

Lewis River Fish Passage Subcommittee Meeting

Agenda

Wednesday June 15, 2022

3:00 to 5:00 pm

Teams

Introductions	
Review Agenda and Meeting Notes	All
Design Team Updates	Hansen/Higa/ Karchesky
Draft Letter to FERC	Olson/All
Passage Configurations	Glaser/All
<ul style="list-style-type: none">• Develop a pro/con list (i.e. selective passage and the swim-through passage)• Begin discussing thresholds for switching	
Future expansion	Olson
<ul style="list-style-type: none">• Upstream fish passage facilities to accommodate swim-through passage	
Next meeting – July 20th	
<ul style="list-style-type: none">• Approach/agenda	

**FINAL Meeting Notes
Lewis River License Implementation
ACC Fish Passage Subcommittee Meeting
June 15, 2022
MS Teams Meeting**

Attendees

Eli Asher – Cowlitz Indian Tribe
Steve Manlow – LCRFB
Logan Negherbon – NOAA
Beth Bendickson – PacifiCorp
Eric Hansen – PacifiCorp
Chris Karchesky – PacifiCorp
Todd Olson – PacifiCorp
Jonathan Stumpf – Trout Unlimited
Jeff Garnett – USFWS
Daniel Didricksen – WDFW
Sam Gibbons – WDFW
Bryce Glaser – WDFW
Josua Holowatz – WDFW
Peggy Miller – WDFW
Erin Peterson – WDFW
Bill Sharp – Yakama Nation

Introductions, Review Agenda and Meeting Notes

Bryce Glaser briefly reviewed the meeting agenda. The group conducted a round of introductions.

Design Team Updates

Eric Hansen provided an update on the Yale downstream fish passage facility. He has been in development meetings with the design team, and they are working on marine architectural, hydraulic and fisheries design criteria for items such as floating or fixed surface collector alternatives, mooring, mechanical ballast/trim systems, debris management, guide nets, fish sorting, flow and velocity to catch fish, electrical, controls, etc.

Of importance is the operations criteria for fish collection, sorting and transport for coho, spring Chinook, and winter steelhead. Also need to consider what to do with resident rainbow trout and kokanee. There are several components to consider regarding the fish design criteria, including do we move fish onto land for sorting/holding or keep them on the fish collector similar to the Swift FSC. It will take some time to go through all the details. One of the questions for this subcommittee is that the Settlement Agreement requires a 30% design by the end of this year. Eric asked would

it be better to present the 30% design to this subcommittee just prior to distribution for review in mid-December (before the holiday) or does the group prefer a time later than that? He's unsure of subcommittee team availability. Todd Olson said knowing that these Fish Passage subcommittee meetings are scheduled on the third Wednesday of every month, it might be a good point in time to schedule with folks. Potentially Eric's team could give a presentation at that time in December and then designs could be submitted out for the formal 30% review.

Eli Asher said the timing worked fine with him. The Settlement Agreement dates have since passed so it shouldn't be a major consideration, and the dates aren't a driver. Todd said it was a good clarification point. With the proposed new schedule for Yale downstream it would be good to get to 30% design by year end. Bryce added if the timeline could be put into an email to the group, then we could have a conversation. Maybe the ACC should be involved. Todd said it's more of the general engagement. As the Utilities are going to provide the 30% design by end of year, Todd asked if group wanted a presentation early or after the designs are out for review? No response was given and a discussion will continue at next month's meeting.

Danny Didricksen was wondering what criteria the new facility will be designed to as NOAA/NMFS has new design criteria. Eric said they are aware of the new criteria, but haven't seen the document yet. He suspects the team will need to adjust a few things to the new criteria. Danny said there isn't a landslide of changes but there are a few things on surface collectors. Logan Negherbon said the document is currently under review and that not a lot of the main content has changed but substantial context has. He will provide a link as soon as it gets released which he thinks will be sometime this week.

Bryce asked Eric about species, specifically bull trout, rainbow trout and cutthroat trout. Eric reported they are included for consideration as the team works through the design criteria.

Chris Karchesky provided the group a quick overview of the ongoing Yale fish behavior study and reported that all study fish had been tagged and released by the end of May. Fish are currently migrating through the reservoir and are being detected by both manual tracking events and at the fixed monitoring sites in the forebay. He indicated that there wasn't a lot of behavioral information he could provide at this time but it does appear that as fish enter the forebay, they do so along the shorelines verses down the middle of the reservoir. He also provided that it appeared from manual tracking events that fish were not congregating in any specific area outside of the forebay, and appeared to be still very scattered throughout the reservoir. He reminded the group that the contractors plan was to provide a preliminary report to the group that summarizes May and June data by the end of August, and a final report that summarizes all the data out to the group by the end of the year.

Nathan Higa, the project manager for the Yale Upstream Fish Passage Projects, was not able to attend the meeting, however Todd had spoken to him and provided the following update: Nathan reported his team is also looking at the design criteria, including the footprint area they have for the upstream traps around Yale Powerhouse. They are in the early stages of getting things going and Nathan is putting together technical memos on different things. Bryce expressed his interest in the design criteria and schedules, and asked that when they are available, they should be distributed to this subcommittee.

Draft Letter to FERC

Todd gave an update on the draft letter submitted to the ACC on June 15, 2022, for 14-day review. It's very specific to what we've been talking about with the ACC and this subcommittee regarding future fish passage. The Utilities want to make sure everyone is on the same page on the different aspects of the proposed fish passage plan. The intent is to provide FERC an update on where we have agreement in principle and the remaining outstanding items. For today's agenda, he wanted to make sure folks received the draft letter, and if not, ask your ACC representative for it. Eli's first thought is that the Tribes would not agree to any agreement in principle to FERC until we have resolved the compensatory mitigation issue. He thinks the letter to FERC is premature but will review the letter more in-depth. Bryce appreciated seeing the letter. There is pretty good alignment on the pathway for collection and downstream transport to Woodland release ponds of juvenile fish, but they still have questions on upstream and wasn't sure if they'll be able to complete a review in 14 days. Todd said he wanted to get it out so people could respond to what is agreeable or what elements need additional discussion. The intent is to reach agreement. If it takes more time, then that's fine.

Eli asked if PacifiCorp was wanting to enter into a separate formal agreement on the draft plan. Todd said he hadn't been thinking of a separate agreement. Eli added he wasn't advocating one way or another. Todd asked everyone to give it some thought.

Passage Configurations

Bryce reviewed the notes from the May 18, 2022 Lewis River Fish Passage Options Discussion meeting.

Bryce said when we talk about the minimum viability goals that NOAA would use, this leads us into what is healthy and harvestable and what kinds of fish numbers would we be looking at? Todd said we could spend a long time talking about numbers that meet the outcome goal. His thought is that the Settlement Agreement was left as a narrative because it would be hard to identify those numbers.

Bryce asked how do we visualize healthy populations? When we talk about sustainable/harvestable populations in the Columbia Basin, both natural and hatchery act as a single population.

Steve Manlow mentioned the Recovery Plan and numerical targets (minimum abundance). Similar to the Settlement Agreement, the goals are self-sustaining and harvestable populations. The language in the Recovery Plan is that it can sustain direct harvest. The high-end goal is a healthy harvest. He shared the 2020 Lewis River Hatchery Harvestable Numbers document based off of the *October 2020 A vision for Salmon and Steelhead Goals to Restore Thriving Salmon and Steelhead to the Columbia River Basin Phase 2 Report* and said maybe a next step would be to take the estimated values and add them into a similar table to see what the runs are. Todd asked if it was for spring Chinook, winter steelhead, and coho – for each of these three by reservoir area? Goals are for Lewis River as a whole. Bryce was trying to get a scale of what we're talking about for long-term.

Bill Sharp asked if the sizing of the Merwin Upstream Facility included the collection gallery, holding capacity and some different holding tanks for fish transport. Todd replied he believed that

the facility's pre-sort holding tank and other holding tanks were built to hold high numbers. Chris confirmed that the Merwin Upstream Facility was designed and built to meet anticipated maximum numbers of fish based on historic hatchery returned data as well as designed with the ability to expand capacity for handling and transport if needed.

Bryce asked as we design facilities for fish moving upstream, what is the criteria and consideration for run size? What is the capacity and where would you do that? Bill said depending on fish numbers you may need to do multiple upstream transports within a day.

On the subject of long-term passage, Bryce asked if there is a need to design for larger capacity or for facility expansion in the future. Hypothetically it comes to 27,000 fish. Two-thirds above Merwin and one-third below Merwin means 18,000 fish would need to be moved. Questions were posed to the group. Would all of them be put into Merwin and let them self-sort? Meaning the upstream passage facility at Yale would have to be able to handle 18,000 fish? On the collection facilities, we need to figure out if there needs to be capacity considerations for full swim through versus lower capacity needs for long term selective truck/haul; some may always need some level of truck and haul. Facilities would to be sized differently depending on the long term transport option selected.

Todd added that the entrance into new traps and getting them up into a holding area is going to be designed the same whether you have 5, 50, or 500 fish per day. It has to do with flow and jump heights, etc. You need to get fish into an area where they can be put on a truck. The engineers need to focus on getting that designed, then have holding tanks available for what could be expected each day with a selected reservoir release. The Utilities are open to including the capacity to expand the fish holding area if needed in the future. So for now, the facilities will be designed for selected reservoir release but we will make sure we have the capacity to provide additional holding area. We need to work on the thresholds for that.

Bryce said that helps. It leaves the swim-through trap/haul alternative open for consideration. The following question was posed to the group. Should we consider it and work on thresholds capacity? Or is it not even an option for long-term? We would work pros/cons for that decision. We don't want to hold up the design team.

Eli said that approach makes sense to him. The Tribe wants the swim-through or partial swim-through alternative to remain in consideration.

Consideration of passage alternatives

Bryce suggested we should take some time to work towards a formal decision point and related thresholds towards swim-through alternative. From his perspective, if the plan was to continue to do selective transport into the reservoir as a long term objective, then it comes with a long term objective that all juveniles will be marked (complete collection/complete marking) for all juveniles into the future to identify returning adult disposition. During transition to a swim-through option, then the ability to move fish would have to have a developed criteria, some kind of phased approach. It's complicated but may not be needed for the current design work.

Todd added that the collection efficiency is important. The 2019 Merwin collection efficiency study showed a behavioral difference between trap-naïve vs. trap non-naïve fish. Additional time was taken by previously trapped fish as they held out in the tailrace longer before entering the trap.

Bryce asked what some of the concerns were for passage alternatives. Eli said to make sure we have a genetic interchange. Bryce seconded that and asked if there were any other things.

From Bryce’s perspective there are some concerns, bottlenecks, and unexpected impacts (coho /bull trout interaction). We should develop a list. Ultimately it may end up being a combination of selected release and swim-through. He suggested we start a list and add recommendations moving forward to see if we can come up with a clear direction.

Eric said we should look at the design criteria and come up with a number as a group. We have a lot of confidence in the ability to design a structure for fish capture and survivability. It should be high on the list.

Develop pros/cons list (i.e. selective passage and the swim-through passage)

Bryce asked everyone to brainstorm the pros and cons/concerns. A pros and cons list will help us start shaping our visions, compare them, and come up with a consensus vision. His purpose is to prevent us from getting into a scenario of where we say down the road, “this isn’t what we envisioned.” He asked if there was perhaps value in getting an ACC recommendation on the direction in which we are moving. Eli said a list of pros/cons would be good to inform the ACC.

