



Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties

Date: December 11, 2019

From: John Ferguson, Chair (Anchor QEA, LLC)

Re: Final Minutes of the November 13, 2019 Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, November 13, 2019, from 10:00 a.m. to 11:00 a.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Steve Lewis will discuss internally with U.S. Fish and Wildlife Service (USFWS) the appropriate fish size threshold for identifying Bull Trout passing Wells Dam fish ladder count windows as subadults (Item VI-1).
2. Douglas PUD will update the table presented during the Aquatic SWG conference call on November 13, 2019, titled, *Table 1. Last Detection of Pacific Lamprey Translocated by Douglas PUD in 2018 and 2019*, to include river kilometers (rkms) for release and last detection sites, total percent detected by release site, and overall percent detected across all release sites (Item VI-2). (Note: a third revised table was distributed to the Aquatic SWG by Kristi Geris on December 5, 2019.)
3. Aquatic SWG members will review the juvenile and adult Pacific Lamprey literature reviews and document libraries in terms of format, structure, and content, for discussion and approval during the Aquatic SWG conference call on December 11, 2019 (Item VI-3).
4. The Aquatic SWG will revisit the juvenile and adult Pacific Lamprey literature reviews and document libraries in terms of format, structure, and content, annually each fall (Item VI-3). (Note: Kristi Geris created a reminder for Douglas PUD to add this to future meeting agendas each fall.)
5. Douglas PUD will notify the Aquatic SWG of the 2019/2020 maintenance (ladder outage) schedule at Wells Dam once this information is available (Item VI-5).
6. Douglas PUD will coordinate with the Yakama Nation (YN), Washington Department of Fish and Wildlife (WDFW), and USFWS regarding a tour of the Wells Dam fish ladders (preferably the east ladder) during the 2019/2020 maintenance outage at Wells Dam (Item VI-5).

7. Douglas PUD will coordinate with WDFW regarding a tour of the Wells Dam Fish Hatchery next spring 2020 (Item VI-5).
8. The Aquatic SWG will convene an in-person meeting next spring 2020 (Item VI-5). *(Note: Kristi Geris created a reminder for Douglas PUD to arrange this next spring 2020.)*
9. The Aquatic SWG meeting on December 11, 2019, will be held by **conference call** (Item VII-1).

II. Summary of Decisions

1. There were no decisions approved during today's conference call.

III. Agreements

1. There were no agreements discussed during today's conference call.

IV. Review Items

1. Notification that juvenile and adult Pacific Lamprey literature reviews and document libraries are available for review was distributed to the Aquatic SWG by Kristi Geris on October 25, 2019 (Item VI-3).

V. Documents Finalized

1. There are no documents that have been recently finalized.

VI. Summary of Discussions

1. Welcome, Review Agenda, Meeting Minutes Approval, and Review of Action Items (John Ferguson):

John Ferguson welcomed the Aquatic SWG members (attendees are listed in Attachment A) and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. No additions or changes were requested.

The revised draft October 9, 2019 conference call minutes were reviewed. Kristi Geris said all edits and comments received from members of the Aquatic SWG were incorporated into the revised minutes. Aquatic SWG members present approved the October 9, 2019 conference call minutes, as revised. *(Note: the Washington State Department of Ecology abstained, because they were absent during the October 9, 2019 conference call.)*

Action items from the Aquatic SWG conference call on October 9, 2019, are as follows (note: the following italicized item numbers correspond to agenda items from the October 9, 2019 conference call):

- *Steve Lewis will discuss internally with USFWS the appropriate fish size threshold for identifying Bull Trout passing Wells Dam fish ladder count windows as subadults (Item VI-1).*

This action item will be carried forward.

- *Douglas PUD will update the table presented during the Aquatic SWG conference call on October 9, 2019, titled, Table 2. Last detection of DCPUD lamprey translocations in 2018 and 2019, to more clearly organize the data by upstream-to-downstream detection location and to separate out summer/fall versus spring detections (Item VI-2).*

Andrew Gingerich provided an updated table to Kristi Geris on November 6, 2019, which Geris distributed to the Aquatic SWG that same day.

- *The Colville Confederated Tribes (CCT) will verify the timing of the false positive detection of Northern Pike in the Okanogan River using eDNA (Item VI-5).*

Jason McLellan said about 1 month passed between the carcasses being dumped in the river and when the samples were collected. He said subsequent to the false positive detection, in September, a series of tests were conducted on the same lot on opposite sides of the river at the (Monse) bridge. He said one side came back all negative, and on the other side, 1 of 9 came back positive. He said this may have been due to contamination. He said a re-test was performed and it came back negative. Chas Kyger said Douglas PUD also resampled the same area through October and all samples have come back negative.

2. Revised 2019 Pacific Lamprey Translocation PTAGIS File and Detection Summary Table (Andrew Gingerich):

Andrew Gingerich recalled discussing last month a table titled, *Table 2. Last Detection of DCPUD Lamprey Translocations in 2018 and 2019*, which summarized last detections of Pacific Lamprey that were translocated by Douglas PUD in 2018 and 2019. He said good feedback was received, including suggestions to: 1) reorganize the last detection sites or release locations in column A; and 2) separate fish translocated in 2018 from those translocated in 2019, to compare fish that migrated in the same year of release versus overwintering fish that migrated the subsequent spring.

Gingerich said Douglas PUD and Dave Robichaud (LGL Limited) reviewed possible ways to reorganize column A and ultimately decided not to make a change. Gingerich explained that currently, the sites are separated by shaded colors in cells as follows: green, blue, and orange sections. He said green sites are located in the Okanogan River Basin, blue sites are in the Methow River Basin, and orange sites are more related to mainstem Columbia River locations. He said, for example, if OKL (Lower Okanogan Instream Array) is moved below CRU (Upper Chewuch Instream Array) because these are two tributary locations, the organization

gets complicated since these are similar order streams but two different basins; therefore, it made most sense to leave the table unchanged and organized by basin first followed by rkm.

Gingerich said regarding the second suggestion, a revised 2019 Pacific Lamprey translocation PIT Tag Information System (PTAGIS) file and detection summary table document (Attachment B) was distributed to the Aquatic SWG by Kristi Geris on November 6, 2019. Gingerich said Table 1 is the unchanged Table 2 from last month. He said Table 2 and Table 3 in Attachment B are new tables. He said neither of the new tables (Tables 2 and 3) include fish released in 2019. He said Table 2 includes fish released in 2018 that had final detections after January 1, 2019, confirming these fish overwintered. He said Table 3 includes fish released in 2018 that were only detected in 2018 (not subsequently detected in 2019). He said Table 2 indicates that about 24% of the fish released in 2018 had confirmed overwintering. He caveated that this is only a qualitative data point and there may have been more fish that were overwintered but not detected.

Ralph Lampman asked if SA1 (Salmon Creek Instream Array) is located downstream of *Rls: Salmon Creek* (Salmon Creek release site)? Gingerich said yes, and that SA0 (Salmon Creek below OID Div.) is upstream of *Rls: Salmon Creek*. Lampman asked if the number of rkms between sites can be added to the table to show how far fish have traveled from the release site. Gingerich said he can see if these metadata are available in PTAGIS or have Douglas PUD GIS staff help with this.

Lampman asked if a fish moved during the fall and again in the spring, will this fish only appear in Table 2? Gingerich said this is correct, because this is a last detection table, as of October 2019. He said Table 2 includes zeros at 2018 release locations because this table shows 2019 detections of 2018 releases. He said Table 3 shows last detections of all 2018 releases. Lampman asked if there is a downside to showing all movements for fish in the first year of release (rather than only showing the movements if it was not detected in the spring season)? Gingerich said this is what is shown in Table 1 and added if there is interest in looking at individual fish, Douglas PUD can share the raw data used to create these tables or this can be done on PTAGIS. He said there were very few fish detected on 4 to 5 arrays but showing all movements for each fish on a table would be very data-rich and complicated to read. *(Note: Lampman later clarified via email that he was not interested in detections of individual adults; rather, thought there may be more merit to show all detections for the summer/fall rather than limiting it to just the ones that moved during the summer/fall and not the spring. He said because detection rates are so low, these data do not show anything about survival or whether fish overwintered successfully. He said these are just opportunistic detection data that may as well show all the movements.)*

John Ferguson asked, aside from one-quarter of fish being detected again in the spring and three-quarters of fish not, are there other observations about these data? Gingerich said not other than what was already discussed last month. He said the detection probability for fish released at the mouth of the Methow River is likely better than other locations, which may explain the high number of detections in the Methow River (i.e., more sites, higher efficiency), but also, fish may have a higher attraction to the Methow River. He said a fish released in the Okanogan River was detected in the Methow River, which is a far downstream location and distance to migrate. He said historically, Pacific Lamprey seem to move into the Chewuch River, which may be due to the presence of juvenile pheromones. He said translocating more adults into the Methow River may change fish movement patterns, but time will tell. He said lastly, in 2018, the Methow River release took place at the mouth, and in 2019, per a request by the Aquatic SWG, the Methow River release took place at Starr Boat Launch. He said Starr Boat Launch is located about 6 rkms downstream of the mouth of the Methow River in the mainstem Columbia River.

Lampman asked if percentages can be added under the "Total" row in Table 1 to show total percent detected by release site and overall percent detected across all release sites. Gingerich said he can add these, as well as rkms for release and last detection sites.

3. Pacific Lamprey Literature Reviews and Libraries (Chas Kyger):

Notification that the juvenile and adult Pacific Lamprey literature reviews and document libraries are available for review was distributed to the Aquatic SWG by Kristi Geris on October 25, 2019. Chas Kyger said instructions about where everything is located were included in the notification email. He said it took some time to get everything uploaded and accessible on the extranet site and he expects more documents are now available to add to the libraries. He said if Aquatic SWG members know of additional literature that is not included in the libraries, please send him the documents along with a brief summary about the document in a format similar to the existing structure on the extranet. He suggested the Aquatic SWG then finalize the summary documents during the Aquatic SWG meeting in December 2019. Andrew Gingerich said the libraries are not a requirement by the Federal Energy Regulatory Commission (FERC); however, he agreed the libraries are worth finalizing in December for inclusion in the *2019 Aquatic Settlement Agreement Annual Report*, which will be filed with FERC. Kyger said Douglas PUD would like to obtain consensus on the layout and content of the literature reviews and libraries, and then revisit the libraries each year to keep them up to date. Gingerich said it would also be nice to finalize these libraries in 2019 because there will be several FERC-required documents requiring review by the Aquatic SWG and finalizing in early 2020.

Aquatic SWG members will review the juvenile and adult Pacific Lamprey literature reviews and document libraries in terms of format, structure, and content, for discussion and approval during the Aquatic SWG conference call on December 11, 2019. The Aquatic SWG will also revisit the literature reviews and libraries annually each fall. *(Note: Geris created a reminder for Douglas PUD to add this to future meeting agendas each fall.)*

Ralph Lampman said Grant PUD also develops a table each year and he asked if the Douglas PUD literature review includes this same information. Kyger said it does and is actually structured in the same format at Grant PUD. Lampman said Grant PUD posts new tables each year and additional reports can be found in older tables. Kyger said Douglas PUD plans to keep a running list moving forward.

4. Wells Fish Hatchery Brood Year 2019 White Sturgeon Rearing Update (Andrew Gingerich):

Andrew Gingerich presented a Wells Fish Hatchery BY2019 White Sturgeon Rearing Update (Attachment C), which was distributed to the Aquatic SWG by Kristi Geris following the Aquatic SWG conference call on November 13, 2019. Gingerich said Attachment C is part of a worksheet that is routinely updated by hatchery personnel. He said column A shows number of fish in each tank, which total 580 fish currently on station. He recalled that during the week of October 7, 2019, Douglas PUD surplused approximately 500 fish to the CCT Resident Fish Hatchery located about 15 to 20 miles from Wells Fish Hatchery and kept 580 fish on hand. He said there have been zero fish mortalities in-hatchery since the surplus event. He said a couple fish in the tank with the smallest fish are persisting, and he noted column B in Attachment C. He said FPP (fish per pound) is how many fish are needed to equal 1 pound of fish. He said the tank with the largest fish only needs 10.6 fish to equal 1 pound. He said 454 divided by FPP equals average fish size in grams, or column C in Attachment C. He said most fish are between 35 to 43 grams per fish on average. He said the smallest fish are in Tank 6, weighing only 12 grams per fish on average or 88 FPP, which is quite a bit smaller. He said keeping these small fish on station was done intentionally, rather than surplus all small fish to the CCT. He said these fish are still growing but at a slower rate than most fish. He said as per their normal practice, hatchery staff are pushing these fish to grow. He said column L of Attachment C is percent feed, which shows the amount of feed is higher for the smaller fish compared to the other tanks. He said the larger fish are on a ration of 1.75% to 2.00% body weight daily compared to the smaller fish that are being fed 15.00% of their body weight daily. He said 15.00% is still half the daily feed ration given to fish when fish first come on station and are transitioning to feed. He said the smaller fish in Tank 6 are also on warmer water compared to the larger fish, at 58 to 59°F (column Y in Attachment C). He said previous years of rearing fish have shown fish will grow at these temperatures. He said the

larger fish have been backed off to ambient water temperature, or 55°F, because projecting out to June 1, 2020, these larger fish may average over 300 grams per fish when the target is 200 grams per fish. He said staff are monitoring fish size weekly and adjusting feed and temperature as needed. He said column N of Attachment C is otohime feed type. He said the larger fish are on EP1, which is larger feed, and the smallest fish went back on S1, which is a smaller feed type. He said the smallest fish were transitioned to EP1 but were changed back to S1 because the fish seemed to be doing better on the smaller feed. He said it looks like there will be no issues growing five tanks of fish to the 200-gram threshold, but Tank 6 with the 88 smallest fish might be a challenge. He said some of these 88 fish are needed to meet the program target of 551 fish. The Aquatic SWG had no questions or comments.

5. Wells Fish Hatchery Tour (Andrew Gingerich):

John Ferguson said the next Aquatic SWG meeting is on December 11, 2019 and the Wells Dam fish ladders might be dewatered for annual maintenance the week of December 16, 2019. He also mentioned two possible dates for a ladder tour have been identified as December 19, 2019 and January 20, 2020.

Andrew Gingerich said Mike Bruno, Wells Dam Project Superintendent, knows the Aquatic SWG is considering a tour of the dewatered fish ladders at Wells Dam on either of these dates. Gingerich recalled that Douglas PUD has offered this tour in past years. He said he understands this is a hard time of year for travel and he hoped to gauge interest in convening an in-person meeting and/or tour of the Wells Dam fishways or hatchery facilities in December or January.

Ralph Lampman said he is interested in touring the fish ladders but does not need to tour the White Sturgeon fish hatchery because he has already seen the hatchery. Ferguson asked what work has been completed in the ladders since the last tour in February 2019?

Chas Kyger said he is unsure what work was completed after the last tour, but he knows there is more work planned for the 2019/2020 outage. Lampman recalled during the last tour, some gaps were being prepared for repair and he said it would be nice to see the final product.

Laura Heironimus said she has not had an opportunity to tour the White Sturgeon fish hatchery and is interested to do so; however, December and January are not the easiest times for her to travel to the dam. She asked if she can coordinate separately with Douglas PUD to tour the hatchery at some time, and Gingerich said absolutely. Gingerich said touring the hatchery can happen any time but touring the fish ladders need to be arranged around the outages.

Jason McLellan, Breean Zimmerman, and Patrick Verhey said a tour of the ladders and hatchery is not necessary, but they can meet in-person if the Aquatic SWG decides to do so.

Gingerich said once there is a clearer schedule of the exact outages, he will coordinate directly with Lampman, and whoever else is interested, for a tour of the ladders. Gingerich said this will be easier on the mechanics, too, because there are a lot of moving parts to schedule around to conduct these tours. He also suggested saving the in-person meeting for when the weather is nicer, which can be convened at Wells Dam or at Douglas PUD Headquarters in East Wenatchee, Washington. Lampman said Steve Lewis might also be interested in touring the ladders, and it would be nice if Verhey would attend. Verhey said he can attend. Lampman also asked if it would be possible to tour the east fish ladder since the Aquatic SWG has already toured the west fish ladder, and he asked when the east fish ladder will be offline for maintenance. Gingerich said the ladders are offline for maintenance typically during the months of December, January, and sometimes February. He said each year, one ladder is out longer than the other for more overhaul work and it switches the next year. He said he cannot recall which ladder is due for the major overhaul this year. He said he will notify the Aquatic SWG of the 2019/2020 maintenance (ladder outage) schedule at Wells Dam once this information is available. He said he will also coordinate with the YN, WDFW, and USFWS regarding a tour of the Wells Dam fish ladders (preferably the east ladder) during the 2019/2020 maintenance outage at Wells Dam, and he will coordinate with WDFW regarding a tour of the Wells Dam Fish Hatchery during spring 2020.

Verhey asked if the Pacific Lamprey modifications at Wells Dam included diffuser grating plating, addressing gaps, and installing ramps through the orifices, as well? Kyger said at this point, modifications only include addressing gaps, and Ferguson added this was to occur to diffuser gratings all the way up the fish ladder. Kyger agreed and said anywhere there are breaks or bends around the diffuser gratings that are larger than 1 inch.

Ferguson said the Aquatic SWG will convene an in-person meeting next spring 2020. *(Note: Kristi Geris created a reminder for Douglas PUD to arrange this next spring 2020.)*

VII. Administration

1. Upcoming Meetings (John Ferguson):

The Aquatic SWG meeting on December 11, 2019, will be held by **conference call**.

Other upcoming meetings include January 8 and February 12, 2020 (TBD).

List of Attachments

- Attachment A List of Attendees
- Attachment B Revised 2019 Pacific Lamprey Translocation PTAGIS File and Detection Summary
Table Document
- Attachment C Wells Fish Hatchery BY2019 White Sturgeon Rearing Update

Attachment A – Attendees

Name	Role	Organization
John Ferguson	Aquatic SWG Chairman	Anchor QEA, LLC
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Breean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Laura Heironimus	Aquatic SWG Technical Alternate	Washington Department of Fish and Wildlife
Ralph Lampman	Aquatic SWG Technical Representative	Yakama Nation
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes