

LEWIS RIVER AQUATIC COORDINATION COMMITTEE

Facilitator: ERIK LESKO
503-412-8401
Location: SKYPE MEETING ONLY
Date: October 8, 2020
Time: 9:30 AM – 12:15 PM

Agenda Items

- 9:30 a.m. Welcome
- Review Agenda, ACC 9/10/20 Meeting Notes
 - Comment & Accept Agenda, 9/10/20 Meeting Notes
- 10:30 a.m. Public Comment Opportunity
- 10:45 a.m. Rainbow Trout Stocking Plan – Decision Meeting
- 11:15 a.m. Study/Work Product Updates
- 2020 Northwoods Fish Surveys
 - Flows/Reservoir Conditions Update
 - ATS Update
 - 2020 Swift Reservoir Fish Collection Efficiency Study
 - 2021 Meeting Schedule
 - 2017 Spencer Creek Alluvial Fan Project, \$30 remaining
- 12:00 p.m. ➤ Next Meeting's Agenda
➤ Public Comment Opportunity
- Note: all meeting notes and the meeting schedule can be located at:
<https://www.pacificorp.com/energy/hydro/lewis-river/acc-tcc.html>
- 12:15 p.m. **Meeting adjourn**

[Join Skype Meeting](#)

Join by phone

[\(503\) 813-5252](tel:(503)813-5252) [Portland, OR] (US)

English (United States)

Conference ID: 5803472

FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
October 8, 2020
Skype Meeting Only

ACC Representatives Present (17)

Bridget Moran, American Rivers
Amanda Froberg, Cowlitz PUD
Steve Manlow, LCFRB
Steve West, LCFRB
Josh Ashline, NMFS
Kim McCune, PacifiCorp
Chris Karchesky, PacifiCorp
Erik Lesko, PacifiCorp
Mark Ferraiolo, PacifiCorp
Jim Byrne, Trout Unlimited
Kate Day, USDA FS
Tim Romanski, USFWS
Jeffrey Garrett, USFWS
Peggy Miller, WDFW
Josua Holowatz, WDFW
Bryce Glaser, WDFW
Bill Sharp, Yakama Nation

Calendar:

November 12, 2020	ACC Meeting	Skype Meeting
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Assignments from October 8, 2020	Status
McCune: Email 9/10/20 meeting notes for an additional 7-day review to confirm that Eli Asher approves of an edit on page 5.	Complete – 10/9/20
McCune: Email the revised In Lieu Decision Template voting record to the ACC for an additional 7-day review period.	Complete – 10/9/20
McCune: Email the Rainbow Trout Rainbow Trout Stocking Plan for Swift Reservoir to the ACC for an additional 7-day review period.	Complete – 10/9/20

Assignments from September 10, 2020	Status
Lesko: Provide contact information to Griffin Kasch for Josh Holowatz (WDFW), Josh Ashline (NMFS) and Eli Asher (Cowlitz Indian Tribe).	Complete – 9/10/20
Lesko: Provide Kate Day (USFS) contact information to Maurice Frank (LCFEG).	Complete – 9/10/2020
PacifiCorp and NMFS: work together to complete the In Lieu Request for Decision Template and email to the ACC prior to October meeting.	Complete – 9/18/20
McCune: Distribute the final draft Consensus decision template for an additional 7-day review period.	Complete – 9/18/20

Assignments from August 13, 2020	Status
Romanski: Jim Byrne (Trout Unlimited) requested Tim Romanski (USFWS) investigate why it was decided in 2005 and find out how and why the Merwin trap design was settled on and specified.	Ongoing

Parking Lot Items	Status
Waiting for input from the bull trout working group on whether they should be officially recognized as a subgroup of the ACC.	Complete 10/8/2020

Opening, Review of Agenda and Meeting Notes

Erik Lesko (PacifiCorp) called the meeting to order at 9:35am and reviewed the agenda. No additions to the agenda were requested.

Lesko also reviewed the September 10, 2020 meeting notes to include edits and comments received from WDFW. Bryce Glaser (WDFW) requested an edit on page 5 of the ACC September 10, 2020 meeting notes and the ACC wants to confirm if this statement made by Eli Asher is accurate, so an additional 7-day review will be provided and McCune will formally reach out to Eli Asher (Cowlitz Tribe).

The ACC agreed that the additional comments made in the In Lieu Decision template during the September 10, 2020 decision-making meeting will be left in the meeting notes as well as in the decision template and will be attached to the September 10, 2020 meeting notes.

In Lieu ACC Consensus Decision Process

.....Eli Asher (CIT) noted that the consensus process does not require specific reasons be given to support each members vote.

The ACC approved the September 10, 2020 meeting notes at 10:08am to include clarifying edits received from WDFW providing Asher does not object to the edit on page 5 after the 7-day review period. After that time has passed McCune will post the final September 10, 2020 meeting notes and attachments to the Lewis River ACC website.

In addition, minor format changes to add two columns to represent the votes for each plan within the In Lieu Decision Template voting record. McCune will email the revised voting record template to the ACC for an additional 7-day review period.

Public Comment

None

Rainbow Trout Stocking Plan - Decision Meeting

Chris Karchesky (PacifiCorp) reviewed the details of the draft rainbow trout stocking plan that was distributed to the ACC via email on September 1, 2020 (**Attachment A**). Karchesky reminded members that the ATS was still considering programmatic alternatives including triploids, and that this draft plan provided a more short-term change to address concern over possible direct and/or indirect effects of hatchery rainbow trout on juvenile salmon and steelhead. What the ATS is currently recommending is reallocating the number of rainbow trout that are planted into the Swift No.2 Power Canal beginning in spring 2021. The pounds of fish reallocated to the power canal will increase from 2,000 to 5,600 pounds annually.

In response to a question from Bryce Glaser (WDFW), asking since the license says the trout will be planted in “Swift Reservoir” would the FERC process come into play, Karchesky expressed that he reviewed the language in the Settlement Agreement (SA) and expects that if the draft plan is approved then FERC will be notified of the change. He reminded the ACC attendees that PacifiCorp notified the FERC earlier this year and gave them a more formal record of the past practice that approximately 2,000 pounds of trout were being reallocated to the power canal from Swift Reservoir.

Jim Byrne (Trout Unlimited) expressed that he has no objection to the Plan but he thinks we are limiting angling opportunity because there is not a lot of available area in the power canal to fish. The power canal is a big area and the trout move around throughout and there is such a small area accessible to anglers. Karchesky agreed, but also noted that angling pressure in that area was at times high, and that it provides the only real shoreline angling opportunity in the area. While the vast majority of trout are stocked in Swift Reservoir, there is really no bank angling access points on the reservoir aside from Swift Forest Camp Boat Launch and on Swift Dam. Karchesky went on to note that the ATS’s plan is not focused on expanding fishery opportunity, but rather temporarily limit exposure of juvenile salmon and steelhead in Swift Reservoir to hatchery rainbow trout until a more permeant solution can be developed. It is also intended to limit the number of hatchery rainbow being inadvertently transported downstream during peak out-migration periods. Karchesky said it’s important not to take the fish out of basin or not putting them into Merwin Reservoir; we are still keeping them in the Cougar area where people are trying to recreate.

Amanda Froberg (Cowlitz PUD) communicated that during her weekly dam safety inspections she noted that during the spring and summer at the fishing pier there are at least 5-10 vehicles parked there and multiple people she speaks to weekly are limiting out. It’s a very highly used fishing pier.

Josh Holowatz (WDFW), in some agreement with Byrne stated, “It is such a limited area only about ¼ mile from the bridge to the gate to the gravel road. It is tight and if you don’t fish off the fishing platform one is fishing right next to the road. It’s just a really constrained area so when the fish get put there as soon as they move 100 yards below the bridge they are out of the zone of influence of anglers. It’s not so much a timing thing but if they don’t stay in the same spot they won’t get caught.”

