



Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties

Date: September 13, 2017

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

Re: Final Minutes of the August 9, 2017, Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, August 9, 2017, from 10:00 a.m. to 12:15 p.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Douglas PUD will provide Wells Dam turbine unit flow data and Rocky Reach Dam forebay and Wells Dam tailrace elevation data for review to Kristi Geris for distribution to the Aquatic SWG (Item VI-1).
2. Andrew Gingerich and Patrick Verhey will continue trying to locate and distribute a video of hydraulic model study results demonstrating how spill gate flow influences flow patterns in the Wells Dam tailrace, which was shared at a workshop around the time of relicensing (Item VI-1).
3. Douglas PUD will discuss with policy staff Aquatic SWG support for Pacific Lamprey translocation activities, as described under the Agreements section of these conference call minutes, and will provide confirmation of policy staff support of the agreement to Kristi Geris for distribution to the Aquatic SWG (Item VI-4).
4. Douglas PUD will provide an outline of actions Douglas PUD can undertake in 2017 that support Pacific Lamprey translocation efforts in 2017, to Kristi Geris for distribution to the Aquatic SWG (Item VI-4).
5. Ralph Lampman (Yakama Nation [YN]) will review with Bob Rose Pacific Lamprey discussions, as vetted during the Aquatic SWG conference call on August 9, 2017 (Item VI-4).
6. Ralph Lampman will request that Bob Rose provide his approval via email of the Aquatic SWG Agreement regarding Aquatic SWG support for Pacific Lamprey translocation, as described under the Agreements section of these conference call minutes (Item VI-4).
7. Aquatic SWG technical representatives will discuss with their respective Wells Habitat Conservation Plan (HCP) Coordinating Committee representatives Douglas PUD's intent to present an Aquatic SWG request during the HCP Coordinating Committees meeting on

August 22, 2017, for approval of reduced Wells Dam fishway entrance head differentials from the normal operating level of 1.5 feet, to a reduced operating level of 1.0 feet, from 17:00 to 00:59 daily during the remainder of the 2017 Pacific Lamprey migration season (September 1 through September 30, 2017; "lamprey operations"), similar to what was approved for the Douglas PUD 2013 Pacific Lamprey Study (Item VI-4).

8. Douglas PUD will distribute to the Wells HCP Coordinating Committee an Aquatic SWG request to implement reduced Wells Dam fishway entrance head differentials during the remainder of the 2017 Pacific Lamprey migration season (September 1 through September 30, 2017; lamprey operations) no later than 10 days prior to the HCP Coordinating Committees meeting on August 22, 2017, when Douglas PUD will request approval of the decision item (Item VI-4). *(Note: an Aquatic SWG-approved Statement of Agreement [SOA] was distributed to the Wells HCP Coordinating Committee for consideration and approval on August 17, 2017.)*
9. Ralph Lampman will confirm dates and release locations for the 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan, once those details are confirmed (Item VI-4). *(Note: Lampman provided this information to Kristi Geris on September 5, 2017, which Geris distributed to the Aquatic SWG that same day.)*
10. The YN will coordinate with Douglas PUD to solidify plans for translocating fish obtained from Priest Rapids Dam to locations upstream of Wells Dam in 2017 (Item VI-4).
11. **The Aquatic SWG meeting on September 13, 2017, will be held by conference call (Item VII-1).**

II. Summary of Decisions

1. Aquatic SWG members approved via email the Lamprey Operations SOA requesting Wells HCP Coordinating Committee concurrence, "to implement a temporary 1.0-foot fishway-entrance head differential for Pacific Lamprey from 17:00 to 00:59 daily during the 2017 Pacific Lamprey migration at Wells Dam," as follows: Douglas PUD approved on August 15, 2017; U.S. Fish and Wildlife Service (USFWS) approved on August 16, 2017; Washington Department of Fish and Wildlife (WDFW) and the YN approved on August 16, 2017, with a request that the Wells HCP Coordinating Committee further consider alternate times to implement lamprey operations; the Colville Confederated Tribes (CCT) abstained on August 16, 2017, until further internal review can be conducted; and the Washington State Department of Ecology (Ecology) approved on August 17, 2017 (Item VI-4).
2. Aquatic SWG members approved the Lamprey Operations SOA, "to implement a temporary 1.0-foot fishway-entrance head differential for Pacific Lamprey from 22:00 to 04:00 in 3-day

blocks alternating with 3-day blocks of normal fishway operating criteria during the 2017 Pacific Lamprey migration at Wells Dam," on August 28, 2017 (Item VI-4).

III. Agreements

1. Aquatic SWG members present support Pacific Lamprey translocation, beginning with translocating fish obtained from Priest Rapids Dam and lower Columbia River dams to locations upstream of Wells Dam in 2017. Translocation is needed due to uncertainty associated with interpreting studies of Pacific Lamprey passage behavior conducted under the Aquatic Settlement Agreement Pacific Lamprey Management Plan (ASA PLMP), if fish lack appropriate migration cues due to low abundance in the basin and a lack of pheromone or other migration cues at Wells Dam (Item VI-4).
2. Aquatic SWG members present support ongoing, planned, and new studies under the ASA PLMP focused on Pacific Lamprey passage at Wells Dam that do not involve collecting and interpreting fish behavior data (Item VI-4).
3. Aquatic SWG members present support development of new studies under the ASA PLMP focused on Pacific Lamprey passage at Wells Dam that involve collecting and interpreting fish behavior data. These studies would be implemented based on future discussions and decisions as to when Pacific Lamprey passage at Wells Dam and abundance in the basin have reached threshold levels for collecting and interpreting fish passage behavioral data (Item VI-4).
4. Aquatic SWG members present agreed to cancel the in-person meeting at Douglas PUD Headquarters in East Wenatchee, Washington, on Tuesday, August 22, 2017, from 12:00 to 4:00 p.m. to discuss the proposed 2018 Douglas PUD Pacific Lamprey Study design matrix (Item VI-4).
5. Aquatic SWG members present support Douglas PUD presenting an Aquatic SWG request to the Wells HCP Coordinating Committee for approval, to temporarily reduce the Wells Dam collection gallery head-differentials from the normal operating level of 1.5 feet, to a reduced operating level of 1.0 feet, from 17:00 to 00:59 daily during the remainder of the 2017 Pacific Lamprey migration (lamprey operations), similar to what was approved for the Douglas PUD 2013 Pacific Lamprey Study (Item VI-4).
6. Aquatic SWG members present agreed to add Steve Hemstrom (Chelan PUD) to the Aquatic SWG email distribution list (Item VI-5).

IV. Review Items

1. There are no items that are currently available for review.

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 other changes to the agenda. The following revisions were requested:

- Ralph Lampman added updates under the current Pacific Lamprey agenda item, including: 1) 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan; and 2) Pacific Lamprey translocation plans for upstream of Wells Dam.
- John Ferguson added a request to add Steve Hemstrom to the Aquatic SWG email distribution list.

The revised draft July 12, 2017, 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 July 12, 2017, conference call minutes, as revised.

Action items from the last Aquatic SWG meeting on July 12, 2017, are as follows (note: the following italicized item numbers correspond to agenda items from the July 12, 2017, meeting):

- *Douglas PUD will upload to the Passive Integrated Transponder (PIT) Tag Information System (PTAGIS) PIT tag data collected from the bird colony located on Washburn Island (Item VI-1).*

Andrew Gingerich uploaded these data and provided an update to Kristi Geris on July 26, 2017, which Geris distributed to the Aquatic SWG on July 27, 2017.

- *Douglas PUD will provide a draft summary update on the 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study to Kristi Geris for distribution to the Aquatic SWG (Item VI-4).*

Andrew Gingerich provided a draft summary update to Geris on July 17, 2017, which Geris distributed to the Aquatic SWG that same day.

- *The Aquatic SWG will further discuss 2005-2006 Rocky Reach and Wells project spill data during the Aquatic SWG conference call on August 9, 2017 (Item VI-5).*

This will be discussed during today's conference call.

