

Lewis River Fish Passage Subcommittee Meeting

Agenda

Thursday March 9, 2023

2:30 to 4:30 pm

Teams

2:30	Introductions, Review Agenda and Approve Meeting Notes	All
2:45	Design Team Updates	Hansen/Higa/All
3:00	30% designs - Comment Response Matrix	Karchesky/All
3:15	Upstream Fish Passage Capacity Estimates and proposed text for section 7 of the Draft Elements Document	Karchesky/All
3:35	Facility Alternative Analysis <ul style="list-style-type: none">• Draft Tables• Proposed revision to section 3 and addition of Appendix D to the Draft Elements Document• Next Steps	Olson/All
4:20	Tour of the Proposed Facility Locations - Logistics <ul style="list-style-type: none">• Thursday, March 23rd - Lewis River sites (near Ariel WA)• Friday, March 24th - West Side Hydroelectric Project (near Estacada OR)	Karchesky/All
4:25	Next FPS meeting – April 13th <ul style="list-style-type: none">• Agenda	All
4:30	Adjourn	

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

Attendees

Christina Donehower – Cowlitz Indian Tribe	Sam Gibbons – WDFW
Amanda Farrar – Cowlitz PUD	Bryce Glaser – WDFW
Steve West – LCFRB	Josua Holowatz – WDFW
Melissa Jundt – NOAA	Peggy Miller – WDFW
Beth Bendickson – PacifiCorp	Erin Peterson – WDFW
Eric Hansen – PacifiCorp	Pad Smith – WDFW
Nathan Higa – PacifiCorp	Jonathan Stumpf – Trout Unlimited
Chris Karchesky – PacifiCorp	Tyanna Blaschak – USDA-FS
Erik Lesko – PacifiCorp	Jeffrey Garnett – USFWS
Todd Olson – PacifiCorp	Keely Murdoch – Yakama Nation Fisheries
Danny Didricksen – WDFW	Bill Sharp – Yakama Nation Fisheries

Introductions, Review Agenda and Meeting Notes

Bryce Glaser, WDFW, briefly reviewed the meeting agenda. The draft January and February meeting notes will be reviewed at the April meeting.

Design Team Updates

Eric Hansen, PacifiCorp, provided an update on the Yale downstream fish passage facility. With regards to the Yale floating surface collector (FSC), the design team is working on developing the fish pump analysis and modifications to the fish screen layout. The designers may be able to shorten the primary screen or its capture channel for a cost savings later on as the design progresses. The electrical team is working on identifying the power load for the Yale FSC (similar to Swift's 1.5 megawatts power requirement). The fisheries design aspects including the separator bar location, size, debris management system and how it interacts with fish is being designed. In addition, we are working to confirm safe access for the fish trucks. The geotechnical work plan is needed for the foundation of the facility.

Nathan Higa, PacifiCorp, provided an update on Yale and Swift upstream facilities. In general, the design team is making similar progress as on the downstream facility. They are working to progress the 30% designs to the 60% design, with a specific concentration on the civil work as well as finalizing the geotechnical scope for the foundation. The mechanical and facility layout will be developed in detail in the 60% design. The fish handling aspects of both upstream facilities

function similarly and are on parallel tracks. The routing for fish trucks and the attraction water supply are the primary differences between the Yale and Swift facilities. At Yale, there is one road going past the facility and the route choices are limited. At Swift, there are two generally viable approaches with multiple variations for each. It was initially envisioned that there would be a bridge in front of the powerhouse. He walked through a graphic with different options. Based on discussions with Cowlitz PUD, the Option 3A or 3B, routes on the canal bank top road will be investigated and included in the 60% designs. At Yale, a pump station will provide attraction flow compatible with the powerhouse flow and at Swift a smaller pump array will provide facility flow that will combine with Minimum Discharge Bypass flow.

30% Designs – Comment Response Matrix

Chris Karchesky, PacifiCorp, reported that the comment matrices were distributed March 7, 2023 for review. He asked folks to please review them for discussion at the April meeting. He appreciated everyone's comments.

Upstream Fish Passage Capacity Expansions and Proposed Text for Section 7 of the Draft Elements Document

One of the things Chris read throughout the comments was the Columbia Basin Partnership and abundance estimates. He re-shared his comparisons of the Lewis River EDT and the Columbia Basin Partnership abundance estimates, and said he took these numbers back to the design team to see if they were in the right ballpark. No major changes are needed to accommodate the median and high-level (“healthy and harvestable”) goals.

Bryce Glaser, WDFW, said the abundance numbers in the high column are healthy numbers for the entire Lewis River basin. WDFW comments have not been solely on the healthy harvestable numbers or EDT capacity estimates, rather they have been more focused on “How do we estimate the maximum number of fish during good marine conditions?” This number may be higher than all these goals. He suggested modelling over a range of SARs as WDFW is not comfortable that the numbers in the table are the maximum. His thoughts are that we should do a little more work on it.

Chris said the design team is looking to identify an initial fish capacity and design around a complete swim-through scenario. The question is how do we put sideboards on it? It's considerably larger than initial need. We plan to build at a full swim-through capacity but not build too large a facility if we don't need it. From an operational standpoint, how do we get there? Bryce suggested taking a shot to model the maximum and minimum adult abundance under an array of SARs and use the good estimates we have available for each species from EDT and apply it to a range of SARs from the past (poor to good ocean conditions) to see where we are. He realizes there is a potential to overbuild but he'd rather it be overbuilt than underbuilt. The question is how to buffer it? Todd Olson, PacifiCorp, said he appreciated Bryce's insight. The LCFRB provided the Columbia Basin Partnership numbers. If we could make accommodation to meet the high numbers, it might work for folks. We can meet the healthy and harvestable Partnership numbers. We can get to those numbers using the original design with modifications but with additional operational cycles. If WDFW thinks the fish numbers are well beyond 21,000 fish for coho then we should talk about it. The language that he and Chris put together for the draft Elements Document was to agree with those numbers. If not, who should do the modelling to come up the other numbers?

Bryce said his team thought the numbers were at the low end for coho. With that said, Bryce will see if can do a rough modelling exercise and get something out to the group to see if it aligns to where the Utilities are so we can wrap this up. He appreciates the discussion around the operational flexibility to address those daily maximums that were presented in the technical tables. If there's some language we can capture regarding a buffer on infrastructure, that would be helpful. Todd mentioned operational cycles. We are designing for a single cycle or work period. The crew comes in and works on the fish collected for a couple of hours. We can increase the number of cycles or process hours if we get more fish. It is an operational thing, not a structural thing. We don't want to have multiple cycles but are trying to find a balance. Melissa Jundt, NOAA, said she still thinks the operational side isn't represented in the TMs. The capacity is higher than just operating one time per day. There is demonstration of that. Chris agreed and said the 30% design is the conceptual component. From there, we'll refine things. Melissa wants to make sure the number is robust enough but understands everyone's points. To that end, Todd said we should look at the Elements Document language, and let the design team know the target they need to build. Bryce asked is there a way to say, "With this facility, the maximum number of cycles is three and it can handle this many fish, with this size of facility." He also suggested including the daily vs. annual capacity. Todd said yes, it makes sense to set the goal, and then how to reach it. If we're going to max at three cycles, what size of facility would you need to build to get there. He shared the proposed changes to the Draft Elements document. If WDFW wants to do a model to see if we are close to the Columbia Basin numbers and can live with the document language, that would be good to know. Bryce will commit to putting something together. He asked if Todd could estimate the maximum daily number. Based on the current 30% design there was an estimate of fish that can be handled per day. If that number could be updated with "...adding additional cycles" for a maximum under the current scenario, that would be helpful. Chris said in terms of operational cycles, it boils down to staffing and trucks. In a discussion with folks at the Baker facility, they have more fish (sockeye) and a look/no-touch approach, and are processing in excess of 3,000 fish per day. Todd added in terms of operational and non-operational components, part of it is the design team knowing what the capacity is going to be. Peggy Miller, WDFW, said there has been a lot of discussion about expanding/sorting/handling/and transportation of fish at the facility. She asked can portions of the facility that are permanent and can't be expanded (e.g. ladder, lift, holding pond) be limiting factors? Chris replied that there are some capacity limitations, for example, if you are dealing with ladders at the Bonneville facility where they do a lot more fish. What we are hearing from other facilities and the design team, is the ladder is not the limiting factor. These are fairly substantial facilities. The design team is moving forward with using the swim-through scenario. Peggy asked if we are basing it off of fish currently coming from Merwin. Chris said it's not the rate of a particular run, rather we looked at all the coho salmon that returned in one day. It doesn't affect the proportion. The average daily max is 3-4 % of the total run. We used 9% for the exercise (maximum reference points). The main question is how many fish are going to show up in one day. Peggy said she needed to rely on others with more experience to weigh in. Pad Smith, WDFW, added that to elaborate, there are things we can do to increase capacity (staff, size of holding ponds, tanks) but there are permanent facilities (fish way, etc.), that once they are built there is not a lot of adaptability. We don't want to be wrong capacity-wise. Chris agreed.

Facility Alternative Analysis

Draft Tables

Todd shared the updated table and group discussion followed. He will send it out again with the new edits for review. He asked if we should include the missing Fixed Collector with Flume or Pipe Bypass (Volitional Passage) item that Peggy said was missing. Bryce would be ok with adding it in and scoring it or making a note on the bottom with a caveat of why it was removed for documenting the history of why it was removed. Todd will add it to the table.

Todd said Column A came out of subcommittee discussion. As far as Likelihood facilities will be successful as initially constructed (ability to function as designed, known technology), different subject-matter experts may have differing opinions. Bryce suggested adding some clarifying language to Column A. Todd agreed and added some language.

Peggy asked if there is a hard structure on the spillway and you can't spill water due to certain events (e.g. drought)? Todd said drought could cause the reservoir to go lower than the spillway sill so no water could be spilled. Todd identified the item as red. Jeff Garnett, USFWS, agreed on Peggy's interpretation.

Regarding facility location and biological performance, Todd asked for reasons for why it was changed from green to yellow. Peggy mentioned that someone said if fish are coming down the opposite side, would it be better to put the collector on other side of the reservoir? Melissa added that neither yellow nor green wouldn't sway it. She is trying to be clear in seeing additional species tested to get there. Todd said the intent is that it be in the green, but he is ok with yellow for now. Melissa said the question is, is the location in the right place? Jeff added that the fish surface collector gives flexibility in the proper position based off of biological studies, whereas spillways or turbines are in a fixed location. He can see it being green, but is ok with yellow. Todd made it yellow.

The fish may not find the entrance for the Eicher screen, so Todd moved it back to red. As far as a clear baseline for cost comparison, Line 32 is a bit confusing. If we are comparing everything across the board, we may not need to keep it. Todd deleted the row. Peggy said some of the items in Column A had several items that rolled up into one score. She suggested we separate them out or provide a note on how multiple items in one criterion are ranked. It doesn't need to be too complicated. Todd will make such adjustments.

Elements Document with Daily Capacity Language

Proposed Revision to Section 3 and Addition of Appendix D to the Draft Elements Document

Todd asked folks to review and provide comments on the Proposed Revision to Section 3 and Appendix D to the Draft Elements Document, distributed on March 8, 2023.

Next Steps

Review upstream tables. If folks want to give separate comments, that's fine. Melissa added that while painful, it could be beneficial to do it as a group.

Provide comments on the collaborative table by March 24, 2023.

Tour of the Proposed Facility Locations - Logistics

- Thursday, March 23, 2023 - Lewis River sites (near Ariel WA)
- Friday, March 24, 2023 - West Side Hydroelectric Project (near Estacada OR)

Chris will send out an itinerary in the next day or so to those who are attending. If anyone else wants to go, he asked that folks email him directly.

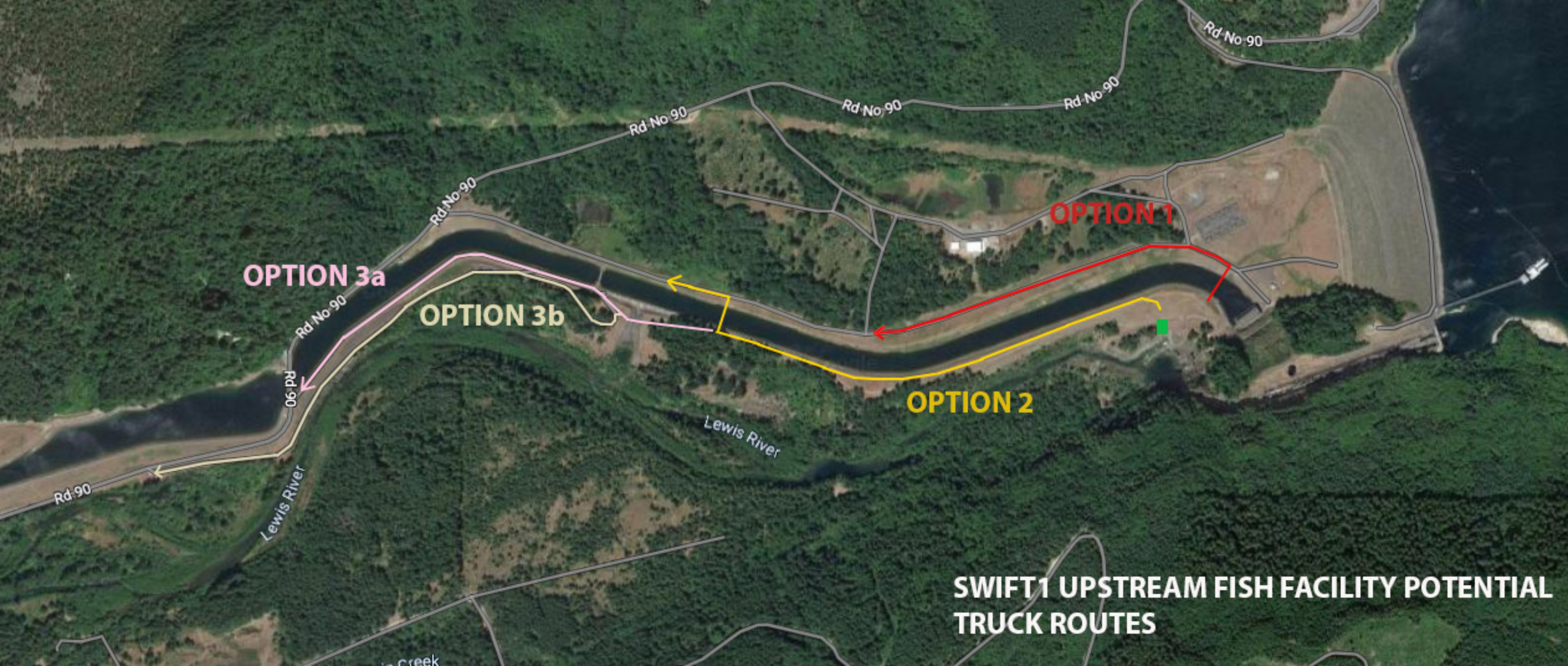
Next FPS Meeting: April 13, 2023

Agenda Items

- Alternative Analysis
- Capacity
- Kokanee
- Merwin Downstream Fish Passage Facility
- Fund Amount

Action Items from March 9, 2023	Status
Review <i>January and February 2023 meeting notes</i> . Any major items will be discussed at the April meeting.	
Review <i>30% Designs Comment Response Matrices</i> , distributed March 7, 2023, for discussion at the April meeting.	
WDFW will perform an abundance modeling exercise.	
Review and provide comments on the <i>Proposed Revision to Section 3</i> and the <i>Addition of Appendix D to the Draft Elements Document</i> , distributed March 8, 2023.	
Action Items from February 9, 2023	
Review <i>Draft Lewis River Fish Passage Alternatives Evaluation Summary</i> (Due Date: March 2, 2023)	Completed
Action Items from September 21, 2022	Status
Review historical documents from original Swift Downstream construction.	

The meeting adjourned at 4:21 p.m.



OPTION 3a

OPTION 3b

OPTION 1

OPTION 2

SWIFT1 UPSTREAM FISH FACILITY POTENTIAL TRUCK ROUTES