

Final Conference Call Minutes



Aquatic Settlement Work Group

To: Aquatic SWG Parties **Date:** February 10, 2016
From: John Ferguson, Chair (Anchor QEA, LLC)
Re: Final Minutes of the January 13, 2016 Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, January 13, 2016, from 10:00 a.m. to 11:15 a.m. Attendees are listed in Attachment A of these meeting minutes.

I. Summary of Action Items

Documents for Approval on February 10, 2016	Review Deadline
Draft 2015 Juvenile Lamprey Habitat Evaluation Study Report	1/19/2016
Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan	1/19/2016
Draft 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Plan	2/8/2016
Draft 2015 Wells Dam Gas Abatement Plan and Total Dissolved Gas Report	2/8/2016
Draft 2016 Wells Dam Gas Abatement Plan and Bypass Operating Plan	2/8/2016
Draft 2016 Aquatic Settlement Agreement Action Plan	2/10/2016

Note:

See Section IV for more details.

1. Bob Rose will discuss internally the Colville Confederated Tribes' (CCTs') proposed criteria for culling juvenile white sturgeon and report back to the Aquatic SWG (Item VI-1).
2. Steve Lewis will investigate what actions are required of agencies conducting Pacific lamprey translocation activities in the Mid-Columbia Basin, with regard to Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS; Item VI-1).
3. Andrew Gingerich will coordinate with Kristi Geris to distribute details regarding the next Aquatic SWG meeting on February 10, 2016, to be held in-person at Wells Dam in

Wenatchee, Washington (Item VI-3). *(Note: Gingerich provided these details to Geris on January 29, 2016, which Geris distributed to the Aquatic SWG that same day.)*

4. Bob Rose will provide a report detailing the 2015 Yakama Nation (YN) Lamprey Translocation Releases in the Methow Basin, and the YN Pacific Lamprey Supplementation and Monitoring Frameworks, once available, to Kristi Geris for distribution to the Aquatic SWG (Item VI-10).
5. **The Aquatic SWG meeting on February 10, 2016, will be held in-person at Wells Dam in Wenatchee, Washington (Item VII-1).**

II. Summary of Decisions

1. The Washington State Department of Ecology (Ecology) provided a letter to Douglas PUD on January 22, 2016, approving Douglas PUD's Total Dissolved Gas (TDG) Reasonable and Feasible Analysis (Attachment B), which was approved by the other Aquatic SWG Technical Representatives on December 10, 2014, contingent on approval by Ecology.

III. Agreements

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

IV. Review Items

1. Kristi Geris sent an email to the Aquatic SWG on December 4, 2015, notifying them that the Draft 2015 Juvenile Lamprey Habitat Evaluation Study Report is available for a 45-day review period, with edits and comments due to Chas Kyger by Tuesday, January 19, 2016 (Item VI-9).
2. Kristi Geris sent an email to the Aquatic SWG on December 4, 2015, notifying them that the Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan is available for a 45-day review period, with edits and comments due to Chas Kyger by Tuesday, January 19, 2016 (Item VI-8). *(Note: Following a coordination call with members of the Aquatic SWG on February 1, 2016, Kyger provided a second Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan on February 5, 2016, which Geris distributed to the Aquatic SWG that same day.)*
3. Kristi Geris sent an email to the Aquatic SWG on January 5, 2016, notifying them that the Draft 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Plan is available for a 30-day review period, with edits and comments due to Andrew Gingerich by Monday, February 8, 2016 (Item VI-7).
4. Kristi Geris sent an email to the Aquatic SWG on January 5, 2016, notifying them that the Draft 2015 Wells Dam Gas Abatement Plan (GAP) and TDG Report and Draft 2016 Wells Dam GAP and Bypass Operating Plan (BOP) were available for a 30-day review period, with edits and comments due to Andrew Gingerich by Monday, February 8, 2016 (Item VI-4).
5. Kristi Geris sent an email to the Aquatic SWG on January 12, 2016, notifying them that the Draft 2016 Aquatic Settlement Agreement (ASA) Action Plan is available for a 30-day review

period, with edits and comments due to Andrew Gingerich by Wednesday, February 10, 2016 (Item VI-2).

6. Kristi Geris sent an email to the Aquatic SWG on February 8, 2016, notifying them that the Draft 2015 Aquatic Nuisance Species Management Plan Annual Report is available for a 30-day review period, with edits and comments due to Chas Kyger by Tuesday, March 8, 2016.

V. Documents Finalized

1. The Douglas PUD TDG Reasonable and Feasible Analysis was finalized following receipt of Ecology's approval letter, and was redistributed to the Aquatic SWG by Kristi Geris on January 25, 2016 (originally distributed November 10, 2014).

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 opened the meeting. Ferguson reviewed the agenda and asked for additions or other changes to the agenda. No additions or changes were requested.

The revised draft December 9, 2015, 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. She said she also added the Draft 2015 Wells Dam GAP and TDG Report, Draft 2016 Wells Dam GAP and BOP, and Draft 2016 ASA Action Plan under the review items. Aquatic SWG members present approved the December 9, 2015, conference call minutes, as revised.

Ferguson reviewed action items from the last Aquatic SWG conference call on December 9, 2015, and follow-up discussions were as follows (*note: italicized item numbers below correspond to agenda items from the December 9, 2015, meeting*):

- *Bob Rose will provide the Draft YN Pacific Lamprey Supplementation and Monitoring Frameworks to Kristi Geris for distribution to the Aquatic SWG (Item VI 1).*
This will be discussed during today's conference call.
- *Bob Rose will discuss internally the CCT's proposed criteria for culling juvenile white sturgeon and report back to the Aquatic SWG during the conference call on January 13, 2016 (Item VI-1).*
Rose said he sent a message to Donella Miller (YN); however, he has not yet been able to discuss the proposed criteria with her. This action item will be carried forward.
- *Bob Rose will provide details on the recent YN lamprey translocation releases in the Methow Basin, including details regarding monitoring and evaluation (M&E) planning, during the Aquatic SWG conference call on January 13, 2016 (Item VI-1).*

This will be discussed during today's conference call.

- *Douglas PUD will provide the Draft 2015 Wells Dam GAP and TDG Report and Draft 2016 Wells Dam GAP and BOP to Kristi Geris by January 8, 2016, for distribution to the Aquatic SWG, for a 30-day review, with approval of the documents scheduled for the Aquatic SWG meeting on February 10, 2016 (Item VI-2).*

Andrew Gingerich provided the draft 2015 report and draft 2016 study plan to Geris on January 5, 2016, which Geris distributed to the Aquatic SWG that same day.

- *Douglas PUD will provide the Draft 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Plan to Kristi Geris by January 8, 2016, for distribution to the Aquatic SWG, for a 30 day review, with approval of the plan scheduled for the Aquatic SWG meeting on February 10, 2016 (Item VI-3).*

Andrew Gingerich provided the draft study plan to Geris on January 5, 2016, which Geris distributed to the Aquatic SWG that same day.

- *Steve Lewis will investigate what actions are required of agencies conducting Pacific lamprey translocation activities in the Mid-Columbia Basin, with regard to a Section 7 consultation with the USFWS (Item VI-4).*

This action item will be carried forward.

- *Discussion on potential lamprey translocation and tagging opportunities will continue during the Aquatic SWG conference call on January 13, 2016 (Item VI-4).*

This will be discussed during today's conference call.

- *The Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan will be discussed during the Aquatic SWG conference call on January 13, 2016 (Item VI-4).*

This will be discussed during today's conference call.

2. **Draft 2016 ASA Action Plan** (Andrew Gingerich): Andrew Gingerich said Kristi Geris sent an email to the Aquatic SWG on January 12, 2016, notifying them that the Draft 2016 ASA Action Plan is available for a 30-day review period, with edits and comments due to Gingerich by Wednesday, February 10, 2016. Gingerich said the action plan is not required under the Federal Energy Regulatory Commission (FERC) license for the Wells Project; rather, Douglas PUD develops the plan each year as a courtesy to the Aquatic SWG so members know what to expect in the year to come and can review and comment on the timeline and content of scheduled activities. He said the action plan also lays out a schedule of activities, which helps Douglas PUD anticipate contracting and other preparations.

Gingerich said the plan is organized in six sections that correspond to each ASA Management Plan, which is consistent with past years. Gingerich highlighted a few items as follows:

ASA White Sturgeon Management Plan

B9. Develop a draft broodstock and breeding plan for Years 5 to 10 – August 2016

Gingerich said 2016 is the final year of the Phase I juvenile white sturgeon collection effort, and this year, the Aquatic SWG needs to begin discussing how to stock the remaining 15,000 fish in Years 5 to 10. John Ferguson asked if a step needs to be added for Aquatic SWG approval of the broodstock and breeding plan prior to FERC submittal. Gingerich agreed and said he would incorporate that step.

ASA Bull Trout Management Plan

C1. Wells Dam and Twisp Weir Radio-Telemetry Study Plan for review – January 2016

Gingerich noted that the Draft 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Plan is currently out for review.

ASA Water Quality Management Plan

D1. 2015 GAP Report to Aquatic SWG and National Marine Fisheries Service for review – January 2016

D5. 2016 GAP and BOP Draft for review – January 2016

Gingerich noted that the Draft 2015 Wells Dam GAP and TDG Report and Draft 2016 Wells Dam GAP and BOP are currently out for review.

ASA Pacific Lamprey Management Plan

E3. Final Juvenile Lamprey Habitat Evaluation Study Report – Aquatic SWG approval in February 2016

E4. 2016 Pacific Lamprey Approach, Passage, and Enumeration Study Plan – Aquatic SWG approval in February 2016

Gingerich noted that the Draft 2015 Juvenile Lamprey Habitat Evaluation Study Report and Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan are currently out for review.

ASA Resident Fish Management Plan

G2. 2015 Pikeminnow Report incorporated into ASA Annual Report to FERC – March 2016

Ferguson asked if a step needs to be added for Aquatic SWG approval of the 2015 Pikeminnow Report prior to FERC submittal. Chas Kyger explained that formal approval of pikeminnow materials is the purview of the Wells Habitat Conservation Plan (HCP) Coordinating Committee; therefore, Aquatic SWG approval is not needed.

3. **Wells Dam Fishway Maintenance and Site Visit** (Andrew Gingerich): Andrew Gingerich said the annual winter maintenance at Wells Dam is on schedule to rewater the west fishway by the end of this week and dewater the east fishway by early February 2016. Gingerich said this presents an opportunity for a tour of the Wells Dam fishway coupled with an in-person meeting for the Aquatic SWG meeting on February 10, 2016. He said he needs to obtain an official maintenance schedule from Wells Dam staff; however, he believes a tour can be accommodated.

John Ferguson, said last year, he had the opportunity to tour the dewatered fish ladder and view the low-level entrance where the lamprey entrance boxes will be installed and also the lamprey enumeration system at the count window. He said it was very helpful to see. He asked about maintenance schedule dates, and Chas Kyger said dewatering and a fish salvage is scheduled the first week in February 2016; then the ladder will be dewatered until after the Aquatic SWG meeting on February 10, 2016. Gingerich said Wells Dam staff will likely accommodate a tour request; however, the sooner the request, the better. He suggested convening the meeting at Wells Dam from 10:30 a.m. to 12:00 p.m., take lunch from 12:00 to 12:30 or 1:00 p.m., and then participate in the tour from 1:00 to 2:00 p.m., approximately. He said a caravan can leave from Douglas PUD Headquarters in East Wenatchee, Washington, or Aquatic SWG members can meet at Wells Dam. He also noted that a Wells Dam site visit and in-person meeting can always wait until it works best for Aquatic SWG members' schedules.

Patrick Verhey agreed an in-person meeting is long overdue; however, he is not yet certain February 2016 is the best time for his schedule. He added that an in-person meeting may be more convenient in a couple of months. Bob Rose and Ferguson said an in-person meeting in February 2016 works for their schedules. Gingerich said he will coordinate with Kristi Geris to distribute details regarding the next Aquatic SWG meeting on February 10, 2016, to be held in-person at Wells Dam in Wenatchee, Washington. *(Note: Gingerich provided these details to Geris on January 29, 2016, which Geris distributed to the Aquatic SWG that same day.)*

4. **Draft 2015 Wells Dam GAP and TDG Report and Draft 2016 Wells Dam GAP and BOP**
(Andrew Gingerich): Andrew Gingerich said Kristi Geris sent an email to the Aquatic SWG on January 5, 2016, notifying them that the Draft 2015 Wells Dam GAP and TDG Report and Draft 2016 Wells Dam GAP and BOP were available for a 30-day review period, with edits and comments due to Gingerich by Monday, February 8, 2016. Gingerich recalled that the 2015 report summarizes water quality compliance throughout the past year, and the 2016 plan provides a path forward in terms of operation, safety, and spill implemented at the Wells Project in the coming year. He said both documents are due to FERC at the end of February 2016, and Douglas PUD is requesting approval of both documents during the Aquatic SWG meeting on February 10, 2016, in order to develop the consultation record to FERC by the submittal deadline. He said the 2016 plan is similar to last year, and because river flow was so low in 2015, the 2015 report is straightforward with nothing out of the ordinary to note.

Bob Rose asked if Douglas PUD has received feedback from Ecology regarding review of this report. Patrick Verhey noted that during the last Rocky Reach Fish Forum (RRFF) meeting, Charlie McKinney notified the RRFF that Anna Harris accepted a different position and will no longer be the Ecology Technical Representative on the various fish forums. Verhey said Ecology is once again beginning the process of searching for a new Ecology Clean Water Act Section

401/Hydroprojects Manager. Gingerich said Douglas PUD will be working directly with McKinney regarding Ecology approval of both the 2015 Wells Dam GAP and TDG Report and 2016 Wells Dam GAP and BOP. Gingerich noted that Ecology's review and approval of the 2016 plan is required in order to adjust the TDG standard for the fish bypass season.

5. **2016 Water Year** (Andrew Gingerich): Andrew Gingerich said he provided an email containing water data (Attachment C) to Kristi Geris on January 7, 2016, which Geris distributed to the Aquatic SWG that same day. Gingerich explained that the first figure in the email depicts observed (2015) and average (since 1969) monthly river flow at Wells Dam, which, he noted, is also discussed in the 2015 Wells Dam GAP and TDG Report. He said that the freshet historically occurs from about May to July 2015; however, in 2015 flow was well below average for those months. He also noted the fairly wet spring relative to historical norms. He said the second part of that email includes a 3-month prediction released by the National Oceanic and Atmospheric Administration, which predicts a warmer, dryer Pacific Northwest and a wetter California from January to March 2016 (based on a 30-year average). He said this prediction was somewhat surprising considering the above-average precipitation the region has received in December 2015 and January 2016 to date.

6. **Wells White Sturgeon Rearing Update** (Andrew Gingerich): Andrew Gingerich said, as of January 1, 2016, there were about 7,700 larval-origin white sturgeon on station at Wells Dam for the 5,000-fish program. He said, during the first week of December 2015, there was a surprising 900-fish loss. He said more than half the loss came from two tanks holding the smallest fish. He said once fish reach about 25 to 30 grams in weight, they become more resilient and rearing mortality precipitously declines. He said, during the last 2 weeks of December 2015, there were essentially zero mortalities. He said Donella Miller distributed to the RRF and Priest Rapids Fish Forum fish size data for fish on station at Marion Drain. He said, on average, fish on station at Marion Drain weigh about 58 grams each. He said, comparatively, fish on station at Wells Dam weigh about 41 grams each, which is 30% smaller than fish at Marion Drain. He said this is not surprising, because when larval-origin white sturgeon are brought on station at Wells Dam, they are kept on fairly cold water for 3 months to help improve survival and feed training. He said Douglas PUD is confident in this approach, and noted that a larval-origin program has far less flexibility to incur losses compared to a direct gamete-origin program (more fish available in the latter). He said he expects the fish to do fairly well during the next 4 to 5 months, and anticipates having surplus fish. He said Douglas PUD will begin discussing the fate of these surplus fish with the Washington Department of Fish and Wildlife (WDFW).

Jason McLellan questioned why Douglas PUD chooses to retain fish on cold water for 3 months when this is resulting in fish mortalities several months into the rearing cycle. He said, generally, feed training can be achieved within the first couple of weeks, or 1 month at the maximum. He questioned why water temperatures are not increased earlier to grow fish to larger sizes. He

said Douglas PUD's current approach seems contradictory if the goal is to increase survival, but then fish are kept small longer, resulting in losses later in the program. Gingerich said Douglas PUD is open to improving hatchery rearing; however, he also noted that the program has been fairly successful, with about 40% survival, which no other larvae rearing hatchery has accomplished to date. He said one thing hatchery staff have noticed is fish are not graded until about 3 months into the rearing cycle, and losses decrease once fish are graded. He speculated there may be some cannibalism between the bigger fish and smaller fish, despite being fed as much feed as they can take. He said there are several moving parts, but Douglas PUD feels pretty good about the condition and number of fish currently on station. John Ferguson asked McLellan if the CCT would like to discuss this further offline with Douglas PUD and WDFW. McLellan said further discussion is not needed.

Gingerich recalled discussing in 2015, a possible in-person meeting with Douglas PUD, the CCT, and Ferguson to discuss developing guidelines for hatchery rearing of juvenile white sturgeon. Gingerich suggested also including WDFW in this meeting, and possible modifications to the Douglas PUD White Sturgeon Program could be discussed. McLellan said he would be interested in participating in such a meeting; however, he also acknowledged that several entities have experience with white sturgeon rearing, and not everyone has the same methods. He said for many people, including himself, methods are partially based on personal experiences. He said he believes the only real way to address some of these personal preferences is to conduct research. He said that although methods can be discussed, he does not believe agencies will want to spend time and money researching these questions when programs are fairly successful in meeting requirements. He said unless people really want to start getting into these questions (i.e., conduct studies), he is unsure how valuable a meeting, such as the one proposed, would be for the purpose of this program. Ferguson agreed and suggested convening a meeting only if needed.

7. Draft 2016/2017 Adult Bull Trout Passage at Wells Dam and Twisp Weir Study Plan

(Andrew Gingerich): Andrew Gingerich said Kristi Geris sent an email to the Aquatic SWG on January 5, 2016, notifying them that the Draft 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Plan is available for a 30-day review period, with edits and comments due to Gingerich by Monday, February 8, 2016. Gingerich briefly reviewed the following items in the draft plan:

Figure 1. Annual Percentage of Bull Trout that Passed Wells Dam during the Month of May and June in a Given Year.

Gingerich said Figures 1 through 3 provide historical information to consider in terms of sample size. He said Figure 1 shows that historically, peak upstream passage of adult bull trout through the fish ladders at Wells Dam has typically occurred in May and June (mean = 89%); therefore, as reflected in the plan, it makes sense to propose collecting fish during this time.

Figure 2. Total Annual Bull Trout Counts at Wells Dam Count Windows from 2000 to 2015 and the 16-Year Average.

Gingerich said this figure shows that historically, there is a cyclical nature in counts, and counts have been in a downward trend since 2014. He said, on average (since 2000), only about 73 adult bull trout have been counted in the ladders per year.

Figure 3. Bull Trout Annual Ladder Preference as a Percent of Fish that Used a Given Ladder at Wells Dam.

Gingerich said this figure shows that historically, adult bull trout preference to pass Wells Dam via the east or west fish ladders is about equal. He said the plan proposes to trap at one of two fish ladders at Wells Dam.

Section 1.4. Douglas Aquatic Settlement Agreement and Bull Trout Management Plan and Study Objectives

Gingerich said this section includes the goals of the study, which were copied directly from the regulatory documents.

Figure 5. Number of New and Previously Passive Integrated Transponder (PIT)-Tagged Adult Bull Trout Encountered at the Twisp River Weir from 2010 to 2015.

Gingerich said this figure shows, historically, the number of bull trout encountered at the Twisp Weir. He said trapping will likely be more successful at the Twisp Weir compared to Wells Dam because more fish pass the weir than the dam each year.

Figure 6. Arrival of Previously PIT-Tagged Bull Trout at the Twisp Weir in 2014 and 2015.

Gingerich said this figure shows, historically, when bull trout arrive at the Twisp Weir. He said this is important to consider when determining when to conduct the trapping effort. He said, in 2014, bull trout began arriving at the weir more toward the end of June and the beginning of July. He said, in 2015, bull trout began arriving 2 weeks earlier than in 2014, which may have been related to river-flow and water-temperature conditions in 2015.

Table 1. Number of Bull Trout Expected to be Captured at Wells Dam in 2016.

Gingerich said this table estimates the number of bull trout that may be captured and tagged at Wells Dam in 2016. He said this table notes the challenges of capturing 30 fish at Wells Dam. He said Douglas PUD wants to be realistic and transparent with goals and what might be accomplished.

Table 2. Estimated Tag Burden Using 16.0 Gram MCFT2-3BM Radio Tags and 0.1 g PIT-Tag.

Gingerich said this table summarizes tag burden.

Table 3. Fixed Station Receiver Locations at Wells Dam and in the Twisp River.

Gingerich said this table summarizes the locations of antennas.

Figure 7. Distribution of PIT-tag arrays in the Upper Mid-Columbia.

Gingerich said this figure shows the locations of PIT-tag arrays.

Section 3.5. Statistical Analyses and Reporting

Gingerich said the plan ends with a discussion of statistics and how to analyze passage and survival success.

Table 7. Estimated Timeline for Study Development, Implementation and Reporting.

Gingerich said this table summarizes the schedule for the study.

Gingerich encouraged the Aquatic SWG to review the entire plan. He said Douglas PUD would like to obtain Aquatic SWG approval of the draft plan during the Aquatic SWG meeting on February 10, 2016. He said Douglas PUD will also request Wells HCP Coordinating Committee approval of the draft plan. He said obtaining approval of the plan in February 2016 allows time to complete a number of steps with contracting, ordering supplies, and obtaining Commissioner approval, which all need to happen before May 2016. He requested that if Aquatic SWG members need additional time for review, that they please send that feedback as soon as possible. He also indicated that an email approval may be arranged, as needed.

8. **Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan** (Chas Kyger):
Chas Kyger said Kristi Geris sent an email to the Aquatic SWG on December 4, 2015, notifying them that the Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan is available for a 45-day review period, with edits and comments due to Kyger by Tuesday, January 19, 2016. Kyger asked the Aquatic SWG if anyone had questions on the plan at this point in time.

Patrick Verhey asked why the tag type was changed. Kyger explained that an acoustic tag seemed to be the better choice to address the approach question. He said radio telemetry is a good choice for small-scale detection within the fish ladder; however, it is not a good way to detect the approach. Andrew Gingerich added that acoustic tags function better in bigger water, while radio tags function better in air. He further explained that in shallower waters, where air is entrained, radio tags function better, compared to acoustic tags that function better in a reservoir setting where the signal can be sent and heard farther away on a receiver. Kyger recalled that recent data emerged, which identified possible approach issues; therefore, the Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan revisits the approach being used to determine how translocated lamprey approach and pass Wells Dam.

John Ferguson asked if the study plan has changed since the Aquatic SWG meeting last month, and Kyger replied that it has not.

Bob Rose said Figure 3 (a map of acoustic telemetry receiver locations in the Wells Dam Tailrace) shows one receiver on each fishway and another receiver directly downstream of Wells Dam. He asked if the placement of the third receiver was to form a 3-D arrangement for detecting fish moving into the fishways. Kyger said Douglas PUD discussed using a 3-D arrangement, or triangulation, with Vemco; however, it was determined that it would be too difficult to achieve in that type of turbulent environment. He said, for now, the focus is only on detecting Pacific lamprey approaching the dam downstream of the fish ladders. Rose said this is okay for this year; however, Douglas PUD needs to address entrance efficiency at some point in time, and sooner than later. He added that he does not want to prolong obtaining this information year after year. He said if the 2016 water year projection is close to correct, there may be less turbulence this year than during a normal year. He said he believes Douglas PUD needs the 3-D data, and there may be noise to deal with, but those data can still be useful.

Rose also questioned the proposed number of study fish. He said he is not supportive of the minimalist approach. Kyger explained that the 50-fish sample size will be in addition to Grant PUD's study, which includes analyzing data from 100 study fish released at Priest Rapids Dam. He said Douglas PUD is anticipating 75 to 100 tagged fish upstream of Rocky Reach Dam to observe and collect data.

Rose suggested installing receivers in front of the Methow and Okanogan rivers in case study fish move near those locations. Kyger said Douglas PUD has an array of acoustic receivers throughout the Wells Reservoir and upstream of Wells Dam. Rose said he appreciates that, and will call Douglas PUD to discuss the plan in more detail. *(Note: Following a coordination call with members of the Aquatic SWG on February 1, 2016, Kyger provided a second Revised Draft 2016 Lamprey Approach, Passage, and Enumeration Study Plan on February 5, 2016, which Geris distributed to the Aquatic SWG that same day.)*

9. **Draft 2015 Juvenile Lamprey Habitat Evaluation Study Report** (Chas Kyger): Chas Kyger said Kristi Geris sent an email to the Aquatic SWG on December 4, 2015, notifying them that the Draft 2015 Juvenile Lamprey Habitat Evaluation Study Report is available for a 45-day review period, with edits and comments due to Kyger by Tuesday, January 19, 2016. Kyger asked the Aquatic SWG if anyone had questions on the report at this point in time. Aquatic SWG members had no questions or comments at this time.

10. **Recent YN Lamprey Translocation Releases in the Methow Basin and Draft YN Pacific Lamprey Supplementation and Monitoring Frameworks** (Bob Rose): Bob Rose said, with regard to the YN Pacific lamprey translocation releases in the Methow Basin that took place last fall 2015,

admittedly, YN coordination with certain entities and fish forums was not conducted the way the YN prefers to do business; however, it just happened that way. He said it was not intentional. He suggested he contact Douglas PUD to discuss questions, if any, and bring a recap of the discussion back to the Aquatic SWG, if necessary. Andrew Gingerich agreed to this suggestion. Rose said the YN is interested in conducting a similar release in 2016, and he anticipates being able to provide information to relevant parties in an expedient manner. He said roughly 250 fish were translocated last year at three release sites. He said a report summarizing the effort will be available within the next couple of months.

Rose said, with regard to the YN Pacific Lamprey Supplementation and Monitoring Frameworks, the YN plans to submit the frameworks to the Bonneville Power Administration within the next 2 months. He said there were several unanticipated issues with the frameworks, and drafting them took longer than planned. He said the frameworks are a part of an experimental design focused in the Yakima Basin. He said the choice to focus in the Yakima Basin, as opposed to the Mid-Columbia Basin, was based on convenience and funding requirements, but the YN is still interested in translocation efforts in the Mid-Columbia Basin.

Rose agreed to provide a report detailing the 2015 YN Pacific lamprey translocation releases in the Methow Basin and YN Pacific Lamprey Supplementation and Monitoring Framework, once available, to Kristi Geris for distribution to the Aquatic SWG.

VII. Next Meetings

1. **Upcoming meetings** (John Ferguson): The Aquatic SWG meeting on February 10, 2016, will be held in-person at Wells Dam in Azwell, Washington. As noted in Agenda Item VI-3, Andrew Gingerich will coordinate with Kristi Geris to distribute details regarding meeting logistics for the in-person meeting.

Upcoming meetings are as follows: February 10, 2016 (in-person); March 9, 2016 (TBD); and April 13, 2016 (TBD).

List of Attachments

Attachment A – List of Attendees

Attachment B – Letter from Ecology approving Douglas PUD’s TDG Reasonable and Feasible Analysis

Attachment C – Water Data Email

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
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Chad Jackson	Technical Support	Washington Department of Fish and Wildlife
Bob Rose	Aquatic SWG Technical Representative	Yakama Nation
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes