

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

Date & Time: Thursday, March 13, 2014
9:00 a.m. – 12:00 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 <ul style="list-style-type: none"> ➤ Review Agenda & 2/13/14 Meeting Notes ➤ Comment & accept Agenda & 2/13/14 Meeting Notes
9:15 a.m.	2013/2014 Aquatic Fund Full Proposal Decisions
10:30 a.m.	Break
10:45 a.m.	ACC/TCC Annual Report Q&A of 30-day review draft
11:30 a.m.	Study/Work Product Updates <ul style="list-style-type: none"> ○ Eulachon Consultation - Status ○ Woodland Release Ponds - Status ○ Hatchery Upgrades - Status ○ Hatchery and Supplementation Plan – Status ○ Crab Creek Acclimation Pond Screen - Status ○ Merwin Upstream Construction - Status ○ Swift Downstream Collector – Status ○ Future Fish Passage Facilities New Information – Status
11:45 a.m.	<ul style="list-style-type: none"> ➤ 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#
12:00 p.m.	Adjourn

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

Conference ID: 5709805

FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
March 13, 2014
Ariel, WA

ACC Participants Present (10)

Kimberly McCune, PacifiCorp Energy
 Frank Shrier, PacifiCorp Energy
 Chris Karchesky, PacifiCorp Energy
 Peggy Miller, WDFW (via conference)
 Aaron Roberts, WDFW
 Eric Kinne, WDFW
 Pat Frazier, LCFRB
 Adam Haspiel, USDA Forest Service
 Shannon Wills, Cowlitz Indian Tribe
 Michelle Day, NOAA Fisheries

Calendar:

April 10, 2014	ACC Meeting	Merwin Hydro
May 8, 2014	ACC Meeting	Merwin Hydro

Assignments from March 13, 2014 meeting	
Shrier: Send copy of email sent to Bryan Nordlund (NMFS) regarding the Crab Creek 60% design drawings to McCune and Michelle Day (NMFS).	Complete – 3/13/14
Haspiel: Email Michelle Day (NMFS) when he receives the draft BA for Crab Creek.	Complete
ACC: Explore other options/alternatives for Woodland release pond or direct release strategy. Bring ideas to the April ACC meeting.	Complete – 4/9/14

Assignments from February 13, 2014 meeting	
Wills: Contact Cowlitz Indian Tribe Council and Yakama Nation Council to encourage them contacting NMFS regarding concern over lack of response regarding the Eulachon consultation.	Pending
Eric Kinne: Work on securing the 2012/2013 lower river coho abundance survey data and provide this information to Erik Lesko (PacifiCorp) for the 2013 H&S Annual Report. Lesko requires this data by February 28, 2014.	Pending – as of 4/9/14 data has not been received and will be provided in the 2014 report
McCune: Break out all ACC/TCC annual report appendices on the Lewis River website for ease of viewing during the 30-day review period.	Complete – 3/7/14
McCune: Email Landowner release agreement to Pete Barber at LCFEG.	Complete – 2/13/14

Opening, Review of Agenda and Meeting Notes

Frank Shrier (PacifiCorp) called the meeting to order at 9:10 a.m. The ACC reviewed the agenda. No changes/additions were requested. The February 13, 2014 meeting notes were reviewed and approved without change at 9:15 a.m. Kimberly McCune (PacifiCorp) will finalize the February 13, 2014 meeting notes for posting to the Lewis River website.

ACC/TCC Annual Report Q&A of 30-day review draft

Kim McCune (PacifiCorp) informed the ACC attendees that PacifiCorp's ACC/TCC 2013 Annual Report and associated reports and plans is out for its 30-day review. The documents can be viewed on PacifiCorp's website at the following link:

[http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensin g/Lewis_River/LR_WHMP_2013Annual%20Report\(draft\).pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensin g/Lewis_River/LR_WHMP_2013Annual%20Report(draft).pdf)

Comments are due on or before April, 7, 2014.

Eric Kinne commented that what's missing from the reports is some evaluation of how we are doing in terms of meeting NMFS's targets, meeting goals, evaluating what we are doing and if we are getting closer to our target.

