



November 25, 2020

Samantha Owen
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via: owen@mcmjac.com

RE: Comments on the Draft Study Plans for the 1991 Fish & Wildlife Agreement Implementation, Eklutna Hydroelectric Project

Dear Ms. Owen,

Please accept these comments on the Draft Study Plans for the Eklutna Hydroelectric Project on behalf of Trout Unlimited (TU). The Study Plans are an essential step toward filling data gaps, furthering our understanding of the impacts and opportunities for mitigation, and for developing and implementing a well-informed and successful Fish and Wildlife Program for the Eklutna Hydroelectric Project. Trout Unlimited is thankful for the opportunity to provide feedback on the Draft Study Plans.

Trout Unlimited is the nation's largest sportsman's organization dedicated to coldwater conservation with approximately 20,000 members and supporters in Alaska that are passionate anglers, lodge owners, fishing and hunting guides, and commercial fishermen, among various other occupations. Our members value not only the healthy fish and wildlife populations that Alaska offers, but also the healthy habitat and intact river systems that support them, the economic benefits from clean waters and healthy fisheries, and the rich cultural and traditional values tied to our rivers and salmon. Many of TU's members and supporters live in Southcentral Alaska, recreate in the Eklutna Lake area of Chugach State Park, are ratepayers of Chugach Electric Association, Matanuska Electric Association, or Municipal Light and Power, and have expressed their overwhelming support for restoring the health and functions of the Eklutna River.

The Eklutna Hydropower Project is located on traditional and cultural lands of the Dena'ina people, who were not consulted when the project was built, have not had a significant voice in its operation, and have undoubtedly bore the brunt of the impacts from the project to the Eklutna River and its fish and wildlife. Although the Native Village of Eklutna (NVE) was inextricably left out and not named a party to the 1991 Agreement, their voice must be heard for this mitigation process to succeed. We encourage the utilities, and the federal and state agencies, to continue to involve NVE in this process and to find ways for NVE to have an even greater role in determining the future of the Eklutna River.

The Eklutna Hydroelectric Project has provided reliable, inexpensive power for nearby communities for more than 65 years. Unfortunately, wild salmon and the health of the Eklutna River have taken a back seat and suffered for too long as electricity generation has been the top priority for water from Eklutna Lake. During the 2018 Eklutna River Workshop, which was hosted by the Native Village of Eklutna (NVE) and TU, and included participants from numerous state and federal agencies,

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we arrived at the following general conclusions: (1) future seasonal streamflow should be patterned after the historic natural hydrograph; (2) restoration and mitigation efforts should account for the unique hydrogeomorphic reaches of the watershed; (3) coho, Chinook, and sockeye salmon could serve as indicator species; (4) future streamflow should account for each focal species unique needs and life histories; (5) an initial peak flow event likely is necessary for sediment transport and lateral connectivity; and (6) that additional measures beyond restoring flow were likely needed to restore off-channel habitat and allow fish passage past the upper Eklutna dam site.

With the Workshop's recommendations and conclusions in mind, TU has the following specific recommendations to the Draft Study Plans:

- Section 1.1.1, Procedural Requirements: While TU appreciates the opportunity to participate in the technical working group and recognizes that the utilities and various state and federal agencies are the parties to the 1991 Agreement, TU encourages the utilities to offer increased opportunity for public input, particularly with regard to the Proposed Fish and Wildlife Program. The public has an inherent interest in the management of public waters. Additionally, we suspect ratepayers and other members of the public could provide meaningful input into this process and would support increased mitigation efforts even if those increased mitigation actions came at a cost on their utility bill.
- Section 1.2.7, Revised Information Matrix: Thank you for the various updates made to the Revised Information Matrix. In addition to recreational fishing at the tailrace and in the Eklutna River, we encourage consideration of existing fishing and future opportunity throughout the Eklutna River watershed, including upstream of the canyon, in the Eklutna Lake, and in tributaries upstream of the lake, if that recreational use is not already considered.
- Section 3.1, Instream Flow Study: Current flows in the Eklutna River often are less than 10 cfs; however, the river flowed at much, much larger rates before construction of the Eklutna Hydroelectric Project. In fact, the Eklutna River was comparable in flow to Eagle River and much larger than many of the nearby rivers. The historic winter baseflow in the Eklutna River from mid-November through March was around 100 cfs, and normal summer flow was as high as 1,000 cfs. See Figure 2, from the Eklutna River Workshop final report. At these flows, the main channel had connectivity with side channels and other off-channel habitats that were important for rearing and over-wintering of juvenile salmon. Additionally, occasional peak-flow events at the outlet of Eklutna Lake saw flows exceed 2,500 cfs. See Draft Study Plan at Figure 3-6. These peak flows were sufficient to move large volumes of coarse sediment, and to ensure sediment from the numerous alluvial fans feeding into the Eklutna River was transported downstream.

Although TU recognizes future flows of the Eklutna River are unlikely to approach historic levels on a regular basis, the instream flow study should be calibrated at a higher level that is more comparable to historic flows to ensure data gathered by the studies can inform a mitigation plan adequate to ensure a functioning river system. The draft study plan proposes to calibrate the model at a maximum of 150 cfs. This is insufficient to ensure lateral connectivity or sediment transport required to support wild salmon at all life stages. TU encourages calibration at a much

higher level, including up to 1000 cfs, which is closer to historic summer flows, to better understand the system and potential mitigation options.

The Draft Study Plan also underestimates the importance of sediment transport, and relies on models and flow levels that likely are insufficient to account for the volumes of sediment in the system and that already exist and naturally are introduced on a continual basis. In order to accurately account for channel complexity and get useful results from the instream flow study, the study plan should allow for an initial flushing flow to move gravel and uncover the historic river channel. The study plan should also account for periodic flushing flows that likely are necessary to ensure important spawning, rearing and overwintering habitat is available to salmon.

Chinook salmon, which were identified in the Eklutna River Workshop as a potential focal species and are incredibly important for their cultural and traditional values, rely on large substrate that is only available when flows are adequate to move the smaller, finer sediment. Juvenile Chinook salmon also require side channels, sloughs, and lateral connectivity for rearing and overwintering. By not providing for a significant initial flushing flow, and limiting the instream flow model to 150 cfs, the study plan is unlikely to account for these factors, and unlikely to inform potential mitigation measures that will help ensure success.

- Section 3.1.4.5, Data Collection: Lumping all substrate less than 0.1 into a single category fails to account for different attributes of sand and fine silt, which can become embedded and resist movement in even large flows. Additional fine classifications should be used to account for this. Similarly, bed elevation and water depth should be measured more precisely than to 0.5 feet since current flows in the Eklutna River are so low.
- Section 3.2, Geomorphology/Sediment Transport Study: As discussed above, transporting the accumulated sediment, along with the sediment continually introduced, in the Eklutna River will likely require significant flows beyond what is contemplated by the Draft Study Plan. Historic flows exceeded 2,000 cfs. While TU does not advocate for flows at that level, flows well beyond 150 cfs likely are necessary to transport embedded sediment, uncover important spawning gravel, reconnect off-channel habitat, and ensure productive salmon populations.
- Section 3.3, Eklutna River Fish Species Composition and Distribution Study: As discussed above, additional flow beyond 150 cfs likely is necessary to provide for the habitat needs of fishes in the Eklutna River.

Studies should document the presence of all observed fishes, including resident fishes that might not be included as a focal species. For example, rainbow trout and Dolly Varden can offer significant recreational value to anglers. Additionally, the study plan should evaluate fish populations in the lake and in the tributaries that feed into the lake.

The Eklutna River was once a significant salmon producer that has the potential to produce large populations once again. We encourage the working group to look for ways to assess potential

wild salmon production and not just current presence and abundance. For example, what other river systems have similar attributes, including the presence of a large lake, and what can we learn from those systems about possible future production from the Eklutna River?

- Section 3.7, Lake Aquatic Habitat and Fish Utilization Study: A thorough understanding of the Eklutna Lake, the fish populations it currently supports, and the fish habitat available if it was reconnected to the downstream reaches of the river is essential to evaluating mitigation options and their potential outcomes. As part of these studies, the East and West Forks of the Eklutna River should be assessed for their potential fish habitat and their potential contribution to fish production, both for resident and anadromous fishes. In addition to sockeye salmon, which are most commonly associated with lake habitats, Chinook and coho salmon, as well as resident fishes, likely could use the lake habitat and its tributaries if they were able to migrate past, both upstream and downstream, the Eklutna Hydropower Project.
- Section 3.11.7, Fish Hatchery/Tailrace Assessment: Although TU supports continued operation of the fishery at the Eklutna tailrace, and encourages mitigation measures to be adopted that will have minimal or no impact on the tailrace fishery, mitigation efforts in the Eklutna River itself should focus on restoring wild populations of natural spawning salmon. Although some straying from the tailrace fishery into the Eklutna River inevitably will occur, using hatchery fish to directly supplement or reestablish salmon populations in the Eklutna River is unnecessary, costly, and will detract from the wild populations.

The Draft Study Plan states that “Currently, ADFG rears and releases hatchery Coho & Chinook salmon at this location to support a popular local fishery”. This sentence suggests that ADFG rears the salmon at the Eklutna Fish Hatchery; however, our understanding is that fish are reared at an off-site hatchery and released at Eklutna Tailrace.

I. Conclusion

Thank you for the opportunity to participate in the Technical Working Group and to provide these comments on the Draft Study Plans. Informed decision making that is grounded in science is a cornerstone of our work, and TU appreciates the hard work that has already been put into the Draft Study Plans. TU has a long history of working with diverse stakeholders to successfully overcome complex challenges. We believe such an opportunity exists here, and we appreciate the collaborative efforts of the working group to revitalize the Eklutna River and its salmon, while also meeting our needs to clean water and affordable energy.

Sincerely,



Austin Williams
Alaska Director of Law and Policy
Trout Unlimited