Lewis River Hydroelectric Projects Settlement Agreement
Aquatic Coordination Committee (ACC)
Meeting Agenda

Date & Time: **Thursday, September 13, 2018**
9:00 a.m. – 12:00 p.m.

Place: **Merwin Hydro Control Center**
105 Merwin Village Court
Ariel, WA 98603

Contacts: **Erik Lesko: (503) 412-8401**

Time	Discussion Item
9:00 a.m.	Welcome ➢ Review Agenda and ACC 8/9/18 Meeting Notes ➢ Comment & Accept Agenda and 8/9/18 Meeting Notes
9:10 a.m.	Public Comment Opportunity
9:20 a.m.	Review role of H&S Subgroup; addition of bull trout and M&E activities
10:15 a.m.	**Break**
10:30 a.m.	Aquatic Fund Evaluation and how to complete
11:30 a.m.	Study/Work Product Updates o H&S Subgroup Update o Future Fish Passage In Lieu Decision Update o Merwin Upstream Passage – Status o Swift Floating Surface Collector – Status o Acclimation Pond Removal – Status
11:45 a.m.	➢ Next Meeting's Agenda ➢ Public Comment Opportunity Note: all meeting notes and the meeting schedule can be located at: http://www.pacificorp.com/es/hydro/hl/lr.html#
12:00 p.m.	**Adjourn**

PLEASE BRING YOUR LUNCH IN THE EVENT THE MEETING EXTENDS BEYOND NOON

Join by Phone
+1 (503) 813-5252 [Portland, Ore.]
+1 (855) 499-5252 [Toll Free]

Conference ID: 2625672

FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
September 13, 2018
Merwin Hydro Control Center

ACC Representatives Present (11)
Kim McCune, PacifiCorp
Chris Karchesky, PacifiCorp
Erik Lesko, PacifiCorp
Tom Wadsworth, WDFW
Peggy Miller, WDFW
Steve West, LCFRB
Ruth Tracy, USDA Forest Service
Eli Asher, Cowlitz Indian Tribe (via conference)
Joshua Ashline, NMFS (via conference)
Jim Bryne, Trout Unlimited
Adam Cole, Washington Recreation and Conservation Office

Calendar:

October 11, 2018	ACC Meeting	HCC

Assignments from September 13, 2018	**Status**
McCune: Review and email the Lewis River 21 Phase I aquatic fund project duration details to Ruth Tracy (US Forest Service).	**Complete – 9/17/18**
Asher: Email Sorel thesis predation excerpts and his comments to the ACC.	**Complete – 9/13/18**

Assignments from July 12, 2018	**Status**
Karchesky - A decision is requested from the ACC on how to proceed with winter steelhead Adult Trap Efficiency (ATE) at Merwin Dam no later than December 13, 2018.	

Parking Lot Items	**Status**
Begin review of aquatic fund document edits no later than May 2019. The 2018 edits are attached to the September 13, 2018 ACC Meeting notes. Wordsmith item 4&5 of Attachment D, Evaluation Criteria.	

Opening, Review of Agenda and Meeting Notes
Erik Lesko (PacifiCorp) called the meeting to order at 9:10am and also reviewed the agenda. No additions to the agenda were requested.

Lesko also reviewed the August 9, 2018 meeting notes. The meeting notes were approved with minor clarifying changes at 9:40 a.m.

Public Comment
None

Aquatic Fund Evaluation and how to complete
The ACC attendees extensively reviewed the Lewis River Aquatic Fund – Individual Project Evaluation Criteria (see edited version **Attachment A)** and will continue to review and update the Evaluation Criteria document, announcement letter to the public, pre and full proposals, in addition to the Aquatics Fund – Strategic Plan and Administrative Procedures document. The ACC wishes to begin its review again in approximately May 2019 in order to be well prepared before the August 2019 aquatic fund announcement.

The ACC agreed no changes to Evaluation Criteria document (Attachment D) this year but to implement the agreed upon edits for the 2019/2020 aquatic fund cycle. Edits agreed to thus far will be attached to these meeting notes.

Break 11:05am
Reconvene 11:15am

Review of role of H&S Subgroup, addition of bull trout and M&E activities
Lesko informed the ACC attendees that the ACC is not intended to be a technical group but more that of an advisory and policy making committee. Lesko provided a table illustrating a few of the M&E tasks that would be adaptively managed by the H&S subgroup (adaptive management recommendations in red), see **Attachment B**. Discussion took place regarding integrating the H&S Subgroup with M&E as one technical subgroup. All Subgroup recommendations will be brought before the ACC for approval. There was a discussion on what the integrated subgroup be called. One recommendation was the "Technical Working Group". The ACC also suggested that the expanded work group have a routine schedule and pre-set agenda so that it is easier for participants to attend only a certain portion of the meeting (or topic) if desired. Attendees also suggested that the Lewis River bull trout subgroup remain separate from the new technical subgroup.

The ACC agreed that the H&S subgroup role should be expanded to include M&E plan review and discussions. The ACC also recommended that bull trout subgroup updates be added to the ACC agenda updates as needed.

Study/Work Product Updates

In Lieu Update
Josh Ashline (NMFS) informed the ACC attendees that the Services requested a 45-day extension to October 8, 2018. Ashline communicated that the Services have engaged or will engage soon with all interested parties (e.g., WDFW, PacifiCorp, Forest Service, and Cowlitz Tribe). Ashline further stated that any other ACC representatives wishing to schedule a meeting with the Services regarding the in lieu decision to please reach out to him.

Erik Lesko (PacifiCorp) informed the ACC that after discussion with the Services Dr. Al-Chokhachy (USGS) would not be asked to address the ACC about the Sorel thesis and USGS report discrepancies (a request the ACC made of PacifiCorp at the previous ACC meeting). Rather PacifiCorp preferred that members of the ACC speak directly with the Services about this matter. Because the ACC is a recommending body to PacifiCorp and Cowlitz PUD for their Licenses (not to the Services), attendees thought it was PacifiCorp's responsibility to address the ACC on this issue.

Ashline indicated that the Services are aware of the USGS discrepancy and they are basing their decision(s) off of both documents. During scientific review, the Services are evaluating each paper individually. In response to further discussion, Ashline said that he does not see any reason why NMFS cannot reach out to USGS and Sorel to discuss comparing the two documents to aid in their evaluation.

The ACC requested Eli Asher (Cowlitz Tribe) email them his comments on the Sorel thesis predations excerpts compared with the USGS report.

Acclimation Pond (Muddy)
Removal complete. Planting will occur in approximately 2 months. Inspection will take place up to three years on an annual basis for any exposed piping that was not removed. During the meeting, Ruth Tracy (Forest Service) expressed that she did not think limiting the inspections for exposure of the remaining pipe to three years was adequate.

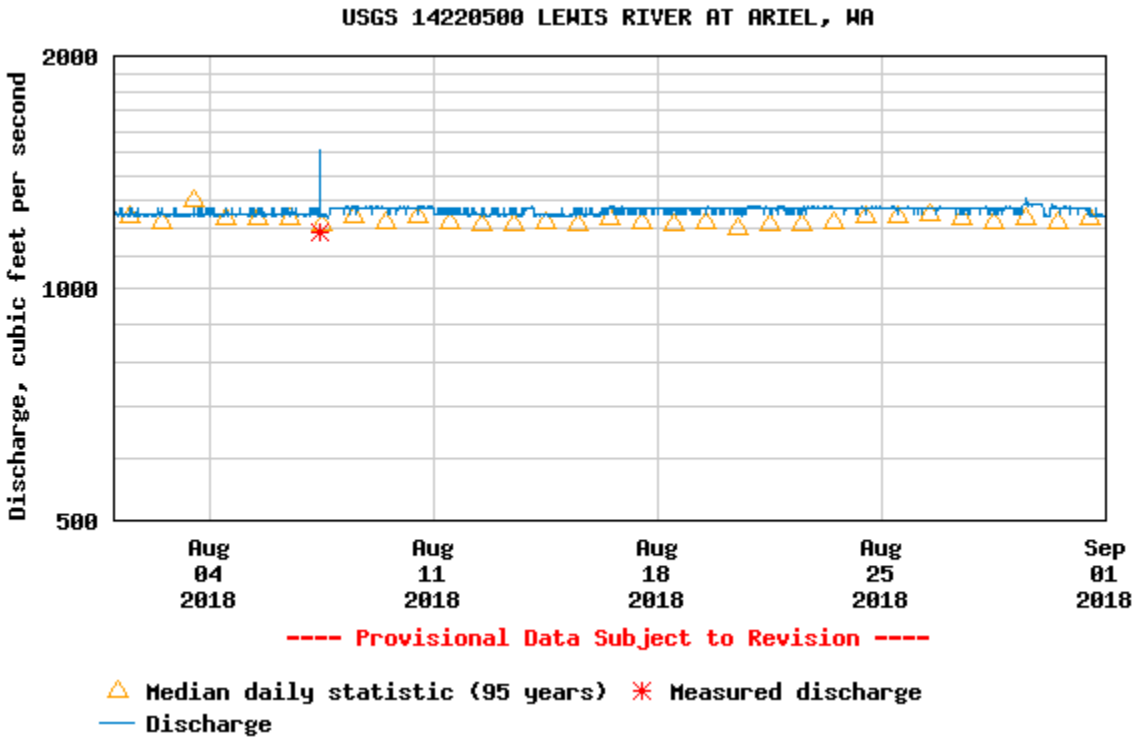
Crab and Clear Creek will be removed in 2019.

Merwin Fish Collection Facility and General Operations (Attachment C)
During the month of August, a total of 1,590 fish were captured at the Merwin Dam Adult Fish Collection Facility. The majority of these fish were summer steelhead (1,362 – 86%). A total of 2,097 spring Chinook have been captured at the Merwin Trap through August 2018. The first early-run Coho arrived at the Merwin Trap on August 21, 2018. By the end of the month, 136 coho had been captured.

The Merwin Dam Fish Collection Facility was taken out of operation August 2, 2018 for annual maintenance. It was returned to service August 8, 2018. Other than during this outage, the facility ran continuously during the month.

River flow below Merwin Dam remained near the minimum flow requirement of 1,200 cfs throughout the month.

Discharge, cubic feet per second



Upstream Transport (Attachment C)

Nine Blank Wire Tag (BWT) winter steelhead were transported upstream above Swift Dam in December 2017. Two additional fish were transported earlier in the fall for a total of 11 BWT steelhead collected and transported in fall/winter 2017. An additional 1,216 BWT winter steelhead were transported upstream for a total of 1,227 fish transported as part of the 2018 run year. *No winter steelhead have been capture since June 11, 2018.*

Run Year	Male	Female	Total adult winter steelhead taken upstream of Swift Dam
2012	141	48	**189**
2013	440	301	**741**
2014	452	581	**1,033**
2015	746	477	**1,223**
2016	378	376	**754**
2017	331	261	**592**
2018	682	535	**1,227**

A total of 695 adult spring Chinook have been transported upstream as part of the 2018 run. Of these fish, 324 were transported from the Merwin Dam Fish Collection Facility with an additional 371 fish being transported from the Lewis River Hatchery. Transported upstream were 175 females, 488 Males, and 32 jacks. By the end of June, all surplus adult spring Chinook previously being held at Lewis River Hatchery have been distribution into the upper basin or used as brood stock.

By the end of August, 145 adult early-run coho (93 male/52 female) had been transported upstream along with 41 wild jacks (< 20 inches). During the month of August, three coho that were PIT tagged in the upper basin had been detected as returning adults at the Merwin Adult Collection Facility. All three coho were jacks and had passed through the system as smolts earlier this year.

Swift Floating Surface Collector (Attachment C)
The Swift Reservoir Floating Surface Collector was shut down for summer maintenance July 17, 2018. It will return to service in October 2018.

Other
Aquatic Fund Project; Lewis River 21 Phase I and Phase II
Ruth Tracy (US Forest Service) informed the ACC that the aquatic fund project titled, Lewis River 21 Phase I have a delayed start of July 2019. McCune indicated that she will review and email the contract project duration details to Tracy. In addition, McCune indicated that if the Forest Service needs to modify the LR 21 Phase I contract we can do so with the approval of the ACC.

Chris Karchesky (PacifiCorp) informed the ACC attendees that the Steelhead Adult Trap Efficiency (ATE) report will be available the end of October for its 30-day review period. The current ATE study evaluating coho ATE is has just begun and further updates will be provided in the coming months. This study is scheduled to be completed by the end of December 2018.

Agenda items for October 11, 2018
- September 13, 2018 Meeting Notes
- Aquatic Fund; Discuss & approve pre-proposals
- Update of Floating Surface Collector (update on facilities adjustments)
- H&S Update; Subgroup
- Chinook Distribution
- Study/Work Product Update

Adjourn 12:25pm

Next Scheduled Meeting:

October 11, 2018
HCC
9:00 a.m. - 12:00 p.m.