Bryce Glaser (WDFW) wanted to make sure the ACC was not losing sight of part of what is driving this change. The main driver is we are experiencing a large number of these fish being captured and transported downstream into the lower Lewis River from the Swift Reservoir downstream collector, which poses biological risks that we are trying to address. Specifically, the risks of these trout transfers to listed fish downstream of Merwin Dam. He agrees that there is limited physical area to catch these fish, but what we are really talking about here is expanding the temporal distribution of the fishery so making the fishery longer and increasing the number of the fish that go into the power canal over a longer period of time and reducing the number that are in Swift. To try to achieve both objectives of reducing biological impacts and providing a fishery, which the license instructs us to do, it is appropriate to review this program and make sure it’s not having a negative impact on steelhead populations and also trying to best utilize the fishery. Glaser said the Plan before the ACC is a good compromise and WDFW is supportive of this decision to move forward with the Plan.

Josh Ashline (NMFS) also expressed that the primary objective of this action is to make sure these rainbow trout are not negatively affecting restoration goals upstream of Swift Dam, as well as fish populations below Merwin Dam. He expressed that the angling opportunity provided by putting additional fish into the power canal is really a secondary objective or outcome of this action and not the primary objective.

Lesko reviewed the decision document with the ACC and made clarifying edits during the meeting. The ACC voted to approve the rainbow trout stocking plan as detailed in Attachment A, but wanted an additional 7-days to review the edits made in today's ACC meeting. Bryce Glaser (WDFW) made a process note and reminded the group that being the minority, Jim Byrne should be allowed to speak again. Jim Byrne (Trout Unlimited) voted no but again said he would not stand in the way. Several ACC representatives were absent so McCune will email the final decision document for a 7-day review period.

<Break 11:05am>

<Reconvene 11:15am>

Study/Work Product Updates

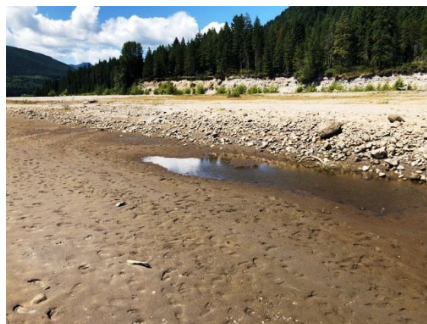
2020 Northwoods Fish Surveys

Lesko provided a summary of results from two fish surveys conducted in 2020 near the Northwoods area to the ACC. A memo describing these surveys and results was distributed to the ACC in August 2020 (**Attachment B**).

In November of 2019, Matt Harding (Northwoods Community Member) expressed concern about dewatering at the upper end of Swift and formation of pools when the reservoir is drafted during the summer months (see **Attachment B** for detailed memo to ACC). Harding thought it would be a good idea that PacifiCorp and others took a look at those pools and see what fish species may be present in the pools. PacifiCorp conducted surveys on July 31 and August 21, 2019, of this area and summarized results in **Attachment B**. The July survey was conducted at reservoir elevation 989.3' to perform an initial visual assessment of potential pools and determine whether fish were present in these pools. The August survey (reservoir elevation 987') was conducted with a backpack electrofisher to capture and identify fish species remaining in isolated pools and to determine whether additional pooling had occurred from the previous survey.

Survey 1 – July 31, 2020

Isolated Pools





Northwoods is on the left of these pictures and the reservoir is to the right. We observed (about 200) larval/fry life stage fish which appeared to be predominately sticklebacks and possibly some suckers in isolated pools. Approximately 60 of the total sticklebacks observed were mortalities (see photos below). We also observed (less than a dozen) live salmonid fry which were either steelhead (rainbow) or cutthroat trout.

Three-spine stickleback fry



Survey No. 2 (electrofisher survey): August 21, 2020

There were five (5) isolated pools present at the time of the survey. Fish were collected via electroshocking in two of the five pools surveyed. Species captured included the following:

Species	Number Captured	Number Observed (estimated)
Three-spine Stickleback (<i>Gasterosteus aculeatus</i>)	10	250
Coho Salmon (<i>Oncorhynchus kisutch</i>)	60	120
Sculpin (Cottidae sp.)	15	70
Bull Trout (<i>Salvelinus confluentus</i>)	1	1

All captured fish were released into the reservoir.

Northwoods docks



Isolated pool



Byrne expressed concerns that we did find bull trout and that an estimated 120 coho were observed. Byrne stated that bull trout have a difficult enough time as it is without being outnumbered 120 to 1. He expressed that juvenile bull trout on the spawning grounds are heavily outnumbered by coho and he thinks we really need to look at those numbers and how those fish interact. It's interesting that we just discussed moving rainbow out of the Swift reservoir because of the potential for them

to compete or prey on the listed species, but we have 120 coho with the potential to compete with that 1 bull trout. Byrne would like this survey to become an annual event and see if this was just a one-off odd event or is stranding more an issue than we recognize.

Lesko responded that Byrne's concerns about interactions between species are currently addressed in the aquatic monitoring evaluation plan, which the ATS will begin updating in early 2021.

Steve Manlow (LCFRB) asked if the pools where the fish are getting entrapped... are they fairly static features or are they somewhat ephemeral based on where they might dropout from a little bit of scour? It looks like some have formed around the docks. From a habitat stand point what are the drivers that form these pools?

Lesko responded that in talking with the Northwoods gentleman who has been up there for about 20 years and Lesko's personal observations over 25 years, the river flowing into the Swift Reservoir scours out channels that become abandoned as the river often changes course. Much of the substrate is composed of pumice and ash which also tends to move around a lot. The only pools we surveyed were disconnected from the reservoir.

Some ACC members asked about operational changes that could be implemented to avoid or mitigate this issue. Lesko noted that isolated pools begin to form at reservoir elevations below about 989 ft. Natural inflows into Swift diminish as summer progresses requiring drafting to occur at Swift to maintain our FERC minimum flows downstream of Merwin. Isolated pools will eventually dry up (i.e., ephemeral) as the reservoir continues to draft. Lesko indicated that any operational changes would be a higher level discussion that would require hydro management and water operations staff. Byrne expressed avian predation concerns and Lesko noted that numerous bird tracks were observed along the margins of the pools.

The ACC expressed whether the utilities could remove fish in the pools as they form when the reservoir drafts. In addition, trenching or modifying the lake bottom was suggested to avoid stranding. The stranding is a result of project operation and not natural processes. Lesko indicated that pooling and stranding is observed in natural systems and that this activity represents an additional action. The ACC would like the surveys completed again next year. Perhaps there is opportunity for partnering with the local community. The ACC may choose to add this topic on future ACC agendas and discuss in more detail regarding permitting (i.e., ESA and electroshocking, resources, etc.). Lesko agreed to commit to additional surveys in 2021 to collect more data regarding this issue.

Flows/Reservoir Conditions Update

No update at this time.

Merwin Fish Collection Facility and General Operations ([Attachment C](#))

A total of 2,621 fish were captured at the Merwin Dam Adult Fish Collection Facility (MFCF) during the month of September. The majority of these fish collected were early-run coho (82.3%). Nearly half of these fish were of natural origin (42.8%). A number of them had been PIT tagged as juveniles at the Swift Floating Surface Collector (FSC).

The MFCF fish lift and conveyance system ran continuously throughout the month of September, however, PacifiCorp continued to utilize a modified fish transport schedule throughout the month. Under this modified schedule, the fish lift and conveyance system operate 7 days per week, with

fish sorting and transport taking place weekdays only. This schedule prevents the need to have contracted fisheries staff enter the Merwin adult trap over the weekend, reducing the risk of COVID-19 transmission. Total river flow below Merwin Dam ranged between 1,200-1,900 cubic feet per second during the month of September (Figure 1).