- *Douglas PUD will provide Wells Dam turbine unit flow data and Rocky Reach Dam forebay and Wells Dam tailrace elevation data for review to Kristi Geris for distribution to the Aquatic SWG (Item VI-5).*
Andrew Gingerich said he is still working internally to compile these data. This action item will be carried forward.
- *Douglas PUD will try locating and distributing video of hydraulic model study results demonstrating how spill gate flow influences flow patterns in the Wells Dam tailrace, which was shared at a workshop around the time of relicensing (Item VI-5).*
Andrew Gingerich said he and Patrick Verhey have discussed this further and are still trying to understand the nature of this video and where it may be located. Verhey said he plans to review past notes and meeting minutes to determine when this video was presented, and Gingerich will continue searching for the video, as well. This action item will be carried forward.
- *Douglas PUD will provide an update on 2016 Douglas PUD Pacific Lamprey Study data to date to Kristi Geris for distribution and discussion during the Aquatic SWG conference call on August 9, 2017 (Item VI-5).*
Chas Kyger provided this update to Kristi Geris on July 26, 2017, which Geris distributed to the Aquatic SWG that same day.
- *Douglas PUD will discuss internally policy staff perspectives regarding potential 2017, 2018, and beyond Douglas PUD Pacific Lamprey Study designs, as discussed during the past two Aquatic SWG meetings (Item VI-5).*
This will be discussed during today's conference call.

2. White Sturgeon (Andrew Gingerich):

Wells Fish Hatchery Brood Year 2017 White Sturgeon Update

Andrew Gingerich recalled during the Aquatic SWG conference call on July 12, 2017, he reported that approximately 2,100 larval-origin fish were collected from Lake Roosevelt and transferred to Wells Fish Hatchery. Gingerich also recalled that Douglas PUD was considering requesting additional fish, realizing only 325 fish are needed for the program, but trying to prepare for different in-hatchery survival scenarios. He said after additional thought and discussion, and agreement from the CCT, approximately another 700 additional fish were transferred to Wells Fish Hatchery about 1 week following the Aquatic SWG conference call on July 12, 2017, which equals approximately 2,800 brood year 2017 white sturgeon on site at Wells Fish Hatchery this year.

Gingerich said initially, there were some fish mortalities, which is typical when fish are first brought on-station. He said mortality numbers have since decreased and he is optimistic those numbers will stay down. He added that hatchery staff continue to closely monitor fish condition.

Wells Fish Hatchery Staff Changes

Gingerich said there have been some WDFW staff changes at Wells Fish Hatchery and additional changes are expected to occur over the next few days. Gingerich said this includes some temporary staff at the hatchery, all of which are trained white sturgeon staff. He said Douglas PUD is helping support the new and temporary staff, as needed.

3. 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Update (Andrew Gingerich):

Andrew Gingerich said a draft summary update on the 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study (Attachment B) was distributed to the Aquatic SWG by Kristi Geris on July 17, 2017. Gingerich said there are no additional updates at this time; rather, he reserved this agenda item in case Aquatic SWG members had questions or comments on the summary. He said Douglas PUD plans to continue collecting data through the end of August 2017 and have a draft report for review ready in September 2017.

Steve Lewis asked if there have been additional detections since the summary was distributed on July 17, 2017. Gingerich said the contractor has likely downloaded more receivers; however, those data have not yet been processed. He said there has been one additional window count. He also noted that last week, the Twisp Weir was removed because broodstock collection was completed.

4. Pacific Lamprey (All):

Policy Staff Perspectives Regarding Potential 2017, 2018, and Beyond Douglas PUD Pacific Lamprey Study Designs (Andrew Gingerich)

Andrew Gingerich said last week, he and Shane Bickford (Douglas PUD policy staff) had a productive conversation about the most recent Pacific Lamprey technical information discussed within the Aquatic SWG, including the update on 2016 Douglas PUD Pacific Lamprey Study data to date (Attachment C), which was distributed to the Aquatic SWG by Kristi Geris on July 26, 2017. Gingerich said Bickford expressed the same concerns about Pacific Lamprey not approaching Wells Dam as previously discussed within the Aquatic SWG. Gingerich said there is interest in further investigating conversion rates post-2005. He said there are also concerns about translocating fish for use in studies without understanding whether the fish is an active migrant. He said the most talked about topic was whether there are pheromone cues upstream of Wells Dam. Gingerich said he expressed to Bickford that the Aquatic SWG seems interested in translocation. Gingerich said from a policy standpoint, if Douglas PUD supports a translocation study this suggests admission that the major concern is pheromones. He said considering this, Bickford questioned implementing additional

studies simultaneously with translocation. Gingerich said he believes Douglas PUD can be supportive of translocation efforts, with sideboards, and provided there is understanding from the Aquatic SWG there is concern with pheromones.

