

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

**Date & Time:** Thursday, May 12, 2016  
9:00 a.m. – 3:00 p.m.

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

**Contacts:** Frank Shrier: (503) 320-7423

Time	Discussion Item
9:00 a.m.	Welcome <ul style="list-style-type: none"><li>➤ Review Agenda and ACC 4/14/16 Meeting Notes</li><li>➤ Comment &amp; Accept Agenda and 4/14/16 Meeting Notes</li></ul>
9:10 a.m.	Public Comment Opportunity
9:20 a.m.	Proposal for the Yale HPP Study Plan Discussion
<b>10:30 a.m.</b>	<b>Break</b>
10:45 a.m.	Acclimation Ponds Discussion
<b>12:00 p.m.</b>	<b>Lunch</b>
12:30 p.m.	Update for 2016 Merwin ATE Study winter steelhead <ul style="list-style-type: none"><li>○ Tag spring Chinook in 2016 given low expected numbers</li><li>○ Update on FSC Guide Net installation - slide show</li></ul>
1:30 p.m.	Aquatic Fund Subgroup Effort - Update
2:00 p.m.	Study/Work Product Updates <ul style="list-style-type: none"><li>○ M&amp;E Update</li><li>○ Woodland Release Ponds/Permit - Status</li><li>○ Acclimation Ponds - Status</li><li>○ Merwin Upstream Passage – Status</li><li>○ Swift Floating Surface Collector – Status</li></ul>
2:30 P.m.	<ul style="list-style-type: none"><li>➤ Next Meeting's Agenda</li><li>➤ Public Comment Opportunity</li></ul> Note: all meeting notes and the meeting schedule can be located at: <a href="http://www.pacificorp.com/es/hydro/hl/lr.html#">http://www.pacificorp.com/es/hydro/hl/lr.html#</a>
<b>3:00 p.m.</b>	<b>Adjourn</b>

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

**Conference ID: 848594**

**PLEASE BRING YOUR LUNCH**

**FINAL Meeting Notes**  
**Lewis River License Implementation**  
**Aquatic Coordination Committee (ACC) Meeting**  
**May 12, 2016**  
**Merwin Hydro Control Center**

**ACC Participants Present (15)**

Todd Olson, PacifiCorp  
Chris Karchesky, PacifiCorp  
Frank Shrier, PacifiCorp  
Erik Lesko, PacifiCorp  
Kim McCune, PacifiCorp  
Jeremiah Doyle, PacifiCorp  
Aaron Roberts, WDFW  
Peggy Miller, WDFW  
Michelle Day, NMFS  
Shannon Wills, Cowlitz Indian Tribe  
Diana Gritten-MacDonald, Cowlitz PUD  
Steve Manlow, LCFRB (via conference)  
Ruth Tracy, USDA Forest Service  
Bryce Michaelis, USDA Forest Service

**Guests**

Al Thomas, Columbian

**Calendar:**

June 9, 2016	ACC Meeting & Field Tour	Merwin Hydro
May 16, 2016	ACC Meeting (Aquatic Fund Subgroup)	Merwin Hydro

<b>Assignments from May 12, 2016</b>	<b>Status</b>
McCune: Add the Proposal for the Yale HPP Study Plan Discussion to the March 2017 ACC Meeting agenda.	<b>Complete</b>
McCune: Schedule an EDT meeting for June 13, 2016 (12:30pm – 3:30pm) and confirm with consultant.	<b>Complete</b>
Tracy/Michaelis: Advise PacifiCorp what action is needed to remove the Clear Creek infiltration gallery and re-evaluate the NEPA.	

<b>Assignments from April 14, 2016</b>	<b>Status</b>
Celedonia & Doyle: Flesh out a Yale HPP study plan and bring back to the ACC for its review.	<b>ACC agreed to postpone until Feb. 2017</b>

<b>Assignments from February 11, 2016</b>	<b>Status</b>
Frazier: Submit extension request details to McCune for the 2013 Survey of BT Stream Habitat Aquatic Fund Project.	<b>Pending</b>

## **Opening, Review of Agenda and Meeting Notes**

Frank Shrier (PacifiCorp) called the meeting to order at 9:10 a.m. and reviewed the agenda.

An addition to the agenda includes the following:

- In Lieu Fish Passage Update

Shrier also reviewed the April 14, 2016 meeting notes were reviewed and approved with minor clarification changes at 9:20am.

Erik Lesko (PacifiCorp) confirmed the following PacifiCorp/WDFW assignment will be removed from the meeting notes and addressed offline.

<b>Assignments from February 13, 2014 meeting (revised 9/10/15)</b>
Frazier: Work on securing the 2012, 2013 and 2014 lower river coho abundance survey data for tributaries. Provide this information to Erik Lesko (PacifiCorp).

## **Public Comment**

None

## **Proposal for the Yale HPP Study Plan Discussion**

After further consideration the ACC attendees agreed to postpone the Yale HPP Study Plan for the fall of 2016 and until after the fish return forecast comes out (approximately February 2017).

McCune will add this topic to the March 2017 ACC Meeting Agenda.

## **Acclimation Ponds Discussion**

Shrier informed the ACC attendees that the Clear Creek site would have to be re-dredged at a considerably high expense (\$100,000 or more) to restore the functionality. The Muddy River site would need to be completely reconstructed. Both sites have lost the capacity to hold fish. The Clear Creek site is now a field of boulders and rocks. The infiltration gallery at the Muddy River site has lost function and is now in the middle of the river. The USFS will advise PacifiCorp what action is needed to remove the Muddy River infiltration gallery and re-evaluate the NEPA.

PacifiCorp recommends abandoning the Muddy River site, particularly due to its poor water quality and other site stability problems.

Shrier noted that the 2016 USGS study indicates that fish are staying in the river longer than if we were to hold them in the acclimation ponds; in some cases for more than two (2) months.

Aaron Roberts (WDFW) expressed that the hatchery has approximately 38,000 integrated stock (w/NOR); he suggested to take the acclimation fish, PIT tag all of them and put them in the lower river.

Shrier expressed that Bob Rose (Yakama Nation) wants the ACC to explore other ways than just direct release, but until we have enough adults coming back and juveniles production he wants to

wait to decide on what to do with the Muddy River and Clear Creek sites. Seeding of the watershed is what the acclimation program is all about.

**The ACC determined to use direct release for 2016 into areas upstream of Swift Dam and use Crab Creek for acclimation. The ACC will determine the actual release sites.**

PacifiCorp suggests working with the Forest Service to develop a schedule so the ACC can make a decision to remediate or decommission the Clear Creek and Muddy River sites in 2017. The ACC elected to schedule a site visit June 9, 2016 to view the Muddy River and Clear Creek sites and make a decision how best to move forward.

Shannon Wills (Cowlitz Tribe) expressed that the cost benefit should be considered in the decision. The sites may be over-engineered. She stated, “Let’s use nature as a better method for direct release”.

**The ACC agreed to direct release Crab Creek fish in 2016 at Clear Creek, Muddy and Crab Creek facilities. However, Crab Creek facility will not be used until the Forest Service consultation for fall release is complete.**

<Break 10:20am>

<Reconvene 10:30am>

#### **Update for 2016 Merwin ATE Study Winter Steelhead**

Chris Karchesky (PacifiCorp) provided a PowerPoint presentation titled, “Merwin Adult Telemetry Study - 2016” which can be viewed on the Lewis river website at the following link:

[http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Hydro/Hydro\\_Licensin/g/Lewis\\_River/li/acc/Merwin%20ATS%20pwr%20point\\_rev.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensin/g/Lewis_River/li/acc/Merwin%20ATS%20pwr%20point_rev.pdf)

Karchesky reviewed the following Winter Steelhead preliminary data through May 11, 2016:

Number Tagged	Entered Tailrace	Entered Trap	Captured
136	132	108 (82%)	85 (64%)

He provided images of the Merwin fish ladder and conveyance system and the fish path beginning at the ladder entrance (Pool No. 1) through the weirs and on to the fish hopper and elevator.

As of May 11, 2016, 136 winter steelhead adults have been tagged, of which 85 have reentered and passed the trap facility. These current results are similar to those reported in 2015 for winter steelhead. PacifiCorp will continue to tag winter steelhead for the next couple weeks, although fish numbers have declined and primarily only capturing previously tagged fish now.

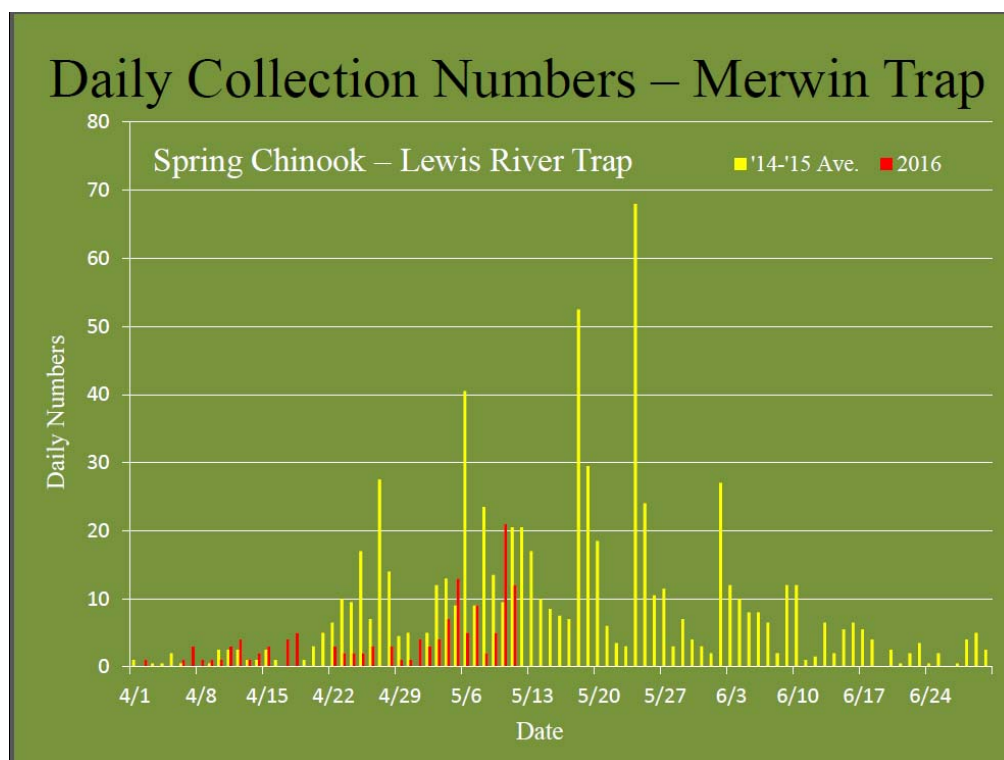
Karchesky also reviewed with the ACC preliminary data collected from the acoustic camera (Aris), which was installed in Pool 1-4 of the fish ladder on April 20, 2016. The purpose of this camera was to document fish behavior in relation to the fish crowder (and fyke) and hopper assembly. Information from the 2015 radio telemetry evaluation indicated that fish may be

exiting the fish ladder when the crowder was operated. Karchesky provided several short movies to the group taken with the acoustic camera showing fish transitioning into and out of the fish crowder. This information will be incorporated into the 2016 Adult Telemetry Evaluation Study results and ultimately may be used to make improvement to Merwin Trap.

*Radio tag spring Chinook in 2016 given low expected numbers –*

Karchesky presented to the ACC the current spring Chinook collection numbers at the Merwin Trap so far in 2016. As of May 11, 2016 only about 130 fish have been collected at the trap. Given the extremely low numbers of fish arriving at the trap, Karchesky asked the group whether radio tagging spring Chinook for the ATE study should still be considered for this spring. Arron Rogers (WDFW) recommended that all spring Chinook be taken to the hatchery for brood stock given low return numbers. Michelle Day (NMFS) agreed, although noted that delaying spring Chinook tagging is not necessarily stopping the group from making a decision on whether the Merwin Trap requires further upgrades (i.e., implement additional design phases as specified in the Settlement Agreement).

**The ACC agree to hold off on the ATE study for spring Chinook in 2016, and will revisit whether coho will be tagged this fall given the current low run predictions.**



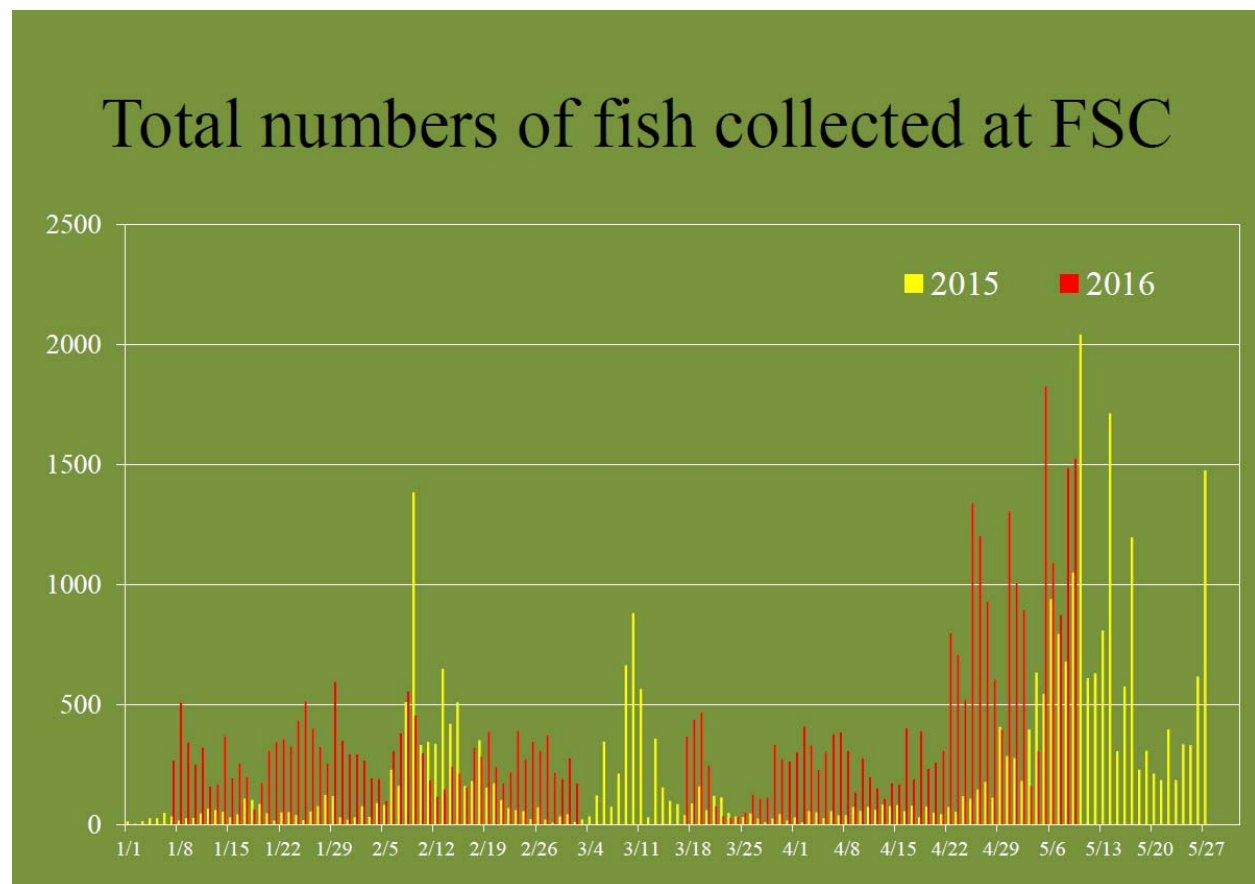
*Update on Swift Floating Surface Collector (FSC) Guide Net Installation -*

Chris Karchesky (PacifiCorp) provided a PowerPoint presentation titled, “Swift FSC Net Guide” which can be viewed on the Lewis river website at the following link:

[http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\\_Sources/Hydro/Hydro\\_Licensin g/Lewis\\_River/li/acc/FSC%20Net%20install%20pwr%20point.pdf](http://www.pacificorp.com/content/dam/pacificorp/doc/Energy_Sources/Hydro/Hydro_Licensin g/Lewis_River/li/acc/FSC%20Net%20install%20pwr%20point.pdf)

Karchesky noted that the Swift FSC guide net is 650’ long and 60’ deep and was installed in early March 2016 (see image in the PowerPoint).

Karchesky provided a graph of fish numbers collected in 2015 compared to so far this year (see below). He noted that a considerably higher number of fish were collected this winter (January – February) compared to last year during this same timeframe. The majority of fish collected during this time period in 2015 were fry whereas this year comprised of larger parr and smolts. After the guide net was installed in early March 2016, fish collection numbers continued to be considerably higher than those collected over the same time frame the previous year (2015) – although proportionally do not appear to be much higher than those collected early in 2016 before the guide net was installed. Karchesky indicated that while these results are not as encouraging as the group hoped, there is still a lot of tuning to be done with the guide net and floating debris has been extremely challenging (noting that intake of the FSC has been completely inundated by debris on several occasions since the guide net has been installed).



The acoustic telemetry evaluation to assess fish collection efficiency at the Swift FSC is underway. Approximately 120 fish have been tagged and released. Results of this evaluation will be compared to those collected in 2015 to assess whether the guide net has improved fish collection.

Karchesky also mentioned that a number of bull trout have been observed at the entrance of the FSC. Michelle Day (NMFS) noted that in other basins bull trout removal and relocation efforts have been made. Jeremiah Doyle (PacifiCorp) questioned whether this would be a viable option in Swift Reservoir.

### **In Lieu – Fish Passage Update**

Todd Olson (PacifiCorp) reminded the ACC attendees that the In Lieu Fish Passage draft study reports are out for a 30-day review and comment period. ACC comments are due by May 26, 2016.

- In regards to the EDT Modeling, PacifiCorp proposes that the ACC consider model runs that include turning adult harvest on, adjusting spring Chinook female egg fecundity and the transport proportion of fry collected in juvenile collection facilities.

Kevin Malone, consultant with DJ Warren & Assoc. will prepare a memorandum regarding the proposed assumption changes to the EDT model, then run the model for ACC review. Malone will also address the sensitivity factor.

**The ACC agreed to another EDT subgroup meeting to, ID potential changes/new assumptions and run models with Malone in real time.**

Olson also noted that the consultant team will be looking at EDT reaches that could receive “treatments”, what the treatments might be and related fish production outputs.

McCune will schedule an EDT subgroup meeting for June 13, 2016 (12:30pm – 3:30pm) and confirm with consultant.

### **Aquatic Fund Subgroup**

Next meeting is scheduled for May 16, 2016 now that the EDT is completed and the preferred list of restorable habitat areas. The Subgroup could then create a priority reach from the list. The Subgroup will review the Aquatic Fund process and the needed updates in order to meet the deadline for the 2016/2017 announcement in September 2016.

### **Study/Work Product Updates**

#### **M&E Update**

Shrier informed the ACC attendees that the M&E Subgroup is reviewing by section. The Subgroup meets again June 2, 2016 at Merwin Hydro Control Center.

#### **Woodland Release Ponds**

Shrier informed the ACC that PacifiCorp is waiting for its water quality permit from the Washington Dept. of Ecology. Approval is expected in approximately two weeks. Once received then the entire permit packet goes to WDNR. Shrier would like entire ACC to contact DNR and express the need for a quick turnaround. The water right should be complete by September 2016.

#### **Acclimation Pond/Muddy River & Crab Creek**

Shrier communicated to the ACC attendees that the Crab Creek site appears to be functional but we are waiting for the flows to come down. We are looking at direct release again for the Muddy River and Clear Creek. PacifiCorp needs the requirement from the Forest Service of what should be done with the intake that is in the middle of the Muddy River.

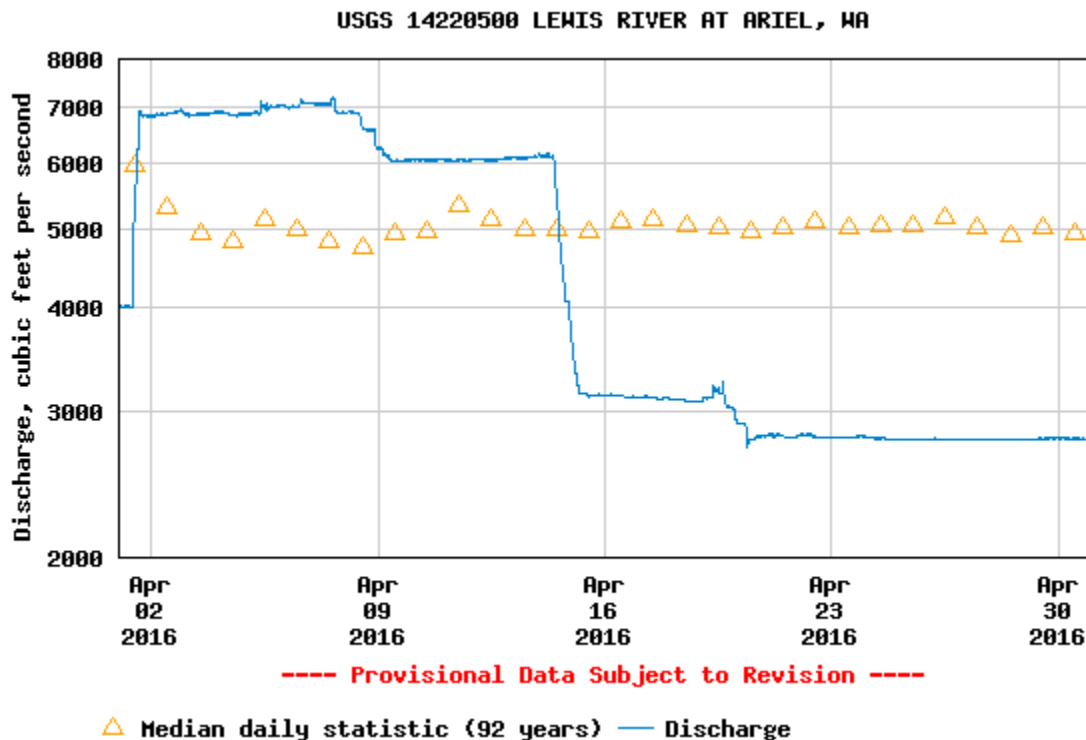
### Merwin Fish Collection Facility and General Operations ([Attachment A](#))

During the month of April, a total 539 fish were captured at the Merwin Fish Collection Facility; the majority (83%) of these fish were blank wire tag (BWT) winter steelhead (n=446) followed by spring Chinook (n=42). Fifty six BWT winter steelhead were radio tagged and returned downstream as part of the Merwin trap efficiency study. All hatchery fish were given to Washington Department of Fish and Wildlife. WDFW were also given twenty-two wild winter steelhead, forty-two hatchery spring Chinook and 5 wild spring Chinook for brood stock. Three hundred sixty eight BWT winter steelhead and one cutthroat trout greater than thirteen inches were transported upstream of Swift Dam.

The Merwin trap was dewatered on April 19, 2016 to install an acoustic camera. The trap was watered back up on April 20, 2016. The trap ran continuously the remainder of the month. The Auxiliary Water Supply (AWS) system, which can boost attraction flow up to 400 cfs, was operated daily.

River flow downstream of Merwin Dam ranged between approximately 7,000 cfs to 2,780 cfs during April.

### Discharge, cubic feet per second



### Upstream Transport ([Attachment A](#))

For calendar year 2016, seven hundred twenty eight blank wire tag winter steelhead (three of which were captured at Lewis River Fish Hatchery), six hatchery coho, and seven cutthroat trout greater than thirteen inches in length have been transported upstream.

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

A total of 13,450 fish were collected at the Swift FSC during the month of April; of which most were transported downstream. The majority (78 percent) of these fish were coho (n=10,504),



followed by planted rainbow (n=1,975), spring Chinook (n=282), steelhead (n=499), cutthroat (n=173), and bull trout (n=5). All planted rainbow and residential bull trout were returned to Swift Reservoir. The FSC remained in operation throughout the month of April.

### **Other**

Olson informed the ACC attendees that project stream in-flows and observed snowpack are much less than what forecasters were predicating for the spring. In-flow continues to be just above Merwin minimum instream flow rates for the period. The precipitation in April was down 40% and the snow pack in the past 3 weeks is way down. June Lake snowpack was at 84" but is down to 26".

PacifiCorp is attempting to store as much water as possible since April 16 2016; gaining ¼" to 1 foot per day, but we are still 22' down a month later. The spring water did not materialize as hoped.

*< Meeting adjourned at 12:00 p.m. >*

### **Agenda items for June 6, 2016**

- May 12, 2016 Meeting Notes
- Study/Work Product Updates
- Acclimation Pond Sites – Field Tour

### **Next Scheduled Meetings:**

June 6, 2016	June 22, 2016
Merwin Hydro Control Center (HCC)	Aquatic Fund Subgroup (HCC)
Ariel, WA	Ariel, WA
9:00 a.m. – 3:00 p.m.	9:00 a.m. – 3:00 p.m.

### **Meeting Handouts & Attachments:**

- Meeting Notes from 4/14/16
- Agenda from 5/12/16
- [Attachment A](#) - Lewis River Fish Passage Report (April 2016)

# Lewis River Fish Passage Report

April 2016

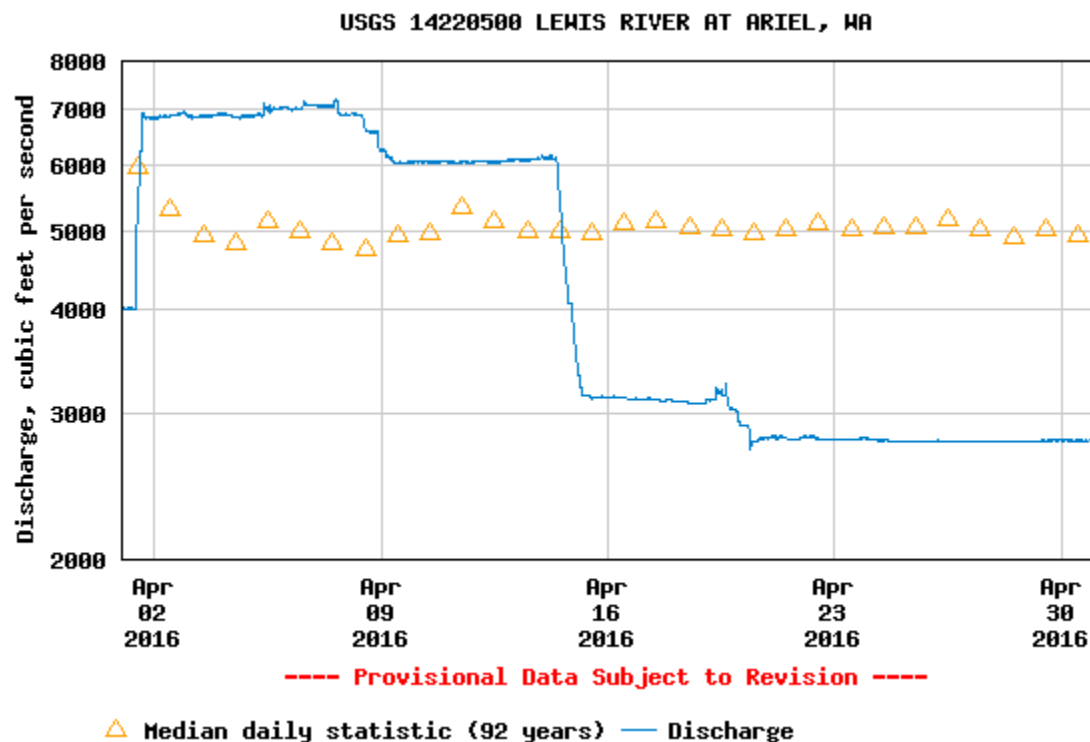
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River flow below Merwin Dam ranged between approximately 7,000 cfs to 2,780 cfs during April.

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**Upstream Transport**

For calendar year 2016, seven hundred twenty eight blank wire tag winter steelhead (three of which were captured at Lewis River Fish Hatchery), six hatchery coho, and seven cutthroat trout greater than thirteen inches in length have been transported upstream.

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# Fish Facility Report

## Merwin Adult Trap

### April 2016

[illegible]<sup>1</sup> Only hatchery versus wild distinctions are currently being made. All hatchery fish are labeled as "AD-Clip".

<sup>2</sup>Total counts do not include recaptured salmon.

**Fish Facility Report**  
**Swift Floating Surface Collector**  
**April 2016**

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			
01	0	24	162	0	8	19	0	0	4	0	0	3	0	0	83	303
02	0	17	262	0	0	33	0	0	8	0	0	5	0	0	84	409
03	0	29	173	0	0	34	0	0	6	0	0	12	0	0	77	331
04	14	26	97	0	10	15	0	0	0	0	0	5	0	0	63	230
05	20	36	88	0	28	18	0	2	1	0	0	2	0	0	109	304
06	4	91	140	0	4	19	0	1	6	0	0	4	0	0	107	376
07	2	70	221	0	1	8	0	2	12	0	0	5	0	0	64	385
08	0	32	159	0	2	12	0	2	10	0	0	0	0	0	89	306
09	9	13	51	0	2	7	0	0	5	3	0	3	0	0	43	136
10	16	12	144	0	2	22	1	0	5	0	0	4	0	1	70	277
11	12	12	99	0	0	5	0	1	4	3	0	2	0	0	61	199
12	12	6	68	0	1	11	0	0	4	0	0	2	0	0	49	153
13	29	6	26	0	2	6	0	0	2	0	0	3	0	0	34	108
14	28	6	50	0	2	0	0	0	7	0	0	7	0	1	73	174
15	30	3	77	0	0	1	0	0	2	2	0	1	0	1	51	168
16	0	14	239	0	0	2	0	0	9	0	0	1	1	0	138	404
17	10	0	107	0	0	0	0	0	4	1	0	0	1	1	65	189
18	0	4	281	0	0	3	0	0	10	0	0	4	1	0	87	390
19	3	11	164	0	0	3	0	0	7	1	0	2	0	0	44	235
20	2	19	182	0	0	0	0	0	18	0	0	0	0	0	38	259
21	0	16	239	0	0	0	0	0	13	1	0	0	2	0	36	307
22	3	29	691	0	0	0	0	0	14	1	0	5	0	0	55	798
23	0	66	601	0	0	0	0	0	20	0	0	1	0	0	21	709
24	0	54	377	0	0	0	0	0	0	0	0	21	0	0	69	521
25	1	182	1048	0	0	0	0	0	20	0	0	0	0	0	89	1340
26	0	390	636	0	1	0	0	0	81	0	0	0	2	0	91	1201
27	0	140	711	0	0	0	0	0	61	0	1	0	0	0	17	930
28	0	56	404	0	0	1	0	0	64	0	0	19	0	0	62	606
29	16	2	312	0	0	0	0	31	1	0	0	1	0	1	32	396
30	12	11	1095	0	0	0	0	0	61	0	1	52	0	0	74	1306

<b>Monthly</b>	223	1377	8904	0	63	219	1	39	459	12	2	164	7	5	1975	13450
<b>Annual</b>	224	10381	14872	0	564	2550	1	56	557	12	4	383	21	28	2831	32484