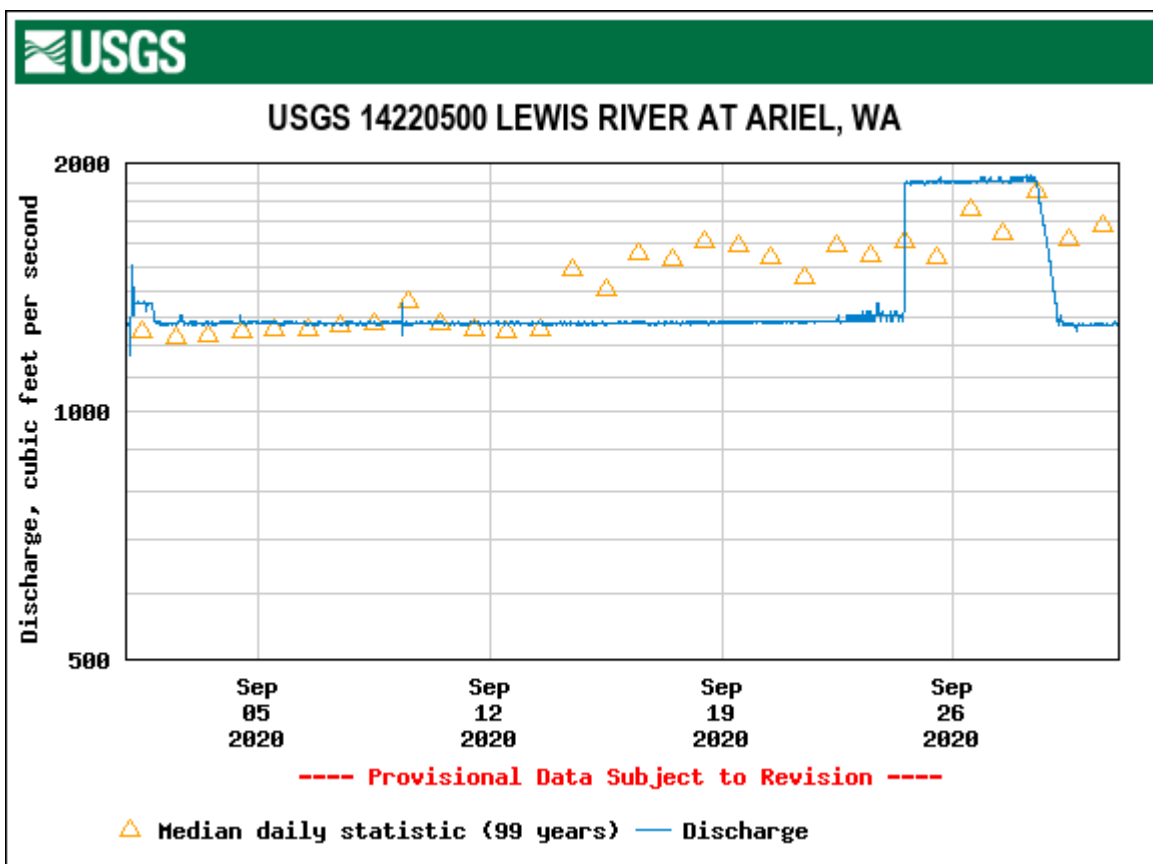


Figure 1. Discharge in cubic feet per second recorded at the USGS Ariel, WA gauge (14220500) located immediately downstream of Merwin Dam.

Upstream Transport ([Attachment C](#))

Upstream transport increased throughout the month of September with the arrival of early-run coho. A total of 1,881 fish were transported upstream throughout the month, which were almost exclusively early-run coho. Approximately 40% of the coho transported upstream were of natural origin (NOR). Four cutthroat trout were also transported upstream in September.

For calendar year 2020, a total of 1,908 coho, 725 Blank Wire Tag steelhead, 634 spring Chinook, 325 true wild steelhead, and 29 cutthroat have been transported upstream of Swift Dam.

Installation of a permanent PIT tag antenna in Lewis River Hatchery was completed in late-August, and the reader is now online. Detections can be downloaded from PTAGIS under interrogation site LRH.

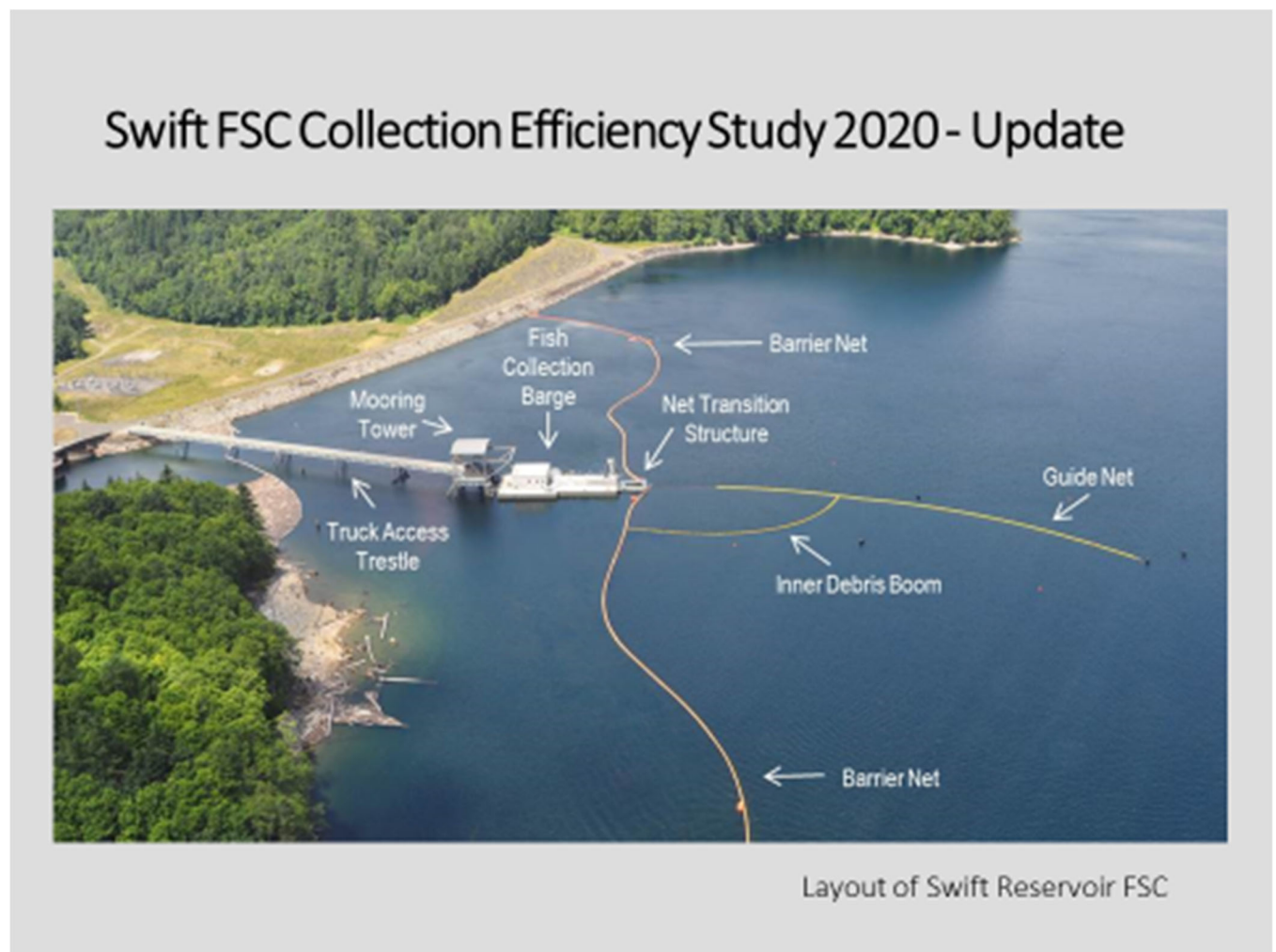
Swift Floating Surface Collector ([Attachment C](#))

The Swift Reservoir Floating Surface Collector (FSC) was taken out of operation on July 17th for summer maintenance, and remained out of operation through the month of September. Currently, FSC is scheduled to be returned to service the week of October 12, 2020. Daily fish passage from the FSC to the Woodland Release Ponds will resume at that time.

Data analysis for the Juvenile Fish Collection Efficiency Study conducted at the Swift FSC in spring of 2020 is ongoing. A brief summary of the study metrics and preliminary results was scheduled for the September Aquatic Coordination Committee (ACC) Meeting, but is now provided below at today's meeting:

Swift FSC 2020 Collection Efficiency Study Update

Karchesky expressed that the collection efficiency study is a work in process and the following is a quick update in terms of what PacifiCorp is currently working on and what the contractors are sifting through. The following is the overarching information and preliminary numbers that we are sharing with you. As a reminder Four Peaks Environmental will be participating at the ACC meeting in December to provide a more formal presentation. The draft report is expected to be available shortly before the December ACC meeting. Mark Ferraiolo (PacifiCorp) provided the following update for ACC review and discussion:

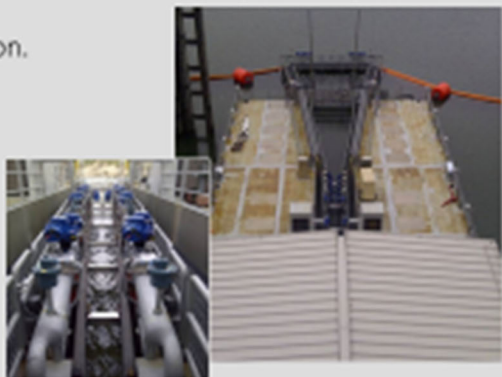


Swift FSC Collection Efficiency Study 2020- Update

- M&E Objective 2. – The percentage of juvenile fish of each transport species that are available for collection and that are collected.
- Evaluated since 2013.
- Modifications to FSC to improved CE:
 - Lead Net installation (2016)
 - Acoustic Noise Reduction (2017)
 - Increased Entrance Velocity (2019)
 - Increased Flow and Hydraulic Tuning of Fish Channel (2019)
- Results of the 2019 evaluation found that fish were readily finding the entrance of the FSC and transitioning into the Fish Channel, however 25 to 50% of fish were turning around and exiting the channel rather than passing.
- Goal of the 2020 study was to continue to monitor CE with an emphasis on evaluating fish behavior inside the fish channel.

Swift FSC Collection Efficiency Study 2020- Update

- Study methodologies as outlined in Objective 2 of the M&E Plan and consistent with previous years:
 - Fish dual tagged with acoustic transmitters and PIT Tags
 - Released upstream of FSC
 - Hydrophones used to monitor fish movement outside the FSC and as they transition into the fish passage channel. Additional hydrophones used in 2020 to provide higher resolution of fish movement within the passage channel.
 - Targeted test fish numbers and timing of releases were also consistent with previous years.
 - Study intended to occur over spring out-migration season.
 - Early-April through mid-July



Swift FSC Collection Efficiency Study 2020 - Update

- Study demobilization occurred late-July
- Data processing and analysis is ongoing... *but here's what we know so far:*
 - Fish again reached the entrance of FSC at very high rates
 - > 95% for all species
 - Most fish that reach the entrance of the FSC entered the Net Transition Structure (NTS) and initial fish channel
 - Less than 50% of fish that reach the NTS are collected
 - Most fish that reject do so between the NTS and beginning of the fish channel
 - Estimates of collection efficiency appear to be lower for coho, consistent for spring Chinook, and higher for steelhead in 2020 than in 2019. For 2020 ~40% for all species. In 2019 collection efficiencies were 64% for coho, 51% for Chinook, and 27% for steelhead.

Swift FSC Collection Efficiency Study 2020 - Update

- All ODS metrics will still be estimated.
- 2020's focus was on channel behavior:
 - *How do fish interact in ZOI and NTS interface.*
 - *Fish behavior inside ZOI.*
 - *Fish behavior from ZOI to primary, secondary, and capture point.*
 - *What dynamics play part in these behaviors?*
 - *New for 2020: Also evaluate behavior on 'per attempt basis'.*

Moving Forward

Swift FSC back in operation

(October 2020)

Continue data processing and 2020 CE report development

▣ (September - November 2020)

ACC Review Draft – 2020 Swift FSC CE Report

(December 2020)

Modifications inside the Swift FSC to improve debris management
(and other adjustments associated with CE??)

(January-February 2021)

Monitor fish behavior and CE at Swift FSC

(March – July 2021)

ATS Update

The group is working really hard to get the H&S Plan finalized by the end of this year and also working on the 2021 annual operation plan.

2021 Meeting Schedule

The ACC agreed to continue the following meeting schedule in 2021 and adjust as needed. All meetings at this time will be Skype until such time it's safe to gather in a conference room due to COVID-19.

- 2nd Thursday of every month beginning in January 2021 through December 2021 from 9:30am – 3:00pm.

2017 Spencer Creek Alluvial Fan Project, \$30 remaining after project completion

McCune informed the ACC that \$30.37 is remaining after completion of the 2017 Spencer Creek Alluvial Fan project. Rather than ask the USFS to return these funds to PacifiCorp McCune requested approval from the ACC to not require this in accordance with Paragraph B below due to the processing costs to do so.

B. **REFUNDS.** Funds collected in advance by the U.S. Forest Service, which are not spent or obligated for the project(s) approved under this agreement, may be refunded to PacifiCorp, authorized for use for a new agreement by PacifiCorp, or waived by PacifiCorp. A Data Universal Numbering System (DUNS) number and registration in the System for Award Management (SAM) by PacifiCorp may be necessary to process a refund. Due to processing costs, any balance less than \$25 shall not be refunded to PacifiCorp.

The ACC agreed it was not necessary for the USFS to return these funds and the project agreement can be closed. McCune said she will make note of this approval in the 2020 ACC/TCC annual report.

Other

Jeremiah Doyle (PacifiCorp) reported to PacifiCorp that the Lewis River Bull Trout Recovery Team (LRBTRT) met on October 7, 2020 and discussed the outstanding issue of their involvement with the ACC as a sub-group or stand-alone entity. The Team decided to remain independent of the ACC at this time, but as has been the case, remain available for any and all technical review with issues pertaining to bull trout. Consensus was achieved except one, Jim Byrne (Trout Unlimited).

Bryce Glaser (WDFW) expressed that he thinks it's great we brought this to some kind of conclusion and from his perspective, he doesn't think this changes anything because we don't necessarily need a formal charter or description of what the LRBTRT is doing but in his view, the ACC can still utilize the Team and make requests for input when appropriate to help support the ACC as needed.

If the ACC should determine that it would like to formally adopt the LRBTRT as a subgroup into, then the ACC would have a need to work on creating the request, following certain protocols, a charter and developing topics for them work on.

Byrne communication that the decision he recalls may have taken place as far back as 2002 when Frank Shrier was with PacifiCorp during perhaps the Settlement Agreement talks. McCune noted that the ACC was formed in early 2005 at which time notes have been taken since that time. However, Byrne did not want McCune or PacifiCorp to go to that much effort reviewing years of meeting notes.

Glaser noted that Jamie Lamperth conducted an extensive review of meeting notes and did not locate a decision to incorporate the LRBTRT as an official subgroup of the ACC.

Agenda items for November 12, 2020

- Review October 8, 2020 Meeting Notes (**ACC COMMENTS DUE November 2, 2020**)
- Study/Work Product Updates

Adjourn 12:27pm

Next Scheduled Meeting:

November 12, 2020
Skype Call Only
9:30 a.m. – 12:00 p.m.

Meeting Handouts & Attachments:

- Meeting Notes from 9/10/20
- Agenda from 10/8/20
- Attachment A– North Fork Lewis River Project ACC Consensus Decision Template; Aquatics Technical Subgroup (ATS) Recommendation for Trout Stocking into Swift Reservoir beginning 2021
- Attachment B – Results from 2020 fish surveys of Northwoods area - Swift Reservoir, August 31, 2020
- Attachment C - Lewis River Fish Passage Report (September 2020)

North Fork Lewis River Project

Request for ACC Consensus

Aquatics Technical Subgroup (ATS) Recommendation for
Trout Stocking into Swift Reservoir beginning 2021

Part A: Decision Summary

A majority of the voting members consented to approve the trout stocking plan to modify the allotment of rainbow trout planted into Swift Reservoir and the Swift No. 2 power canal (see Appendix A). A number of concerns were raised include the limited access and angler opportunity provided in the power canal. However, the ACC recognized that the primary justification for this action is to limit to limit the number of rainbow trout collected (at the FSC) and transported downstream. The decision to approve the plan represents a compromise between impacts to ESA listed species (from rainbow transported downstream of Merwin Dam and angler opportunity. Some members discussed the potential need for creel surveys on the canal to evaluate angler participation and catch rates.

Date of Decision: October 8, 2020

Part B: Decision Request – Request for ACC Consensus

1. Representatives and Affiliations

- a) List all Representatives and Affiliations requesting Committee decision

Lewis River Aquatics Technical Subgroup (ATS)

2. Description and Justification of Request

- a) Requested Action: What specifically is requested of the ACC?

Request to approve modifications to the existing rainbow trout planting allotment between Swift Reservoir and the Swift No. 2 power canal. Specifically, approval to modify the existing fish planting allotment as follows:

- Reduce the Swift Reservoir plant from 18,000 pounds to 14,400 pounds of rainbow trout.
- Increase the Swift No. 2 power canal plant from 2,000 pounds to 5,600 pounds, and extend the planting from April – May to April – July.

A detailed description and justification of the recommended plan is attached (Appendix A).

- b) Introduction and background

See Appendix A

3. FERC or Settlement Agreement Requirement(s)

- a) What relevant FERC or SA articles justify this action?

This requested action pertains to Section 8.6.1 of the Lewis River Settlement Agreement which stipulates that Licensees shall provide the production of 20,000 pounds of resident rainbow trout to be stocked in Swift Reservoir annually per terms of the new License.

EXCERPT from - Lewis River Settlement Agreement (November 2004) – in Section 8: Hatchery and Supplementation Program – pg. 67 – 68

8.6 Resident Fish Production

8.6.1 Rainbow Trout Production. Each year, for the terms of the New License, subject to Section 8.6.3, The Licensees shall provide the production of 20,000 pounds of resident rainbow trout. When the New License is Issued for either the Merwin Project or the Swift Project, whichever is earlier, The Licensees shall fulfill their obligation by providing for the production of 800,000 juveniles with an estimated weight of 40 juvenile fish per pound, or an equivalent number, in pounds, of resident rainbow trout of a different life stage as directed by WDFW, following Consultation with the ACC. The Licensees shall provide for the stocking of such rainbow trout in Swift Reservoir. Resident rainbow trout will be managed separately from steelhead and shall not significantly interfere with recovery of self-sustaining, naturally producing, harvestable population of native steelhead.

8.6.3 Modifications in Resident Rainbow Trout and Kokanee Production. The Licensees shall modify resident trout and kokanee production numbers as part of the Hatchery and Supplementation Plan, in Consultation with the ACC and subject to the approval of the Services and WDFW, to address other management goals, including, without limitation, harvest considerations and impact of resident fish hatchery program on the reintroduction program; provided that the Licensees shall not increase (i) resident rainbow trout production above a cap of 20,000 pounds and, (ii) resident kokanee production above a cap of 12,500 pounds.

- b) Are there any other regulatory requirements to support the requested action?

See 3(a)

Part C – Committee Decision (to be completed by Committee)

1. Committee Decision

- a) Was the decision made by consensus (as defined in the Committee ground rules)? The ACC followed the consensus process, and consensus to approve the plan was achieved.
- b) Document voting record and tally (if applicable) Of the 9 voting Representatives present at the meeting, the vote tally was:

Vote	Number
NO ¹	1
YES	8
Abstain	0

¹ Although Trout Unlimited voted to not approve the plan, Trout Unlimited will not stand in the way of consensus.

Voting Record, ACC meeting, October 8, 2020.

Signatory organization	Voting Representative	Present	Consent to approve trout stocking modification?
American Rivers	Bridget Moran	x	Yes
City of Woodland	Director, Public Works		
Clark County	Not Available		
Cowlitz County	Not Available		
Cowlitz Indian Tribe	Eli Asher		
Cowlitz-Skamania Fire District No. 7	Not Available		
Fish First	Jim Malinowski		
Lewis River Citizens at-large	Not Available		
Lewis River Community Council	Mariah Stoll-Smith Reese		
Lower Columbia River Fish Recovery Board	Steve Manlow	x	Yes
National Marine Fisheries Service	Josh Ashline	x	Yes
National Park Service	Not Available		
Native Fish Society	Bill Bakke		
North County Emergency Medical	Not Available		
PacifiCorp and Cowlitz County PUD No.1	Todd Olson	x	Yes
Rocky Mountain Elk Foundation	Not Available		
Skamania County	Not Available		
Trout Unlimited	Jim Byrne	x	No ¹
US Bureau of Land Management	Not Available		
US Fish and Wildlife Service	Tim Romanski	x	Yes
USDA Forest Service	Kate Day	x	Yes
Washington Department of Fish and Wildlife	Bryce Glaser	x	Yes
WA State Recreation and Conservation Office	Katie Pruitt		
Woodland Chamber of Commerce	Not Available		
Yakama Nation	Bill Sharp	x	Yes

*** Note: In accordance with the ACC/TCC Ground Rules protocols, the Request for Consensus template was distributed to absentee ACC representatives to allow absentee members the opportunity to vote. No votes were received from absentee members.**

¹ Trout Unlimited voted no, but will not oppose the majority vote.

2. Justification for Committee Decision

a) What information (i.e. empirical data) and how was this information used to inform decision?

- Access restrictions at the power canal
- Creel survey of the power canal to evaluate catch success

3. Contingencies or Conditions of the Decision

a) Is decision contingent on other actions or information? An additional 7-day review was provided to all ACC Representatives providing the opportunity for absentee Representative to vote on October 9, 2020.

b) Is implementation of decision contingent on specific actions or information? No

c) Are there any conditions attached to this decision? No

4. Additional Information or Notation None

North Fork Lewis River Project

Request for Decision

APPENDIX A

BACKGROUND and RECOMMENDATION:

The Utilities are required to stock 20,000 pounds of resident rainbow trout into Swift Reservoir annually in the spring for recreational fishing per the Lewis River Settlement Agreement (Section 8.6). After several years of operation, it has been found that a portion of these fish are subsequently collected at the Swift Reservoir Floating Surface Collector (FSC), and are then: 1) returned back to the reservoir; or 2) transported downstream below Merwin Dam along with out-migrating juvenile salmon/steelhead. The number of fish within each group can vary annually (Table 1), and is largely related to the number of out-migrants entering the FSC during peak migration, and the duration and rate of sub-sampling that is required at the facility.

