

## Memorandum

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To: Wells, Rocky Reach, and Rock Island HCP  
Coordinating Committees

Date: August 23, 2023

From: John Ferguson, HCP Coordinating Committees Chairman

cc: Kristi Geris, HCP Coordinating Committees Support

**Re: Final Minutes of the July 25, 2023, HCP Coordinating Committees Meeting**

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The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plan (HCP) Coordinating Committees met in person at Wanapum Dam in Beverly, Washington, on Tuesday, July 25, 2023, from 9:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A to these meeting minutes.

### Action Item Summary

1. Chelan PUD will continue providing Rocky Reach Dam and Rock Island Dam turbine unit maintenance updates as information becomes available (Item I-C).
2. National Marine Fisheries Service (NMFS) will provide a summary of study fish and tagging protocols used in studies conducted at federal dams on the Columbia and Snake rivers in recent years (Item I-C).
3. Chelan PUD will inquire internally about the appropriate timing to engage the HCP Coordinating Committees in discussing the collection of additional run-timing information and conducting species composition monitoring at Rock Island Dam and Rocky Reach Dam in 2024 (Item I-C).
4. Chelan PUD will verify which populations (or hatchery programs) are represented in their Snake River steelhead (SRS) dataset along with the proportion of each group, as shared in the presentation *Steelhead Overshoot Analyses in Upper Columbia River* (Item V-A).
5. Douglas PUD will draft for Wells HCP Coordinating Committee review an updated section in the Wells HCP 2023 No Net Impact (NNI) Comprehensive Progress Report that summarizes "whether each Plan Species is rebuilding," per the Wells HCP (Item IV-D).
6. The next scheduled HCP Coordinating Committees meeting is on Tuesday, August 22, 2023, from 9:00 a.m. to no later than 12:00 p.m. and is to be held in person at the Wanapum Dam Hydro Office Building, Room 107, in Beverly, Washington (Item VI-B).

### Decision Summary

1. There were no HCP Decision Items approved during today's meeting.

### Agreements

1. There were no HCP Agreements discussed during today's meeting.

## Review Items

1. The draft *Rock Island and Rocky Reach Anadromous Fish Agreements and Habitat Conservation Plans 2023 Comprehensive Progress Report* was distributed to the Rock Island and Rocky Reach HCP Coordinating Committees by Kristi Geris on February 10, 2023, and was available for a 60-day review, with edits and comments due to Lance Keller by April 11, 2023. This review period was extended to May 12, 2023. Chelan PUD is currently addressing comments (Item III-E).
2. Douglas PUD's draft *2022 Public Utility District No. 1 Of Douglas County, Northern Pikeminnow Removal and Research Program* was distributed to the Wells HCP Coordinating Committee by Geris on May 31, 2023, and is available for a 60-day review, with edits and comments due to Tom Kahler by July 31, 2023 (Item IV-A).
3. A draft non-capacity amendment to revise the Rocky Reach Recreation Plan for Orondo River Park was distributed to the Rocky Reach HCP Coordinating Committee by Geris on July 5, 2023, and is available for a 30-day review, with edits, comments, or indication of no comment due to Keller by August 4, 2023 (Item III-B).
4. Wells Project Land-Use Permit Application for LUP 1105-01 was distributed to the Wells HCP Coordinating Committee by Geris on July 17, 2023, and is available for a 30-day review, with edits and comments due to Kahler by August 16, 2023 (Item IV-B).
5. The draft *Northern Pikeminnow Predator Control Program, Rocky Reach and Rock Island Hydroelectric Projects, Draft Summary Report, 2021* and draft *Northern Pikeminnow Predator Control Program, Rocky Reach and Rock Island Hydroelectric Projects, Draft Summary Report, 2022* (2022 Northern Pikeminnow Removal Program Report) were distributed to the Rock Island and Rocky Reach HCP Coordinating Committees by Geris on July 24, 2023, and are available for a 60-day review, with edits and comments due to Keller by September 22, 2023.
6. Wells Project Land-Use Permit Applications for LUPs 109A-01, 109C-01, 128A-01, and 128B-01 were distributed to the Wells HCP Coordinating Committee by Geris on July 27, 2023, and are available for a 30-day review, with edits and comments due to Kahler by August 26, 2023.
7. A draft letter to the Federal Energy Regulatory Commission, *Rock Island Hydroelectric Project No. 943 Continuation of Rehabilitation Work (Unit B8)*, was distributed to the Rock Island HCP Coordinating Committees by Geris on July 29, 2023, and is available for review, with edits and comments due to Keller by August 30, 2023.

## Finalized Documents

1. The final *Rock Island Dam Smolt Monitoring and Gas Bubble Trauma Evaluation Plan 2023* (2023 Rock Island Bypass Monitoring Plan) and final *2023 Rocky Reach Juvenile Fish Bypass System Operations Plan* (2023 RRJSF Protocol), which were approved on March 28, 2023, were distributed to the HCP Coordinating Committees by Kristi Geris on July 24, 2023 (Item I-C).

## I. Welcome

### A. Review Agenda (John Ferguson)

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

1. Lance Keller added the *Rock Island and Rocky Reach Anadromous Fish Agreements and Habitat Conservation Plans 2023 Comprehensive Progress Report*.
2. Tom Kahler added Wells Dam Bypass Operations.
3. Keely Murdoch added, under Douglas PUD, Wells HCP 2023 NNI Comprehensive Progress Report.
4. Kristi Geris added U.S. Fish and Wildlife Service (USFWS) HCP Representation Designation.

### B. Meeting Minutes Approval (John Ferguson)

The HCP Coordinating Committees reviewed the revised draft June 27, 2023, meeting minutes. Kristi Geris said all edits received from members of the Committees were minor clarifying edits that were incorporated into the revised minutes. Geris also closed out a couple of action items and added distribution of Chelan PUD's 2021 and 2022 Northern Pikeminnow Removal Program reports for review. Under the steelhead overshoots discussion, Keely Murdoch clarified in two locations that the Yakima River steelhead population is composed of only wild fish (not mostly wild fish). The Committees reviewed and approved these edits. Lastly, Tom Kahler left four comments requesting clarification. The Committees reviewed each comment and provided clarifying edits, as needed.

HCP Coordinating Committees representatives present approved the June 27, 2023, meeting minutes, as revised. Kirk Truscott provided the Confederated Tribes of the Colville Reservation (CTCR) approval of the revised minutes via email on July 24, 2023.

### C. Last Meeting Action Items (John Ferguson)

Action items from the HCP Coordinating Committees meeting on June 27, 2023, and follow-up discussions were as follows (*Note: Italicized text corresponds to agenda items from the meeting on June 27, 2023*):

1. *Chelan PUD will continue providing Rocky Reach Dam and Rock Island Dam turbine unit maintenance updates as information becomes available (Item I-C).*  
This action item will be discussed during today's meeting and will also be carried forward.
2. *Chelan PUD will revise the 2023 Rock Island Bypass Monitoring Plan and 2023 RRJSF Protocol to clarify the origin of adipose fin (ad)-present fish examined before distributing the final approved plans (Item I-C).*  
Lance Keller provided these revised final plans on July 24, 2023, which Kristi Geris distributed to the HCP Coordinating Committees that same day.

3. *NMFS will provide a summary of study fish and tagging protocols used in studies conducted at federal dams on the Columbia and Snake rivers in recent years (Item I-C).*

This action item will be carried forward.

4. *Chelan PUD will inquire internally about the appropriate timing to engage the HCP Coordinating Committees in discussing the collection of additional run-timing information and conducting species composition monitoring at Rock Island Dam and Rocky Reach Dam in 2024 (Item I-C).*

Keller said that Chelan PUD plans to discuss this next month. This action item will be carried forward.

5. *Washington Department of Fish and Wildlife (WDFW) will revise the presentation Steelhead Overshoots (Part 3) to show the number of fish (sample sizes) in each bar in the histogram charts presented (Item I-C).*

Chad Jackson provided this updated presentation on July 21, 2023, which Geris distributed to the HCP Coordinating Committees that same day.

6. *University of Washington, Columbia Basin Research will review adult spring Chinook Salmon passage data for 2019 to 2022 to determine the following: 1) the proportion of passive integrated transponder (PIT)-tagged fish that passed through the Rocky Reach Project after July 1; 2) the proportion of these fish that are hatchery- versus wild-origin fish; 3) the ultimate fate of these fish; and 4) the conversion of these fish through the Rock Island and Rocky Reach projects based on both a per-project and per-reservoir-kilometer basis. The purpose of these additional analyses is to inform discussions about a path forward for the analysis of adult conversion rates for the 2023 Rocky Reach Confirmation Survival Study (CSS) (Item III-A).*

This action item will be discussed during today's meeting.

7. *Douglas PUD will ask the Columbia River Inter-Tribal Fish Commission, regarding their annual request to tag Sockeye Salmon at Wells Dam, whether the Sockeye Salmon receiving the temperature-logging tags will receive a unique external mark (Item IV-B).*

Tom Kahler said that Jeff Fryer (CRITFC) replied that these will be external tags containing contact information to sign up for a drawing.

8. *Chelan PUD will verify which populations (or hatchery programs) are represented in their SRS dataset along with the proportion of each group, as shared in the presentation, Steelhead Overshoot Analyses in Upper Columbia River (Item V-A).*

Keller said Chelan PUD plans to discuss this next month. This action item will be carried forward.

## II. HCP Hatchery and Tributary Committees Update

### A. HCP Hatchery and Tributary Committees Update (Tracy Hillman)

Tracy Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Tributary Committees meeting on July 13, 2023:

- *Time Extension:* The Rocky Reach HCP Tributary Committee received a time extension request from Cascade Fisheries on the *Peshastin Creek River Mile (RM) 2.5 Project*. The sponsor indicated that they would like to extend the contract from August 30, 2023 to December 31, 2023, because they were unable to secure a cost share from the Salmon Recovery Funding Board. Thus, they need additional time to find a cost share. The Rocky Reach HCP Tributary Committee agreed to extend the contract period to December 31, 2023.
- *Upper Columbia Sediment Budget Assessment:* Nick Legg (Wolf Water Resources) shared a presentation titled *Benefits of Planning for Sediment in Restoration*. The purpose of the presentation was to describe why sediment budgets are important in salmon recovery efforts. Understanding sediment dynamics determines whether there is too much or not enough sediment to restore tributary habitat. Conducting this work in the Upper Columbia would inform the prioritization strategy developed by the Upper Columbia Regional Technical Team and would help identify limiting factors, assess recovery potential, and refine priority actions. The model used to develop a sediment budget is a cost-effective approach for developing process-based restoration strategies that maximize stream investments. USFWS is considering submitting a proposal to secure funding to develop a sediment budget for the upper Wenatchee River subbasin. John Ferguson asked about the impetus for this topic. Hillman said the USFWS brought this proposal to the HCP Tributary Committees for possible funding. The Committees requested additional information and invited Legg to share this presentation. Legg has conducted similar work in the Upper Grande Ronde watershed. USFWS is interested in conducting this work in the Upper Columbia.
- *Nason Creek RM 12 Floodplain Reconnection Design Presentation:* Chelan County Natural Resources Department and their consultant, Natural Systems Design, provided an update on the Nason Creek RM 12 Floodplain Reconnection Design project. The purpose of the presentation was to inform the Committees on the conceptual designs for the project and seek feedback from the Committees. The sponsor described all the proposed restoration elements, which included floodplain reconnection, side channels, large wood structures, and constructed riffles. The Committees provided feedback and comments on the proposed restoration elements.
- *National Oceanic and Atmospheric Administration (NOAA) Science Center Habitat Assessment and Restoration Planning (HARP) Model:* Hillman said that this is a reminder that the NOAA Science Center will discuss the HARP model with technical folks and implementers in the Upper Columbia on Wednesday, August 9, 2023. The meeting will be held in the Douglas PUD

Auditorium from 9:00 a.m. to 3:00 p.m. HCP Coordinating Committees representatives are invited to attend. There will also be a virtual option.

- *Next Meeting:* The next meeting of the HCP Tributary Committees will be on August 10, 2023.

Hillman updated the HCP Coordinating Committees on the following actions and discussions that occurred during the HCP Hatchery Committees meeting on July 19, 2023 (*Note: Joint HCP Hatchery Committees/PRCC Hatchery Subcommittee items are noted by "joint," Wells HCP Hatchery Committee items are noted by "Wells," and Rock Island and Rocky Reach HCP Hatchery Committees items are noted by "Rock Island/Rocky Reach"*):

- *Methow Spring Chinook Broodstock Collection (joint):* Douglas PUD reported that they and WDFW are struggling to capture an adequate number of broodstock for the Twisp River spring Chinook Salmon program. As of July 19, 2023, a total of seven females and two males had been collected. The goal is to collect seven pairs; however, the program could move forward with seven females and four males. Even though there is little hope of collecting additional males, the Wells HCP Hatchery Committee agreed to continue trapping through the rest of the week. If they are unsuccessful collecting at least two more males (hatchery or wild), trapping will terminate, and the spring Chinook Salmon broodstock on-hand for the Twisp River program will be returned to the Twisp River. As a result, there would be no Twisp River spring Chinook Salmon production for brood year 2023. To make up for the lost Twisp River production, additional Methow Composite (MetComp) hatchery-origin fish (which have already been retained) will be spawned this year. This will result in the production of an additional 24,728 MetComp smolts that will replace the lost Twisp production but will be released from the Methow Fish Hatchery. This recommendation is consistent with the Broodstock Collection Protocols and the 2017 Biological Opinion. To summarize, under this decision, there would be no juvenile spring Chinook Salmon released into the Twisp River in 2025. Chewuch releases would remain at 61,000 smolts, and the Methow on-station release would increase from 134,000 smolts to 158,728 smolts for a total combined conservation (full) program release of 219,728 smolts. Tom Kahler said trapping continued with no success. Therefore, the spring Chinook Salmon broodstock collected for the Twisp River program were returned to the Twisp River this morning. Douglas PUD will release the MetComp wild-origin fish this afternoon.
- *10-Year Comprehensive Hatchery Program Review Summary Report (joint):* The HCP Hatchery Committees are developing a summary report based on results in the 10-year comprehensive reports. They developed a summary report template that each member will populate with key points from the 10-year comprehensive report. The summary report will also include potential changes to the monitoring and evaluation plan for the PUDs' Hatchery Programs. The Committees are currently working on the spring Chinook Salmon summary report.

- *Wenatchee Spring Chinook Relative Reproductive Success Study (joint)*: WDFW and NOAA Fisheries have been working on the Wenatchee spring Chinook Salmon Relative Reproductive Success Study for several years and have 2 years left in the study. The last genetic samples will be collected this year. WDFW plans to provide high-level results during the HCP Hatchery Committees meeting on October 18, 2023. Andrew Murdoch said WDFW finished collecting the last of the returning adults and will spend the next 2 years producing two papers. One will be a multigenerational pedigree analysis. The second will take the relative reproductive success and break it down mechanistically, to understand where the differences are occurring. Additionally, WDFW hopes to develop a publicly available database to support continued analysis of these data as more genomic tools become available. In October 2023, Mike Hughes (WDFW) will present results to date.
- *Next Meeting*: The next meeting of the HCP Hatchery Committees will be on August 16, 2023.

### III. Chelan PUD

#### A. PRESENTATION: 2023 Rocky Reach CSS – Adult Conversion Methodology (Rebecca Buchanan)

John Ferguson said the presentation, *Clarifications on Conversion Rate Data for Spring Chinook Salmon Through the Rocky Reach Project* (Attachment B), and memorandum, "Answering HCP Questions from June 27, 2023, Meeting on Adult Conversion Rate Estimation for Spring Chinook Through Rocky Reach Project," were distributed to the HCP Coordinating Committees by Kristi Geris on July 21, 2023.

Lance Keller recalled that last month, Rebecca Buchanan and John Skalski (University of Washington, Columbia Basin Research) presented how adult conversion rates have been calculated in the past for the Rocky Reach Project, which resulted in good questions and comments. To address the questions raised, Buchanan and Skalski conducted additional analyses that are summarized in a memorandum and in Attachment B.

Buchanan shared the presentation (Attachment B) on WebEx. She reviewed the text bulleted on each slide. Presentation highlights are noted in the following paragraphs.

#### Slides 1 to 2

Buchanan reviewed the four questions asked during the HCP Coordinating Committees meeting on June 27, 2023, as bulleted on this slide.

