FINAL

Meeting Minutes

Lewis River Aquatic Technical Subgroup

To: Lewis River Aquatic Technical Subgroup   Date: October 16, 2024

From: Larissa Rohrbach, ATS Coordinator, Anchor QEA

Re: Final Minutes of the September 26, 2024, Lewis River Aquatic Technical Subgroup Meeting

The Lewis River Aquatic Technical Subgroup (ATS) meeting was held virtually on September 26, 2024, on Microsoft Teams, from 9:30 a.m. to 1:00 p.m. Attendees are listed in Section IV of these meeting minutes.

Action Item Summary

- Erik Lesko (PacifiCorp) will send the draft version of *Strategy G – Genetics Monitoring* (Genetics Monitoring Plan) to the ATS for review and discussion at the October ATS meeting.
- Lesko will provide the ATS with Washington Department of Fish and Wildlife's (WDFW) responses to technical questions that pertain to the use of Speelyai Hatchery in the *Lewis Coho Hatchery Transition Plan* (Transition Plan).
- PacifiCorp will draft a formal description of an alternative to use Speelyai Hatchery for implementing the Coho Salmon Transition Plan.
- Larissa Rohrbach will walk through of the anticipated updates to the 2025 Annual Operating Plan (AOP) in the October ATS meeting.

I. Welcome (Lesko)

A. Review Agenda

Larissa Rohrbach reviewed the agenda. The agenda item ATS Priorities – Status and Next Steps (III.A) was added to the ATS Administration (III) section.

II. Recurring Updates

A. Bull Trout-Coho Salmon Monitoring in Swift Reservoir (Doyle; 30 min)

Jeremiah Doyle (PacifiCorp) shared PacifiCorp's monitoring proposal titled *Additional Quantitative Data to be Collected During Bull Trout Redd Surveys of P8, Pine, and Cougar Creeks 2024.* This document was sent out on September 17, 2024. This plan was produced with U.S. Fish and Wildlife

Service (USFWS) and complies with language in the Biological Opinion (BiOp) pertaining to impacts to Bull Trout by increased transport of Coho Salmon in Swift Reservoir.

Photographs of marked Coho Salmon redds will be taken weekly from September 1 through December 15 to determine the level of redd superimposition over time. This monitoring strategy has been conducted for the last 2 years in Cougar Creek with Coho Salmon from the Yale Habitat Preparation Plan (HPP). There are an estimated 90 to 100 Bull Trout redds in Pine Creek and 22 to 27 Bull Trout redds in Cougar Creek annually.

The BiOp outlines the threshold of acceptable impact allowed by the incidental take statement (ITS). If redd superimposition between Bull Trout and Coho Salmon is found to be more than 10% (combined between populations in Yale Reservoir and upstream of Swift Dam), then a meeting with USFWS will need to occur within 5 business days to discuss the next steps forward. The Utilities will decide the course of action once this take level has been exceeded. Bryce Glaser (WDFW) said that WDFW has concerns that the monitoring plan assumes that superimposition leads to a complete destruction of Bull Trout redds. Doyle said USFWS interprets the 10% threshold as the amount of Bull Trout mortality that is acceptable within the issued permit. It is difficult to quantify the percentage of redd superimposition, therefore, any disturbance to a redd is considered a complete disturbance. Observer efficiency work that occurred in these streams 5 years ago can be applied to the current monitoring strategy. Percentages of redd superimposition could be higher than what is observed. The data will be a representative sample given the landscape of the creeks and the survey methodology. Areas where Bull Trout and Coho Salmon overlap in a higher frequency are surveyed the same as all other available habitat in Pine Creek, Cougar Creek, and P8. This information will be included in the next version of the plan.

