

## Lewis River Fish Passage Subcommittee Meeting

### Agenda

Thursday November 9, 2023

2:30 to 4:30 pm

Teams

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<b>Introductions, Review Agenda and Meeting Notes</b> <ul style="list-style-type: none"><li>Meeting notes (September, October)</li></ul>	All
<b>Design Team Updates</b>	Hansen/Higa/Karchesky
<b>Juvenile Fish Passage Report &amp; Summary of Results</b>	Karchesky
<b>Baker Tour Recap</b>	Karchesky
<b>Design Comment Matrix</b>	All
<b>Services' Letter - Next Steps</b>	Olson
<b>FPS Next Steps - After 60% Design</b>	All
<b>60% Design Documents</b> <ul style="list-style-type: none"><li>Expectations (Design drawings only, updated TMs?)</li><li>Distribution</li><li>Comment Period</li></ul>	Karchesky
<b>60% Design Presentation Status Update</b> <ul style="list-style-type: none"><li>Confirm date, time, and location</li></ul>	Karchesky
<b>Next FPS meeting – December 14<sup>th</sup> In-Person and Teams</b> <ul style="list-style-type: none"><li>Agenda</li></ul>	All
<b>Adjourn</b>	

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Microsoft Teams meeting

[Click here to join the meeting](#)

Or call in (audio only)

[+1 563-275-5003,,970831390#](#)

Phone Conference ID: 970 831 390#

**FINAL Meeting Notes**  
**Lewis River License Implementation**  
**Fish Passage Subcommittee Meeting**  
**November 9, 2023**  
**2:30 PM – 4:30 PM**  
**MS Teams Meeting**

Attendees

Christina Donehower – Cowlitz Indian Tribe	Bryce Glaser – WDFW
Steve Manlow – LCFRB	Josua Holowatz – WDFW
Beth Bendickson – PacifiCorp	Peggy Miller – WDFW
Jeremiah Doyle – PacifiCorp	Katie Buchan – USDA-FS
Eric Hansen – PacifiCorp	Pad Smith – WDFW
Nathan Higa – PacifiCorp	Jeffrey Garnett – USFWS
Chris Karchesky – PacifiCorp	Keely Murdoch – Yakama Nation Fisheries
Erik Lesko – PacifiCorp	Bill Sharp – Yakama Nation Fisheries
Todd Olson – PacifiCorp	

**Introductions, Review Agenda and Approve Meeting Notes**

Bryce Glaser, WDFW, reviewed the meeting agenda.

**Design Team Updates**

*Yale Downstream Update:* Eric Hansen, PacifiCorp, provided a general update. The design team is still fine tuning the 60% design. No significant changes have been made to the design including the guide net, FSC, or fish transport system. As discussed before, the location of the guide net has changed. Fish truck loading will be combined with the existing project intake structure. The design team is preparing the 60% design presentation slides. It typically requires a month to prepare the slides. Cost estimate reduction research is ongoing including the cost for the fish pump and attraction flow pumps.

*Yale Upstream and Swift Upstream Update:* Nathan Higa, PacifiCorp, provided a brief update. The design team is shifting gears to work on updating visuals for the presentation to the FPS in December. The civil design isn't as far along. Work continues on concrete outlines and equipment location parameters, and all will be refined into a representable format. There will be some 3D visuals similar to the ones for the downstream collector. We'll have better information on water supply; it's not as pump intensive.

**Juvenile Fish Passage Report & Summary of Results**

Chris Karchesky, PacifiCorp, reminded the group that the 2023 Yale Lake Fish Behavior Evaluation – Draft Report was emailed out for review on November 8, 2023. Karchesky asked that any comments on the draft report be submitted back to him no later than close of business,

December 8, 2023. If there was time during the December 14, 2023 60% Design Presentation, he would review the comments. Karchesky then reviewed a summary slide of the 2023 Evaluation with the group (Attachment A). The slide indicated that this was the second year of study, and that all three species (Coho, Chinook, and Steelhead) were tagged as a part of the 2023 effort. The goals of the evaluation were to look at how successful fish were in transitioning through Yale reservoir and how they behave once they enter the forebay region of Yale Dam.

**ACTION ITEM: Review Yale Fish Behavior Study and submit comments back by December 8, 2023**

### **Baker Tour Recap (November 3, 2023)**

The FPS discussed the November 3, 2023 tour of the Baker Project Adult Fish Passage Facility. Glaser thought the tour was very helpful for visualizing what the Yale Dam Upstream facility would look like. Karchesky agreed the tour was valuable and appreciated the folks who attended. He shared and walked through some photos for those that did not go on the tour (Attachment B).

During his review of the slides, Karchesky noted that the crowder used to move fish into the lock was a horizontal style crowder. The facility at Yale dam is planning a vertical style crowder similar to the arrangement of the Clackamas River Upstream Facility owned by Portland General Electric that the group toured last spring. The designers are also planning a jump style weir (again, similar to the Clackamas Facility) as opposed to metering fish into the lock by camera as is done at the Baker Facility. The vertical crowder can be used to push any remaining fish into the lock similar to how the presort pond is operated at the Merwin Trap.

Karchesky also noted another slight difference between the Baker Facility and what is being planned on the Lewis River. As fish exit the lock there will be sorting bars so that undersized or juvenile fish can be self-sorted and removed before sliding down the sorting-trough. This was recommended by the operators at the Baker Facility. These smaller fish would then be held separately so they can be manually sorted before being returned to the reservoir.

Glaser inquired if the no-touch Clackamas system was still being considered for the upstream facilities and asked now that we have the two examples of no-touch facilities (Clackamas and Baker), are we narrowing it down to a facility more similar to the Baker facility? Karchesky said yes. While the Clackamas facility works for that system, the Baker facility is designed to handle higher numbers and would be more applicable for the magnitude of fish we would be expecting upstream of Merwin Dam. A Baker no-touch type system is being developed for both Yale and Swift upstream facilities.

Karchesky also noted the selector gate configuration that the Baker Facility had, and a discussion that occurred during the tour about how they operated the system. Glaser wanted to know if he heard correctly that the speed of the gates slow down during colder temperatures. Karchesky responded yes, it's a common issue with pneumatic systems and one we had had at the Swift Floating Surface Collector. One option would be to rather than having the selector gates moving from left to right gate, have it operate as a trap door in which fish slide down. The design team was still considering options based on information gained during the tour.

Karchesky also noted that in the sorting areas of the Baker Facility that the table in which fish were being sorted, was not recessed to hold water. That was a modification that was made early on at the Merwin Trap, and would be included at the new upstream facilities. This allows fish to lay in three-four inches of water and breathe while they are being sorted.

On the revised schematic for the Yale Upstream Facility, Peggy Miller, WDFW, asked how the Baker facility relates to Yale, size wise; is the entrance pool the same size? Karchesky said it's comparable to what they have at Baker, from a footprint standpoint. Higa added that ours is a triangle vs. rectangular and is also a little bigger. Miller asked about the holding pool being narrower to which Karchesky replied it is narrower but twice or three times as deep to allow for Merwin reservoir elevation fluctuation. The Yale Facility holding area has more volume. Higa said we can make comparative numbers. Glaser pointed out that that it gave him more comfort as far as capacity goes. If you are able to get "saloon style" doors, as operators were working the holding pool (crowder), the entrance pool can still continue to recruit fish because flow would still be moving through it. Theoretically fish can be staged and ready to move into it vs. closed doors where fish might be forced to move out.

Karchesky agreed that having flexibility in the doors (Merwin redesign) is valuable. Chris Boyd, one of the design team members, was on site during the tour and is working through it. This is something that is on the design teams radar.

### **Design Comment Matrix**

Karchesky indicated that no comments had been received to date. Glaser shared some comments that WDFW had put together, but had not submitted yet. He indicated that he would gather his teams remaining comments and submit them soon.

**ACTION ITEM:** Glaser will update the Comment Matrix and send to Karchesky for populating with PacifiCorp's responses.

### **Services' Letter – Next Steps**

Todd Olson, PacifiCorp, provided an overview. The ACC recommended approval of the Future Elements of Fish Passage document. The Services' sent a letter to the Utilities approving it. On November 7, 2023, PacifiCorp submitted their letter along with the Elements document to FERC requesting withdrawal of the previously-submitted license amendment applications, approval of the new schedule, and permission to stop quarterly reporting. We are now waiting Commission approval of our request. FERC has an interest in getting the applications off the docket and we are hopeful they'll get to it in the next month.

Miller inquired about FERC approval of the Elements Document saying they may come back about the habitat enhancement fund. Is PacifiCorp still committed to that funding even if FERC says it isn't in their scope? Olson replied, yes, absolutely. Glaser mentioned if PacifiCorp gets word that FERC is "hung up on it," we could always restructure the letter. Olson will let everyone know as soon as he hears back from FERC. He thanked everyone on getting to this point.

## **FPS Next Steps – After 60% Design**

From Glaser’s prospective there are some other things in the Elements Document that we can continue to work on; the transport plan being one of them. We could kick it off as we get into the new year. He proposed going back through the document to develop a work plan to sequence other things beside the design. He’s interested in thoughts on it and also about what Olson, Karchesky, and the design team think would be the next step after that. Olson said PacifiCorp’s interest in the fish passage subcommittee meetings is to provide information that group members, as a collective, are interested in (meaningful studies, plans, etc.), not related to engineering and design. Glaser said that was helpful and reiterated using the Elements Document as a guideline. Olson added that the next step is the 90% design. As the design teams move in that direction if there is a component or piece of interest that this group has, we can bring up the designs and talk through them. We also need to be careful with our engineering teams’ time as we are on an aggressive schedule. Glaser said we would keep on track for the 60% to 90% designs for the items involving this group.

**ACTION ITEM:** Glaser will take a harder look through the Elements Document and pull-out items to work on going forward.

Miller added that usually there are not a lot of changes going on from 60% to 90% design. The majority of changes happen at the 30% and 60% design levels; what role will this group have as far as the review between 60% to 90% design? Hansen is trying to lower the cost that will not change the design. Olson noted that if the design changes, like the fish sorting for example, then we can inform the ACC Subgroup for review and comment. During value engineering, how can we do things better and less expensive but still maintain fish passage and metrics? Once you get past 60% design it becomes detailed design element. For example, if a designer says, “maybe we can do this,” he’ll share it with Karchesky who will share it with this group. Olson noted we don’t want any surprises to come out at the 90% design.

Miller said this was helpful. Karchesky will follow up on it; we’ll continue to meet monthly. He mentioned adaptive management. It makes sense to go through the Elements Document and transport plans for next year.

## **60% Design Comments**

- *Expectations (Design drawings only; updated technical memos)*

In general, Hansen said you can expect a similar presentation to the 30% design. There will be more slides to show, plan, profile, elevation and dimensions to help everyone get a feel for what will be constructed. This design level will show more detail including a few isometric drawings for quick review. From the 60% to 90% design, there are a lot of minutiae details (e.g. 1/8” details or closer for separator bars) and for the final package to go out to bid. As far as technical memos (TMs), they are considered design criteria. The design criteria has not changed from the 30 to 60 percent design level. If the design changes, TMs will be created. We are not expecting any new TMs for this 60% design presentation meeting (upstream or downstream facilities).

Miller said she was hoping for updated TMs. For example, the water source at Swift went from a siphon to a gravity source; and Yale footprint was changed. A quick write up on how things have changed would help her understand the drawings. Hansen said he would consider. Glaser said that Melissa Jundt, NOAA, had commented on this the last time. Hansen said he doesn't want to create a lot of new work for the design teams and said if there are changes from 30% to 60% design criteria or the design, then having a list and a brief description will provide a record of why things changed would be beneficial. It's easier to track and make a comment on how they were addressed. His thought is a single document or an updated TM. Miller added it was very well put. Hansen understood what they are looking for. He will follow up on it. Karchesky added these were all good points. His thought is to think through them and document them, and it would be good to get them into the Comment Matrix and addressed before the design meeting. Hansen said he would provide what is necessary and if everyone agrees on the Comment Matrix, it is a good place to start. Glaser said we don't need to know about every change but if there's been a list of what is changed to accompany the drawings (item/rationale/comments to address comments about this issue), then it would be a good tracking document.

**ACTION ITEM:** Beth Bendickson, PacifiCorp, will modify the December 14, 2023 ACC meeting time to 9:30 – 11AM, and the FPS meeting to 12:30 PM – 4:30 PM.

- *60% Design Presentation Distribution*

Distribution will be similar to the 30% design presentation in that the materials will be made available online.

- *Comment Period*

Once the materials are available, the comment period will begin; however, the comment deadline will be extended until mid-February. The plan is to use the same Comment Matrix just like the 30% presentation.

### **60% Design Presentation Status Update**

The 60% design meeting will be held on December 14, 2023 from 12:30 PM – 4:30 PM. It will be an MS Teams meeting (online only).

**Next FPS Meeting:** December 14, 2023

<b>Action Items from November 9, 2023</b>	<b>Status</b>
Review and provide comments on the draft September 14, 2023 meeting notes.	
Review and provide comments on the draft October 12, 2023 meeting notes.	
Review and submit comments on the Juvenile Fish Passage Report to Chris Karchesky by December 8, 2023.	
Bryce Glaser will populate the comment matrix and send it to Karchesky.	
Bryce Glaser will take a harder look through the Elements Document and pull out items to work on going forward.	

Beth Bendickson will modify both the December ACC and FPS meeting times, as well as schedule the 2024 meeting series.	Complete
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<b>Action Items from October 12, 2023</b>	<b>Status</b>
Review and provide comments on the draft September 14, 2023 meeting notes.	
Karchesky will create and send out a 30% to 60% design comment matrix.	Complete
The group will populate the 30% to 60% design comment matrix.	Ongoing
Karchesky will contact PSE Baker Facility for possible tour dates and then put together a Doodle Poll with a date range of choices.	Complete

The meeting adjourned at 4:36 PM.

Meeting Materials

- Agenda
- Attachment A - Yale Fish Passage Study Report Review Slide
- Attachment B - Baker Project Tour Photos (*Available Upon Request*)

**Attachment A**

**Yale Fish Passage Study Report Review Slide**





FOUR PEAKS  
ENVIRONMENTAL  
Science & Data Solutions

2023 YALE LAKE FISH  
BEHAVIOR EVALUATION:  
DRAFT REPORT

November 2023

Prepared for  
PacifiCorp  
Portland, Oregon

Prepared by  
Four Peaks Environmental  
Science & Data Solutions  
338 South Mission Street  
Wenatchee, Washington 98801

- Second year of evaluation of fish behavior in the forebay region of Yale Dam.
- Acoustically tagged and released juvenile salmonids at the head of Yale Reservoir:
  - Chinook
  - Coho
  - Steelhead
- Evaluated the proportion of fish that successfully arrived in the forebay region of Yale Dam ( $P_{PASS}$ ) and calculate their transit times.
- Describe the behavior of out-migrants as they enter and move about the forebay.
  - Depth of water in which they occupy
  - Areas of concentration
- Summarize environmental variables occurring during the study and assessed their relationship with fish behavior in the forebay.

**Attachment B**  
**Baker Project Tour Photos**

*(Available Upon Request)*