



Acting Mayor
Austin Quinn-Davidson

Anchorage Water & Wastewater Utility

Engineering Division



Board Chair
Aaron D. Dotson

January 4, 2021

Samantha Owen
Regulatory and Licensing Specialist
McMillen Jacobs
1011 Western Ave
Suite 706
Seattle, WA 98103

Re: Eklutna Hydroelectric Project Draft Study Plan Comments

Dear Ms. Owen:

This letter provides the review comments of the Anchorage Water & Wastewater Utility (AWWU) to the Eklutna Hydroelectric Project 1991 Fish & Wildlife Agreement Implementation Draft Study Plan dated October 2020. AWWU understands the importance to the Native Village of Eklutna (NVE) of re-establishing the continuous flow of Eklutna River, and of reintroducing salmon to their natural habitat. AWWU's primary concerns are its water rights, the protection of AWWU's infrastructure, and access and maintenance issues.

1. Foremost in importance to the Utility is water right. Eklutna Lake is the primary source of potable water for the Municipality of Anchorage and its nearly 300,000 residents. AWWU holds a water appropriation permit from the Alaska Department of Natural Resources (ADNR), issued as a "priority use" under Article VIII, Sec. 13 of the Alaska Constitution. Section 13 designates "public water supply" as a priority use of water in Alaska. The Alaska Water Use Act at Alaska Statutes 46.15.150 implements this constitutional provision as a statutory "preferred use."

AWWU began diverting Eklutna Lake water for its water treatment plant in 1988, and it will soon apply to ADNR to transform its water use permit into a permanent certificate of appropriation, having fulfilled all the requirements of its permit. The hydroelectric consortium also presently holds a certificate of appropriation for Eklutna Lake water, but its use, not being for public water supply, is not a "preferred" use under the law. AWWU presently has water diversion and compensation agreements in place with the hydroelectric consortium.

There is substantial annual variation in the lake level of Eklutna Lake. To establish and maintain a lake level that creates the "spillover" from the Lake needed to fully re-establish Eklutna River, there may be times when water could be diverted from the Lake, and AWWU thus would not be able to divert water to supply the water plant for the daily needs of the Municipality. AWWU must insist on its full appropriation quantity under its priority water right, or the establishment of a compensation mechanism through the Plan, to compensate AWWU for its increased costs in obtaining water from other sources during such times. AWWU believes this is an issue that must be taken into consideration during the review of the Project Study and recommendations.

Anchorage Water & Wastewater Utility  Clearly

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The draft study noted that at peak power production, the hydroelectric facility resulted in a daily surface drawdown of four inches on Eklutna Lake. Is this drawdown inclusive, or exclusive, of AWWU's diversion for its water plant? What is the water use breakdown from the Lake of AWWU and the hydroelectric consortium? AWWU must see and evaluate an operational model that shows how the needs of all users of the watershed will be met or allocated, as well as the potential cost impacts upon all ratepayers using electricity or water produced by the Lake.

2. AWWU is concerned about impacts to its infrastructure resulting from both flushing the stream channel and reintroducing a full-time flow for Eklutna River. AWWU's water main, running from the Lake outlet down the Eklutna river canyon to its water plant, is a fifty-four-inch cement mortar lined and coated steel pipe. This pipe crosses underneath the stream channel at ten sites, and closely parallels the channel at five additional locations.

AWWU is concerned that scour action by the re-established River may expose the water main, which could undermine or damage the water main and threaten AWWU's ability to reliably provide water to the Municipality. AWWU requests that stream and scour modeling be required as an element of the completed Plan, to gain a better understanding of potential impacts and mitigation designs to protect and armor AWWU's infrastructure from such damage. AWWU is also concerned about the possibility of runoff into the canyon, creating alluvial fan deposits that might introduce additional turbulence in the river or alter its course, resulting in scour and erosion in addition to the anticipated scour and erosion in the streambed itself.

Ideally, any designs provided to protect AWWU's water main in its present location could be used in other locations along the Eklutna River channel. AWWU anticipates that the River will meander with time, exposing AWWU's infrastructure to damage at locations that are not currently predicted to be at risk.

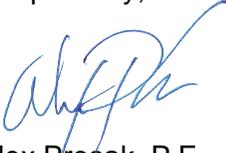
3. AWWU is concerned that re-establishing Eklutna River may potentially hinder or prevent it from using its present access into the canyon, to inspect and maintain all segments of its water main. River action could also wash out AWWU's access road over time, as the River floods and meanders. In the case of a break in the AWWU water main, physical access, already in place, is critical to ensure that AWWU can maintain a reliable flow of clean water to its water plant near the mouth of the canyon. Some small bridges may be necessary in order to ensure that AWWU's physical access to its infrastructure can always be fully maintained.
4. Even absent the adverse results of stream erosion and meandering, AWWU is concerned about its ability to inspect and maintain its water main crossing under the Eklutna River at the numerous crossing locations. With the passage of time, all pipes will eventually fail. Over time, the segments of the water main located under the reestablished Eklutna River will fail and will need to be repaired or replaced. Such necessary maintenance will be further complicated once salmon runs are re-established. If a pipe failure occurs during a spawning period, another level of complexity will be added to the necessary repairs. A mechanism for additional permitting will be needed in order for AWWU to complete such repairs, including possible diversion of the River. The Study Plan should determine what additional requirements will be needed, and ideally should adopt a process that will allow AWWU to inspect, repair and possibly replace segments of its water main with as little disruption to the streambed and AWWU's operation of its water plant as possible.
5. Finally, AWWU notes a significant omission in the draft Study Plan documents. Nowhere in these materials is there a depiction or a written description of AWWU's physical facilities located at the Lake and in the canyon. The Draft Study Plan at Section 2.0 through 2.3 describes the



hydroelectric facilities at the Lake, but the only mention of AWWU's facilities is a depiction of the AWWU water plant near the mouth of the canyon, several miles downstream. These omissions should be corrected as the draft Study Plan moves forward.

AWWU looks forward to working with you on this project, and to the reintroduction of salmon into their natural habitat.

Respectfully,



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