



November 27, 2023

Dear Eklutna Hydroelectric Project Owners,

ADF&G has reviewed the Draft Fish and Wildlife Program and submits the following comments for your consideration.

1. Table 2-2, Page 39 – footnote contains an incomplete sentence.
2. Table 2-4, page 40 – The difference in capital cost between ADF&G Alternative B and the proposed alternative is \$19 million, but in Table 2.7 it appears that the incremental cost per acre of habitat gained is the same. Please clarify this discrepancy. We assume that the increased capital cost and other costs associated with ADF&G Alternative B is the additional cost of the installation of a fixed wheel gate at the dam. There is no cost analysis for the proposed fixed wheel gate in the draft plan. Please provide that analysis.
3. Table 2-6, Page 42 – ADF&G Alternative B provides an additional 1.4 acres of Chinook rearing habitat and 1.7 additional acres of coho rearing habitat. This is an increase of 22% and 17% respectively and is substantial compared to the proposed preferred alternative.
4. Table 2.7, Page 43 – The incremental cost analysis per acre for ADF&G Preferred Alternative B is the same as the preferred alternative selected. It appears that the incremental cost is the same with a significant additional amount of rearing habitat (22% for Chinook and 17% for coho).
5. Figure 3-3, Page 52 – Add a figure showing the Rearing Habitat Curves below the AWWU Portal similar to Figure 3-3 (which presents the Spawning Habitat Curves). Benefits to rearing from increased flows should be discussed/detailed similar to benefits for spawning.
6. Section 3.3.2, Page 57 – There are some inaccuracies and incomplete reporting in the last paragraph. In 2021 there were two coho and one Chinook collected. One of the coho collected was determined to be wild and the other one of hatchery origin. The Chinook carcass collected in 2021 was determined to be a wild fish. In 2022 there were two Chinook collected and they were determined to be of hatchery origin. There were also two coho carcasses collected in 2022 but they have not been analyzed.

Drainage	Date	Long.	Lat.	Species	Sex	Length (cm)	Otolith Marking	Hatchery Origin	Comments
Eklutna River	10/27/2021	-149.38233	61.45226	Coho	Female	49.5	2 1,5H	Y	Hatchery-origin
Eklutna River	10/27/2021	-149.39447	61.45302	Coho	Female	54.3	1-w	N	Wild
Eklutna River	7/31/2021	-149.38831	61.45325	Chinook	Female	79.0	3-w	N	Wild
Eklutna River	9/1/2022			Chinook	Female	N/A	2,3 CI- H	Y	Hatchery-origin; most likely from Eklutna Tailrace per Cody Block
Eklutna River	9/1/2022			Chinook	Female	N/A	2,3 CI- H	Y	Hatchery-origin; most likely from Eklutna Tailrace per Cody Block
Eklutna River	10/21/2022	-149.39589	61.45458	coho	male	22 inches			Still need to be read
Eklutna River	10/21/2022	-149.40654	61.45576	coho		23 inches			Still need to be read

7. Section 3.4.2, Page 58 – Since there is an allocated amount of water for a given year (24,280 acre-feet, Section 3.4.2.1) there is no flexibility built into this plan to increase instream flows above this allocation unless that increase is compensated for the following year. If monitoring indicates that the proposed flow regime is not providing the additional spawning and rearing habitat that has been modeled, then this will make any adaptive management strategy ineffective. The plan as proposed would not have the flexibility to provide more than an incremental increase in proposed flows since

the combined maximum discharge of water from the portal valve (80 cfs) and the current dam outlet gate (190 cfs) would not provide the additional water needed to implement other higher flow alternatives such as ADF&G Alternative B.