2013/2014 Aquatic Fund Project - Funding Decisions

The ACC attendees reviewed the following three aquatic fund 2013/2014 habitat enhancement projects. All comments and decisions are outlined in **Attachment A - 2013/2014 ACC Lewis River Aquatic Fund Evaluation/Decisions, March 13, 2014**

Project No.	Applicant	Project Title	Funding Requested	Decision
3	USDA Forest Service	Lewis River Alcove near 90480 Road	\$84,000 (Resource Funds)	Yes, contingent on more detail of pre & post juvenile monitoring methodology
5	Lower Columbia Regional Fisheries Enhancement Group	Haapa Habitat Enhancement	\$75,000 (Resource Funds & LWD Funds)	Yes, contingent on securing landowner access agreements and needed insurance as required by PacifiCorp

Project No.	Applicant	Project Title	Funding Requested	Decision
2	USDA Forest Service	Muddy River Tributary near Hoo Hoo Bridge	\$41,000	NO

To accommodate those ACC participants not in attendance today, the Utilities are providing an additional 7-day comment period. **Comments and decisions will be due on or before close of business Friday, March 21, 2014.**

McCune communicated to the ACC that there are several landowners affected by the LCFEG project and PacifiCorp will require landowner release agreements from each prior to commencement of the project. McCune indicated that she informed Pete Barber (LCFEG) of this contingency and that it may take considerable time for PacifiCorp, as contract administrator, to successfully contract this work so we should start working on securing landowner release agreements as quickly as possible.

Study/Work Product Updates

Eulachon Consultation

PacifiCorp's original position was that Eulachon could not make it up to the tailrace but they are they now are in the Merwin Tailrace despite full turbine flows of 11,500 cfs. Michele Day (NMFS) said it was not necessary for PacifiCorp to amend its Biological Assessment regarding this information as she will simply use this as new information in the Section 7 consultation.

Day informed the ACC attendees that she was picking up review of the Eulachon Biological Opinion again and multiple NMFS staff members have already reviewed.

Woodland Release Ponds

No change; construction tied to Eulachon consultation; two more years of direct release will be needed. The ACC would like to explore other options/alternate release strategy. The ACC is to bring ideas to the next ACC meeting and this topic will be included on the April ACC agenda.

Hatchery and Supplementation (H&S) Program Annual 2014 Plan

The Annual 2014 Plan was submitted to the ACC for its 30-day review and comment period on March 7, 2014. Comments are due on or before April 7, 2014.

In addition, the H&S Plan is due for its 5-year review/update to include an independent 3rd party review in 2014.

Hatchery and Supplementation (H&S) Program 2013 Annual Report

The 2013 Annual Report was submitted to the ACC for its 30-day review and comment period on March 7, 2014. Comments are due on or before April 7, 2014.

Hatchery Upgrades

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

Speelyai Hatchery Intake Modifications: On Schedule for completion in 2014.

Merwin Hatchery Ozone Upgrades: This project started in the summer of 2013. The ozone destruct unit has been replaced and upgrades to the residual monitors will be completed in the next month. Replacement of the PLC will be completed by November 30, 2014.

Acclimation Pond/Crab Creek Screen

PacifiCorp provided 60% design drawing to Bryan Nordlund (NMFS) as he had concerns about screen cleaning and passage ([Attachment B](#)).

Adam Haspiel (USFS) communicated that if all goes smoothly we should have the window needed to build this summer. PacifiCorp concurred if the needed permits can be secured on time (shoreline and Corp permits).

Haspiel will email Michelle Day (NMFS) when he receives the draft BA for Crab Creek. Day indicated that it may be possible that another consultation is not required for the Crab Creek project. She will coordinate with Shrier on this topic.

Merwin Upstream Construction

On schedule for substantially complete by April 23, 2014; testing of AWS begins next week; the fish numbers are increasing even with just 30 cfs attraction flow ([Attachment C](#)). Punch listing now; refining; testing flume pipe, functioning well; tested fish truck last week for water to water transfer; using the 1,800 gal tank. PacifiCorp is planning to replace the 2008 fish truck tank. Regarding eulachon, PacifiCorp's contractor is not doing anymore in-water work between now and completion April 23, 2014.

Swift Downstream Collector Status

Currently in the construction phase of the side nets: repairing side panels; north barrier net to be complete this week; south net will begin next week (appx. 10-day process); anticipate starting the Floating Surface Collector March 31, 2014.

PacifiCorp is considering an annual maintenance period and requests that the ACC consider the timing for this effort. PacifiCorp wants to use divers rather than de-ballast again to conduct maintenance. Maximum outage would be approximately 3 – 5 weeks.

Development of New Information to Inform Fish Passage

Hydroacoustics completed last year to determine baseline fish population; PacifiCorp has not received the report yet; good chance of having coho and chinook adults available in 2014 to test migration, spawning and rearing success.

<11:20 a.m. meeting adjourned >

Agenda items for April 10, 2014

- Review March 13, 2013 Meeting Notes
- Woodland Release Ponds; review and discussion of direct release ideas
- Review Ocean Recruits Model and estimates.
- Study/Work Product Updates

Public Comment

None

Next Scheduled Meetings

April 10, 2014	May 8, 2014
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00 a.m. – 11:00am	9:00 a.m. – 3:00pm

Meeting Handouts & Attachments

- Notes from 2/13/14
- Agenda from 3/13/14
- **Attachment A** – 2013/2014 ACC Lewis River Aquatic Fund Evaluation/Decisions, March 13, 2014
- **Attachment B** – Email to Bryan Nordlund (NMFS) regarding Crab Creek, 60% Design Drawing Submittal, dated March 12, 2014
- **Attachment C** – Merwin Adult Trap Fish Facility Report, February 2014

McCune, Kimberly

From: Shrier, Frank
Sent: Thursday, March 13, 2014 2:15 PM
To: Bryan Nordlund - NOAA Federal
Cc: Michelle Day; Kinne, Eric B (DFW); Higa, Nathan; Karchesky, Chris; Samagaio, James; McCune, Kimberly; Olson, Todd; Adam Haspiel
Subject: RE: FW: FW: Crab Creek - 60% Design Drawing Submittal

Thanks Bryan:

In terms of adult anadromous fish, even if adults were to attempt to navigate up Crab Creek, they would not likely be in the vicinity until after May 31st which is the cut-off date for Crab Creek operations each year. At that same time flows in Crab Creek are diminishing to a trickle so there will probably not be any attempt by salmon or steelhead to ascend the creek. In terms of screen cleaning we plan to check all three ponds every day so, if there are some clogging issues, we would take care of the problem right away.

Thanks for taking the time to review.

From: Bryan Nordlund - NOAA Federal [mailto:bryan.nordlund@noaa.gov]
Sent: Wednesday, March 12, 2014 4:32 PM
To: Shrier, Frank
Subject: Re: FW: FW: Crab Creek - 60% Design Drawing Submittal

Frank - kinda funny - I'm an the co-author of the draft document that Eric provided. Since I wrote that draft with Ken Bates, it evolved into the current screen criteria document used by NMFS (and WDFW Idaho, Oregon, Montana and USFWS through the FSOC), and no longer allows the sloped mostly horizontal screens, with the exception of certain horizontal screens, that have tested biological performance.

These down slope screens are used at some hatchery intakes by WDFW, and cleaning issues are taken care of because of personnel constantly on/near the site. Not sure that this will be the case at Crab Creek, but if the screen clogs, I don't think fish instream are at risk, but the fish in the acclimation pond may be. What about plumbing the screen (or at least considering how it could be installed without in-stream work) for an air-burst cleaner, and installing the rest only if needed? The "if needed" would be determined after some operational experience, as part of an inspection plan with regular visits, particularly after high flows.

My biggest concern that remains is upstream passage, and I'd be willing to take that risk given the short duration for use. If Crab Creek will not be occupied by adult anadromous salmonids, it's not an issue for me and I'll defer to Eric/FWS/ACC for approval .

All the other of my review points were adequately addressed with your responses.

Thanks!
bn

On Tue, Mar 11, 2014 at 3:46 PM, Shrier, Frank <Frank.Shrier@pacificorp.com> wrote:

Bryan have you had a chance to look at the information provided by me and Eric Kinne? Do you need more information to get comfortable with the design? I'm available to talk if you'd like.

From: Kinne, Eric B (DFW) [mailto:Eric.Kinne@dfw.wa.gov]
Sent: Thursday, February 27, 2014 10:30 AM
To: Shrier, Frank; Bryan Nordlund
Subject: RE: FW: Crab Creek - 60% Design Drawing Submittal

Frank and Bryan, attached is the WDFW screening document that describes that type of intake. I agree with Frank that this intake is only going to take part of the water from this stream for a short time period of time. Our biggest concern with the old design was the size of screen and the ability to keep it clean. I know this is not an ideal design for fish passage upstream and downstream but given the short time of use and only taking up to half of the stream flow, it lessens my concerns with fish entrainment.

Give me a call if you have additional questions.

Thanks

EK

From: Shrier, Frank [mailto:Frank.Shrier@pacificcorp.com]
Sent: Friday, February 21, 2014 10:55 AM
To: Bryan Nordlund - NOAA Federal
Cc: Michelle Day - NOAA Federal; Kinne, Eric B (DFW); Bob Rose; Jeff Fisher - NOAA Federal; Keith Kirkendall - NOAA Federal; Weatherly, Briana; Higa, Nathan
Subject: RE: FW: Crab Creek - 60% Design Drawing Submittal

Bryan, thanks for your thorough review. See my comments below. We can then talk through any issues that remain. Has the FCA design reached a level of demonstrated success such that we could go with their screen if the WDFW screen does not have that same level of acceptance?

From: Bryan Nordlund - NOAA Federal [mailto:bryan.nordlund@noaa.gov]
Sent: Friday, February 21, 2014 10:05 AM
To: Shrier, Frank
Cc: Michelle Day - NOAA Federal; Eric Kinney; Bob Rose; Jeff Fisher - NOAA Federal; Keith Kirkendall - NOAA Federal
Subject: Re: FW: Crab Creek - 60% Design Drawing Submittal

Frank - I had a look at the Crab Creek (Lewis R.) acclimation pond drawings and found some issues to be corrected/discussed. These are:

1) The screen design is horizontal and does not meet NMFS screen criteria. Only specific types of horizontal screens with demonstrated success are acceptable, simply because screen hydraulics can not be guaranteed beyond specific types of horizontal screens. In addition, Farmers Conservation Alliance has a patented horizontal screen design that (within limits) has demonstrated success. I believe the proposed design could infringe on that patent.

I am familiar with the FCA screens. The screen design was provided to me by WDFW so I am not certain of the origin. I request that WDFW provide a source for that and if there is some demonstrated success.

2) Generally, passive horizontal screens must produce consistent hydraulic conditions on the screen face to uniformly distribute approach velocity and provide sufficient sweeping velocity to preclude debris accumulation. Localized areas of high approach velocity ("hot spots") may exist with a clean screen, and any debris accumulation can exacerbate hot spots on the screen face. The proposed screen has no measures to maintain consistent favorable hydraulic conditions over any range of stream flows, and may not produce favorable hydraulic conditions at any flow. Lastly, stream conditions will likely occur that will completely dewater the downstream end of the screen, potentially accumulating debris and injuring or killing downstream migrants.

The period of operation is from about mid-April to no later than end of May. There is a caveat to use of the facility. That is, if the intake flow exceeds Crab Creek flow by more than 50% the facility will shut down and fish released to the river no matter how long they have reared in the pond. According to our estimated hydrograph, the March through May time is the peak flow period.

3) Horizontal screens placed instream can completely dewater a portion of the stream channel between the point of diversion and the overflow return. When this occurs, this will eliminate upstream and downstream fish passage.

I am assuming the facility will not be operating under conditions where there is no overflow to allow upstream passage. It seems this would be a condition where intake flows exceed 50%.

4) The diversion weir has no clear means provided to allow unimpeded upstream passage.

I was relying on WDFW's claim that this design passes fish upstream. Perhaps there is some data to support that claim. Keep in mind that there will likely be larger fish (~6 inch length) making upstream migrations through the area of the screen (still uncertain that any fish do pass through) since the engineering survey line shows a drop of 3.5 ft. every 800 ft. No fish have been observed in the screen location – a few fish up to about 6 inches were collected in the lower 100 ft. of Crab Creek prior to the design phase.

5) The screen face is specified as 3/32" mesh, which does not exist to my knowledge. If it does exist, it is a poor choice for an instream horizontal screen because it will catch debris, particularly leaf stems and pine needles. Stainless steel bar screen or perforated plate would be a better choice because of their smoother surface.

Even though the drawing states "mesh" the intent was to use SS wedgewire screen. I don't disagree about the small debris issue. I raised that with you before and you were willing to go with fingerling criteria. However, the State insists on fry criteria. We will have to visit this site daily or immediately after high flow events to clean the screen.

6) I see no means to protect the acclimation ponds from predators.

You are right, I did call for that and we do plan on providing a cover to the pond structure because the fish do not have any way to escape or hide within the confines of the pond.

8) I note that the planned acclimation pond egress is through an 8-inch PVC pipe. This does not meet NMFS criterion for minimum bypass pipe diameter (10-inch). I'm not too worried about this because larger debris passage will probably not be an issue at this location, because the flow will be screened at the intake. If this is agreeable to those familiar with site conditions, I'd waive the 10-inch criterion and allow the 8-Inch egress pipe.