Erik Lesko (PacifiCorp) said that PacifiCorp will be coordinating with USFWS on a weekly basis during the monitoring period. If the superimposition rate exceeds 10%, PacifiCorp will comply with the USFWS BiOp and the ITS and halt upstream transport activities. This would conflict with the *Lewis River Hydroelectric Projects Settlement Agreement* and the *Lewis River Hatchery and Supplementation Plan* (H&S Plan). Glaser said that if halting transport is required by USFWS, it would be necessary to see this in writing and would require further ATS or Aquatic Coordination Committee (ACC) discussion. It will be important for PacifiCorp to determine the future actions triggered by excess take and for the ATS to have technical discussions surrounding those actions. Discussions between the Services and the ACC will be needed if there are conflicting issues from two required actions for recovery. Josua Holowatz (WDFW) asked whether halting upstream transport would need to be reported to the Federal Energy Regulatory Commission (FERC). Lesko replied that decisions of this nature are incorporated into PacifiCorp's quarterly reporting and are not likely prepared as a formalized request to FERC. Doyle said that FERC is typically in agreement if there is consensus between the involved parties.

Kale Bentley (WDFW) said that the number of fish placed in Swift Reservoir is controlled but not the number that spawn in each tributary. Is the 10% threshold cumulative between the streams, or does it pertain to each individual system? Issues may arise if the 10% threshold pertains only to one creek and not the others. Doyle replied that the threshold is a cumulative representation of all monitored streams. A solution to handle the cumulative representation of exceeded incidental take between systems has not been discussed internally or with USFWS. Bentley asked whether the origin of the 10% threshold is known. Tying this threshold to a biological meaning would be helpful to understand its rationale. Doyle replied that he does not know the origin of this threshold. The BiOp was written many years ago, and the threshold is likely a legacy metric. Bentley said the threshold should be reassessed. Justification for this metric should be provided if USFWS is holding PacifiCorp accountable under this threshold.

Bentley asked whether monitoring for redd superimposition should have been assessed each year since upstream transport commenced. Doyle agreed that it should have and said that while monitoring for redd superimposition has been conducted in Cougar Creek for the last 2 years with HPP fish, monitoring for this metric has not been done in Pine Creek. Approximately 10% of redds in Cougar Creek were observed to be superimposed 2 years ago. None of the redds in Cougar Creek were observed to be superimposed last year. Bentley said it would be beneficial to consider available information before designating future actions to be taken after exceeding that incidental take threshold. Upstream transport has occurred for over a decade with minimal variation in the number of fish transported. Information on the effect of Coho Salmon to Bull Trout should be available to analyze in the absence of directly monitoring redd superimposition.

Glaser noted that the monitoring plan does not distinguish between natural-origin return and hatchery-origin return Coho Salmon. This is a unique situation where there is potential for two Endangered Species Act-listed natural-origin species to exhibit competition. It would be beneficial for Jeff Garnett (USFWS) to provide more information at an upcoming ACC meeting. Doyle said Garnett has extensively reviewed this monitoring plan. It would be inappropriate for the ATS to review this take threshold at this time because it is based on an USFWS-issued permit.

Lesko said evaluating whether the 10% threshold for incidental take has been met will be done in weekly check-in meetings with USFWS to allow for in-season decisions on how to proceed. The *North Fork Lewis River Project Request for Decision 2024 and 2025 Adult Coho Supplementation Targets – Upstream of Swift Dam* decision document (Decision Document) states that data will be evaluated after monitoring is complete. There are conflicting requirements between the Decision Document and the monitoring plan. Doyle said the intent when creating the monitoring plan was to hold post-season discussions; however, language of the BiOp and ITS require in-season decisions to be made.

Glaser said it will be necessary to have representatives from the National Oceanic and Atmospheric Administration (NOAA) and USFWS available for a discussion at the ACC level. Lesko will determine how this discussion will be incorporated into an upcoming ACC meeting. Larissa Rohrbach said policy discussions will continue at the ACC level and technical discussions may come back to the ATS, for instance, if they pertain to refining redd monitoring approaches. The ATS should continue to understand the implementation of the 10% incidental take threshold and continue to discuss any monitoring difficulties that arise.

B. Winter Steelhead Broodstock Collection Preparations (Young; 30 min)

Kevin Young (WDFW) provided an overview of the Lewis River late-winter steelhead stepping-stone variant program (stepping-stone program) broodstock collection. Young additionally provided insight into the current status of the program and projections for broodstock collection in 2025.

Broodstock was collected for 4 weeks in April 2024. Fifty-two pairs of adults were collected from the Merwin Fish Collection Facility. The first spawning event was held on April 16. Thirty-six pairs were spawned over 3 consecutive weeks. Spawning was able to be completed in under four events. The program produced an egg take of 130,000 eggs. An increase in fecundity was not observed due to the stepping-stone program's kill-spawn operations. Fecundity was approximately 4,200 eggs per female and was within the expected range. The program experienced an overall egg loss of 3%.

Spawning goals were met ahead of time, and a fourth spawning event was not required. The percentage of broodstock used for spawning each consecutive week were as follows: 85%, 70%, and 46%. A total of 36 pairs were spawned, and remaining pairs were held onto until ripe. All fish matured around the first week of May. The 16 males and 14 females that remained on hand were sent to surplus. Bentley asked, if, hypothetically, the last collection event did not occur, would the remaining 20% to 25% of fish be used for broodstock? Young replied that six females were needed to meet spawning goals and seven females were sent to surplus because they were not needed or did not mature. There would have been a fourth spawning event if needed; however, spawning goals were met.

Karchesky said the high level of steelhead returns this year allowed for an exploration of the number of broodstock to be collected. 2025 may not see as many fish return to the Lewis River Basin. It will need to be considered if the amount of data available from this year's broodstock collection will be enough to inform the collection strategies for next year. Bentley said it will be important to determine the inflection point for overcollection. The data from this season can be formally summarized to determine a collection number for 2025. Young said broodstock collection next year could be reduced to 36 pairs. Reducing the amount of broodstock collected would be beneficial for population counts in years of lean returns. Bentley asked when the ATS would like to see a summary of this data. Karchesky said there is not an expectation on timing for this summary.

Karchesky asked when stepping-stone juveniles will be released and what year is the anticipated first year for juveniles to return to Merwin Hatchery as adults. Young replied that the juveniles will be released in May of 2025, so they would return as adults beginning in 2027. Merwin Hatchery has received an intermediate tank from Grays River Hatchery as an additional rearing vessel for the 2025 season.

Rohrbach said this topic will remain on the ATS agenda for future updates. Young noted that information on the stepping-stone program in the AOP is vague and will need to be updated. Young has a draft of the 2024 AOP document and asked for confirmation that members are working in the same document. Rohrbach said the most recent version of the document being updated for 2025 is on SharePoint. Stepping-stone program updates were made based on information in the *Lewis Steelhead Hatchery Transition Plan*. Rohrbach said the documents on SharePoint are currently set to read-only access; however, SharePoint can be used for working documents if desired.

C. Genetics Monitoring Plan Implementation (Lesko; 15 min)

Lesko provided a progress update on the Genetics Monitoring Plan of the AOP. Cramer Fish Sciences has created a draft Genetics Monitoring Plan for *Oncorhynchus mykiss*. The draft plan details implementation in 2025 and a fine tuning of sampling protocols. Discussions are ongoing on the timing of the 2025 sampling period, the frequency of sampling, and concerns with electrofishing in areas where Bull Trout are present. The main push for 2025 will be to develop a baseline for steelhead, Coho Salmon, spring Chinook Salmon sampling. The latest version of the draft Genetics Monitoring Plan has addressed minor comments and will be distributed to the focus group. Following the focus group review, the draft Genetics Monitoring Plan will be sent to the ATS for discussion next month and finalization in the 2025 AOP.

Bentley said it was decided to collect tissue samples from juvenile Coho Salmon and Chinook Salmon. Adult genetic samples are additionally available. Lesko said it will be important to know WDFW’s inventory of adult samples to incorporate into the final Genetics Monitoring Plan. Bentley said there have been several iterations of sample summary tables. The WDFW genetics lab can determine what samples have been archived can be compiled into a final table. Lesko will send a table template to WDFW to compile the archived adult genetic samples.

Marc Johnson (NOAA) said that it will be important to continue to take genetic samples of adults to evaluate the productivity, structure, and diversity within populations. Lesko asked if productivity is a function of the Integrated Population Model (IPM). Karchesky replied that the IPM generates estimates of productivity, and a model centered around steelhead will be in development in the near future. Bentley said the IPM will take an estimate of proportion of hatchery-origin spawners and evaluate how it affects productivity and capacity. The IPM allows for the indirect evaluation of the influence of hatchery fish on production in the Upper Lewis River Basin. The model does not directly measure productivity, as would be done with relative reproductive success estimates and/or parental-based tagging. Lesko said productivity may be addressed either through Strategy G or through the use of an IPM.

Johnson said that while it will be interesting to understand how information from the IPM is used to update transport plans and targets, there is a present opportunity to sample adult fish and directly estimate adult-to-adult productivity. This is an essential metric to reintroduction programs. Lesko agreed and said future discussions should follow up on how best to address this metric.

D. Coho Salmon Transition Implementation – Next Steps (Lesko; 15 min)

Lesko provided an update on the status of the alternatives evaluation for the implementation of the Transition Plan. The two original alternatives included the following infrastructure changes to Merwin Hatchery: 1) installation of water chillers; or 2) installation of raceway dividers. Lesko has proposed a third alternative for discussion with WDFW. The third alternative is to use Speelyai Hatchery for cold-water rearing. It would be helpful for PacifiCorp to have a discussion with Young and WDFW hatchery staff to determine any concerns (e.g., programmatic changes for rearing location and tagging costs) with the third alternative. A schedule should be discussed to prioritize the need to reach a preferred alternative.

Glaser said that WDFW has previously discussed the use of Speelyai Hatchery with PacifiCorp in detail. WDFW is not opposed to having additional alternatives proposed; however, it is not conducive to have repetitive discussions. It is recommended that PacifiCorp formalize a proposal for the use of Speelyai Hatchery before WDFW offers further input. The proposal should be brought to the ATS for transparency. WDFW hopes that a preferred alternative can be taken to the ACC in the near future. Lesko will provide the ATS with WDFW’s responses to technical questions that pertain to the use of Speelyai Hatchery. Young said answers to technical questions were additionally provided in an email after a discussion with WDFW hatchery staff.

Karchesky asked whether this discussion pertains to how the Transition Plan will be implemented. The ATS’s role is to provide technical guidance. Discussions on implementation should occur between the Utilities and the contracted entities that run the hatcheries to understand feasibility of certain concepts. If the Transition Plan cannot be implemented as previously approved given the existing infrastructure and operational logistics of the hatcheries, this conversation must be taken back to the ACC level. Glaser said an ACC discussion would occur if PacifiCorp were interested in changing the direction of the implementation plan. The Transition Plan specifies that an alternative analysis be conducted to establish a route to implementation of the Coho Salmon Transition Plan. Lesko agreed some of the technical aspects of the Transition Plan were vetted through the ATS and were included in the plan approved by the ACC. However, there are other alternatives that PacifiCorp would like to consider that do not require large infrastructure modifications to hatcheries to implement the ACC approved Transition Plan.

PacifiCorp will draft a conceptual description of an alternative to use Speelyai Hatchery for implementing the Coho Salmon Transition Plan. The proposal will require input by WDFW hatchery staff. If the alternative is deemed viable, the alternative will be brought to the ATS for review and discussion alongside the previously documented alternatives. Lesko said a preferred alternative could be reached by mid-October and be ready to take to the ACC in November.

E. Hatchery Practices and Pathology (Hatchery and Fish Health Staff; 15 min)

Sean Roon (WDFW) provided a pathology update. There has not been an increase in mortality observed for spring Chinook Salmon leaving Lewis River Hatchery. Adults and juveniles at Speelyai Hatchery are doing well. Speelyai Hatchery experienced mortalities of adult spring Chinook Salmon due to *C. shasta* infection several months ago. The latest total mortality rate is 20% of adults. Mortality increased as the spawning period started, and the frequency of handling increased. Secondary bacterial infections have been observed as well. An analysis of environmental factors that may have led to increased infection rates this year will be conducted.

Merwin Hatchery has experienced high infection rates of *Ichthyophthirius* (Ich). The high infection rates are thought to be caused by low levels of Formalin treatment in the rearing ponds. The duration of Formalin treatments has been increased to 24 hours daily. No traces of Ich have been observed as of September 25. Formalin treatment will continue to ensure there are no additional spikes in infection. There will be supplemental treatments in the rearing ponds next year to ensure this does not happen again. Lesko asked if Ich infection rates will affect production targets. Jesse Cody (WDFW) said that production targets remain on track.

Holowatz asked about the status of the kokanee salmon to be released in October. There have been instances in the past where disease issues caused the poundage goal of kokanee salmon release to not be met. Roon replied that the kokanee salmon are doing well and are on target for an October release in several weeks.

Cody provided additional hatchery updates. Late-winter steelhead will be mass marked and tagged once Ich levels are determined to be consistently low. Summer steelhead will be spawned at the end of November. Broodstock collection of spring Chinook Salmon is ending at Speelyai Hatchery. There will be one more collection event the week of September 30. Fecundity is lower than projected due to losses from *C. shasta* infection and may result missing production goals. The first spawning event for Coho Salmon will occur on October 7. The first spawning event for kokanee salmon will occur on September 25.

III. ATS Administration

A. ATS Priorities – Status and Next Steps (Lesko; 15 min)

This agenda topic has been added to *Section III. ATS Administration* to regularly check-in with the ATS priority list. Updates to this list will be sent to the ATS by email with the draft meeting notes after each meeting. Larissa Rohrbach walked through each item on the priority list. The following items included additional discussion:

- AOP General Updates for 2024/2025
  - Rohrbach will work with Erik Lesko to identify what is needed to update the AOP (e.g., what data will need to be requested and how data will be reported). These updates will be informed with feedback from the ACC. The goal will be to provide the ATS with a draft version of the AOP by November 1. A walkthrough of the anticipated AOP updates will be added as an agenda item for the October ATS meeting.
- AOP Section: Steelhead Broodstock Collection Lessons Learned
  - Kevin Young will provide a draft document to Rohrbach and Lesko to be included in the 2025 AOP by October 17. If the summary is not fully completed when the draft AOP is sent out for review, placeholders can be added to the AOP to be updated in December.
- AOP Strategy I: Smolt-to-Adult Return Estimates for Hatchery-Released Smolts
  - This metric is important to inform the spring Chinook Salmon rearing and release plan. Recognition has been given that this metric is not required for all species under the H&S Plan. PacifiCorp will reach out to Anja Huff (WDFW) will discuss the most efficient or consistent way to report this metric in the 2025 AOP.

B. Next Meeting September 26, 2024 (Rohrbach; 5 min)

The next meeting will be on October 24, 2024, and will be virtual only.

IV. List of Attendees

Name	Affiliation
Caitlin Burd	Anchor QEA
Larissa Rohrbach	Anchor QEA
Amanda Farrar	Cowlitz PUD
Amelia Johnson	LCFRB
Kathryn Blair	NOAA Fisheries
Marc Johnson	NOAA Fisheries
Jeremiah Doyle	PacifiCorp
Mark Ferraiolo	PacifiCorp
Chris Karchesky	PacifiCorp
Erik Lesko	PacifiCorp
Levi Pienovi	PacifiCorp
Kale Bentley	WDFW
Jesse Cody	WDFW
Bryce Glaser	WDFW
Josua Holowatz	WDFW
Anja Huff	WDFW
Tracy Peterson	WDFW
Aaron Roberts	WDFW
Sean Roon	WDFW
Kevin Young	WDFW