

Final Conference Call Minutes



Aquatic Settlement Work Group

To: Aquatic SWG Parties **Date:** November 9, 2016
From: John Ferguson, Chair (Anchor QEA, LLC)
Re: Final Minutes of the October 12, 2016 Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, October 12, 2016, from 10:00 to 11:00 a.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Douglas PUD will: 1) provide a draft letter to the Federal Energy Regulatory Commission (FERC) to the Aquatic SWG for review, requesting permission from FERC to combine all Aquatic Settlement Agreement (ASA) Annual Reports and deadlines into one submittal; and 2) determine where and from whom the respective agency support letters should be sent (Item VI-1).
2. Douglas PUD will provide a summary of Pacific lamprey monitoring and evaluation (M&E) acoustic data collected to date as soon as those data are downloaded (Item VI-1).
3. The Aquatic SWG White Sturgeon Subgroup will: 1) discuss drafting a White Sturgeon Statement of Agreement (SOA) in November 2016; 2) address outstanding action items discussed during the last subgroup meeting on October 4, 2016, including discussing proposed release numbers and fish size at release, with their respective policy representatives; and 3) provide an update on White Sturgeon Subgroup discussions to date during the Aquatic SWG meeting on November 9, 2016 (Item VI-2).
4. **The Aquatic SWG meeting on November 9, 2016, 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. There are no items that are currently available for review.

V. Documents Finalized

1. The Final Douglas PUD 2015 White Sturgeon M&E Report, which was approved by the Aquatic SWG on September 14, 2016, was distributed to the Aquatic SWG by Kristi Geris on October 12, 2016.

VI. Summary of Discussion

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 asked for any additions or other changes to the agenda. No additions or changes were requested.

The revised draft September 14, 2016, conference call minutes were reviewed. Kristi Geris said all comments and revisions received from members of the Aquatic SWG were incorporated into the revised minutes, and there are no outstanding edits or questions to discuss. Aquatic SWG members present approved the September 14, 2016, conference call minutes, as revised.

Action items from the last Aquatic SWG conference call on September 14, 2016, are as follows (note: the following italicized item numbers correspond to agenda items from the September 14, 2016, conference call):

- *Douglas PUD will: 1) provide a draft letter to FERC to the Aquatic SWG for review, requesting permission from FERC to combine all ASA Annual Reports and deadlines into one submittal; and 2) determine where and from whom the respective agency support letters should be sent (Item VI-1).*

Andrew Gingerich said Shane Bickford agreed with Steve Lewis's suggestion to have each Aquatic SWG member agency provide a letter to append to the letter from Douglas PUD supporting the proposal to combine all ASA Annual Reports and deadlines into one submittal. Gingerich said the letter from Douglas PUD is drafted and will be reviewed by Bickford this week. Gingerich added that Douglas PUD may also contact FERC to confirm what is needed to process this request. This action item will be carried forward.

- *Douglas PUD will distribute a Doodle Poll to convene a second technical subgroup meeting to further discuss the future of the Douglas PUD White Sturgeon Program (Item VI-3).*

Andrew Gingerich distributed a poll following the meeting on September 14, 2016. This will be further discussed during today's conference call.

- *Douglas PUD will provide a summary of Pacific lamprey monitoring and evaluation (M&E) acoustic data collected to date as soon as those data are downloaded (Item VI-4).* Chas Kyger provided a summary to Kristi Geris on October 4, 2016, which Geris distributed to the Aquatic SWG that same day. This will be further discussed during today's conference call, and will also be carried forward.
- *Douglas PUD will investigate the one bull trout acoustic tag located in the Columbia River near the Wenatchee River that has been sending a mortality signal after not moving for 2 days and will provide a summary of data once available (Item VI-5).* Andrew Gingerich provided this update on September 15, 2016, which Kristi Geris distributed to the Aquatic SWG that same day. This will be further discussed during today's conference call.