Chas Kyger added that Douglas PUD is willing to support translocation in lieu of "at dam" passage studies until adequate data exist to have confidence in the assumptions. He reiterated that Douglas PUD is interested in obtaining meaningful results.

Gingerich said he and Bickford also discussed at length a paired release study design. Gingerich said Bickford expressed concern that this approach is a very salmon-centric model and may not necessarily be appropriate for Pacific Lamprey, which do not return to a natal stream. Gingerich reminded the Aquatic SWG that the study designs outlined in the ASA PLMP are dedicated to "at dam" related studies.

John Ferguson recalled the three areas of focus (or bins): 1) passage at Wells Dam within the fishways; 2) within the Rocky Reach and Wells reservoirs; and 3) translocation. Ferguson said it seems Douglas PUD can support translocation as a high priority; however, cannot support Bob Rose's proposed "full-court press" approach involving multiple actions and studies addressing all three bins simultaneously. Ferguson asked, if the Aquatic SWG moves forward with translocation and defers ASA PLMP studies at the concrete, what does this mean? He asked if the Aquatic SWG would continue discussing potential study designs, so when translocation efforts produce efficient fish numbers the study(s) can be implemented? Gingerich agreed this is Douglas PUD's preference.

Steve Lewis asked, what are the near-term and long-term plans? He said he understands what Douglas PUD is saying about the ASA PLMP; however, he noted that since the ASA PLMP was written, the USFWS Section 18 Fishway Prescriptions have changed. He said not many fish are reaching Wells Dam and among the fish which do reach the dam, there is still an issue with passing the dam. He said the ASA PLMP does not only address "at dam" issues; it is also a tool designed to address all project effects.

Kyger said Douglas PUD plans to discuss with the Aquatic SWG how many fish need to be translocated, where these fish should come from, and where fish should be translocated to. He said a threshold also needs to be established which triggers initiating a study, and the study design needs to be clearly outlined. He said discussions about a study design will be ongoing during translocation efforts, so when the threshold is reached, there is no lag time and the study plan can be implemented immediately.

Lewis asked why translocation and other studies cannot be implemented simultaneously. He said he believes additional data are needed to inform potential remedies and suggested obtaining additional data at the concrete in addition to translocation efforts.

Gingerich reiterated that translocation, although outside the ASA PLMP, is an admission there may be a pheromone problem. He asked if this is the number one problem, why conduct other studies, especially knowing a low percentage of fish will even want to approach Wells Dam? Lewis said this is not known for certain. He added that it will take a lot of fish to establish some level of pheromone, and he does not want several years to pass by before conducting a study, and possibly discover there is no pheromone issue.

Ralph Lampman agreed with Lewis, adding that translocation is something that can be done now to check off the list; however, it is uncertain this is necessarily the issue. Lampman said at the same time, the Aquatic SWG should be actively evaluating other things to address any of the potential problems. He said regarding a paired release study design, he does not believe Pacific Lamprey are completely different from salmonids where this design would not produce useful data. He said if Pacific Lamprey are moving upstream below and above Wells Dam, this demonstrates some motivation similar to salmonids. He said it is important to PIT tag and acoustically tag as many fish as possible to determine where the issues may be.

Patrick Verhey said it is excellent news to hear Douglas PUD is interested in translocation. Verhey said this will be a great opportunity to collect more information on the life history of Pacific Lamprey. He said he agrees with Lewis regarding forward progress; however, Verhey also understands the dilemma of not enough fish attempting to pass Wells Dam to provide statistical data about dam passage. He agrees the Aquatic SWG needs to discuss what number of fish passing Wells Dam would trigger a study, and what studies might be prioritized over others. He said fish do not seem to be attempting to pass Wells Dam, and the task is to figure out why. He said in the past, Pacific Lamprey passage numbers over Wells Dam were much higher with similar run-size numbers. He said something must have happened in the Rocky Reach reservoir or at Wells Dam. He said he understands the biological concerns with a paired release study; however, he believes it is worth discussing more. He also suggested creating a statement explaining how these data will be used, as Douglas PUD has discussed.

Jason McLellan said the CCT have no additional comments at this time.

Ferguson acknowledged the comments expressed, and said at the least, it seems USFWS, the YN, and WDFW are clearly supportive of translocation. He said in the interest of forward progress, in terms of translocation, what can Douglas PUD accomplish in 2017?

