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FINAL MEMORANDUM

To: Wells, Rocky Reach, and Rock Island HCPs Coordinating Committees **Date:** October 27, 2015
From: John Ferguson, Chairman
Cc: Kristi Geris
Re: Final Minutes of the August 25, 2015 HCPs Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Gateway Hotel, in SeaTac, Washington, on Tuesday, August 25, 2015, from 9:30 a.m. to 11:00 a.m. Attendees are listed in Attachment A of these meeting minutes.

ACTION ITEM SUMMARY

- Scott Carlon will discuss the lamprey enumeration structures to be installed at Wells Dam with Aaron Beavers (National Marine Fisheries Service [NMFS] Fish Passage Engineer); approval of installation of the structures will be requested during the next Coordinating Committees meeting on September 22, 2015 (Item II-A). *(Note: Carlon said Beavers agreed salmon passage would not be impacted by the proposed lamprey modifications and approved the installation, as distributed to the Coordinating Committees on September 1, 2015.)*
 - Lance Keller will provide Kristi Geris with the fish data discussed during the Rocky Reach Dam and Rock Island Dam end-of-summer spill discussion (Item III-A). *(Note: Keller provided the fish data to Geris following the meeting on August 25, 2015.)*
 - The Coordinating Committees meeting on September 22, 2015, will be held by conference call or in person at the Radisson Hotel in SeaTac, Washington, as is yet to be determined (Item IV-A). *(Note: The Coordinating Committees meeting on September 22, 2015, was canceled due to lack of agenda items, as distributed to the Coordinating Committees on September 11, 2015.)*
 - The Coordinating Committees meeting on October 27, 2015, will be held **in person** at the Radisson Hotel in SeaTac, Washington (Item IV-A).
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DECISION SUMMARY

- The Wells Coordinating Committee approved via email the proposed lamprey enumeration structures for installation in the fishways at Wells Dam during the 2015/2016 winter outage, as follows: Douglas PUD and U.S. Fish and Wildlife Service (USFWS) approved Tuesday, September 1, 2015, and NMFS, Washington Department of Fish and Wildlife (WDFW), the Colville Confederated Tribes (CCT), and the Yakama Nation (YN) approved Wednesday, September 2, 2015 (Item II-A).

AGREEMENTS

- No agreements were discussed during today's meeting.

REVIEW ITEMS

- Kristi Geris sent an email to the Coordinating Committees on August 10, 2015, notifying them that two Wells Project Land-use Permit Applications (Permit 716-01 Fry and Permit 828 See) were available for a 60-day review period, with edits and comments, or indication of no comments, due to Tom Kahler by Friday, October 9, 2015.
- Kristi Geris sent an email to the Coordinating Committees on October 16, 2015, notifying them that the draft Douglas PUD 2015 Bypass Passage-Dates Analysis was available for a 60-day review period, with edits and comments due to Tom Kahler by Tuesday, December 15, 2015.

DOCUMENTS FINALIZED

- No documents were recently finalized.

I. Welcome

A. Review Agenda (John Ferguson)

John Ferguson welcomed the Coordinating Committees and asked for any additions or changes to the agenda. The following revisions were requested:

- Ferguson added an update on discussions regarding the Aquatic Settlement Workgroup (SWG) Twisp Weir Operations Plan.
- Tom Kahler added an update on Douglas PUD activities.

B. Aquatic SWG Twisp Weir Operations Plan (John Ferguson)

John Ferguson said he had an action item from the Aquatic SWG to discuss with the HCP Hatchery and Coordinating Committees a comment that arose about the operation of the Twisp Weir. In July 2015, the Aquatic SWG was discussing the Aquatic SWG Twisp Weir Operations Plan, and Kirk Truscott wanted to confirm the plan was consistent with the HCP Broodstock Collection Protocols with regard to percent hatchery-origin spawners (pHOS) management at the weir. Ferguson said he and Kristi Geris discussed this with Tracy Hillman (HCP Hatchery Committees Chairperson), and Andrew Gingerich (Douglas PUD Aquatic SWG Technical Representative) held a discussion internally with Douglas PUD. Ferguson said it was determined that Douglas PUD was operating within the current permits, and there were no issues or conflicts between the Aquatic SWG plan and HCP protocols. Tom Kahler added there is not a huge need for adult management at this location.

Jeff Korth asked if the weir sustained any damages from the recent wildfires in the area. Kahler said a staff member is planning to visit the weir today. He said the weir is currently not operating and guessed the only possible damages may be to the hydraulic power unit, power poles, the acclimation pond liner, and perhaps the fencing.

C. Meeting Minutes Approval (John Ferguson)

The Coordinating Committees reviewed the revised draft June 23, 2015, meeting minutes. Kristi Geris noted the following:

- The addition of two review items.
 - Minor edits received from Jeff Korth clarifying state contingency planning for drought conditions as discussed during the HCP Hatchery Committees Hatchery and Genetic Management Plan update.
 - Minor edits received from Tom Kahler clarifying versions of documents distributed regarding coho survival estimates.
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Geris said all other comments and revisions received from members of the Committees were incorporated into the revised minutes. Coordinating Committees members present approved the June 23, 2015, meeting minutes, as revised.

D. Last Meeting Action Items (John Ferguson)

Action items from the Coordinating Committees meeting on June 23, 2015, and follow-up discussions, were as follows (*note: italicized item numbers below correspond to agenda items from the June 23, 2015, meeting*):

- *Chelan PUD will provide an updated Rocky Reach Juvenile Fish Bypass (RRJFB) pre-season marked fish release results table that includes additional notes about the results, as requested, to Kristi Geris for distribution to the Coordinating Committees (Item I-C).*

Lance Keller provided the updated table to Geris on August 24, 2015, which Geris distributed to the Coordinating Committees that same day.

- *John Ferguson will coordinate with Brian Burke (National Marine Fisheries Service [NMFS]) about presenting to the Coordinating Committees in the fall 2015 Burke's presentation titled, "Ocean Conditions in 2014; Potential Consequences for Salmon," that Tracy Hillman (BioAnalysts) shared with the HCP Hatchery and Tributary Committees in the spring 2015 (Item I-C).*

Ferguson said he spoke with Burke yesterday and confirmed that Burke will present during the Coordinating Committees meeting on October 27, 2015.

- *Tracy Hillman will provide the most recent progress report on nutrient work in the Yankee Fork Salmon River, as discussed during the HCP Tributary Committees Update, to Kristi Geris for distribution to the Coordinating Committees (Item II).*

Hillman provided the report titled, "Salmon River Basin Nutrient Enhancement: Contract Year 2014-2015 Research, Monitoring, and Evaluation Annual Progress Report," (Kohler et al. 2015) to Geris following the meeting on June 23, 2015, which Geris distributed to the Coordinating Committees that same day.

- *Tom Kahler will provide the corrected memorandum outlining the comparison of juvenile survivals of spring Chinook and coho salmon and steelhead released from Winthrop National Fish Hatchery (NFH) to Kristi Geris for distribution to the Coordinating Committees (Item IV-A).*
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Kahler provided the corrected memorandum to Geris following the meeting on June 23, 2015, which Geris distributed to the Coordinating Committees that same day.

- *Tom Kahler will contact Bob Rose regarding obtaining the YN's expedited approval of Wells Project Land-use Permit Application No. 1030-01 CCT; Item IV-B).*

Kahler said he was unable to reach Rose, and the permit application moved forward following the end of the review period.

- *Tom Kahler will provide the Columbia River Inter-Tribal Fish Commission's (CRITFC's) letter outlining proposed scheduling for sockeye salmon sampling at Wells Dam in 2015 to Kristi Geris for distribution to the Coordination Committees (Item III-C).*

Kahler provided CRITFC's schedule to Geris following the meeting on June 23, 2015, which Geris distributed to the Coordinating Committees that same day.

- *The Coordinating Committees meeting on July 28, 2015, will be held by conference call (Item VI-B).*

This meeting was canceled due to lack of agenda items.

II. Douglas PUD

A. DECISION: Wells Fishways Lamprey Enumeration Structures (Tom Kahler)

Tom Kahler provided hard copies of the engineering design drawings of the lamprey enumeration structures to be installed at Wells Dam (Attachments B and C), which were also distributed electronically, along with the final Douglas PUD 2015 Lamprey Study Plan, to the Coordinating Committees by Kristi Geris on August 13, 2015. Kahler reviewed a side profile of the proposed modifications as depicted in the bottom half of Attachment B. He noted the existing downstream ramp connecting the fishway floor to the counting floor at the count window. He said this ramp is louvered so water may flow through it; however, he recalled that a few years ago, a smooth, stainless steel plate was installed on top of and on the window side of the louvered ramp in efforts to improve lamprey passage through the counting window area. He said the proposed modification is to install a tunnel (depicted by a dashed line in Attachment B), which will provide a lamprey passage route that is less exposed to the ambient light emitted from the counting window area. He explained that lamprey seem to be averse to the light encountered in this area, which affects choice of

passage route whereby some lamprey avoid enumeration. He said the tunnel will be installed adjacent to the count window so lamprey may still be enumerated; however, lamprey will not be directly exposed to the light from the area.

Jim Craig asked what the tunnel is made of, and Kahler said it is made of stainless steel except for the portion that spans the counting floor in front of the window, which is smoked polycarbonate plating. Kahler added that this material will allow a small amount of light through, which should help with enumeration. John Ferguson asked if the count window is also monitored by video, and Kahler said it is, with exceptional resolution. Kahler added that Douglas PUD is also considering installing an alert system to notify counters when fish are present. Ferguson asked if any roughness would be added to the tunnel. Kahler said the ramp, tunnel, and floor are smooth; however, there may be slight velocity reduction in the tunnel due to boundary effects and turbulence by virtue of water flowing through the structure. He added that it was determined the velocity of water moving through the counting area should not change. Ferguson asked what guides lamprey to the entrance of the tunnel. Kahler said there is a broad lamprey entrance to the tunnel that extends out and across the entire floor of the fishway. Craig noted this is well-depicted in Figures 3 and 4 of the final Douglas PUD 2015 Lamprey Study Plan. Ferguson asked if the installation is planned to take place during the 2015/2016 winter maintenance outage at Wells Dam, and Kahler confirmed that is the plan. He added that the previously approved lamprey boxes will also be installed during this time, as well as nylon brushes to close potential gaps throughout the counting station of the fishways. Scott Carlon asked if the final Douglas PUD 2016 Lamprey Study Plan is the same as the previously 2015 plan approved in 2014, and Kahler confirmed it is. Jeff Korth asked if the tunnel exits into a lit area, and Kahler said most of the light will be behind the lamprey once they exit the tunnel. Kahler added that the light emits only from the count window area.

Carlon indicated that before approving the installation, he will need to discuss the lamprey enumeration structures to be installed at Wells Dam with Aaron Beavers in regard to potential impacts to salmon passage. The Coordinating Committees agreed to consider approval of installation of the structures during the next Coordinating Committees meeting on September 22, 2015. *(Note: Carlon said Beavers agreed salmon passage would not be*

impacted by the proposed lamprey modifications and approved the installation, as distributed to the Coordinating Committees on September 1, 2015.)

Craig noted the final Douglas PUD 2015 Lamprey Study Plan includes a paragraph about water and air temperature monitoring during the transport of lamprey from Priest Rapids Dam to Wells Dam; however, there is no mention of tempering, or conducting a final water quality check to ensure there are no drastic temperature changes between locations. Kahler said he believes this will be addressed by the Aquatic SWG. Bob Rose noted that, typically, the goal is to be within one degree between locations. Carlon asked if lamprey have the same sensitivity to temperatures as salmonids. Rose said he is unsure and suggested asking experts on lamprey such as Ralph Lampman (YN).

(Note: the Wells Coordinating Committee approved via email the proposed lamprey enumeration structures for installation in the fishways at Wells Dam during the 2015/2016 winter outage, as follows: Douglas PUD and USFWS approved Tuesday, September 1, 2015, and NMFS, WDFW, the CCT, and the YN approved Wednesday, September 2, 2015.)

B. Wells Bypass Operations (Tom Kahler)

Tom Kahler said bypass operations at Wells Dam ended at midnight on August 19, 2015, consistent with the Wells Gas Abatement Plan and Bypass Operating Plan. He said Wells Dam staff are in the process of removing barriers this week. He said there were no barrier removals during the bypass period and bypass operations this year were very routine.

C. Wells Hatchery Modernization (Tom Kahler)

Tom Kahler recalled that the Wells Hatchery Modernization is ongoing concurrent with normal hatchery operations. He said the hatchery modernization also includes an overhaul of the well field, and that drilling began months ago and is still underway. He said a new public boat launch and larger parking area are also being constructed and almost complete. He added that the existing launch will be reserved for PUD use only, as was originally intended. He reviewed several photographs of the ongoing modernizations that were captured by an on-site webcam, including photographs of the new pollution abatement pond, settling basin, location of the new adult handling facility, and newly installed well. He

also shared a photograph depicting newly installed netting around two holding ponds. He said every year, thousands of fish are lost to avian predation, and the netting was installed to help mitigate this loss. He shared a photograph depicting the new spawning channel and said the old channel has been demolished, except for a few sections that were long ago converted to raceways. He shared a photograph of the head tank structure under construction that includes separate surface water and groundwater head tanks. He said the old hatchery building and concrete ponds will stay, added that the old incubation and hatchery office building will be used for the sturgeon program, and explained a new incubation building for salmon and steelhead will be constructed.

John Ferguson asked if HDR Engineering, Inc. (HDR) developed all of the designs, and Kahler confirmed they did. Ferguson asked about an estimated completion date, and Kahler said completion is projected by early 2018. Kahler added that the new adult handling facility should be complete by spring 2016. The Coordinating Committees applauded this modernization effort, noting the large amount of coordination and planning required to accomplish this. Kahler said Greg Mackey (Douglas PUD HCP Hatchery Committees Representative) and Shane Bickford (Douglas PUD HCP Policy Committees Representative) have taken the lead on this effort, and he noted that full-time construction monitoring by HDR has also helped a lot.

D. Trapping at Wells Dam (Tom Kahler)

Tom Kahler said there have been no temperature issues to date. He said so far, water temperature has peaked at 19.5 degrees Celsius, and that 21 degrees Celsius is the fish handling threshold. He added that water temperature typically peaks in September; however, so far temperatures have remained below the threshold. He said he believes collection for the Carlton Program is now complete and that stock assessment is now the only activity ongoing at Wells Dam.

E. Fish and Water Management Tool Modernization (Tom Kahler)

Tom Kahler recalled the first beta version of the Fish and Water Management Tool (FWMT) went into use about 13 years ago, which he noted is old for computer software. He said, therefore, the FWMT is undergoing modernization and improvement. He explained that in

November 2014, a workshop was convened to discuss what users liked about the FWMT and what needs to be fixed. He said updates are also being made to the hydrological algorithms. He stated Phase 1 will be complete by the end of this month or early September 2015, and Phase 2 will start immediately. He said ESSA Technologies, the original designers of the FWMT, have been contracted for the redesign.

F. Wells Bypass PIT-Tag Detection (Tom Kahler)

Tom Kahler said Douglas PUD currently relies on passive integrated transponder (PIT)-tag detection at Rocky Reach Dam to determine whether bypass operations at Wells Dam were compliant with permits and licensing. Kahler said this approach will continue; however, Douglas PUD plans to install PIT-tag detection at Wells Dam, as well. He said this additional detection will be useful for several activities, including to true-up estimates of travel time between Wells Dam and Rocky Reach Dam. Kahler shared a photograph depicting the bypass barriers at Wells Dam. He explained there are three intakes per bypass spillway. He said in each bypass spillway, the two outer intakes are blocked by solid barriers, and a set of six baffled barriers is installed in the center intake, which look like panels of windows. He added that each of the four central bypass barriers has 16 windows, and the upper and lower barriers have 12 windows each. He said Biomark plans to install four PIT-tag antennas in the top two rows of windows of Bypass Bay 2 (four windows total, vertically to obtain vertical distribution). Kahler said existing data indicate that most fish pass Wells Dam via Bypass Bay 2 and Bypass Bay 4, and near the surface. He said in March 2016, Douglas PUD plans to test detection through Bypass Bay 2 using tagged fish from Wells Hatchery (similar to RRJFB tagged release testing). He said although the testing plan has not yet been developed, fish will likely be released directly in front of the bypass and at the debris boom to determine detection efficiency and the relative spatial distribution of fish, and travel times will be monitored to Rocky Reach Dam.

Scott Carlon asked about the velocity through the windows, and Kahler said he believes it is relatively low (about 2 to 4 feet per second). Kahler added that the windows are inside the trash rack slots in the intakes on the upstream side of the dam. He also noted that there is a gate on the other side of the dam about 30 feet away. He said when water approaches the

gate, it increases in velocity; however, velocity is relatively low as it moves through the windows.

G. Douglas PUD Activities (Tom Kahler)

Methow River Groins Rehabilitation Work

Tom Kahler explained that groins, or large rock structures, were installed in the early 1980s to divert flow away from the bank and help flush sediment out of the Methow River. He said these structures are now eroding away and need rebuilding. He said work will begin September 3, 2015, and is scheduled to be complete by the end of the month. He said this is all in-water work, and a silt curtain will be placed around each structure (four total). He said the Wells Reservoir will be lowered to accommodate this work, as well as concurrent work being conducted at Chief Joseph Dam involving replacement of old, oak-slat screens from toe wells with new stainless steel screens. He said the work at Chief Joseph Dam will be conducted via a tunnel that floods when the tailrace elevation exceeds 782 feet, so the U.S. Army Corps of Engineers and Douglas PUD will coordinate operations to maintain the Chief Joseph Dam tailrace elevation below 782 feet. He said Douglas PUD plans to start lowering the Wells Reservoir next week.

Cassimer Bar Culvert Repair

Jeff Korth asked about the culvert repairs in the Cassimer Bar dikes. Kahler said this work will be completed in fall 2016. He said he believes the Aquatic SWG is addressing this issue with regard to resident fish. He said the work will involve replacing failing culverts connecting channels to the Okanogan River. He added that Jim McGee (Douglas PUD) is working with Patrick Verhey (Washington Department of Fish and Wildlife) on this project.

III. Chelan PUD

A. Rocky Reach Dam and Rock Island End-of-Summer Spill (Lance Keller)

Lance Keller said at Rocky Reach Dam, summer spill was shut off at midnight on August 7, 2015. He said at that point, the subyearling Chinook salmon count was 36,970 fish, which means the remaining 5% equaled 1,848 fish. He said fish counts through August 24, 2015, averaged 7.5 fish per day, ranging from 1 to 16 fish per day; which seems to agree with the decision to shut off spill on August 7, 2015. He said the Data Access in Real Time (DART)

database estimated 96.9% passage on August 7, 2015. He recalled the criteria for spill shutdown include the following: 1) DART estimates 95% of the total migration is complete; and 2) when subyearling index counts from the juvenile bypass sampling facility are 0.3% or less of the cumulative run for 3 out of any 5 consecutive days.

Keller said at Rock Island Dam, summer spill was shut off at midnight on August 11, 2015. He said at that point, the subyearling Chinook salmon count was 15,246 fish, which means the remaining 5% equaled 762 fish. He said fish counts through August 21, 2015, averaged 6.4 fish per day, ranging from 1 to 12 fish per day; which seems to agree with the decision to shut off spill on August 11, 2015. He said the DART database estimated 98.5% passage on August 11, 2015.

Jeff Korth asked why the index counts for Rocky Reach Dam versus Rock Island Dam are so different. Keller explained that at Rocky Reach Dam, the RRJFB is only operated from 8:00 to 11:00 a.m., and at Rock Island Dam there is 24-hour collection in the bypass trap. He said DART provides an expansion for Rocky Reach Dam data, which keeps everything consistent.

Keller said he will provide Kristi Geris with the fish data discussed. *(Note: Keller provided the fish data to Geris following the meeting on August 25, 2015.)*

B. Rock Island Emergency Consultation (Lance Keller)

Lance Keller said last Thursday, August 20, 2015, Chelan PUD and the Federal Energy Regulatory Commission (FERC) convened via conference call to discuss the emergency consultation associated to the Rock Island Interim Fish Passage Plan for the Wanapum Dam incident. Keller said FERC plans to send NMFS and USFWS a letter indicating FERC is adopting the Biological Assessment (BA), and is requesting a response from NMFS and USFWS within 30 days regarding how the respective agencies plan to move forward. Keller noted that plans to remove the denil structures are included in the BA. He added that removal of the structures is scheduled to occur during the 2015/2016 winter maintenance outage at Rock Island Dam. He said the denil structures will be stored in the boneyard at Rock Island Dam.

IV. HCP Committees Administration

A. Next Meetings (John Ferguson)

The next scheduled Coordinating Committees meeting is on September 22, 2015, and it will be held by conference call or in person at the Radisson Hotel in SeaTac, Washington, as is yet to be determined. *(Note: The Coordinating Committees meeting on September 22, 2015, was canceled due to lack of agenda items, as distributed to the Coordinating Committees on September 11, 2015.)*

The October 27, 2015 meeting will be held in person at the Radisson Hotel in SeaTac, Washington.

The November 24, 2015 meeting will be held by conference call, in Eastern Washington, or in person at the Radisson Hotel in SeaTac, Washington, as is yet to be determined.

List of Attachments

Attachment A	List of Attendees
Attachment B	Lamprey Enumeration Structure Design Drawing 1
Attachment C	Lamprey Enumeration Structure Design Drawing 2

Attachment A
List of Attendees

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Lance Keller*	Chelan PUD
Tom Kahler*	Douglas PUD
Scott Carlon*	National Marine Fisheries Service
Jim Craig*	U.S. Fish and Wildlife Service
Jeff Korth*	Washington Department of Fish and Wildlife
Bob Rose*†	Yakama Nation

Note:

* = Denotes Coordinating Committees member or alternate

† = Joined by phone