8. Section 3.4.3.2, Page 60 – Please provide a detailed breakdown of the estimated \$270,000 budget for monitoring efforts.
9. Section 3.4.3.2, page 60 – The draft plan states that the Committee may revise the monitoring plan or seek supplemental funding to conduct additional monitoring efforts if desired. Clarification is needed on where the source of this supplemental funding would come from.
10. Section 3.4.3.2, Page 60 – Because channel maintenance flows are scheduled for fall, they have the potential to scour salmon redds and dislodge incubating eggs. Monitoring efforts should include scour depths in spawning areas to assess impacts of the maintenance flows timing on spawning habitat for adaptive management purposes.
11. Section 3.4.3.2, Pages 61 and 62 – All monitoring efforts other than discharge are proposed to take place over 5 years except for winter temperature monitoring (3 years). Although the draft plan states that this additional monitoring need not take place in consecutive years, this effort would be inadequate to assess changes or determine long-term trends in fish use and improvements in habitat. Since the success of this program will be evaluated over 35 years a more robust monitoring program should be proposed.
12. Section 3.4.3.2, Page 62 – Hatchery Fish Straying section – Modify first sentence ‘All Chinook and coho carcasses (heads) observed in the Eklutna River during adult salmon surveys should be collected and delivered to ADFG for stock origin analysis to evaluate if straying is occurring and if so, at what proportion to wild escapement.’
13. Section 3.4.3.2, Page 62 – Angler days or catch per unit effort data from the tailrace fishery will not provide information to detect straying from the tailrace into the Eklutna River. Determining potential straying should be based on the results of spawner surveys on the Eklutna River and the results of the stock origin analysis. Project owners should focus the annual coordination with ADFG to determine if straying is occurring on these criteria and not tailrace data.
14. Section 3.4.4, Page 63, paragraph 1 – In addition to determining what monitoring efforts should be conducted annually, a cost estimate should be developed on an annual basis for this effort.
15. Section 3.4.4, Page 63 – paragraph 3 states that the Committee may request modifications to the peak flow releases as long as the total volume of water released in a 10-year period does not exceed 2,913 acre-feet. We assume that this is based on the total amount of water proposed in Table 3.3, Page 55. Please clarify.
16. Section 3.4.4, Page 63 – The last paragraph states that the Project Owners are not responsible for responding to natural processes that result in undesirable conditions in the river such as debris flows associated with precipitation, beaver activity, large wood build-up, etc. We are therefore assuming that then if any undesirable condition in the river is a result of the provisions of the plan being carried out will be the responsibility of the Project Owners to rectify. For example, if a log jam that blocks fish passage is the result of the release of a channel maintenance flow that the Project Owners would remediate the blockage to fish passage since it would not be the result of a natural event. Maintaining the free passage of fish in the Eklutna River is essential to the success of the Fish and Wildlife Plan and should be incorporated into the plan.
17. Section 4.1, Page 65 – This section fails to take into account all aspects of habitat gains by only utilizing spawning habitat for Chinook and coho salmon. The draft plan also needs to include gains

in rearing habitat for these species. The section and corresponding figures should be updated to reflect this.

18. Figure 4-3, Page 70 – “other lake systems Kokanee” should be identified by collection location. Is this fish from Alaska or the lower 48? Alaska kokanee are typically smaller than those from warmer systems in the lower 48 and either an Alaskan fish should be presented or the fish identified as from the lower 48 and not necessarily representative of a typical Alaskan kokanee.
19. Section 4.8, Pages 74 and 75 – Physical habitat manipulation should be incorporated into this draft plan. While there is potential federal funding for this, there is no guarantee that this outside funding can be secured. To ensure that this plan will effectively promote the anticipated positive effect on fish and their habitats physical habitat improvements should be included.
20. Section 4.8, Pages 74 and 75 – Additionally, woody vegetation has encroached on the channel due to limited flows. The impacts of the vegetation in the channel, after some flow is returned to the river, should be assessed to determine if this vegetation needs to be managed to fully realize the projected habitat gains presented in the plan.
21. Section 4.9, Page 75 – Regardless of funding secured by the State of Alaska to address current damage to the trail system, additional funding should be dedicated to remediating any additional trail damage that occurs as a result of project operations.

ADF&G is aware of the current situation regarding supply and demand of energy for the railbelt and the desire to maintain renewable energy sources to the maximum extent as well as the additional cost to ratepayers and property owners in Municipality of Anchorage (MOA) and ratepayers in the Mat-Su. As exhibited in Table 2-5, Page 41, implementation of ADF&G Alternative B would result in only a modest increase to ratepayers as compared to other alternatives considered while maximizing increases in habitat. In the 1991 Agreement, the purpose of this plan is to develop and propose to the governor a program to protect, mitigate damages to, and enhance fish and wildlife impacted by the project. ADF&G strongly encourages the Project Owners to consider adoption of ADF&G Alternative B, and specifically the construction of a fixed wheel gate at the project dam, to allow for flexibility of instream flows into the future. Placing a hard cap on the annual water budget does not allow for effective adaptive management strategies to be implemented, if needed, to ensure the success of the Fish and Wildlife Plan. An initial annual water budget of 24,280 acre-feet may be adequate to assess the effectiveness of the Fish and Wildlife Plan but providing flexibility over the 35-year term of this plan is essential to ensure the success of the program. The addition of the fixed wheel gate to the Fish and Wildlife Plan would provide that flexibility.

The Draft Fish and Wildlife Plan contains little reference to how the success of the Fish and Wildlife Plan will be evaluated other than goals for the winter temperature monitoring and substrate size. Criteria should be developed to determine if the plan is successful or not, including an increase in spawning and rearing habitat, effectiveness of channel forming flows and general fish abundance.

Please feel free to contact me with any questions you may have regarding our comments.

Sincerely,



Ron Benkert
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ADF&G Habitat Section

Ecc.

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