Gingerich said he recently received an email from Lampman indicating there are fish available for translocation in 2017. Gingerich said he has not yet received formal comment from policy staff to support translocation this year. He said realistically, Douglas PUD has PIT tags to support a translocation effort in 2017. He said facility space for tagging fish is more difficult with the Wells Hatchery modernization still ongoing, as he is unsure what space is available. He said in terms of obtaining fish, pending approval from policy staff, Douglas PUD could probably obtain fish; however, Douglas PUD would need to also obtain a transport permit. He said there are also some other logistical details to work out. He said the last couple of days have been a bit hectic with the modernization and WDFW hatchery staff changes. He said at the very least, Douglas PUD will need a verbal agreement memorialized in the minutes that indicates this is the path forward the Aquatic SWG is agreeing to, in terms of translocation for "x" amount of years and thresholds.

Lampman said regarding a transport permit, the YN have a collection and transport permit for their overall transport program. He said when fish are transported, the fish are held at the YN's Prosser, Washington facility. Lampman said the YN's transport permit is submitted through WDFW, which incorporates WDFW fish health protocols. He said if the YN transfers fish from Priest Rapids Dam to Wells Dam, without holding the fish, the YN's collection permit should suffice.

Lampman said in 2017 the YN plan to translocate about 300 adult Pacific Lamprey from the Lower Columbia River to the Methow River basin. He said the YN would also like to translocate fish from Priest Rapids Dam to the mainstem Columbia River upstream of Wells Dam. He said Grant PUD can hold about 100 fish at Priest Rapids Dam and he hopes to trap another 200 fish at the dam on the same day, equaling about 300 fish total for translocating upstream of Wells Dam. He said it seems the Aquatic SWG is supportive of translocation, and he suggested taking action now, in 2017. He said at this point in the adult Pacific Lamprey migration, the window for trapping fish at Priest Rapids Dam is tight and suggested moving this forward as soon as possible. He said this is doable and worthwhile. He said he believes more discussion is needed regarding how many fish are needed to initiate a study at Wells Dam; therefore, he hopes to punt this discussion for now to keep from delaying translocation efforts in 2017. He suggested a second priority should be evaluating fish behavior upstream of Wells Dam. He said this has not yet been done and should be started as soon as possible.

Lewis said he thought Pacific Lamprey trapping at Priest Rapids Dam was already complete. Lampman said this is true for Chelan PUD; however, more fish are still expected. He said the YN considered trapping more this week; however, this would require holding fish over the weekend, which is not ideal. He said efforts are now targeted for next week and numbers

may decrease; however, the YN hope to still collect a couple hundred fish. He also noted that fish can be tagged at Priest Rapids Dam. He said the YN were also interested in finding a location for tagging closer to the Wells reservoir.

Kyger said Douglas PUD is also planning to conduct a literature review this fall 2017, of passage improvements at other dams to help inform potential future modifications at Wells Dam. He said this should provide a good knowledge base for when there are adequate fish passing Wells Dam to conduct a study. Lampman said the U.S. Army Corp of Engineers have produced publications, which may be a good resource. Kyger agreed.

Lewis asked Lampman if the YN are collecting clips to develop a genetic baseline for these fish. Lampman replied, yes, the YN collect genetic data from all fish they translocate. He added that genetic data are also collected from recaptured larval Pacific Lamprey from electrofishing surveys.

Ferguson said he feels the Aquatic SWG is making progress. He summarized that Douglas PUD is supportive of translocation so long as the Aquatic SWG agrees pheromone is a key issue. He said there are other non-passage studies underway, which are making progress toward "at dam" passage, while setting up for future studies. He said Douglas PUD is also considering support of actions in 2017, if the Aquatic SWG reaches verbal agreement on these topics.

Aquatic SWG members present support Pacific Lamprey translocation, beginning with translocating fish obtained from Priest Rapids Dam and lower Columbia River dams to locations upstream of Wells Dam in 2017. Translocation is needed due to uncertainty associated with interpreting studies of Pacific Lamprey passage behavior conducted under the ASA PLMP, if fish lack appropriate migration cues due to low abundance in the basin and a lack of pheromone or other migration cues at Wells Dam.

Aquatic SWG members present support ongoing, planned, and new studies under the ASA PLMP focused on Pacific Lamprey passage at Wells Dam that do not involve collecting and interpreting fish behavior data.

Aquatic SWG members present also support development of new studies under the ASA PLMP focused on Pacific Lamprey passage at Wells Dam that involve collecting and interpreting fish behavior data. These studies would be implemented based on future discussions and decisions as to when Pacific Lamprey passage at Wells Dam and abundance in the basin have reached threshold levels for collecting and interpreting fish passage behavioral data.

Douglas PUD will discuss Aquatic SWG support for Pacific Lamprey translocation activities with policy staff, as described under the Agreements section of these conference call minutes, and will provide confirmation of policy staff support of the agreement to Geris for distribution to the Aquatic SWG.

Douglas PUD will provide an outline of actions Douglas PUD can undertake in 2017 that support Pacific Lamprey translocation efforts in 2017, to Geris for distribution to the Aquatic SWG.

Lampman will review Pacific Lamprey discussions with Rose, as vetted during the Aquatic SWG conference call on August 9, 2017.

Lampman will request that Rose provide his approval via email of the Aquatic SWG Agreement regarding Aquatic SWG support for Pacific Lamprey translocation, as described under the Agreements section of these conference call minutes.

Ferguson suggested, given the discussions during today's conference call, canceling the Aquatic SWG in-person meeting on August 22, 2017. Aquatic SWG members present agreed to cancel the in-person meeting at Douglas PUD Headquarters in East Wenatchee, Washington, on Tuesday, August 22, 2017, from 12:00 to 4:00 p.m. to discuss the proposed 2018 Douglas PUD Pacific Lamprey Study design matrix.

"Lamprey Operations" (Steve Lewis)

Lewis said in terms of run size, there is a rather high crop this year, with about 2,600 Pacific Lamprey detected at Rock Island Dam and about 1,800 detected at Rocky Reach Dam. He asked if it may be beneficial to revisit the modified fishway entrance head differentials (lamprey operations), which were tested in 2013. He recalled, when the lamprey operations were last implemented, the run size was significantly lower than it is now. He said so far, a total of 13 fish have been counted at Wells Dam, which is a new high number in recent years.

Kyger recalled, in past years, the Aquatic SWG requested approval of lamprey operations from the Wells HCP Coordinating Committee, as best management practices; however, study results did not show anything significant, so Douglas PUD discontinued this practice because there was no justification to implement it again.

Lewis clarified that he is not suggesting conducting a comprehensive study; rather, he is interested in simply implementing the lamprey operations during this large run size year to see if more fish are detected in the Wells Dam fishways.

Gingerich asked, if a lot of fish are counted at the windows, will this mean the modified head differentials benefited Pacific Lamprey passage or just that there are a lot of fish this season? He also noted that if the Wells HCP Coordinating Committee requests data to justify implementing the lamprey operations, there are only 2013 data, which are minimal.

Ferguson said he believes the request can be communicated just as it is. He said, for example, here is what was done before, but there is interest to implement lamprey operations because of the abundance of Pacific Lamprey counts this year. He added that fish ladder passage may be an issue and the Aquatic SWG is trying to assess this issue with count data. He said this is not a perfect study, but it is progress.

Verhey agreed with this approach, and recalled the Wells HCP Coordinating Committee approved lamprey operations requests in the past, and he believes they will likely approve the request again. He said these window count data will help inform a more in-depth study. Lewis also recalled some discussion about exact timing to address concerns with Steelhead passage, which resulted in a slightly modified operations window.

Aquatic SWG members present support Douglas PUD presenting an Aquatic SWG request to the Wells HCP Coordinating Committee for approval, to temporarily reduce the Wells Dam collection gallery head-differentials from the normal operating level of 1.5 feet, to a reduced operating level of 1.0 feet, from 17:00 to 00:59 daily during the remainder of the 2017 Pacific Lamprey migration (September 1 through September 30, 2017; lamprey operations), similar to what was approved for the Douglas PUD 2013 Pacific Lamprey Study.

Aquatic SWG technical representatives will discuss with their respective Wells HCP Coordinating Committee representatives Douglas PUD's intent to present an Aquatic SWG request during the HCP Coordinating Committees meeting on August 22, 2017, for approval of reduced Wells Dam fishway entrance head differentials from the normal operating level of 1.5 feet, to a reduced operating level of 1.0 feet, from 17:00 to 00:59 daily during the remainder of the 2017 Pacific Lamprey migration season (September 1 through September 30, 2017; lamprey operations), similar to what was approved for the Douglas PUD 2013 Pacific Lamprey Study.

Douglas PUD will distribute to the Wells HCP Coordinating Committee an Aquatic SWG request to implement reduced Wells Dam fishway entrance head differentials during the remainder of the 2017 Pacific Lamprey migration season (September 1 through September 30, 2017; lamprey operations) no later than 10 days prior to the HCP Coordinating Committees meeting on August 22, 2017, when Douglas PUD will request approval of the decision item.

Note—

After further internal discussion, Douglas PUD determined a formal SOA was needed from USFWS or another Aquatic SWG member who is requesting the temporary modification. WDFW developed a draft Lamprey Operations SOA, which was distributed to the Aquatic SWG by Kristi Geris on August 11, 2017. Edits to the draft SOA were received from USFWS on August 11, 2017, and a revised SOA was distributed to the Aquatic SWG by Geris that same day. Douglas PUD also provided edits on August 15, 2017, and a second revised SOA was distributed to the Aquatic SWG by Geris that same day.

Aquatic SWG members approved via email the Lamprey Operations SOA requesting Wells HCP Coordinating Committee concurrence, "to implement a temporary 1.0-foot Fishway-entrance Head Differential for Pacific Lamprey from 17:00 to 00:59 daily during the 2017 Pacific Lamprey Migration at Dam," as follows: Douglas PUD approved on August 15, 2017; USFWS approved on August 16, 2017; WDFW and the YN approved on August 16, 2017, with a request that the Wells HCP Coordinating Committee further consider alternate times to implement lamprey operations; the CCT abstained on August 16, 2017, until further internal review can be conducted; and Ecology approved on August 17, 2017.

The Aquatic SWG-approved SOA (Attachment D) was distributed to the Wells HCP Coordinating Committee by Geris on August 17, 2017, for consideration and approval during the HCP Coordinating Committees meeting on August 22, 2017.

The Wells HCP Coordinating Committee approved the Aquatic SWG Lamprey Operations SOA (Attachment D), contingent upon: 1) Aquatic SWG review of 2013 radio-telemetry data regarding changes in fishway approach and ladder passage behavior of Pacific Lamprey when the fishway entrances are operated at a head differential of 1.0 foot; 2) change in hours of operation to 22:00 to 04:00; 3) consider implementing 1- or 2-day block operations (the Wells HCP Coordinating Committee prefers 2-day blocks); 4) Aquatic SWG in-season management of operations based on analysis of daily fish counts, including discontinuing operations if negative impacts from the operation are observed; and 5) a post-season report will be provided to the Wells HCP Coordinating Committee, which reviews results of the operation based on fish counts.

The Aquatic SWG convened a conference call on August 28, 2017, to discuss the HCP Decision about the Aquatic SWG Lamprey Operations SOA (Attachment D). After discussing the contingencies of approval, the Aquatic SWG agreed to all contingencies; however, modified implementing the lamprey operations in 2-day blocks to 3-day blocks. The Aquatic SWG Lamprey Operations SOA was updated to incorporate the Wells HCP Coordinating Committees' contingencies, including the 3-day blocks, was approved by the Aquatic SWG on August 28,

2017 (Attachment E), and was distributed to the Aquatic SWG by Geris on August 30, 2017. Douglas PUD also drafted a Wells HCP Coordinating Committee SOA to formalize approval of the new Aquatic SWG SOA, which was distributed to the Wells HCP Coordinating Committee for email approval by Geris on August 30, 2017. Wells HCP Coordinating Committee representatives approved via email the Wells HCP Coordinating Committee SOA, "To implement temporary fishway 'lamprey operations' in alternating 3-day blocks with normal operations during the 2017 Pacific Lamprey migration at Wells Dam," (Attachment F) as follows: Douglas PUD approved on August 30, 2017, and NMFS, USFWS, WDFW, the YN, and the CCT approved on August 31, 2017. The Wells HCP Coordinating Committee SOA (Attachment F) was distributed to the Aquatic SWG by Geris on August 30, 2017.

2016 Douglas PUD Pacific Lamprey Study Data (Chas Kyger)

Kyger said an update on 2016 Douglas PUD Pacific Lamprey Study data to date (Attachment C) was distributed to the Aquatic SWG by Geris on July 26, 2017. Kyger noted that several tags at last download were at the end of their tag life; therefore, some results may be slightly ambiguous. He said these data will still provide an idea of where fish were located. He said one Douglas PUD receiver was lost and not transmitting data, and one Chelan PUD receiver was not operating properly. He said Douglas PUD is waiting for these final data to be downloaded before drafting a report.

2005-2006 Rocky Reach and Wells Projects Spill Data (John Ferguson)

Ferguson recalled the action item to further discuss 2005-2006 Rocky Reach and Wells project spill data during the Aquatic SWG conference call on August 9, 2017. The Aquatic SWG had no further comments at this time. Ferguson suggested closing out this action item for now and revisiting it at a later date, if needed.

2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan (Ralph Lampman)

Lampman said the 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan (Attachment G) was distributed to the Aquatic SWG by Geris prior to the conference call on August 9, 2017. Lampman said the YN are planning to translocate roughly 300 fish to locations similar to past years. He said both low and high river flow and upstream and downstream locations will be evaluated. He said release locations include some near the mouth of the Methow River, where a PIT array is located, as well as below the Twisp River and Chewuch River confluences with the Methow River. He said a small number of fish will be released in the Twisp and Upper Methow rivers, which was initially done spring 2017. He said these release locations will be repeated to monitor spawning and production out of those systems. He said release dates may be around the end of August or first week in September 2017. He said all releases will be conducted in 1 or 2 days. He added that he will confirm

dates and release locations for the 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan, once those details are confirmed. He also welcomed comments and suggestions regarding release locations and numbers. *(Note: Lampman provided dates and release locations for the 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan to Geris on September 5, 2017, which Geris distributed to the Aquatic SWG that same day.)*

Pacific Lamprey Translocation Plans for Upstream of Wells Dam (Ralph Lampman)

Lampman said during the last Rocky Reach Fish Forum meeting, there was discussion about the high number of Pacific Lamprey being collected at Priest Rapids Dam. He said at that time, collection for Chelan PUD was almost complete and the earliest collection could start for the YN was today, August 9, 2017. He said this would not work, so collection is now targeted for next Wednesday, August 16, 2017.

Lampman said the CCT are interested in collecting fish at Priest Rapids Dam and translocating them near the Methow River. Lampman proposed releasing 40 percent of the fish at a boat launch located about 1 mile upstream of Wells Dam, 20 percent of the fish below the confluence of the Methow River, 20 percent of the fish below the confluence of the Okanogan River, and 20 percent of the fish to a tributary within the Okanogan River that is not too warm. He said, in general, Kirk Truscott (CCT) agrees with this plan.

Lampman said the YN will also coordinate with Douglas PUD to solidify plans for translocating fish obtained from Priest Rapids Dam to locations upstream of Wells Dam in 2017. Ferguson asked what number the YN are targeting from Priest Rapids Dam. Lampman said, as many as possible in 1 or 2 days, but hopefully at least 300 fish.

5. Aquatic SWG Email Distribution – Steve Hemstrom (John Ferguson):

John Ferguson said Steve Hemstrom recently requested the latest information on Douglas PUD Pacific Lamprey studies and to be added to Aquatic SWG email distribution list. Aquatic SWG members present agreed to add Hemstrom to the Aquatic SWG email distribution list.

VII. Next Meetings

1. Upcoming meetings (John Ferguson):

The Aquatic SWG meeting on September 13, 2017, will be held by conference call.

Upcoming meetings are as follows: October 11, 2017 (TBD); November 8, 2017 (TBD); and December 13, 2017 (TBD).

List of Attachments

- Attachment A List of Attendees
- Attachment B Draft Summary Update on the 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study
- Attachment C Update on 2016 Douglas PUD Pacific Lamprey Study Data to Date
- Attachment D Aquatic SWG Lamprey Operations SOA (approved August 16, 2017)
- Attachment E Aquatic SWG Lamprey Operations SOA (approved August 28, 2017)
- Attachment F Wells HCP Coordinating Committee Lamprey Operations SOA
- Attachment G 2017 Fall Methow Subbasin Adult Pacific Lamprey Release Plan

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
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Chad Jackson	Technical Support	Washington Department of Fish and Wildlife
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes
Ralph Lampman	Technical Support	Yakama Nation
Sean Goudy	Technical Support	Yakama Nation