The concern over possible direct and/or indirect effects of these fish on juvenile salmon and steelhead in both Swift Reservoir and downstream of Merwin Dam was discussed at the June 27, 2019 Aquatic Technical Subgroup (ATS) Meeting. The goal of this initial discussion was to review the current stocking program of resident rainbow into Swift Reservoir, and discuss possible stocking alternatives associated with fish size, timing, and/or location. The ATS's approach was to look for both alternatives that could be implemented relatively quickly, as well as identify more programmatic alternatives that may need to be considered and further developed in the future if needed.

Currently, the ATS is still reviewing more programmatic alternatives and anticipates that this topic will be further discussed during the next review of the Lewis River Monitoring and Evaluation Program, which is scheduled to begin 2021. However, given concerns over possible direct and indirect effects of this stocking program on juvenile salmon and steelhead, the ATS felt it was necessary to determine whether any short-term changes could be made that would limit the exposure of these fish both in Swift Reservoir and below Merwin Dam from fish being transported downstream from the FSC until a more permanent solution could be developed.

As part of this initial effort, several considerations were discussed. The first, was to modify the fish separation system at the FSC to better sort resident rainbow trout from out-migrating salmon and steelhead. However, because of the large size range of the out-migrating salmon and steelhead smolts (approx. 80mm-320mm) being collected at the FSC, modifications to the existing juvenile fish separation and handling system were not feasible. There were also limitations of what could be done to the existing sorting system that would not exacerbate debris accumulation and increase the risk of fish injury and survival. The possibility of stocking larger resident trout that pass into the adult fish tank rather than the smolt sorting system was also discussed, but it was thought that larger fish could present a higher predatory risk to smaller out-migrants passing through or rearing in the reservoir. Rearing separate groups of resident trout that could be stocked into Swift Reservoir across several stocking events rather than all fish being released at one time was also considered. However, given the various programs that the Lewis River Hatchery Complex currently supports combined with the facility infrastructure, placing large numbers of resident trout on different rearing schedules is not a viable short-term option. There was also the concern of warmer water temperatures that develop in Swift Reservoir later in the year would limit fish stocking efforts.

Given these considerations, the ATS concluded that the best short-term solution would be to maintain the current stocking program goal of 20,000 pounds of resident rainbow trout being produced, but stocking more of these fish to the Swift No. 2 Power Canal beginning in 2021. At the April 9, 2020 Lewis River Aquatic Coordination Committee (ACC) meeting, members agreed to stocking a small number of resident rainbow trout allocated to the Swift Reservoir recreational fishery into the Swift No. 2 Power Canal. The ATS recommends that this practice be continued and that additional fish originally designated to being stocked into Swift Reservoir be reallocated to the Swift No. 2 Power Canal. The ATS recommends that this practice be implemented for the 2021 stocking year, and that it be continued until a more permanent solution can be determined. A detailed description of the recommended stocking plan is provided below.

Table 1. Annual stocking and collection numbers of catchable rainbow trout in Swift Reservoir since 2013.

Stocking Date	Number Stocked	Fish Size (Fpp) Stocked	Total Pounds Stocked	Estimated Number Collected (Swift FSC)	Estimated Passed Downstream	Adipose Clipped
04/24/2013	55,261	2.18	25,349	819	453	NO
06/03/2014	52,080	2.50	20,832	648	0	YES
05/27/2015	51,800	2.53	20,474	1,876	290	YES
06/01/2016	45,350	2.51	18,068	5,194	1,713	YES
05/31/2017	51,440	2.56	20,094	2,900	444	YES
05/29/2018	41,920	2.52	16,635	2,087	146	YES
05/21/2019	38,800	2.63	14,753	4,405	2,992	YES
05/19/2020	42,600	2.86	14,895	2072 (by 7/17/20)	1041 (by 7/17/20)	YES

Rainbow trout stocking into Swift Reservoir

Proposed Stocking Plan beginning 2021

CURRENT STOCKING PROGRAM:

Currently, catchable size rainbow trout (~2.5 f/lb) are produced and the majority (18,000 lbs) are stocked into Swift Reservoir over a 1 to 2 day period in late-May and just before fishing season begins Memorial Day weekend (Table 2). The remaining catchable size trout (2,000 lbs) are stocked into the Swift Power Canal on two separate periods coinciding with the statewide lowland lake fishing season opener (late-April) and just before Memorial Day weekend (late-May). Approximately 1,000 lbs of trout are stocked during each event.

Table 2. Current rainbow trout stocking program

Number/Size of Fish	Pounds	Plant Location	Plant Month
45,000 @ 2.5 F/LB	18,000	Swift Reservoir	May
5,000 @ 2.5 F/LB	2,000	Power Canal	April, May

Plant Location	Plant Month	Number	Pounds (lbs)	Size	Rearing Hatchery
				(fpp)	
Swift Reservoir	May	45,000	18,000	2.5	Speelyai
Swift No. 2 Power Canal	April	2,500	1,000	2.5	Merwin
	May	2,500	1,000	2.5	Speelyai
Total		50,000	20,000		

RECOMMENDED STOCKING PROGRAM:

The recommended stocking plan beginning 2021 would reduce the total pounds of catchable rainbow trout being planted into Swift Reservoir by approximately 3,400 lbs (or approximately 8,500 fish). This would be accomplished by increasing the pounds of trout being stocked annually into the Swift No. 2 Power Canal (Table 3). Under the proposed plan, 14,400 lbs (or approximately 36,000 fish) of catchable rainbow trout would be stocked into Swift Reservoir in late-May and just before the reservoir opens to recreational fishing. The remaining 5,600 lbs (or approximately 14,000 fish) of trout would then be stocked into the Power Canal to meet the total program goal of 20,000 lbs. The number of stocking events into the Power Canal would increase from 2 to 4, and would now take place on four separate occasions during the months of April, May, June, and July.

Table 3. Proposed stocking program beginning 2021

Number/Size of Fish	Pounds	Location	Plant Month
*36,000/vary	14,400	Swift Reservoir	May
*10,500/vary	5,600	Power Canal	April, May, June, July

Planting Location	Planting Month	Number*	Pounds (lbs)	Size	Rearing Hatchery
				(fpp)	
Swift Reservoir	May	36,000	14,400	2.5	Speelyai
Swift No. 2 Power Canal	April	3,500	1,400	2.5	Merwin
	May	3,500	1,400	2.5	Speelyai
	June	2,100	1,400	1.5	Merwin
	July	1,400	1,400	1.0	Merwin
Total		46,500	20,000		

* Note: Overall the total number of rainbow trout planted will be reduced by 3,500 fish based on size at planting to meet the 20,000 pounds mitigation goal.

Notes:

- Water temperature in the power canal are conducive for stocking rainbow trout through July based on historical data.
- The use of triploid eggs for the 2021 planting group will not be possible, however the use of these eggs may be possible in future years and will be dependent on WDFW approval. These fish possess three sets of chromosomes which render them sterile and do not reproduce in the wild.
- The trout stocked into the Swift No. 2 Power Canal in June and July will be larger than those stocked in April and May due to their rearing schedule. As a result, a fewer overall number of fish will be stocked as part of the program to meet the 20,000 lb goal.

August 31, 2020

To: Joshua Ashline, NOAA
Tim Romanski, USFWS

From: Erik Lesko, PacifiCorp

Subject: Results from 2020 fish surveys of Northwoods area - Swift Reservoir

Introduction and Background

The Lewis River Aquatic Coordination Committee (ACC) meets on a monthly basis to coordinate implementation activities as part of the Lewis River Settlement Agreement. ACC meetings are generally closed to the public, however, each meeting agenda provides a specific time for public input.

During our November, 14, 2019 ACC meeting, Matt Harding – a Northwoods Community Member, provided pictures taken in July, 2019. These pictures showed what appeared to be three-spine sticklebacks (*Gasterosteus aculeatus*) in isolated pools near the Northwoods boat docks on Swift Reservoir. Mr. Harding expressed concern that these pools become isolated as the reservoir is drafted during the summer months. Mr. Harding indicated that a biologist (no name provided) observed one salmonid (unknown species) and one lamprey at the time the pictures were taken (no picture provided).

Due to the uncertainty in determining the species present in these isolated pools, the ACC agreed that biologists from PacifiCorp would coordinate with Mr. Harding to conduct a survey or surveys of the area in the summer of 2020 to identify fish species and overall species composition in the isolated pools near the Northwoods Community.

Methods

Two surveys were conducted in the Northwoods area (Figure 1) based on reservoir elevations (Figure 2).



Figure 1. Location of survey area.

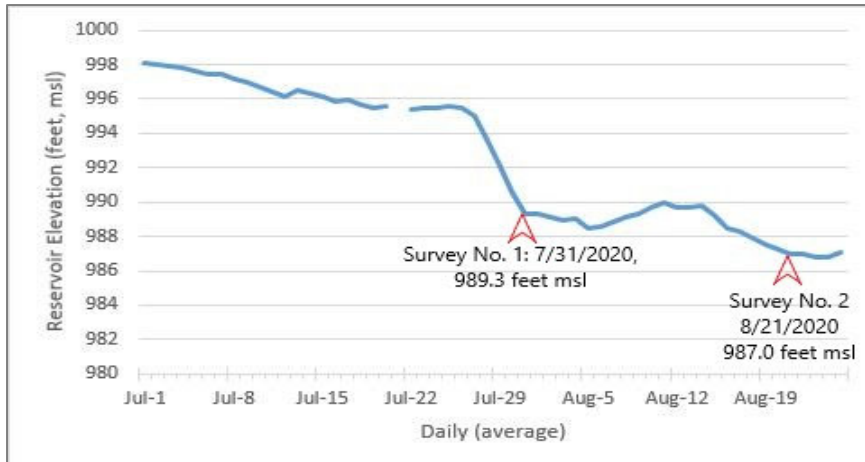


Figure 2. Swift Reservoir daily pool elevations: July 1 – August 25, 2020

Survey 1: July 31, 2020. PacifiCorp fish biologists Mark Ferraiolo and Erik Lesko accessed the site by boat. Reservoir elevation was 989.3 feet (10.7 feet down from full pool). The purpose of this survey was to visually observe and identify (if possible) any fish species observed in isolated pools surrounding the Northwoods area.

Survey 2: August 21, 2020. PacifiCorp biologist Erik Lesko along with Matt Harding, another Northwoods Community Member (Tom) and two environmental biologists that work with Matt (Hannah Mortensen and Sophie Ernst) surveyed the area with a backpack electrofisher (Smith-Root LR-24) operated by Erik Lesko. The team conducted single pass collection method in all observed pools that were isolated from the reservoir. Reservoir elevation was 987.0 feet representing a net loss of 2.30 feet of reservoir elevation between surveys 1 and 2.

Results

Survey No. 1 (visual survey): July 31, 2020

There were six (6) isolated pools (no connection to the reservoir) present and some areas that had recently dewatered. We observed (about 200) larval/fry life stage fish which appeared to be predominately sticklebacks and possibly some suckers in isolated pools. Approximately 60 of the total sticklebacks observed were mortalities (see photos). We also observed (less than a dozen) live salmonid fry which were either steelhead (rainbow) or cutthroat trout. We measured water depth out from the docks in the reservoir that was still connected and it was roughly 3 to 4 feet deep – indicating that additional isolated pools may form at reservoir elevations around 986 feet. Numerous bird and raccoon tracks were observed surrounding the isolated pools.

Survey 1: Photos

Isolated Pools



Three-spine stickleback fry



Survey No. 2 (electrofisher survey): August 21, 2020

There were five (5) isolated pools present at the time of the survey. Fish were collected in two of the five pools surveyed. Species captured included the following:

Species	Number Captured	Number Observed (estimated)
Three-spine Stickleback (<i>Gasterosteus aculeatus</i>)	10	250
Coho Salmon (<i>Oncorhynchus kisutch</i>)	60	120
Sculpin (<i>Cottidae</i> sp.)	15	70
Bull Trout (<i>Salvelinus confluentus</i>)	1	1

All captured fish were released into the reservoir.

Survey 2: Photos

Northwoods docks



Isolated pools



Coho Salmon



Bull Trout (~150 mm)



Lewis River Fish Passage Report

September

Merwin Fish Collection Facility and General Operations

A total of 2,621 fish were captured at the Merwin Dam Adult Fish Collection Facility (MFCF) during the month of September. The majority of these fish collected were early-run coho (82.3%). Nearly half of these fish were of natural origin (42.8%). A number of them had been PIT tagged as juveniles at the Swift Floating Surface Collector (FSC).

The MFCF fish lift and conveyance system ran continuously throughout the month of September, however PacifiCorp continued to utilize a modified fish transport schedule throughout the month. Under this modified schedule, the fish lift and conveyance system operate 7 days per week, with fish sorting and transport taking place weekdays only. This schedule prevents the need to have contracted fisheries staff enter the Merwin adult trap over the weekend, reducing the risk of COVID-19 transmission. Total river flow below Merwin Dam ranged between 1,200-1,900 cubic feet per second during the month of September (Figure 1).

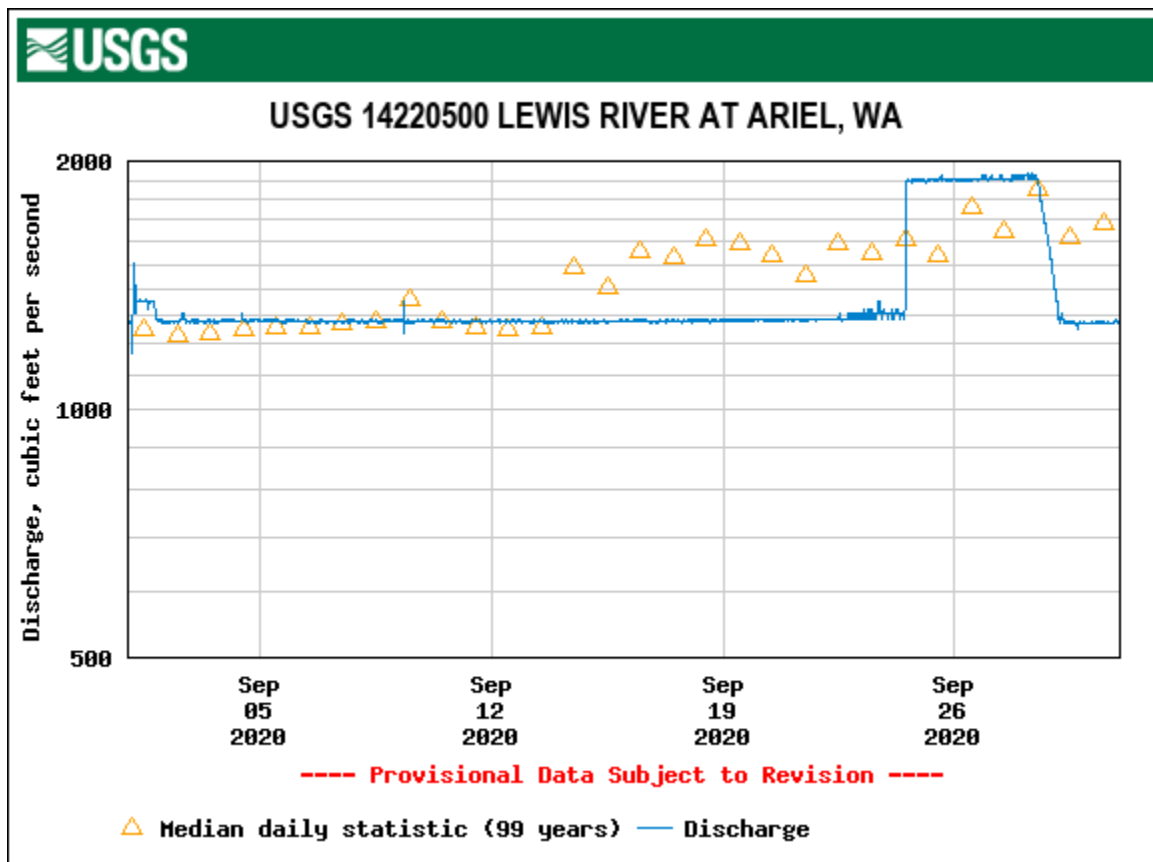


Figure 1. Discharge in cubic feet per second recorded at the USGS Ariel, WA gauge (14220500) located immediately downstream of Merwin Dam.

Upstream Transport

Upstream transport increased throughout the month of September with the arrival of early-run coho. A total of 1,881 fish were transported upstream throughout the month, which were almost exclusively early-run coho. Approximately 40% of the coho transported upstream were of natural origin (NOR). Four cutthroat trout were also transported upstream in September.

For calendar year 2020, a total of 1,908 coho, 725 Blank Wire Tag steelhead, 634 spring Chinook, 325 true wild steelhead, and 29 cutthroat have been transported upstream of Swift Dam.

Installation of a permanent PIT tag antenna was completed in late-August, and the reader is now online. Detections can be downloaded from PTAGIS under interrogation site LRH.

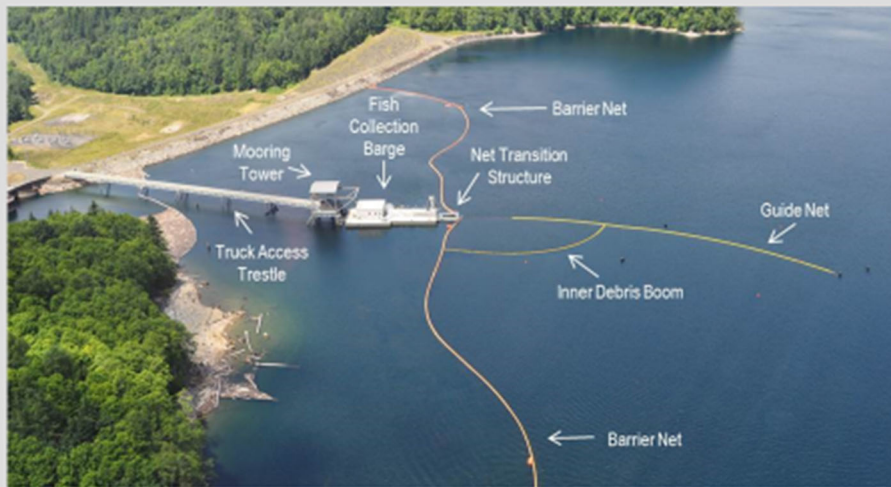
Floating Surface Collector

The Swift Reservoir Floating Surface Collector (FSC) was taken out of operation on July 17th for summer maintenance, and remained out of operation through the month of September. Currently, FSC is scheduled to be returned to service the week of October 12, 2020. Daily fish passage from the FSC to the Woodland Release Ponds will resume at that time.

Data analysis for the Juvenile Fish Collection Efficiency Study conducted at the Swift FSC in spring of 2020 is ongoing. A brief summary of the study metrics and preliminary results was scheduled for the September Aquatic Coordination Committee (ACC) Meeting, but will now be provided at the October 8, 2020 ACC Meeting. The slides that will be discussed are provided below.

Swift FSC 2020 Collection Efficiency Study Update (October ACC Presentation):

Swift FSC Collection Efficiency Study 2020 - Update



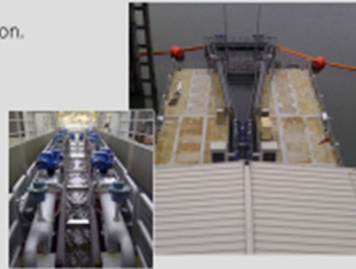
Layout of Swift Reservoir FSC

Swift FSC Collection Efficiency Study 2020 - Update

- M&E Objective 2. – The percentage of juvenile fish of each transport species that are available for collection and that are collected.
- Evaluated since 2013.
- Modifications to FSC to improved CE:
 - Lead Net installation (2016)
 - Acoustic Noise Reduction (2017)
 - Increased Entrance Velocity (2019)
 - Increased Flow and Hydraulic Tuning of Fish Channel (2019)
- Results of the 2019 evaluation found that fish were readily finding the entrance of the FSC and transitioning into the Fish Channel, however 25 to 50% of fish were turning around and exiting the channel rather than passing.
- Goal of the 2020 study was to continue to monitor CE with an emphasis on evaluating fish behavior inside the fish channel.

Swift FSC Collection Efficiency Study 2020 - Update

- Study methodologies as outlined in Objective 2 of the M&E Plan and consistent with previous years:
 - Fish dual tagged with acoustic transmitters and PIT Tags
 - Released upstream of FSC
 - Hydrophones used to monitor fish movement outside the FSC and as they transition into the fish passage channel. Additional hydrophones used in 2020 to provide higher resolution of fish movement within the passage channel.
 - Targeted test fish numbers and timing of releases were also consistent with previous years.
 - Study intended to occur over spring out-migration season.
 - Early-April through mid-July



Swift FSC Collection Efficiency Study 2020 - Update

- Study demobilization occurred late-July
- Data processing and analysis is ongoing... *but here's what we know so far:*
 - Fish again reached the entrance of FSC at very high rates
 - > 95% for all species
 - Most fish that reach the entrance of the FSC entered the Net Transition Structure (NTS) and initial fish channel
 - Less than 50% of fish that reach the NTS are collected
 - Most fish that reject do so between the NTS and beginning of the fish channel
 - Estimates of collection efficiency appear to be lower for coho, consistent for spring Chinook, and higher for steelhead in 2020 than in 2019. For 2020 ~40% for all species. In 2019 collection efficiencies were 64% for coho, 51% for Chinook, and 27% for steelhead.

Swift FSC Collection Efficiency Study 2020 - Update

- All ODS metrics will still be estimated.
- 2020's focus was on channel behavior:
 - *How do fish interact in ZOI and NTS interface.*
 - *Fish behavior inside ZOI.*
 - *Fish behavior from ZOI to primary, secondary, and capture point.*
 - *What dynamics play part in these behaviors?*
 - *New for 2020: Also evaluate behavior on 'per attempt basis'.*

Moving Forward

Swift FSC back in operation
(October 2020)

Continue data processing and 2020 CE report development
▣ *(September - November 2020)*

ACC Review Draft – 2020 Swift FSC CE Report
(December 2020)

Modifications inside the Swift FSC to improve debris management
(and other adjustments associated with CE??)
(January-February 2021)

Monitor fish behavior and CE at Swift FSC
(March – July 2021)

Fish Facility Report
Swift Floating Surface Collector
September 2020

Day	Coho			Chinook			Steelhead				Cutthroat		Bull Trout	Planted Rainbow	Total	
	fry	parr	smolt	fry	parr	smolt	fry	parr	smolt	kelt	fry	<13 in				> 13 in
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Monthly Total	79	3831	25047	3	3037	12485	64	46	4047	120	1	425	27	20	2072	51304