Meeting Handouts & Attachments:
- Meeting Notes from 8/9/18
- Agenda from 9/13/18

- **Attachment A** – Lewis River Aquatic Fund – Individual Project Evaluation Criteria (edited version)
- **Attachment B** - Ongoing Hatchery and Supplementation Activities, Activities Related to M&E Planning
- **Attachment C** - Lewis River Fish Passage Report (August 2018)

Attachment D

Lewis River Aquatics Fund – Individual Project Evaluation Criteria

For each Evaluation Criteria listed below, a determination of "meets" or "does not meet" (section A) or a score of 1 to 5 (section B-E) is assigned by project evaluator. If during the Pre-Proposal review the project receives a "does not meet" response to any "Consistency with Fund Objectives and Priorities" component, the Pre-Proposal will be dropped from further evaluation and funding. A 1 is the lowest score (does not or very unlikely to meet objectives), a 5 the highest score (greater likelihood of meeting objectives). Scores are multiplied by the assigned weighting then totaled for a single project score.

A. Consistency with Fund Objectives and Priorities (Meets or Does not meet): 1. Benefit fish recovery throughout the North Fork Lewis River, priority to federal ESA-listed species (Bull Trout, Chinook, Steelhead, and Chum) 2. Support the re-introduction of anadromous fish throughout the Basin (Spring Chinook, Winter Steelhead, Coho, and Sea-run Cutthroat) 3. Enhance fish habitat in the Lewis River Basin, with priority given to the North Fork Lewis River. 4. Requesting funding for a project that would otherwise be required by law or mitigation requirement? 5. Maintain consistency with applicable Federal, State, and local laws and, to the extent feasible, consistent with policies and comprehensive plans in effect at the time the project is proposed. **Please provide any written comments that should be addressed in the full proposal or concerns that may delay or preclude ACC approval and funding of this proposal:**	

Commented [A1]: Does the SA specify plans in this section?

B. How does the project benefit priority fish species and stocks? (Spring Chinook, Winter Steelhead, Coho, Bull Trout, and Sea-run Cutthroat) (40 % weight): ▪ Does the project benefit priority fish species and stocks reintroduced to or originating from upstream of Merwin Dam, with emphasis on Spring Chinook? Resource projects must have specific objectives and expected outcome(s) that help attain the purposes of the Aquatic Fund. ▪ Does the Proposal clearly identify the salmonid species and stocks that would benefit from the project? ▪ Does the Proposal clearly describe the expected fish benefits of the project? ▪ How does the project address a limiting factor(s) to the target species, a limiting life history stage, or an important habitat process or condition? ▪ Will the project provide long-term benefits to salmonid species and/or to their habitat? Does the project provide tangible, on the ground benefits? ▪ Is the project generally consistent with the intent (strategies, measures, actions, and priorities) of applicable fish recovery plans? ~~and planning documents (e.g. Lower Columbia Salmon Recovery Plan) as identified through watershed planning documents, recovery plans, etc.~~?	Score = _____ multiplied by 4.0 = _____
C. Scientific validity and technical quality of proposed project (40% weight): • Are the associated objectives of the proposed project clearly described? • Does the Proposal employ appropriate methods, adequate design and proper siting? • Does the preliminary project design have site plans, plan view drawings, and profile and cross section of important project locations showing water surface elevations relevant to the project design including design flows? • Is it clear how the proposed project will meet its stated purpose and objectives? • What is the likelihood that the project will achieve stated objectives? • Does the project provide for implementation monitoring and an appropriate amount of monitoring for biological results? ~~How will success be demonstrated?~~ Are the benefits or outcomes from the project measurable (e.g. number of trees planted or amount of structure placed)? What monitoring protocols will be used, if any? • Have watershed processes been considered in developing the Proposal? • ~~How does the project fit within the aquatic needs and habitat limiting factors as identified through watershed planning documents, recovery plans, etc?~~	Score = _____ multiplied by 4.0 = _____

Formatted: Indent: Left: 0.25"

Commented [A2]: What is the purpose of this part of the sentence? Seems redundant. Are we only to rate the project based on the LCSalmon Recovery Plan planning documents and if so, that should be clearer and not e.g.

Commented [A3]: No monitoring information is requested in the Full Proposal, only in the Pre Proposal.

Commented [A4]: Seems like this question should be requested in the Full Proposal or ACC members may be rating different aspects of the monitoring.

Commented [A5R4]: Monitoring requirements, methods, strategies, etc. should be included in both the pre proposal request and explained in the full proposal.

Commented [A6]: This terminology is not used in the Pre or Full Proposal. I would suggest using similar terminology of what we request in the proposals. The Pre-proposal requests 'objectives for addressing the problems' which is the closest I could find to where I would look in the proposal for rating.

Commented [A7R6]: Ensure terminology between documents is consistent

• Is the project dependent on other key conditions or processes? (i.e., do other watershed activities/projects need to occur prior to getting the full benefits of proposed project?) • Does the project take into account the condition or processes of the watershed (e.g., high flow events)? • How might other habitat protection, ~~assessments~~, or restoration actions in the watershed impact the project? • Does the peer review demonstrate an adequate review of the preliminary project design and support the method and siting? This does not have to be a third party review, and can come from someone associated with the sponsoring organization. • Are there any negative or positive impacts to other resource areas (e.g. wildlife, recreation, etc.)?	
D. Ability for the project proponent to successfully implement proposed project (10% weight) • Does Proposal include both appropriate numbers of personnel and experienced team members? • Has the applying party submitted Proposals in previous years to the Lewis River Aquatic Fund or other sources, for example, SRFB? If their Proposal received funding, has it been successfully implemented? • Does the project have support from other parties that are knowledgeable of the landscape conditions, project, and potential outcomes? • Will the project be able to obtain the necessary permits in a timely manner?	Score = _____ multiplied by 1.0 = _____
E. Cost effectiveness and timeliness (10% weight) • Does the project have matching funding or in-kind participation? Is there collaboration between numerous parties? • Is the project budget identified by work effort (administration, materials, labor, etc.) and is it appropriate? • Does the project have a reasonable cost relative to the anticipated benefits? • Is the project self-maintaining once completed? If not, how will maintenance be achieved? • Can the project activities be planned and initiated in one year? • Does the project provide a detailed schedule with proposed end dates?	Score = _____ multiplied by 1.0 = _____
Total Weighted Score	**XX**

Commented [A8]: Neither the Pre or the Full proposals ask for this information so I wonder how we would rate this.

Commented [A9]: Include in full proposal requests

Commented [A10]: Similary, Neither the Pre or the Full proposals ask for this information so I wonder how we would rate this.

ONGOING HATCHERY AND SUPPLEMENTATION ACTIVITIES

1	Determine Proportion of Hatchery Origin Steelhead, and Salmon on Spawning Grounds Downstream of Merwin Dam.
2	Develop and Monitor Hatchery Protocols to Reduce Hatchery Effects on Juvenile Native and Endangered Species Act-Listed Species Present Downstream of Merwin Dam
3	Estimate juvenile release behavior or residualism after release from hatcheries downstream of Merwin Dam
4	Produce an annual hatchery operations report
5	Monitor rearing conditions to be consistent with producing a high quality smolt that emigrates quickly with a relatively high rate of survival
6	Monitor hatchery upgrades
7	Adopt release strategies that are consistent with Hatchery Scientific Review Group and Hatchery and Genetic Management Plan recommendations
8	Monitor production levels and program release numbers
9	Submit and gain hatchery and genetic management plan approval for all hatchery programs on the Lewis River
10	Determine the genetic effective population size of late winter anadromous rainbow trout (Steelhead) downstream of Merwin Dam
11	Develop sampling protocols for supplementation adults returning to traps or in-river capture
12	Effects of upstream adult and juvenile supplementation on Endangered Species Act-listed species
13	Estimate adult and juvenile abundance of winter steelhead, coho, and spring Chinook downstream of Merwin Dam
14	Determine spatial and temporal distribution of spawning winter steelhead, spring Chinook, and coho downstream of Merwin Dam
15	Evaluate fall Chinook and chum populations downstream of Merwin Dam
16	Annual review of existing and proposed harvest regulations (if any) to determine if recommendations are warranted to protect supplementation program objectives

ACTIVITIES RELATED TO M&E PLANNING

1	Quantify overall juvenile fish downstream survival
2	Quantify FSC collection efficiency (Pce)
3	Quantify the percentage of juvenile fish available for collection that are not captured by the FSC and that enter the powerhouse intakes
4	Quantify juvenile and adult collection survival
5	Quantify juvenile injury and mortality rates during collection at the FSC
6	Quantify the number, by species, of juvenile and adult fish collected at the FSC
7	Estimate the migration timing and number of juveniles entering Swift Reservoir
8	Develop index of juvenile migration timing
9	Quantify adult upstream passage survival
10	Quantify adult trap efficiency at each upstream fish transport facility (MFCF)
11	Quantify the number, by species, of adult fish being collected at the projects (MFCF)
12	Develop estimates of ocean recruits
13	Develop performance measures for index stocks
14	Document upstream and downstream passage facility compliance with hydraulic design criteria
15	Determine interactions between reintorduced anadromous salmonids and resident fish (upstream of Merwin Dam)
16	Determine when reintroduction outcome goals are achieved
17	Develop a coordination table that cross references objectives of the H&S and Aquatic M&E plans
18	Determine spawner abundance, timing and distribution of transported anadromous adults
19	Monitor bull trout populations
20	Document project compliance with flow, ramping rate and flow plateau requirements
21	Develop a Hatchery and supplementation Plan

Currently implemented as part of fish passage and evaluations with regular updates to the ACC (Chris Karchesky)

Adaptive oversight may be helpful to bring recommendations to ACC for approval

Bull trout subgroup already exists (Doyle)

Water Management Group (PacifiCorp)

Ongoing by HS Subgroup

1. **Provides a streamlined means to modify or adapt methods to meet changing objectives or conditions, etc.**
2. **Maintains ACC role as governing body for the Settlement Agreement conditions by providing recommendations and justification by the subgroup**
3. **Ongoing activities that are in compliance with plan objectives do not need to be reviewed or managed (regularly)?**
4. **One day meetings that are time adjusted by topic**

Lewis River Fish Passage Report

August 2018

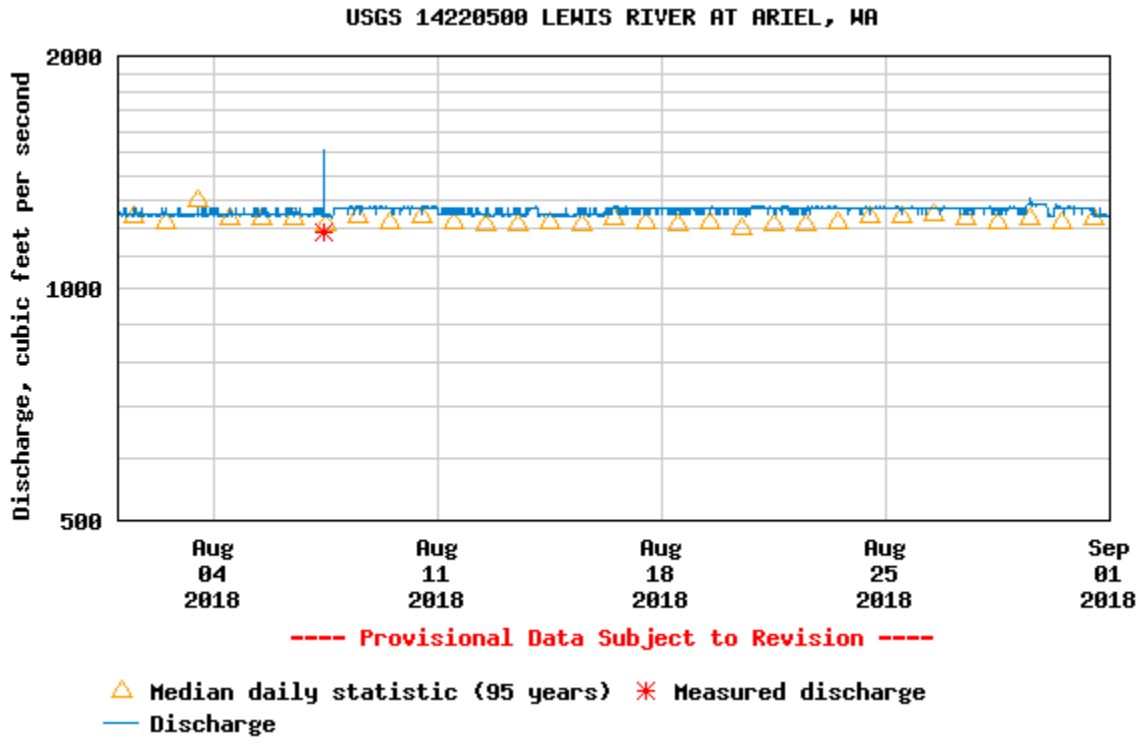
Merwin Fish Collection Facility and General Operations

During the month of August, a total of 1,590 fish were captured at the Merwin Dam Adult Fish Collection Facility. The majority of these fish were summer steelhead (1,362 – 86%). A total of 2,097 spring Chinook have been captured at the Merwin Trap through August 2018. The first early-run Coho arrived at the Merwin Trap on August 21, 2018. By the end of the month, 136 coho had been captured.

The Merwin Dam Fish Collection Facility was taken out of operation on August 2, 2018 for annual maintenance. It was returned to service on August 8, 2018. Other than during this outage, the facility ran continuously during the month.

River flow below Merwin Dam remained near the minimum flow requirement of 1,200 cfs throughout the month.

Discharge, cubic feet per second



Upstream Transport

Nine Blank Wire Tag (BWT) winter steelhead were transported upstream above Swift Dam in December 2017. Two additional fish were transported earlier in the fall for a total of 11 BWT steelhead collected and transported in fall/winter 2017. An additional 1,216 BWT winter steelhead were transported upstream for a total of 1,227 fish transported as part of the 2018 run year. *No winter steelhead have been capture since June 11, 2018.*

Run Year	Male	Female	Total adult winter steelhead taken upstream of Swift Dam
2012	141	48	**189**
2013	440	301	**741**
2014	452	581	**1,033**
2015	746	477	**1,223**
2016	378	376	**754**
2017	331	261	**592**
2018	682	535	**1,227**

A total of 695 adult spring Chinook have been transported upstream as part of the 2018 run. Of these fish, 324 were transported from the Merwin Dam Fish Collection Facility with an additional 371 fish being transported from the Lewis River Hatchery. Transported upstream were 175 females, 488 Males, and 32 jacks. By the end of June, all surplus adult spring Chinook previously being held at Lewis River Hatchery have been distribution into the upper basin or used as brood stock.

By the end of August, 145 adult early-run coho (93 male/52 female) had been transported upstream along with 41 wild jacks (< 20 inches). During the month of August, three coho that were PIT tagged in the upper basin had been detected as returning adults at the Merwin Adult Collection Facility. All three coho were jacks and had passed through the system as smolts earlier this year.

Floating Surface Collector (FSC)

The Swift Reservoir Floating Surface Collector was shut down for summer maintenance on July 17, 2018. It will return to service in October 2018.

Fish Facility Report
Merwin Adult Trap
August 2018

Reporting Date	Spring Chinook [1] AD-Clip M	Spring Chinook AD-Clip F	Spring Chinook AD-Clip JK	Spring Chinook Wild M	Spring Chinook Wild F	Spring Chinook Wild JK	Spring Chinook Recap M	Spring Chinook Recap F	Spring Chinook Recap JK	Early Coho AD-Clip M	Early Coho AD-Clip F	Early Coho AD-Clip JK	Early Coho CWT M	Early Coho CWT F	Early Coho CWT JK	Early Coho Wild M	Early Coho Wild F	Early Coho Wild JK	Early Coho Recap M	Early Coho Recap F	Early Coho Recap JK
01-Aug	1																				
02-Aug																					
03-Aug																					
04-Aug																					
05-Aug																					
06-Aug																					
07-Aug																					
08-Aug																					
09-Aug																					
10-Aug																					
11-Aug																					
12-Aug																					
13-Aug	2																				
14-Aug	2	1																			
15-Aug	1	3																			
16-Aug	1	1																			
17-Aug		1																			
18-Aug																					
19-Aug																					
20-Aug		3																			
21-Aug	3	1									1										
22-Aug	3	1	1																		
23-Aug	1									1	1										
24-Aug	5	1		1	1					1											
25-Aug																					
26-Aug																					
27-Aug	5	6								4	4	5						3			
28-Aug	3	1								4	3	6			2			1			
29-Aug	3									6	2	14			4	1		15			
30-Aug		1								1	2	10	2	2	2		1	12			
31-Aug	1										3	8	3	1			1	10			
Monthly	**31**	**20**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**17**	**16**	**43**	**5**	**3**	**8**	**1**	**2**	**41**	**0**	**0**	**0**
Annual	**1119**	**889**	**65**	**16**	**7**	**1**	**0**	**0**	**0**	**17**	**16**	**43**	**5**	**3**	**8**	**1**	**2**	**41**	**0**	**0**	**0**

Reporting Date	Late Coho AD-Clip M	Late Coho AD-Clip F	Late Coho AD-Clip JK	Late Coho CWT M	Late Coho CWT F	Late Coho CWT JK	Late Coho Wild M	Late Coho Wild F	Late Coho Wild JK	Late Coho Recap M	Late Coho Recap F	Late Coho Recap JK	S. Steelhead Fresh M	S. Steelhead Fresh F	S. Steelhead Recap M	S. Steelhead Recap F	S. Steelhead Wild M	S. Steelhead Wild F
01-Aug													19	37	8	24		
02-Aug																		
03-Aug																		
04-Aug																		
05-Aug																		
06-Aug																		
07-Aug																		
08-Aug																		
09-Aug													36	65	12	43		
10-Aug													38	93	19	58		1
11-Aug																		
12-Aug																		
13-Aug													24	54	21	33		
14-Aug													6	18	7	19		
15-Aug													8	9	6	13		
16-Aug													8	17	10	17		
17-Aug													12	27	11	22		
18-Aug																		
19-Aug																		
20-Aug													9	34	6	28		1
21-Aug													6	19	6	11		
22-Aug													8	18	6	20		
23-Aug													15	17	5	12		
24-Aug													9	19	4	7		
25-Aug																		
26-Aug																		
27-Aug													24	38	9	29		
28-Aug													11	11	6	11		
29-Aug													13	19	3	18		
30-Aug													13	22	4	13		
31-Aug													16	17	11	19		
Monthly	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**275**	**534**	**154**	**397**	**0**	**2**
Annual	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1155**	**1965**	**510**	**1154**	**2**	**9**

Reporting Date	W. Steelhead AD-Clip M	W. Steelhead AD-Clip F	W. Steelhead BWT M	W. Steelhead BWT F	W. Steelhead Recap M	W. Steelhead Recap F	W. Steelhead Wild M	W. Steelhead Wild F	Fall Chinook AD-Clip M	Fall Chinook AD-Clip F	Fall Chinook AD-Clip JK	Fall Chinook Wild M	Fall Chinook Wild F	Fall Chinook Wild JK	Fall Chinook Recap M	Fall Chinook Recap F	Fall Chinook Recap JK	Sockeye M	Sockeye F	Chum M	Chum F	Pink M	Pink F	Cutthroat	Rainbow (< 20 inches)	Bull Trout	Daily Total
01-Aug																		1	1								**91**
02-Aug																											
03-Aug																											
04-Aug																											
05-Aug																											
06-Aug																											
07-Aug																											
08-Aug																											
09-Aug																			1					1			**158**
10-Aug																		1									**210**
11-Aug																											
12-Aug																											
13-Aug												1						1						1			**137**
14-Aug																											**53**
15-Aug																											**40**
16-Aug																											**54**
17-Aug																											**73**
18-Aug																											
19-Aug																											
20-Aug									1	1		1						1						2			**87**
21-Aug										1		1						1									**50**
22-Aug									1																		**58**
23-Aug																			1								**53**
24-Aug																											**48**
25-Aug																											
26-Aug																											
27-Aug										1		1	2						1								**132**
28-Aug												1						1						2			**63**
29-Aug										3		1	1	1													**104**
30-Aug									1																		**86**
31-Aug										1														2			**93**
Monthly	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**7**	**0**	**6**	**3**	**1**	**0**	**0**	**0**	**6**	**4**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**1590**
Annual	**310**	**525**	**680**	**530**	**47**	**37**	**45**	**72**	**3**	**7**	**1**	**8**	**4**	**1**	**0**	**0**	**0**	**11**	**15**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**9344**

[1] Only hatchery verses wild distinctions are currently being made. All hatchery fish are labeled as "AD-Clip".

Berkshire Hathaway Energy

Fish Facility Report

Swift Floating Surface Collector

August 2018

Day	Coho			Chinook			Steelhead				Cutthroat			Bull	Planted	
	fry	parr	smolt	fry	parr	smolt	fry	parr	smolt	kelt	fry	< 13 in	> 13 in	Trout	Rainbow	Total
01																**0**
02																**0**
03																**0**
04																**0**
05																**0**
06																**0**
07																**0**
08																**0**
09																**0**
10																**0**
11																**0**
12																**0**
13																**0**
14																**0**
15																**0**
16																**0**
17																**0**
18																**0**
19																**0**
20																**0**
21																**0**
22																**0**
23																**0**
24																**0**
25																**0**
26																**0**
27																**0**
28																**0**
29																**0**
30																**0**
31																**0**
Monthly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**850**	**3627**	**34437**	**31**	**464**	**4069**	**7**	**15**	**7855**	**10**	**3**	**824**	**17**	**6**	**2078**	**54295**

BERKSHIRE HATHAWAY ENERGY