9) NMFS Criteria for use of passive screens (such as the proposed screen) are:

11.10.1.3 Passive Screens: A *passive screen* should only be used when all of the following criteria are met:

- The site is not suitable for an *active screen*, due to adverse site conditions.
- Uniform approach velocity conditions must exist at the screen face, as demonstrated by laboratory analysis or field verification.
- The debris load must be low.
- The combined rate of flow at the diversion site must be less than 3 cfs.
- Sufficient ambient river velocity must exist to carry debris away from the screen face.
- A maintenance program must be approved by NMFS and implemented by the water user.
- The screen must be frequently inspected with debris accumulations removed, as site conditions dictate.
- Sufficient stream depth must exist at the screen site to provide for a water column of at least one screen radius around the screen face.
- The screen must be designed to allow easy removal for maintenance, and to protect from flooding.

Some of these conditions are probably adequately addressed, but, due to the horizontal configuration others can't be achieved.

10) Though not exactly within the context of a fish passage review, gabions are always a concern near a stream bank.

There are already gabions in place that were installed by USFS to protect the bridge abutment. We have proposed adding a couple of more, in from the bank, to level the ground for the pond.

That's it. Any discussion or questions, please give me a call ([360-534-9338](tel:360-534-9338)). Thanks,

Bryan Nordlund

Keith, Jeff - this is only FYI for work tracking purposes.

On Thu, Feb 13, 2014 at 2:03 PM, Shrier, Frank <Frank.Shrier@pacificorp.com> wrote:

Hello Bryan, would you mind taking a look at this latest design for NMFS' approval?

From: McCune, Kimberly

Sent: Thursday, February 13, 2014 1:59 PM

To: HML LRN (Roberts, Aaron); (michael_hudson@fws.gov); (Timothy_Whitesel@fws.gov); Adam Haspiel (ahaspiel@fs.fed.us); HML LRN (Stepp, Bart); Bob Rose (rosb@yakamafish-nsn.gov); Bryan Nordlund; Diana MacDonald; Doyle, Jeremiah; Eli Asher (easher@cowlitz.org); HML LRN (Kinne, Eric); Ferraiolo, Mark; Fish First (j.malinowski@ieee.org); gghalseth@gmail.com; James H Malinowski (jim.malinowski@icloud.com); 'Jeff Breckel'; Karchesky, Chris; Karen Adams; Kathryn Miller (kmillier@tu.org); Lesko, Erik; LouEllyn Jones; Mariah Stoll-Smith Reese (M.Reese@tds.net); Maynard, Chris (ECY); Melody Tereski; Michelle Day; Olson, Todd; Pam Johnson (johnson@co.skamania.wa.us); Patrick Frazier (pfrazier@lcfwb.gen.wa.us); Patrick Lee; Peggy Miller; HML LRN (Morgan, Rhidian); Ruth Tracy; Samagaio, James; Shannon Wills; Shrier, Frank; Taylor Aalvik (taalvik@cowlitz.org); Weatherly, Briana

Cc: Bryan Nordlund

Subject: FW: Crab Creek - 60% Design Drawing Submittal

Attn: ACC Participants and interested parties

In accordance with a request at the ACC meeting today please find attached the Crab Creek Acclimation Pond 60% design drawings for your review.

Thank you.

Kimberly McCune

Sr. Project Coordinator

PacifiCorp Energy - Hydro Resources

825 NE Multnomah, Suite 1500

Portland, OR 97232

Ph: [\(503\) 813-6078](tel:(503)813-6078)

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**Fish Facility Report
Merwin Adult Trap
February 2014**

Reporting Date	Spring Chinook Hatchery	Spring Chinook Hatchery Jack	Spring Chinook Wild	Spring Chinook Wild Jack	Early Coho Hatchery	Early Coho Hatchery Jack	Early Coho Wild	Early Coho Wild Jack	Late Coho Hatchery	Late Coho Hatchery Jack	Late Coho Wild	Late Coho Wild Jack	Summer Steelhead Hatchery	Summer Steelhead Wild	Early Winter Steelhead Hatchery	Late Winter Steelhead Hatchery (BWT)	Late Winter Steelhead Wild	Fall Chinook Hatchery	Fall Chinook Wild	Sockeye	Chum	Cutthroat	Resident Rainbow Trout	Bull Trout	Daily Total	
01-Feb-14															1	2									3	
02-Feb-14															1											1
03-Feb-14															1											1
04-Feb-14															1											1
05-Feb-14															3	2										5
06-Feb-14																										
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26-Feb-14																2										2
27-Feb-14															2	5										7
28-Feb-14															1	1										2
Monthly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	36	0	0	0	0	0	0	0	1	0	57
Annual	0	0	0	0	0	0	0	0	14	3	2	0	0	0	127	57	0	0	0	0	0	0	1	1	0	205