

**FINAL Meeting Notes  
Lewis River License Implementation  
Aquatic Coordination Committee (ACC) Meeting  
March 11, 2010  
Ariel, WA**

**ACC Participants Present (14)**

Eli Asher, LCFRB  
 Jeremiah Doyle, PacifiCorp Energy  
 Diana Gritten-MacDonald, Cowlitz PUD (via teleconference)  
 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  
 Kimberly McCune, PacifiCorp Energy  
 Todd Olson, PacifiCorp Energy  
 Frank Shrier, PacifiCorp Energy  
 Shannon Wills, Cowlitz Indian Tribe (via teleconference)

**Calendar:**

<b>April 8, 2010</b>	<b>ACC Meeting (Decision Making Meeting)</b>	<b>Merwin Hydro</b>
May 13, 2010	ACC Meeting	Merwin Hydro

<b>Assignments from March 11, 2010 Meeting:</b>	<b>Status:</b>
<b>The next ACC meeting on Thursday, <u>April 8, 2010</u> will be an aquatic fund project decision making meeting. Each ACC member must be present or have identified a proxy before the meeting.</b>	
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).	<b>Complete – 3/11/10</b>
McCune: Email an invite to all interested parties to include site visit details to Swift Upper Release on Tuesday, March 30, 2010; meet at the Merwin Hydro Control Center at 10:00am and arrive at the site no later than noon.	<b>Complete – 3/17/10</b>

<b>Assignments from April 9, 2009 Meeting:</b>	<b>Status:</b>
ACC: Further investigate WDFW carcass survey methods established in 1978 and determine “next step” regarding modifications needed, if any, to the 1978 methods.	<b>Pending as of 3/11/10</b>

## **Opening, Review of Agenda and Meeting Notes**

Frank Shrier (PacifiCorp Energy) called the meeting to order at 9:10am 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 2/11/10 meeting notes. No changes were requested. The meeting notes were approved without changes at 9:15am.

## **Response to Flow Reductions or Interruptions Discussion ([Attachment A](#)) – 6.1.6(c)**

Erik Lesko (PacifiCorp Energy) provided a cursory review of the *Response to Flow Reductions or Interruptions at the Swift Bypass Reach Upper Release Point and Canal Drain (Plan)* document, which was emailed to the ACC and the Services on February 23, 2010.

Eric Kinne (WDFW) would like to know if there is a routine calibration to ensure the alarm that alerts the Hydro Control Center is working properly. Lesko expressed that he will confer with the appropriate PacifiCorp personnel and update the document accordingly. A number of ACC attendees asked to see a picture of the canal drain, of which Shrier provided via Power Map during the meeting. Lesko will also add a map into the Plan as part of the revision.

## **Swift Upper Release Flow Discussion**

Lesko and Shrier informed the ACC attendees that PacifiCorp does not have to shut down flows to install the pump. The scheduled start-up date is March 30, 2010. If the valve does not arrive when anticipated (late March) the flows will be reestablished regardless. Representatives from the Department of Ecology have asked to be present during the water-up of the new system..

Kimberly McCune (PacifiCorp Energy) will email an invite to all interested parties for Tuesday, March 30, 2010, to meet at the Merwin Hydro Control Center at 10:00am. All attendees will travel together to the secure area for arrival no later than 12:00pm.

## **Aquatic Project Proposal Discussion Meeting**

Olson provided a cursory review of the Utilities evaluation matrix ([Attachment B](#)). He informed the ACC attendees that today that the Utilities are requesting initial feedback to be followed by formal comments on or before March 26, 2010.

All comments during this portion of the meeting can be reviewed in the Lewis River Aquatic Fund ACC Evaluation Matrix, dated March 11, 2010 ([Attachment C](#)).

Jim Malinowski (Fish First) expressed concern that approximately 70% of the projects for the 2009/2010 cycle are downstream of Merwin. He thought the priority was upstream of Merwin and would like to see priority given to such projects.

George Lee (Yakama Nation) communicated that there is a finite amount of money available and the Yakama Nation's priority is spring Chinook in the upper basin. He would like to see the Aquatic funds combined with other entities funds. The Yakama Nation's concern is that once these funds are gone they are gone.

Diana Gritten-MacDonald (Cowlitz PUD) echoed the comment in that we should perhaps save some money for the future, after reintroduction begins in 2012.

<Break 10:40>

<Reconvene 10:50am>

## **Study Updates**

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

*Hatchery Upgrades* –

*Lewis River Hatchery Ponds 13 & 14* – See attached 2010 Hatchery Upgrade Schedule (**Attachment D**).

*Speelyai Burrows Pond (2<sup>nd</sup> Bank)* – See attached 2010 Hatchery Upgrade Schedule (**Attachment D**).

*Swift Net Pens* – Expecting receipt of net pens and structures by April 2010; permitting in process. Need to be ready to go by June 26, 2010.

*Hatchery & Supplementation Plan Subgroup* – Working on the Wild Winter Steelhead 2010 Plan; well within the collection curve; the hatchery is holding seven fish which have assigned to North Fork Lewis River; going out again on Monday, March 15, 2010 for additional collection.

*Release Pond Status* – Working with property owner to secure easement and entry agreement.

*Acclimation Pond Plan* – PacifiCorp is creating scope for consultants to complete needed survey work which is necessary for NEPA; PacifiCorp intends to contract in approximately 30 days.

*Monitoring and Evaluation Plan Subgroup* – Initial comments from Subgroup due March 12, 2010. Next step is to complete a draft M&E Plan for an additional ACC 30-day review and comment period. The final M&E Plan will be sent to the FERC on or before June 26, 2010.

## **New Topics**

Adam Haspiel (US Forest Service) communicated that he has spoken to PacifiCorp personnel about obtaining 20 logs with root wads which are left over from the Constructed channel project. Haspiel would like permission from the ACC to take these logs and use them for a habitat enhancement project. **No objection from the ACC, permission granted.**

In addition, McCune will confirm availability of the \$2,000 in the LWD fund to offset the expense of hauling and email Haspiel.

### Agenda items for April 8, 2010

- Review March 11, 2010 Meeting Notes
- **Aquatic Project Proposal Decision Meeting**
- Response to Flow Reductions or Interruptions - 6.1.6 (c)
- Monitoring and Evaluation Plan Update
- Study/Work Product Updates

### Public Comment

None

### Next Scheduled Meetings

April 8, 2010	May 13, 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 2/11/2010
- **Attachment A** - Response to Flow Reductions or Interruptions at the Swift Bypass Reach Upper Release Point and Canal Drain, dated February 23, 2010
- **Attachment B** – Lewis River Aquatic Fund Utilities Evaluation Matrix, dated February 25, 2010
- **Attachment C** - Lewis River Aquatic Fund ACC Evaluation Matrix, dated March 11, 2010
- **Attachment D** – 2010 Lewis River Hatchery Upgrade Schedule

# RESPONSE TO FLOW REDUCTIONS OR INTERRUPTIONS

*at the*

*SWIFT BYPASS REACH*

*UPPER RELEASE POINT AND CANAL DRAIN*

## **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 through 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 redundant sensors to prevent the need to dewater the pipe in the event that a sensor stops working. The flowmeter panel is located in the Swift 1 Powerhouse.

### 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.

## **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



Lewis River Aquatic Fund ACC Evaluation Matrix 2009/2010  
March 11, 2010

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	Trout Unlimited
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.	Abstained involvement in this decision since he was part of the design process.	Supports this project.	Concerned about probability to secure remaining funds.	Neutral but want to consider lower river projects.	Supports this project.	
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. May support in a phased approach.	Does not support this project; too much money spent below Merwin.	Concerned about high cost of the project and recreational earth moving as a fix to mitigate for erosion. Not likely to support.	Does not support this project.	Not highest priority; concerned about high cost of project; maybe funding in part.	Neutral but want to consider lower river projects.	Concerned about the high cost of this project and the sustainability. Does not support this project.	
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.	Supports this project.	Would like confirmation on availability of LWD. Generally supports	Supports this project.	Would like confirmation if LWD is available for instream work	Supports this project.		
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. Supports.	Supports this project.	Thought the administrative portion of the budget was very high. Generally supports.	Supports this project.	Supports this project.	Supports this project.	Supports this project.	
5	USDA Forest Service	2010 Nutrient Enhancement on Pine Creek	\$ 30,776.00	Do we really know where nutrients need to be placed at this point prior to reintroduction? Reluctant to support.	Big proponent; strongly supports.	Does not think the funding for this project should come out of the BT funds; not sure if it's the best use of these funds; very difficult to prove the effectiveness of nutrient enhancement. Does not support.	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.	Why is the cost to benefit ratio still a concern? Shannon Wills shared this opinion that benefit is waning. No juvenile fish rearing in those waters now, which helps him understand the concern to proceed with this project. Unclear on level of support.	Does not support this project; benefit to cost ratio is not worth it.	Supports this project.	
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. I think the project is valuable but not an on-the-ground project.	Neutral - does not support this project but will not stand in the way if others do.	Important to fund but does not meet the fund objectives. In addition, very large administrative costs. Does not support.	Supports this project.	Not clear how information may be used over the next 5-10 years; not highest priority.	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. Would like to hear from the Utilities regarding their logic to not fund this project. Olson responded that this project tells us where the fish are going but it does not tell us why they are going in and what their specific habitat needs are. A one year study does not get us to identifying specific habitat projects needed in a tributary.	

## 2010 HATCHERY PROJECTS - CONSTRUCTION WINDOWS

PROJECT	Construction Window Days			Month											
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>LEWIS RIVER HATCHERY</b>															
Pond 14 Conversion	March 15 - Sep 1	165													
Pond 13 Conversion	May 1 - Sep 1	120													
Upstream Intake Pipe Testing and Repair	May 1 - May 31	30													
<b>MERWIN HATCHERY</b>															
Rearing Pond Flow Improvement	June 1 - July 31	60													
Modify Release Ponds to Accommodate Adu	June 1 - July 31	60													
Purchase Flat Bed Truck and (250g) Tanks	by March 1	1													
Ozone Upgrades (Pending)	November	30													
<b>SPEELYAI HATCHERY</b>															
Expand Adult Fertilization Area	Jan 1 - May 1	120													
Burrows Pond Conversion (Bank 2)	July 1 - Nov 1	120													
<b>NET PENS</b>															
Purchase Pens and Nets	Jan1 - Jan 31	30													
Site, Permit and Install Pens	Feb 1 - Sep 1	210													

**NOTES:**

- \* Partition screens for Ponds 13 and 14 should be ordered as soon as possible so they can be used for juvenile rearing at P15 during construction
- \* Mobilization can be done earlier to save time from schedule
- \* Permitting may delay some projects