Jeff Garnett supported Bryce’s strategy. For bull trout, doing something like selective passage seems like a good idea. We may not necessarily want to start putting them into Merwin until we feel comfortable. Bryce added it may be different for each species. Todd said initially it’s a matter of getting fish into the facility and on how many tanks we need. Logan is supportive of getting pros/cons of selective vs. swim-through and adding concerns on potential design constraints. He mentioned he is leaving NOAA at the end of the month but will provide his list of pros/cons.

Bryce reviewed the actions items identified during the meeting.

Action Items from June 15, 2022	Status
Bendickson will send an MS Teams meeting invitation for the rescheduled July meeting; as well as a new meeting invitation for the regular meetings (third Wednesday of the month).	Complete
Subcommittee members will identify pros/cons fish passage of alternatives for discussion at the July meeting.	

The next meeting will be held on July 14, 2022 following the ACC meeting.

Meeting adjourned.

ATTACHMENTS

October 2020 A vision for Salmon and Steelhead Goals to Restore Thriving Salmon and Steelhead to the Columbia River Basin Phase 2 Report

https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/MAFAC_CRB_Phase2ReportFinal_508.pdf?null

“Healthy and Harvestable”

High-range goals are intended to represent “healthy and harvestable” abundance levels that would sustain very high levels of species viability, significant fishery opportunities and harvest, and a fuller range of ecological values (based on EDT modeling of tributary habitat restored to properly functioning condition)

Medium-range goals define an intermediate step between low-range goals and high-range goals.

Low-range goals for natural production for listed populations are defined as the natural-origin adult spawner abundance consistent with ESA delisting goals in NOAA Fisheries’ recovery plans.

For consistency with NOAA Fisheries’ Technical Recovery Team guidance and fishery stock assessment convention, abundance goals do not include jacks. Jacks are generally males returning to freshwater one year earlier than most mature salmon. Jacks typically comprise a small proportion (<10%) of the total return of natural-origin fish (although hatchery programs may produce higher percentages).

total production of natural origin fish would include both spawning escapement and downstream harvest.

NF Lewis Summary (does not distinguish between upper and lower basin)

Natural Production Population	Abundance		Potential Goal Range		
	Recent	Historical	Low	Med	High
Spring Chinook	150	15,700	1,500	2,300	3,100
Fall Chinook (Tules)	2,738	2,600	1,400	1,800	2,200
Late Fall Chinook	9,700	23,000	7,300	11,000	14,600
Coho	917	40,000	500	10,750	21,000
Steelhead - Winter	150	8,300	400	1,700	3,000
Steelhead - Summer	150	6,500	150	300	450
Columbia R. Chum	100	125,000	1,300	2,600	3,900

Lewis Fish Passage Configuration Options Discussion
Fish Passage Subcommittee
5/18/22

Purpose: Develop recommendations for ACC on short and long term objectives/vision for both upstream and downstream transport configurations.

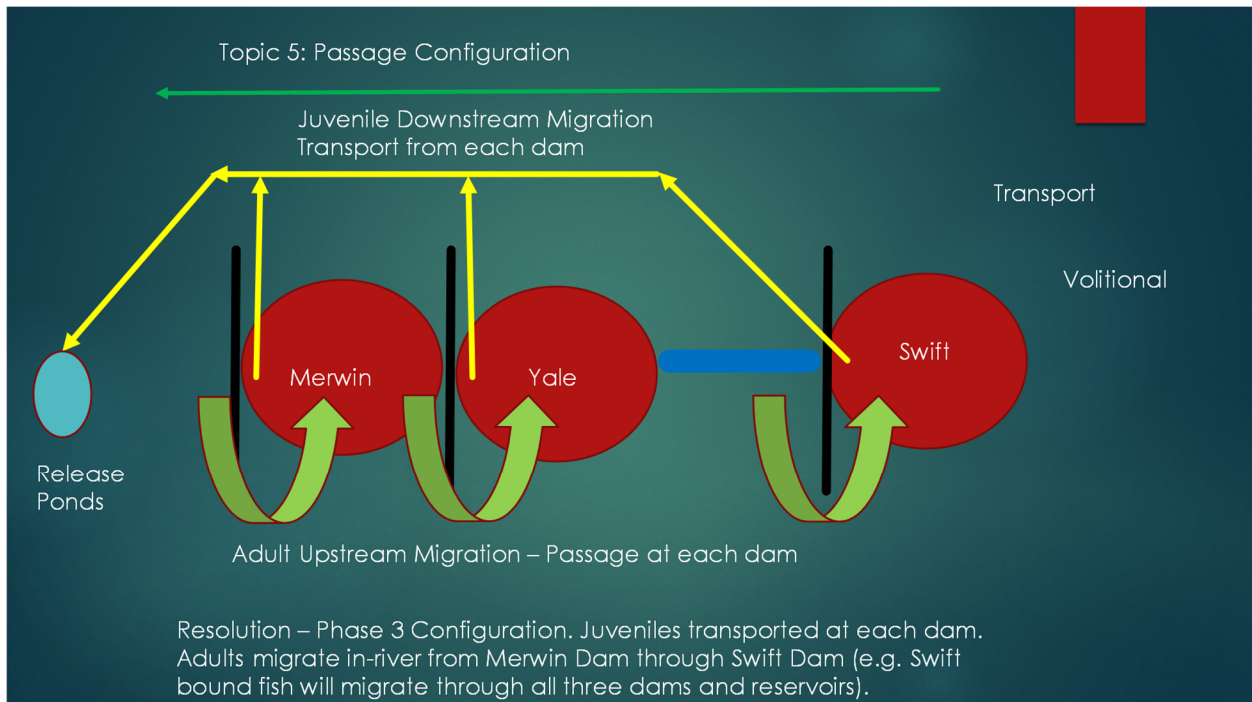


Figure 1: Passage Configuration (Slide 7 from Lewis EDT Issue Resolution .ppt March 2016.) used for updated EDT modeling.

Downstream passage:

- Is there agreement that the approach outlined in Figure 1 is the preferred long-term configuration for downstream passage?

Upstream passage

- Figure 1 identifies one potential configuration for upstream passage – “swim through”
- An alternate configuration would be capture/transport of adult fish into select reservoirs potentially based on unique marking to identify NORs to area of origin – “selected”

Options for consideration:

- swim-through-volitional
- swim-through trap and haul
- Selected – trap and haul

- **Phased- selected followed by swim-through**
 - CIT indicated that this was the anticipated outcome
- Other?

Next steps:

- Review SA language around adult passage.
- Healthy/harvestable goals are now available.
- Develop pros/cons list for configurations in relation to goals.
 - Thresholds for switching between configurations
- Develop list of Management issues:
 - SA agreement transport species vs. “non-transport” species
 - Lamprey
 - Sockeye (kokanee)
 - Summer Steelhead
 - Fall Chinook

6/15/22

- Review SA language around adult passage.
 - Review Anadromous Fish Reintroduction outcome goal – SA Section 3.1 (pg 18).
- Healthy/harvestable goals are now available.
 - Review summary document from Peggy
- Develop pros/cons list for configurations in relation to goals.
 - Thresholds for switching between configurations
 - Spreadsheet exercise?
- Develop list of Management issues:
 - SA agreement transport species vs. “non-transport” species
 - Lamprey
 - Sockeye (kokanee)
 - Summer Steelhead
 - Fall Chinook
 - WDFW continuing to develop list of issues – on-going

Yale Fish Behavior Study – Spring 2022

Release Point	Study Goal	Released as of 5/27/22
Upper	195	195
Mid-Reservoir	105	105
	300	300

Preliminary Data Summary

- From receiver data downloaded on May 20, 2022, 65 individually tagged coho were detected at fixed stations near the dam.
 - 21 smolts from Mid-Reservoir
 - 44 smolts from Upper Reservoir
- From last mobile survey reviewed (May 27, 2022), showed that tagged coho were still widely distributed throughout the reservoir.

