefit. Not sure that study will give clear answers that will direct site-specific in-stream projects. Does not support funding this project.