2. White Sturgeon (Andrew Gingerich):

2016 White Sturgeon M&E Update

Andrew Gingerich said the 2016 white sturgeon M&E effort was completed on October 2, 2016. He said this recent effort was the second of two 25-day sampling efforts targeting juvenile indexing. He said, during the 50 days of sampling, crews captured more than 720 fish, including 120 fish that appeared to have been recaptured more than once (i.e., some fish were captured twice, three times, and a couple four times, during those 50 days). He said, during the first 25-day session, 240 fish were captured; during the second session, 483 fish were captured. He noted the increase in capture during the second session compared to the first session, and suggested this may be due to having switched to barbed hooks at the advice of the collective PUDs and standardizing capture methodologies. He also noted this may not be the only factor, and additional causes may manifest through the statistical analyses.

Gingerich said, in addition to the 720 fish, crews also handled more than 12 wild fish. He recalled that, between the two indexing efforts, crews conducted an effort targeting adult wild white sturgeon, as described in the Aquatic SWG September 14, 2016, meeting minutes. Gingerich said the next step is to coordinate with LGL Limited to develop a collaborative report and provide a draft for review to the Aquatic SWG, similar to last year.

Brood Year 2016 Wells Hatchery Rearing Update

Andrew Gingerich said there are still nearly 12,000 larval-origin fish and more than 3,000 direct gamete-origin fish on station at Wells Hatchery. He said the direct gamete-origin fish will eventually be transported to Chelan Falls. He said Washington Department of Fish and Wildlife (WDFW) is working directly with Chelan PUD on this effort.

Gingerich said, as of the end of September 2016, there was still high loss in two tanks (i.e., 30 to 60 mortalities per day per tank). He said results from fish health sampling are still pending. He noted the high loss is localized to only those two tanks. He said larval loss in the other three tanks is very low (about 0 to 5 fish per day). He said he expects mortalities to decline further

through rearing. He said, with nearly 12,000 fish on station and only about 5,000 fish needed to plant, at some point, there may be extra fish beyond program needs.

Jason McLellan recalled that each year, it seems one or two tanks experienced problems with high mortality, and he asked if these are consistently the same tanks. Gingerich said he does not believe so, but would need to confirm. He said, last year, Tank 7 had the high mortality, but this year there are no issues with that tank. He said this year, Tank 8 and Tank 11 have the high mortality rates. He said, in the past, there have never been issues with Tank 11, and he will need to check with regard to Tank 8. He said hatchery staff suggested that the fish brought on station first (earliest arrivals) experience the most issues; however, he is uncertain there are data to support this. McLellan acknowledged there have been surplus fish each year; however, he noted that high mortality in select tanks does have somewhat of a selective effect. He said he is not advocating a large-scale study; rather, he is noting it would be beneficial to determine what the issue is. Gingerich agreed and noted that Douglas PUD is always advocating minimizing loss at every stage of in-hatchery rearing. He said he is not sure what the solution is but is open to ongoing discussions regarding how to decrease losses. He also agreed mortality rates have not created an issue with respect to meeting stocking goals, with surplus fishing being available in each of the last two years.

John Ferguson asked about the fish health results. Gingerich said, typically, results are received in about 1 month. He said it has been that long, and he is surprised he has not yet heard anything. He said, when results are received, he is typically notified immediately. McLellan asked if hatchery staff have increased water temperature yet. Gingerich said yes, the water temperature is currently at 57 degrees Fahrenheit. He said the water temperature was increased early this year due to the ongoing Wells Hatchery Modernization. He said certain wells have been turned on and off as crews work on different sources of water and upgrading the facility. He added that, this year, a different well water source is being used and has warmer ambient water than well water used in the past. McLellan said he believes once fish are on feed, the sooner the temperature is increased, the better. He also acknowledged fish growth is constricted by density, and suggested moving surplus fish off station as early as possible. Gingerich agreed and noted there will be more flexibility in future years as stocking numbers decrease.

Years 5 through 10 Subgroup Meeting Summary

Andrew Gingerich said a subgroup convened on October 4, 2016. He said almost all of the Aquatic SWG representatives participated in-person at Douglas PUD Headquarters in East Wenatchee, Washington, and a few participated on the phone. He said the meeting notes from the subgroup meeting (Attachment B) and an updated white sturgeon population model for the Wells Project (Attachment C) were distributed to the Aquatic SWG by Kristi Geris following the meeting on October 4, 2016. Gingerich said the notes describe what was discussed, but most of the time was spent reviewing Attachment C. He said Jason McLellan and

Chad Jackson (WDFW) reviewed the model and described the different inputs. Gingerich said the blue cells in Attachment C were updated as the subgroup could justify. He said there was a good discussion on every input and, once the subgroup was satisfied with the inputs, the model was run. He said the modeling indicates that hatchery releases beginning in year 2018 (from fish collected in 2017) should target approximately 350 fish being released at 200 grams per fish. He said the subgroup then agreed to review this general agreement with their respective policy representatives, and sometime in November 2016 the Aquatic SWG would develop an SOA for the next 5 years (second half of Phase 1) that is written in a way to allow modifications if there are updates to the available technical information (for example updated M&E results).

Steve Lewis said there was also discussion during the subgroup meeting about the possibility of raising fish size to 300 grams per fish, and he asked if any feedback about this has been received from hatchery staff. Gingerich recalled that Jackson volunteered to have that conversation with hatchery staff. Gingerich added that he agrees with McLellan that 300 grams per fish in-hatchery is probably possible. He noted that these fish would be about 14 inches in length, which may mean higher survival rates and stocking less than 350 fish. John Ferguson asked if fish raised at this growth rate can be released in the wild and sustain or support that same growth rate. McLellan said absolutely, and he provided three examples of fish raised to the 300-gram range surviving at high rates, including: 1) in 2006, Columbia Basin Hatchery releases into Lake Roosevelt released on average at more than 300 grams were physically handled 10 years later, including about 40% of individuals handled on more than one occasion; 2) ten fish held over for public outreach were released at more than 300 grams and eight were later handled (i.e., at least 80% survival); and 3) fish in a radio telemetry study were released on average at more than 240 grams had over 80% survival.

Ferguson asked about discussions on fish origin (direct gamete versus larval). Gingerich said there was some discussion on this topic; however, nothing substantive. He said the subgroup reviewed some of the work of Andrea Drauch-Schreier (University of California, Davis), potential locations, and the recent SOA prioritizing larval-origin fish. He said a more comprehensive discussion on fish origin may be the next step. He said, from a technical perspective and based on what is known about the lack of distinct populations in the hydro system, Douglas PUD believes fish from Bonneville Dam to the Transboundary Reach of the Columbia River are acceptable fish. He said the literature speculates the hydro-system is not old enough to provide differentiation, but fish are more related when reservoirs sampled are geographically closer. He said there is also a gradient of genes and gene flow moving downstream. He said the subgroup also discussed allelic diversity, and that there may be an advantage of fish from the lower Columbia River in this respect. He said, however, not much resolution has been reached on this topic within the subgroup at this point.

McLellan said he has a slightly different perspective on this discussion. He said the subgroup identified larval-origin fish as the priority in the current Wells, Rocky Reach, and Priest Rapids SOAs, and he believed the general consensus was there is no technical justification to move away from that in a new SOA. He said the most uncertainty was regarding the source of those fish and how to proportionally allocate the fish depending on source. Gingerich said he does not disagree with McLellan's perspective on the discussion. Lewis also agreed with McLellan's recollection.

Ferguson asked if this discussion is ready for the entire Aquatic SWG, or if it should remain in the subgroup. Bob Rose proposed that Douglas PUD draft a document outlining fish origin options for discussion during the next Aquatic SWG meeting on November 9, 2016. Rose suggested this would clarify the conversation. Gingerich said Douglas PUD can do this; however, he questioned the value of this, suggesting it may create more problems than it solves. He said he believes convening in-person meetings has been very productive, and may be a better option opposed to him writing out options. Rose said he is supportive of whatever is preferred.

McLellan said he believes these discussions are a bit premature, and suggested first reviewing the Rocky Reach and Priest Rapids SOAs. He said those SOAs include lists of viable source populations, as well as support information. He said discussion about proportions is a little premature because the group has not yet been able to source wild larval-origin fish from other areas within the acceptable stretch of the Columbia River Basin other than from Lake Roosevelt. He said he is not advocating against discussing proportional allocation; however, he is not sure how to build that into an SOA when the location is unknown. Rose agreed. McLellan said he thinks the Aquatic SWG will have to operate under the understanding that everyone is okay with any one of the viable locations, and the group will negotiate in good faith where the fish come from. He noted this is from the technical standpoint and added there may also be a policy aspect. He said he requested policy input internally; however, has not yet received feedback. He said, from a technical standpoint, he believes Drauch-Schreier's work is valid.

Based on these discussions, the Aquatic SWG White Sturgeon Subgroup will: 1) discuss drafting a White Sturgeon SOA in November 2016; 2) address outstanding action items discussed during the last subgroup meeting on October 4, 2016, including discussing proposed release numbers and fish size at release with their respective policy representatives; and 3) provide an update on White Sturgeon Subgroup discussions to date during the Aquatic SWG meeting on November 9, 2016.

3. 2016 Pacific Lamprey Study Update (Chas Kyger):

Chas Kyger said a summary of Pacific lamprey M&E acoustic- and passive integrated transponder (PIT)-tag data collected to date (Attachment D) was distributed to the Aquatic SWG by Kristi Geris on October 4, 2016. Kyger reviewed Attachment D, noting two lamprey detections in

the Wells Dam tailrace 2 kilometers downstream on river right, two detections in front of the Wells Dam west fishway collection gallery, and one detection in front of the Wells Dam east fishway collection gallery. He also said the most recent query of the PIT Tag Information System (PTAGIS) showed one study fish entered the Entiat River 8 hours after release and was last detected at the upper Entiat River PIT-tag array at river kilometer 37.5. Kyger said Douglas PUD is also in contact with Chelan PUD and, once Chelan PUD data are available, they will be shared with Douglas PUD.

4. 2016 Bull Trout Study Update (Andrew Gingerich):

Andrew Gingerich said, similar to last month, crews continue to download data from fixed station arrays. He said September 2016 was a busy month in terms of detections, because fish were leaving the spawning grounds and migrating downstream. He said Douglas PUD is closely monitoring the fixed station arrays and is being careful not to fill up the data banks in the receivers. He said a couple radio tags have been identified that are sending a mortality code. He said Douglas PUD has been updating the U.S. Fish and Wildlife Service (USFWS) when this occurs.

Steve Lewis asked if those tags sending a mortality signal are retrieved at some point. Gingerich said tags in the tributaries will likely be retrieved; however, locating the tags is not an easy task. He said if the tag is in the deep waters of the Columbia River, they are much more difficult to locate and retrieve. He also questioned how the recovered tag helps support a question in the study plan. He said there is interest in recovering the tag; however, he suspects this will not be possible in every case.

Lewis asked if WDFW notified USFWS about the recent discovery of a stranding pool in the Wells Reservoir. Gingerich explained he recently emailed Lewis notifying him that WDFW is conducting M&E work in the Twisp River and encountered a stranding pool that often develops seasonally this time of year around the Poplar Flat Campground. Gingerich explained that sometimes river flow is low enough that water in the area goes subsurface and fish become stranded in shallow water pools. He said, this year, there was a number of bull trout discovered in the stranding pool, including some live fish and some dead. He said the dead fish were inspected to determine if they spawned, and the one tagged fish was spawned out (less than ten eggs remained). He said he is uncertain if WDFW notified USFWS. Gingerich reiterated development of this particular stranding pool is fairly common. Lewis asked about a contact person for WDFW, and Gingerich said Charlie Snow (WDFW) is the field manager for that area. Gingerich added that Mark Nelson (USFWS) also has good data on dry reaches in that area as well.

VII. Next Meetings

1. **Upcoming meetings** (John Ferguson): The Aquatic SWG meeting on November 9, 2016, will be held by conference call.

Upcoming meetings are as follows: November 9, 2016 (conference call); December 14, 2016 (TBD); and January 11, 2016 (TBD).

List of Attachments

Attachment A – List of Attendees

Attachment B – Aquatic SWG White Sturgeon Subgroup October 4, 2016, Meeting Notes

Attachment C – Updated White Sturgeon Population Model for the Wells Project

Attachment D – Pacific Lamprey M&E Acoustic and PIT-tag Data

Attachment A List of 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
Dave Robichaud	Observer	LGL Limited
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Breean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Bob Rose	Aquatic SWG Technical Representative	Yakama Nation
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes