



Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties

Date: January 11, 2023

From: John Ferguson, Chair, Anchor QEA, LLC

Re: Final Minutes of the December 9, 2022, Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Friday, December 9, 2022, from 10:00 a.m. to 11:00 a.m. Attendees are listed in Attachment A of these conference call minutes.

Summary of Action Items

1. Douglas PUD will inquire internally about accommodating an in-person tour of the dewatered Wells Dam east fishway following the Aquatic SWG meeting on January 11, 2023, and Aquatic SWG members will notify Douglas PUD of their interest in attending the tour (Item I-C).
2. Douglas PUD will redistribute release numbers of passive integrated transponder (PIT)-only fish and dual-tagged fish (acoustic and PIT) for the *Wells Dam 2022 Adult Lamprey Approach and Passage Study* (2022 Adult Pacific Lamprey Study) (Item II-D). *(Note: John Rohrback redistributed these numbers following the Aquatic SWG conference call on December 9, 2022, as discussed.)*
3. The Yakama Nation (YN) will distribute the weblinks to participate remotely in the Pacific Lamprey Conservation Initiative (PLCI) Lamprey Summit and Lamprey Information Exchange Meeting starting on December 13, 2022, and Aquatic SWG members will notify the YN of their interest in attending the event remotely (Item II-G). *(Note: Ralph Lampman provided the weblink to attend the Lamprey Information Exchange Meeting on December 14, 2022, prior to the meeting that day; however, the webinar occurred before the link could be distributed to the Aquatic SWG.)*
4. The Aquatic SWG meeting on January 11, 2023, will be held by conference call (Item III-A).

Summary of Decisions

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

Agreements

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

Review Items

1. The draft *2022 Annual Report Total Dissolved Gas Abatement Plan (2022 TDG/GAP Annual Report)* was distributed by Kristi Geris to the Aquatic SWG on January 9, 2023, and is available for a 30-day review with edits and comments due to John Rohrback by February 9, 2023.

Documents Finalized

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

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the Aquatic SWG members (Attachment A). Ferguson asked for any additions or changes to the agenda. The following revisions were requested:

- Andrew Gingerich added: 1) 2022/2023 Wells Dam Winter Maintenance Update; and 2) Wells Dam Bypass Operations Timing – Nexus with the 2023 Gas Abatement Plan (GAP)
- Ralph Lampman added PLCI Lamprey Summit and Lamprey Information Exchange Meeting

B. Meeting Minutes Approval (John Ferguson)

The revised draft November 9, 2022, conference call minutes were reviewed. Kristi Geris said all comments and revisions received from members of the Aquatic SWG were minor, clarifying edits and were incorporated into the revised minutes. The Aquatic SWG members present approved the November 9, 2022, conference call minutes, as revised. The YN abstained because a technical representative did not participate in the November 9, 2022, conference call.

C. Review of Action Items (John Ferguson)

Action items from the Aquatic SWG conference call on November 9, 2022, are as follows (*Note: The following italicized item numbers correspond to agenda items from the November 9, 2022, meeting*):

1. *Douglas PUD will provide Wells Dam 2022 Adult Lamprey Approach and Passage Study (2022 Adult Pacific Lamprey Study) updates each month as more data become available (Item I-C).*

John Ferguson suggested closing out this action item for now and picking it back up in the spring when the tags become active, again. Ralph Lampman asked what date the tags will turn on again. John Rohrback said this varies by fish, depending on when the tag went to sleep. Tags will begin waking up in March 2023. To note, in this winter sleep mode, the tags are still pinging every 7.5 minutes. Ferguson summarized that Douglas PUD will monitor the data and bring this agenda item to the Aquatic SWG when more data are available.

2. *Douglas PUD will revisit a possible tour of the Wells Dam east fish ladder once winter maintenance dates are confirmed (Item I-C).*

Chas Kyger said crews just finished dewatering the west fishway this week. The east fishway will be the longer outage and will likely be dewatered in the first week in January 2023. Scheduling a tour of the dewatered east fishway will depend on how quickly maintenance is completed in the west ladder. John Ferguson asked how Douglas PUD would like to coordinate this around the holidays and before the next meeting. Andrew Gingerich guessed that the east fishway will still be dewatered by the time the Aquatic SWG meets on January 11, 2023. This might be a good opportunity to convene an in-person meeting at Wells Dam, followed by a tour. He recognized, however, that this is a terrible time of year for travel. Ralph Lampman said he likes this idea of an in-person meeting followed by a tour and said folks can reassess if road conditions are bad. Ferguson suggested scheduling the meeting, per usual, with a conference line and WebEx, and if members are interested in the tour, those folks can meet in person. Gingerich said Douglas PUD will inquire internally about accommodating an in-person tour of the dewatered Wells Dam east fishway following the Aquatic SWG meeting on January 11, 2023, and Aquatic SWG members will notify Douglas PUD of their interest in attending the tour.

II. Summary of Discussions

A. 2022/2023 Wells Dam Winter Maintenance Update (Andrew Gingerich)

Andrew Gingerich said most of this walk-on agenda item was already covered under *Item I-C. Review of Action Items*. The west ladder is down for maintenance this week and next week. It will be the shorter outage of the two ladders this year. A fish salvage memorandum for the west fishway, summarizing the fish recovered from the upper and lower sections, was distributed to the Aquatic SWG by Kristi Geris on December 7, 2022. This was a straightforward report. There were no Pacific Lamprey observed in the west ladder collection gallery where these fish have been occasionally observed in past years, and there was nothing remarkable to report. Most fish rescued were resident fish (e.g., Mountain Whitefish). Washington Department of Fish and Wildlife (WDFW) was onsite sampling for residual steelhead to investigate a hatchery concern that is not related to the Aquatic Settlement Agreement. The second portion of this walk-on agenda item is the east fish ladder schedule, which was already covered.

B. Wells Dam Bypass Operations Timing – Nexus with the 2023 GAP (Andrew Gingerich)

Andrew Gingerich recalled that Douglas PUD prepares a total dissolved gas (TDG) annual report (or TDG/GAP Annual Report) at the same time it prepares a Bypass Operating Plan (BOP), which is appended to the annual GAP (collectively, the GAP/BOP) that identifies bypass operations for the

subsequent year. There is a requirement in Douglas PUD's 401 Water Quality Certification to vet the annual GAP/BOP with the Aquatic SWG and Wells Habitat Conservation Plan (HCP) Coordinating Committee. The Wells HCP Coordinating Committee is considering revising the Wells Dam bypass dates in the BOP because, for the first time in 11 years, bypass operations did not provide 95% coverage for the subyearling Chinook Salmon migration. Coverage was missed by 2 days using the fixed bypass operation dates of April 9 to August 9. This fixed-date approach historically has provided 95% coverage for all Plan Species, except that was not the case this year. Douglas PUD proposed to the Wells HCP Coordinating Committee that they operate the Wells Dam bypass in August, based on a real-time instream analysis using fish counts at Rocky Reach Dam. This is the same model implemented by Chelan PUD using a system called the Columbia River Data Access in Real Time database and Program RealTime (or DART). This walk-on agenda item is to notify the Aquatic SWG that the draft 2023 GAP/BOP will be available for a 30-day review in early January 2023 and will likely include a proposed change in how bypass operations will be ended in August each year. Douglas PUD's Federal Energy Regulatory Commission license and 401 Water Quality Certification require an approved package to be submitted to Washington State Department of Ecology and Federal Energy Regulatory Commission by February 28 of each year.

C. Brood Year 2022 White Sturgeon Rearing Update (Chas Kyger)

A Brood Year (BY) 2022 White Sturgeon Rearing Update (Attachment B) was distributed to the Aquatic SWG by Kristi Geris prior to the conference call on December 9, 2022. Chas Kyger said, as shown in Attachment B, fish growth is on track to tag and mark fish in January 2023. Mortality numbers continue to decrease. Fish are not yet split out by program (Douglas PUD versus Chelan PUD), but this will likely occur in the next month or so.

D. 2022 Pacific Lamprey Study Update (John Rohrback)

John Rohrback said he ran another query this morning in the Columbia Basin PIT Tag Information System, and there have been no detections in the Wells Dam fish ladders since the detection on November 3, 2022, as reported during last month's meeting. All acoustic receiver data are now with LGL Limited for review, including Chelan PUD acoustic data. Douglas PUD will distribute detection charts when these are available. In summary, there are no changes since last month in terms of fish movement.

Ralph Lampman asked for a reminder of the release numbers of PIT-only and dual-tagged fish (acoustic and PIT) for this study, and Rohrback said he can redistribute these numbers. *(Note: Rohrback redistributed these numbers following the Aquatic SWG conference call on December 9, 2022, as discussed.)*

E. Bull Trout PIT Study Update (Chas Kyger)

A *Bull Trout Movement and Life History Investigation 2022* (2022 Bull Trout PIT Study) update (Attachment C) was distributed to the Aquatic SWG by Kristi Geris prior to the Aquatic SWG conference call on December 9, 2022. Chas Kyger said 10 Bull Trout were PIT-tagged this year, between trapping at Wells Dam and incidental captures during WDFW steelhead brood collection in the Methow River. Additionally, one Bull Trout was PIT-tagged last year during WDFW brood collection efforts. This fish was subsequently detected in the project area and therefore included in the study, per the study plan. The fish included from last year were adult-sized fish, measuring over 16 inches long (or more than 406 millimeters long). Average fish length for all 11 Bull Trout in this study is 534 millimeters. The table in Attachment C shows last detection locations as of a PIT Tag Information System query on November 30, 2022. The plots in Attachment C, developed by Dave Robichaud (LGL Limited), show individual fish movements. Only two fish have not yet been detected since release. These fish were tagged in the Methow River and may not have moved into a PIT array area yet. The plan is to continue tracking all tagged fish through fall 2023. If additional Bull Trout are incidentally encountered, these fish will be PIT-tagged and included in the study. However, Douglas PUD is not advocating for additional trapping or weir operations specifically to capture more fish. As agreed in the Aquatic SWG-approved *Statement of Agreement Regarding the Suspension of the Year 10 Bull Trout Passage and Survival Radio Telemetry Study at Wells Dam and the Twisp Weir* (Bull Trout SOA; approved on June 2, 2021), local populations of Bull Trout are low enough to warrant suspending a radio telemetry study that requires fish surgeries. Therefore, Douglas PUD will just continue to monitor these PIT-tagged fish and return to the 10-year schedule to attempt another radio telemetry study in the future. Douglas PUD will develop a draft Bull Trout PIT Study Report for review after the full migration season in fall 2023, to include more information on fish movements and timing.

John Ferguson asked if there are any patterns in the plots in Attachment C. Kyger said no, for this timeframe, Bull Trout are typically on their upstream migration. Some fish went into Gold Creek and some into the Twisp River; however, since this study is only tracking 11 fish to date, it is difficult to draw any strong conclusions. Additionally, Bull Trout tend to exhibit unique behaviors. Most of these fish were released in spring or end of summer 2022, so the full migration season might show clearer patterns.

RD Nelle asked if the low number of fish collected and PIT-tagged for this study is mainly due to the mechanical failure at the Twisp Weir. He recalled the expectation was that more fish would have been captured for this study if the weir had not malfunctioned. Kyger said this is correct, there was a mechanical issue at the weir this year. Additionally, the Twisp Weir was designed to capture spring Chinook Salmon for broodstock. However, this brood collection has recently moved to Wells Dam, so there is no need to operate the weir and potentially impede Endangered Species Act (ESA)-listed fish.

Nelle said he understood that the failure at the weir did not allow it to be operated, and he asked if Douglas PUD attributes the low sample size to the inability to run the trap at the Twisp Weir. Andrew Gingerich said Nelle is correct, a panel was not working, but the trap was operated anyway with the caveat that fish had another way around the trap. Douglas PUD expected to encounter more Bull Trout had the weir been functioning appropriately.

Nelle asked, then, is this evaluation complete and to be revisited in 10 years? It seems there was an opportunity to collect and PIT-tag fish, but this did not pan out. Ferguson said it seems the future of the PIT tag-based study depends on whether the mechanical element that failed at the weir can be fixed, and if spring Chinook Salmon broodstock can now be collected at Wells Dam, Douglas PUD would not want to operate the trap from an ESA permit standpoint. He asked, what is the feasibility of operating the trap considering the ESA environment?

Kyger said the mechanical issues at the weir have not yet been resolved. Mechanical crews have ideas for fixes, but repairs need to wait until early spring 2023. Then it is difficult to say whether these repairs will be successful. There may not be an option to operate the trap next year. Second, if spring Chinook Salmon broodstock can be collected at Wells Dam, there is no need to operate the trap. Regarding operating the trap specifically to collect Bull Trout, going back to the radio telemetry study objectives, PIT tags do not collect the type of data needed to address these objectives. Therefore, it is not worthwhile to conduct active trapping efforts to maybe get a few more PIT-tagged fish and still not meet the objectives outlined in the Bull Trout Management Plan. This PIT tag study was intended to be an interim effort.

Nelle said he does not disagree with Kyger's comments. He hopes to see improving population numbers in the future. Historically, improved numbers occur on an 11-year cycle, so maybe in 10 years there will be increased numbers. Kyger said Douglas PUD would like to meet the requirements outlined in this current Bull Trout SOA and wrap up efforts on schedule. Additionally, Douglas PUD will continue to track PIT-tagged fish and will PIT-tag incidental catch to build on the existing dataset. These data will not get at survival but will show movement patterns.

Nelle asked if Douglas PUD is also collecting genetics on these fish? Kyger said yes, fin clips are being collected but have not yet been sent in for processing. Douglas PUD is waiting until a larger sample size has been collected. Nelle said Chelan PUD is also doing this and suggested pooling this information to add to the dataset on Bull Trout movement in the Mid-Columbia River basin. Kyger said Douglas PUD would be supportive of adding to this larger effort.

Ferguson asked if Douglas PUD has the capability within their permits for an ad-hoc approach to tagging. Kyger said yes, Bull Trout incidental take coverage is included under steelhead and spring

Chinook Salmon brood collection, as well as under the scientific collection permit for Aquatic Settlement Agreement actions. This includes lethal take and capture, tag, and release.

Nelle asked if WDFW is also tagging fish at the screw traps. Kyger said yes, WDFW played a big part in this study by capturing half of the fish PIT-tagged in the Methow River. Nelle asked if WDFW will continue these efforts, and Kyger said this is the plan.

Gingerich noted that Douglas PUD used to PIT-tag more Bull Trout in the Methow River basin and at Wells Dam, with WDFW's support. However, approximately 5 years ago, there were different recommendations about tagging fish in the absence of a study plan. To Kyger's point, Douglas PUD will continue to PIT-tag Bull Trout as fish are passively encountered and will also make sure to be cognizant of permits and other interests. Nelle agreed there was concern about tagging fish without a study plan.

F. PRESENTATION: Water Quality Update (John Rohrback)

John Rohrback said the presentation, *2022 Total Dissolved Gas* (Attachment D) was distributed to the Aquatic SWG by Kristi Geris on December 5, 2022.

Rohrback reviewed the TDG standards for the Wells Project (Slide 3). He reminded the Aquatic SWG that, per the Washington Administrative Code, these water quality criteria do not apply when the stream flow exceeds the 7-day, 10-year frequency flood (or 7Q10 flows), which at Wells Dam is 246,000 cubic feet per second. In the subsequent slides, blue dots represent readings during 7Q10 flows, green dots represent readings not during 7Q10 flows, and red dots represent exceedances. TDG in the Wells Dam tailrace exceeded the 125% standard on 16 instances during the April to June period, but only during 7Q10 flows; therefore, this equals 100% compliance (Slide 4). During 7Q10 flows, the river is managed for safety. TDG in the Wells Dam tailrace exceeded the 126% standard on 274 instances in the April to June period, including 273 instances during 7Q10 flows, equaling 99.99% compliance (Slide 5). TDG in the Wells Dam tailrace exceeded the 120% standard on 16 instances during the July to August period, including one instance during 7Q10 flows, equaling 75% compliance (Slide 6). TDG in the Wells Dam tailrace exceeded the 125% standard in the July to August period on four instances, including one instance during 7Q10 flows, equaling 95% compliance (Slide 7). TDG in the Rocky Reach Dam forebay exceeded the 115% standard during the July to August period 24 times, including one instance during 7Q10 flows, equaling 62% compliance (Slide 8). TDG in the Wells Dam tailrace exceeded the 110% standard on 14 hourly readings in 2022 (through October 31), equaling 99.6% compliance (Slide 9). This year was an above-average water year at Wells Dam, with a cool spring contributing to below-average flows in the beginning of the fish spill season and 7Q10 or above-average flows through much of the summer (Slide 10). A similar graph was shared earlier this year, which shows the delayed freshet and then high flows basically through the month of June. Further

complicating maintaining compliance, during June and July, Wells Dam forebay TDG was often above 110% due to operations at upstream dams, which Wells Dam operators have no control over (Slide 11).

Ralph Lampman asked, on Slide 11, why are there no “non-7Q10 flow” red dots above 110%.

Andrew Gingerich clarified that this is water coming from the federal system above Wells Dam. It is Douglas PUD’s understanding that Chief Joseph Dam does not have a TDG adjustment because there is no anadromous fish passage at that dam. Slide 11 of Attachment D shows Wells Dam forebay TDG values, incoming water out of Chief Joseph Dam.

John Ferguson was surprised by the rapid change in incoming TDG in early to mid-June, with some plots ramping up and down over a short period of time (Slide 11). Rohrback thinks this may be due to changes in spill from Chief Joseph Dam. Gingerich agreed and said, for example, once a certain elevation is reached in Grand Coulee Dam’s reservoir for recreation or project maintenance, that can result in more spill if inflows are high. Without looking what is occurring in each project, it is difficult to tell what is causing these fluctuations. Breean Zimmerman also found this fluctuation intriguing. Ferguson guessed this could also be that room in Lake Roosevelt was being made in anticipation of a freshet. Gingerich went back to Slide 10. In April 2022, there was a good idea that Grand Coulee Dam was going to see average runoff. At the same time, the operators of Grand Coulee Dam chose to hold back a lot of water, and it is not clear why. Then there was a large late winter/spring snowfall, which lead to the delayed freshet and above-average peak in June and into July 2022, which affected Wells Project TDG compliance in July 2022. It was an interesting water year, and why water was held back in the north section of the river basin, particularly in April, is puzzling.

RD Nelle asked if TDG readings are collected upstream of Chief Joseph Dam, and Rohrback said yes.

Rohrback then reviewed the conclusions bulleted on Slide 12 of Attachment D. Zimmerman asked if Douglas PUD attributes most, if not all, of the exceedances being due to 7Q10 flows, or were other things taking place? Rohrback said all exceedances can be attributed to incoming flows that were higher than the Wells Dam hydraulic capacity at the time. There were some occasions where there were fewer powerhouse units available, but these exceedances were still a function of high flows both above and below 7Q10 values.

G. PLCI Lamprey Summit and Lamprey Information Exchange Meeting (Ralph Lampman)

Ralph Lampman said the PLCI Lamprey Summit and Lamprey Information Exchange Meeting is next week. There is a remote option for those who cannot attend in person. He can distribute the weblinks to participate remotely in the PLCI Lamprey Summit and Lamprey Information Exchange Meeting, which kicks-off on December 13, 2022. He also asked that Aquatic SWG members notify him of their interest in attending the event remotely. *(Note: Lampman provided the weblink to attend*

the Lamprey Information Exchange Meeting on December 14, 2022, prior to the meeting that day; however, the webinar occurred before the link could be distributed to the Aquatic SWG.)

III. Administration

A. Upcoming Meetings (John Ferguson)

The Aquatic SWG meeting on January 11, 2023, will be held in person or by conference call, to be determined.

Other upcoming meetings include February 8 and March 8, 2023 (to be determined).

List of Attachments

Attachment A List of Attendees

Attachment B BY 2022 White Sturgeon Rearing Update

Attachment C 2022 Bull Trout PIT Study Update

Attachment D *2022 Total Dissolved Gas*

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	Aquatic SWG Technical Alternate	Douglas PUD
John Rohrback	Aquatic SWG Technical Support	Douglas PUD
RD Nelle	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Laura Heironimus	Aquatic SWG Technical Alternate	Washington Department of Fish and Wildlife
Brean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Jason McLellan	Aquatic SWG Technical Representative	Confederated Tribes of the Colville Reservation
Ralph Lampman	Aquatic SWG Technical Representative	Yakama Nation