#### Slides 3 to 5

Regarding "Question 1: What proportion of adult spring Chinook Salmon pass through the Rock Island-Wells reach?" and the four parts to this question (as bulleted on Slide 3), answers to these

questions are based on a 2019 to 2022 dataset. As shown on Slide 4, fish detected on or after July 1 ranged from one to five individuals. To note, in 2022, these three fish include one PIT-tagged wild spring Chinook Salmon that was observed moving upriver from Rock Island to Wells Dam in October 2022 but was recorded as a spring-run Chinook Salmon in the Columbia Basin PIT Tag Information System. If this fish is removed, two fish remain in the dataset (one hatchery and one wild). There were fewer fish detected on or after the fishery start date in 2019 to 2020 compared to 2021 to 2022. The percentage of fish detected after the cutoff date was computed using the mean travel time from Rock Island to Wells and ranged from 1% to 5%. To note, for 2020, this should say June 29 (not July 29). Slide 5 includes the full dataset broken down by population, rear type, and detection timing. Of most relevance, the last column shows fish detected after the Rock Island cutoff date, which ranged from zero to five fish. Wild fish detected on or after July 1, after the fishery was opened, or after the Rock Island cutoff date composed up to 11% of the wild fish in the sample. The highest proportion occurred in 2022 at 11%, but was composed of only two fish (one of which migrated to Wells Dam in October, as discussed previously). The number of hatchery fish detected after these thresholds was also small (zero to five fish when pooled across both populations) but composed a smaller overall proportion of the hatchery sample due to the larger sample size of hatchery-origin fish.

### Slides 6 to 7

Regarding "Question 2: What proportion of the sample size is wild versus hatchery?," Slide 7 shows the wild versus hatchery proportions. Most fish were hatchery fish from the Methow. Approximately 5% to 11% of the Methow individuals account for the wild population, and when pooled with the Okanogan individuals, this percentage is a little lower.

### Slide 8

This slide shows the same schematic that was presented last month, which uses a virtual release at Rock Island Dam, looks at numbers detected at Wells Dam, and calculates the binomial proportion ( $C_2$ ). This is the proposed method, or square root scaling. Question 3 was for Chelan PUD to consider single-project estimates scaled by reach length.

### Slides 9 to 10

For the 2019 to 2022 dataset, in the first 3 years, the estimate is the same using square root scaling versus distance scaling (1.000). For 2022, there is a little difference because the two project conversion rates are not 100% but are a little lower. So, the answer to Question 3 is that distance scaling is a little less than square root scaling, but not by much. Further, the two methods are within each other's confidence intervals. Because there is not much difference, the recommendation is to continue using square root scaling for continuity with historical methods.



### Slides 11 to 13

Regarding "Question 4: How many tags at Wells Dam are overshooters and from where?," from 2019 to 2022, between four and eight PIT-tagged adults known to have originated downstream of Wells Dam were detected at Wells Dam, as bulleted on Slide 12. Slide 13 shows the full dataset for Wells Dam overshoots. The number of overshoots detected at Wells Dam is very low. As discussed last month, the recommendation is to not use the Entiat population because these fish enter within the project, and the sample size is small.

### Slide 14

Buchanan reviewed the summary and concluding remarks bulleted on this slide. From 2019 to 2022, from 1% to 5% of the sample size was excluded from the analysis because of the summer Chinook Salmon fishery; the sample was predominantly hatchery fish from the Methow; the recommendation is to use the square root scaling for continuity; and four to eight fish within the sample were detected at Wells Dam from known downstream populations (Entiat and Wenatchee rivers).

### Discussion

Ferguson thanked Buchanan for the presentation and opened the floor for discussion.

Keely Murdoch asked, regarding Question 1, about what proportion of fish is excluded after the fishery opens? The pooled estimate ranges from 1% to 5%. These values are both small, but the sample size is not huge. If there are reasons later migrating fish have lower survival (e.g., warmer water temperature), is 5% enough to change the results? She understands why Chelan PUD would not want to include these fish—so that harvest or mortality from the fishery would not count against the project. However, the proportion of wild fish in the sample is very low. In 2019, there was no fishery. In 2020, there is no wild component, but in 2021 and 2022, 9% and 11% are wild fish. She is wondering whether, if after the fishery is opened, does it make sense to include the wild fish but not the hatchery fish? Ferguson recalled Buchanan's comment on Slide 5, that for 2022, of the two wild fish that accounted for the 11%, one fish was a PIT-tagged wild spring Chinook Salmon observed in October 2022, so the 11% estimate might be high. Buchanan agreed and said that 2022 ended up with a high percentage because the sample size for the wild component was small to begin with. The difference between zero fish and one fish is very small. She would be concerned about estimating a conversion for wild fish separate from hatchery because there is not enough sample size for wild fish to do this. Additionally, this analysis has always pooled the rear types. Pooling the data results in a lower percentage, but she does not believe separating the data would make a significant difference. K. Murdoch said that maybe not, but wild fish are struggling now, and this sample may not adequately represent wild fish. If the plan is to use these conversion rates as a surrogate for survival rates to represent adult survival in a combined survival metric of 91%, ideally the sample should equally represent the run at large. Additionally, wild fish are tagged at a lower rate compared to hatchery fish, so, from the get-go, the sample does not adequately represent the run at large by

species composition or origin. She feels that including all the wild fish possible makes the methods more defensible. This does not solve the problem, but it solves what can be done at this point in time. She understands that including all wild fish may not make a huge difference, but from her standpoint, this makes the sample as representative as possible. Buchanan said that, while wild fish are not supposed to be subject to the fishery after the cutoff date, if a wild fish is not detected at Wells after the cutoff date, the analysis cannot distinguish between whether this was because it was harvested or not. Lance Keller added that correcting the data for one fish could lead to an increased correction factor above 100%. Buchanan said that she thinks it would be hard to do a harvest correction for one fish or any small number of fish. There are no reliable harvest rates to make this correction. It can be done, but yes, it might result in an estimate greater than 100%. Alternatively, the analysis includes no correction, but it includes as much information available on the fate of a fish passing after the Rock Island cutoff date.

Ferguson asked Chad Jackson about information on incidental take. Jackson said that WDFW conducts creel surveys, by pool, from the start of a fishery to the end, estimating ad-presence and adults and jacks released. Every survey relies on the angler's recollection. Ferguson asked about the take limit for handing fish in the fishery. Jackson said that for permit purposes, an assumption of 10% is used. He said he can query creel estimates for Rock Island and Rocky Reach from 2019 to 2022. Andrew Gingerich asked how many creel samples go into an estimate. Jackson said that generally, surveyors are out weekly. Gingerich asked whether the estimate is an expansion, and Jackson said yes. Ferguson asked how many weeks per year are included in an estimate. Jackson said that creel surveys occur weekly from July 1 to October 15. However, in 2019, the fishery opened on July 16 and ran through October 15.

Keller said that he understands the reasoning behind K. Murdoch's desire to include wild fish, and there may be a point in time when this can be done with an applied correction. Currently, Chelan PUD's desire is to stick with the cutoff to keep the analysis cleaner, acknowledging that this adult conversion rate is conservative in nature. That is, this method includes part of the Rock Island and Wells Projects in the estimate and does not adjust for straying and harvest.

K. Murdoch said that she is not suggesting applying a correction factor for wild fish. She is saying that excluding 5% of fish could alter the results, considering that the overall sample size is not huge. She does not agree that the method to date is conservative. Including a couple of fish at the end of the run shows the wild component is all it can be, given the understanding that wild fish are not well represented in the conversion factor. Another thing not included is overshoot fish. There are not a lot of overshoots, but the sample size is so small; this small amount may make a difference. Additionally, there are no Entiat fish, and using these fish means the analysis is about all spring Chinook Salmon, not just some spring Chinook Salmon. She is suggesting doing anything possible to make the analysis more biologically defensible. Keller clarified that when he says "conservative," he is referring

to the length of the reach the analysis is being conducted across, and the fact that possible survival impacts from the Rock Island and Wells projects (including the top of the Rock Island adult ladders and the Rock Island Reservoir, as well as the Wells Dam tailrace and adult ladders) cannot be removed from the estimate, and thus are included in the conversion rate generated for the Rocky Reach Project. He also believes that there will need to be some type of correction if the analysis includes wild fish past the cutoff date.

Skalski noted that on Slide 5, the number of wild fish detected after July 1 is not a lot. In most cases, including these fish would increase the conversion estimate.

Andrew Murdoch suggested including these fish, considering the number is insignificant, but this would not give the perception that a portion of the population is being eliminated from the analysis. Keller clarified that the analysis does not eliminate a portion of the population; it eliminates bias. A. Murdoch said that this method tries to exclude biases due to a fishery. His point is that even if there are no biases, this method still gives the perception that a portion of the population has been eliminated from the analysis. If this method were applied at Rock Island, there would be a much different scenario because the run-timing of Wenatchee spring Chinook Salmon is 2 to 3 weeks later than Methow and Okanogan fish. So, this might work at Rocky Reach, but there need to be standardized methodologies throughout the basin. Keller said that standardized methodology is not the standard now, even conversion calculations for Rock Island and Rocky Reach differ slightly. He envisions discussing a specific methodology for a specific Project when the next CSS for that respective project is approaching, which, for Chelan PUD, is spring species in 2031 for the Rock Island Project. A. Murdoch said that it seems that this is just a legacy the Committees have to follow. Keller said that there is a bit of legacy built into how the HCPs work, as survival results from a confirmation study are calculated and gets incorporated into past study results for that specific species. A. Murdoch said that there is a legacy in methods, too.

K. Murdoch said that she is concerned about constantly falling back on the idea that "this is the way because it has always been the way." This does not leave room for improving methodologies with new information. She thinks that the HCPs also direct the Committees to update methods based on new science. She thinks that it is important to get away from the idea of "keep doing this because it has always been done this way." Ferguson said that he does not feel this is what is being said and that one of the factors to consider is consistency. Keller said that he thinks the Rocky Reach HCP Coordinating Committee is following the HCP correctly. The Committee expressed a desire to discuss the methodology, which is what is being done with these question-and-answer sessions, versus the immediate presentation of an SOA for decision based on previously used methodology. Currently, there may not be an opportunity for many changes without introducing biases, but at least the conversations are going on, as opposed to not having these discussions at all.

Ferguson said that, to K. Murdoch's point, adding wild fish will be more representative and will not change the value but will add some bias due to handling due to harvest. To Skalski's point, this will only increase the conversion rate. To A. Murdoch's point, maybe the answer is to include the wild fish to take away the perception that part of the population is being eliminated for the analysis. Finally, there is the issue of using a method consistent with previous years. These are all tradeoffs. What is the net gain? It is a judgement call.

Bill Gale asked whether part of the problem with the methodology is dealing with small sample sizes. Ferguson said that yes, this is the issue. Gale suggested, before the next 10-year CSS, thinking about what to do differently to get around the limitations of small sample sizes. K. Murdoch agreed about being proactive about target sample sizes, and she noted that even the hatchery sample sizes are not very large. She read sample sizes, as summarized in Table 3 of the memorandum, "Answering HCP Questions from June 27, 2023, Meeting on Adult Conversion Rate Estimation for Spring Chinook Through Rocky Reach Project."

Year	PIT-tag detections	
	Rock Island	Wells
2019	71	71
2020	80	80
2021	125	125
2022	226	219

K. Murdoch said that, to Gale's point, before the next CSS, maybe there should be increased tagging at hatcheries. Ferguson said that the Committees would also need to consider how many more fish need to be tagged to be more representative when the estimate is already 100%. This may be a resource issue (i.e., financial cost and impact to the fish).

Ferguson asked what Rocky Reach HCP Coordinating Committee representatives think about including late-migrating fish in the estimate. Jackson said that he does not have a strong opinion on it. A. Murdoch asked, if these fish survive to Wells, why not include them? Keller asked, if fish do not survive to Wells, then what? At this point, the Committee needs to decide whether to use methods consistent with past analyses or by river kilometer (rKm). He does not think that both scenarios should be run and then the Committees choose one. K. Murdoch agreed. Gale said that these reservoirs are not the same and have different lengths and conditions. Scaling by square root may result in a similar answer, but by rKm accounts for another level of differences. Keller said that this analysis only looks at length, not condition. Gale said yes, but that scaling by square root does not consider anything, and he is not sure that this is necessarily better. Skalski said that scaling by square root was chosen because he could not figure out a better way to refine the approach. K. Murdoch said that she thinks scaling based on reservoir length is biologically defensible and makes sense. Mortality can be related to travel time and distance. It is an easy metric to incorporate into this

analysis. Reservoir distance is a big difference and is a logical linear metric to include. She does believe that it is more defensible as compared to attributing survival through the Rock Island Reservoir as survival through the Rocky Reach Reservoir because the Rock Island Reservoir is shorter. Keller said that any reduction in the estimate would go towards the Rocky Reach estimate because if a fish passing Rock Island is not observed at Rocky Reach, this remains in the point estimate and drives the estimate down. The same is true for above Rocky Reach. If a fish does not show up at Wells, this is still attributed to Rocky Reach.

Ferguson said that he is not hearing consensus for including wild fish after the cutoff date. It has been a good discussion, but there is no consensus. Keller said that Chelan PUD will want to reach a decision in the near future because Blue Leaf Environmental/LGL Limited will soon be finalizing the juvenile data for Skalski. Chelan PUD hopes to have the final results within this calendar year. Jackson asked whether it is too early to know whether juvenile survival is below 93% or 95%. Keller said that the 93% standard pertains to juvenile only, and the 91% standard is for the combined adult and juvenile survival—yes, it is too early to tell.

Ferguson said that Jackson just emailed the creel estimates for Rock Island and Rocky Reach from 2019 to 2022 (Attachment C). Jackson said that these are release numbers for seasons starting on July 1 (2020, 2021, and 2022) or July 16 (2019) and concluding on October 15. The numbers decreased by October, so he does not believe that fall Chinook Salmon overshoots are included in these data. Ferguson said that these are unmarked fish caught in a fishery and released. Jackson said that yes, that is correct, and these are expanded counts. The 3-year average for Rock Island, when there was a fishery, is 110 fish per year. The 4-year average for Rocky Reach wild, handled, and released, is 394 fish per year. *(Note: Geris distributed Attachment C to the HCP Coordinating Committees during the meeting on July 25, 2023.)*

Jackson asked whether there is a need to arrive at an adult conversion statement of agreement (SOA) ahead of the juvenile estimate. He agrees with the validity of having this discussion and arriving at a methodology to use in the future, but if this study meets the juvenile survival, adult survival is moot. If juvenile survival is below 93% or 95%, adult survival does matter for meeting the 91% standard. Keller said that yes, the HCP survival standard has a tiered approach. While the combined 91% adult and juvenile Project survival standard is the prime objective called out in the HCP, in the event that adult survival cannot be measured, the standard reverts to the 93% juvenile Project survival standard. The 95% juvenile dam passage survival has no road map leading to Phase III (Standard Achieved). Jackson said that his point is that if the Committee cannot reach consensus on an adult conversion rate, but juvenile survival is 93%, the project can still meet the designation. Ferguson said that he understands what Jackson is saying, but it is not ideal to know the results of the juvenile analyses before resolving the debate on the adult conversion methodology. Jackson said that, additionally, while there is value in arriving at a methodology as a Committee, this might mean a lot

of time and energy spent on a moot point if juvenile survival is 93% or better. Keller said that Chelan PUD would like to reach an agreement on how to calculate adult survival, based on feedback received from the 2021 Rock Island CSS. He also noted that the combined 91% adult and juvenile survival standard is the metric that was used for the Phase III (Standards Achieved) designation, and the confirmation survival study is to be measured at the same standard.

A. Murdoch asked whether this same approach to calculate adult survival was used in the 2021 Rock Island CSS. Keller said yes, and Ferguson added that the Rock Island HCP Coordinating Committee did not get into this level of discussion at that time. A. Murdoch asked whether the 2021 study included Wenatchee fish. Keller said that this was discussed, but ultimately these fish were not included, and were not included in previous calculations due to the fish not migrating through the entire Rock Island Project. The Committee looked at the conversion rate of Wenatchee fish, as it pertains to detection capabilities in the Wenatchee River, and the lower array did not perform well. A. Murdoch asked whether this was considered for Wanapum or Priest Rapids. Ferguson said that those projects are not within the purview of the HCP Committees. A. Murdoch said that if a methodology for one project is not applicable to other projects, then this process just needs to be repeated over and over. Maybe the Committee should disregard this altogether and start over if it benefits all projects. Keller said that the resource agreements are not the same up and down the river, and the current adult conversion discussion is in the context of the Rocky Reach HCP due to the 2023 CSS.

Keller said that Chelan PUD is envisioning an SOA for approval during the HCP Coordinating Committees meeting on August 22, 2023, that says the Rocky Reach HCP Coordinating Committee approves this adult conversion rate methodology, as appended to the SOA.

Keller said that Buchanan just emailed confirming that all three fish detected after the July 1 cutoff date were detected at Wells—that is, one fish in 2021, one fish in 2022, and the one PIT-tagged wild spring Chinook Salmon detected in October 2022, and thus would increase the adult conversion estimate. Even with this knowledge, Chelan PUD would prefer to exclude those fish passing after the initiation of a summer Chinook Salmon fishery to eliminate bias.

## **B. Draft Non-Capacity Amendment to Revise the Rocky Reach Recreation Plan for Orondo River Park (Lance Keller)**

A draft non-capacity amendment to revise the Rocky Reach Recreation Plan for Orondo River Park was distributed to the Rocky Reach HCP Coordinating Committee by Kristi Geris on July 5, 2023.

Lance Keller said that in 2018, overnight camping was closed, with a goal of turning the park back to a day-use only park. Any work to remove overnight camping facilities will occur adjacent to the highway, well away from the water. USFWS already provided indication of no comments via email on July 6, 2023, and the CTCR provided indication of no comments via email on July 24, 2023. Chelan PUD would appreciate edits, comments, or indication of no comment by August 4, 2023.

Bill Gale asked about the reason for closing overnight camping at the park—notably he wondered whether there was public involvement or feedback about this decision. Keller read the background of the amendment, and notably, there was public and local community input, and the original intent of the park was a day-use only park. Keller said that it sounds like overnight camping was above and beyond the intent of the park.

### **C. Rock Island Dam Powerhouse 1 Maintenance Update (Lance Keller)**

Lance Keller said that work continues on Turbine Unit B3. There has been no shift in dates.

### **D. Rocky Reach Dam Turbine Units Maintenance Update (Lance Keller)**

Lance Keller said that work continues on Turbine Unit C11. There has been no shift in dates.

Chelan PUD will continue providing Rocky Reach Dam and Rock Island Dam turbine unit maintenance updates as information becomes available.

### **E. Rock Island and Rocky Reach Anadromous Fish Agreements and Habitat Conservation Plans 2023 Comprehensive Progress Report (Lance Keller)**

The draft *Rock Island and Rocky Reach Anadromous Fish Agreements and Habitat Conservation Plans 2023 Comprehensive Progress Report* was distributed to the Rock Island and Rocky Reach HCP Coordinating Committees by Kristi Geris on February 10, 2023, and was available for a 60-day review with edits and comments due to Lance Keller by April 11, 2023. This review period was extended to May 12, 2023.

Lance Keller said that Chelan PUD has reviewed and appreciates the comments received. Chelan PUD is now adding a species status update, as recommended by comments. A draft of this new section will be distributed for a 30-day review, hopefully by the end of July. Chelan PUD is also still working through other comments received.

Andrew Murdoch asked about the 2021 Rock Island CSS Report. Keller said Chelan PUD is still working on this.

## **IV. Douglas PUD**

### **A. 2022 Northern Pikeminnow Removal Program Report (Tom Kahler)**

Douglas PUD's draft *2022 Public Utility District No. 1 Of Douglas County, Northern Pikeminnow Removal and Research Program* was distributed to the Wells HCP Coordinating Committee by Kristi Geris on May 31, 2023, and is available for a 60-day review with edits and comments due to Tom Kahler by July 31, 2023.

Kahler said that comments were received from USFWS that were similar in nature to comments received from WDFW on the 2021 report. These included inserting a table summarizing statistics and other information that used to be included in the larger reports and adding a map with capture locations. The contractor had already drafted this report when comments were received, so some items are addressed in this 2022 report, and the remaining ones will be addressed starting with the 2023 report. Douglas PUD will finalize this report at the conclusion of the review period.

### **B. Wells Project Land-Use Permit Application for LUP 1105-01 (Tom Kahler)**

Wells Project Land-Use Permit Application for LUP 1105-01 was distributed to the Wells HCP Coordinating Committee by Kristi Geris on July 17, 2023, and is available for a 30-day review with edits and comments due to Tom Kahler by August 16, 2023.

Kahler said that this is another formal permitting of an existing use at the site. The previous owner mowed a fire break, and the current owner is continuing this and using an access point. USFWS already submitted an indication of no comments.

### **C. Wells Dam Bypass Operations (Tom Kahler)**

Tom Kahler said that a Wells Dam bypass operations update was distributed to the Wells HCP Coordinating Committee by Kristi Geris on July 24, 2023. Program RealTime estimated that the 95th percentile of the subyearling Chinook Salmon run passed Rocky Reach Dam on an earlier date (July 18, 2023). As described in the email update, Douglas PUD had been monitoring the model output for a while. The estimated passage date would have been the earliest date on record, so Douglas PUD continued monitoring to determine whether additional data collected would result in extending the passage date. When instead, the model estimated increasingly earlier dates, settling on July 13, 2023, Douglas PUD decided to terminate bypass operations at Wells Dam at midnight last night.

### **D. Wells HCP 2023 NNI Comprehensive Progress Report (Tom Kahler)**

Tom Kahler thanked Keely Murdoch for this reminder. Kahler recalled that last year (September 2022) Douglas PUD requested a deferral of the March 2023 due date for the progress report because of extenuating circumstances. Specifically, that Douglas PUD has been waiting for the Okanagan Nation Alliance, Fisheries and Oceans Canada, and their consultants to produce a summary report, summarizing results of the weight-of-evidence approach adopted by Canadian implementers for estimating the contribution of the Fish and Water Management Tool to the status of Okanagan Sockeye Salmon. This effort includes developing five to six separate reports, two of which are still in draft form. The final summary report needs information from these draft reports. The expectation is to have the final summary product by the end of Q3 2023. Once in hand, Douglas PUD can then complete the Wells HCP 2023 Comprehensive Progress Report for Wells HCP Coordinating Committee review before the end of the year.



K. Murdoch said that, regarding the progress report, the Wells HCP has different language than the Rock Island and Rocky Reach HCPs. The Rock Island and Rocky Reach HCPs have vague language about including a status update for Plan Species. The Wells HCP says, "The Coordinating Committee shall direct an analysis to determine whether each Plan Species is rebuilding." She is concerned the Wells HCP Coordinating Committee has not yet discussed how this is going to be done.

Kahler said that this is an interesting topic. He recalled that when the Wells HCP Coordinating Committee produced the original 2013 NNI Comprehensive Progress Report, the Committee grappled with this assignment because it does not seem to be the Committee's purview to determine whether various stocks have rebuilt. At that time, the Wells HCP Coordinating Committee deferred to NOAA's status reviews, which were incorporated into the progress report by reference. Does the Wells HCP Coordinating Committee have interest in taking on this assignment, or is the Committee still supportive of deferring to the NOAA status reviews, which were just completed last year (Ford et al. 2022)? Kahler said that he doubts the Wells HCP Coordinating Committee can do a more robust analysis than NOAA. His recommendation is to defer to NOAA.

K. Murdoch said that she believes it is important to include. The HCPs, while not a recovery document, were intended to support recovery, and all signatories believed it was the right thing to do to support recovery. She does not believe that the Wells HCP Coordinating Committee needs to include something more robust than NOAA's status review, but it would be helpful to summarize the status of each species in these reports to see where Plan Species are and are not in terms of rebuilding.

Kahler said that he can appreciate this and is supportive of including a summary based on status reviews specific to local populations. Any guidance would be appreciated. John Ferguson asked whether this is a task for Douglas PUD or for the Wells HCP Coordinating Committee. Ford et al. (2022) covered all spring-run species and steelhead. The other stocks need to be synthesized, as well, and to what level? Kahler said that Douglas PUD just finished the summary reports for the HCP Hatchery Committees and can rely on these for the other species. K. Murdoch said that the summary reports can be used to some degree, but these just speak to hatchery programs, which is something being discussed within the HCP Hatchery Committees. Some of these objectives should be evaluating the other H's (habitat, hydro, and harvest) and not just hatchery objectives. She is supportive of Douglas PUD drafting these sections for Wells HCP Coordinating Committee review.

Ferguson asked how to define rebuilding—abundance, trends, viability, goals? This is something to think about. Kahler suggested thinking about where Plan Species were at the signing of the HCPs compared to now. K. Murdoch agreed that this is an appropriate context.

Douglas PUD will draft, for Wells HCP Coordinating Committee review, an updated section in the Wells HCP 2023 NNI Comprehensive Progress Report that summarizes “whether each Plan Species is rebuilding,” per the Wells HCP.

## V. WDFW

### A. Steelhead Overshoots Follow-up and Next Steps (Chad Jackson and Andrew Murdoch)

John Ferguson recalled that there have been three presentations from WDFW and two presentations from the PUDs. Essentially, there are disparate perspectives between the patch occupancy model estimates versus PIT-tag data analyses.

Lance Keller said that Chelan PUD has action items that will be addressed once Catherine Willard (Chelan PUD HCP Hatchery Committees Representative) is back from vacation.

Chad Jackson said that WDFW is reviewing the data and will have something to distribute before the HCP Coordinating Committees meeting on August 22, 2023.

No other comments were shared.

## VI. HCP Administration

### A. USFWS HCP Representation Designation – Bill Gale (Kristi Geris)

Kristi Geris said that this agenda item is just a courtesy notification to the HCP Coordinating Committees that Bill Gale was added to the appropriate HCP email lists.

### B. Next Meetings (John Ferguson)

The HCP Coordinating Committees meetings on August 22, September 26, and October 24, 2023, are from 9:00 a.m. to no later than 12:00 p.m. and will be held in person at the Wanapum Dam Hydro Office Building, Room 107, in Beverly, Washington.

Kristi Geris will coordinate with Grant PUD regarding switching to Microsoft Teams, or whatever is necessary to connect to the conference room video screen, for the next meeting.

## List of Attachments

Attachment A List of Attendees

Attachment B *Clarifications on Conversion Rate Data for Spring Chinook Salmon Through the Rocky Reach Project*

Attachment C Creel Estimates for Rock Island and Rocky Reach from 2019 to 2022

**Attachment A**  
**List of Meeting Attendees**

Name	Organization
John Ferguson	Anchor QEA, LLC
Kristi Geris	Anchor QEA, LLC
Tracy Hillman <sup>††</sup>	BioAnalysts
Lance Keller <sup>*</sup>	Chelan PUD
Bill Towey <sup>*</sup>	Chelan PUD
John Skalski <sup>○</sup>	University of Washington, Columbia Basin Research
Rebecca Buchanan <sup>○</sup>	University of Washington, Columbia Basin Research
Tom Kahler <sup>*†</sup>	Douglas PUD
Andrew Gingerich <sup>*</sup>	Douglas PUD
Scott Carlon <sup>*†</sup>	National Marine Fisheries Service
Bill Gale <sup>*</sup>	U.S. Fish and Wildlife Service
Chad Jackson <sup>*</sup>	Washington Department of Fish and Wildlife
Andrew Murdoch <sup>*</sup>	Washington Department of Fish and Wildlife
Keely Murdoch <sup>*</sup>	Yakama Nation

Notes:

- \* Denotes HCP Coordinating Committees member or alternate
- †† Joined by phone for the HCP Hatchery and Tributary Committees update
- † Joined by phone
- Joined by phone for Item III-A