Anchorage Hydropower Utility

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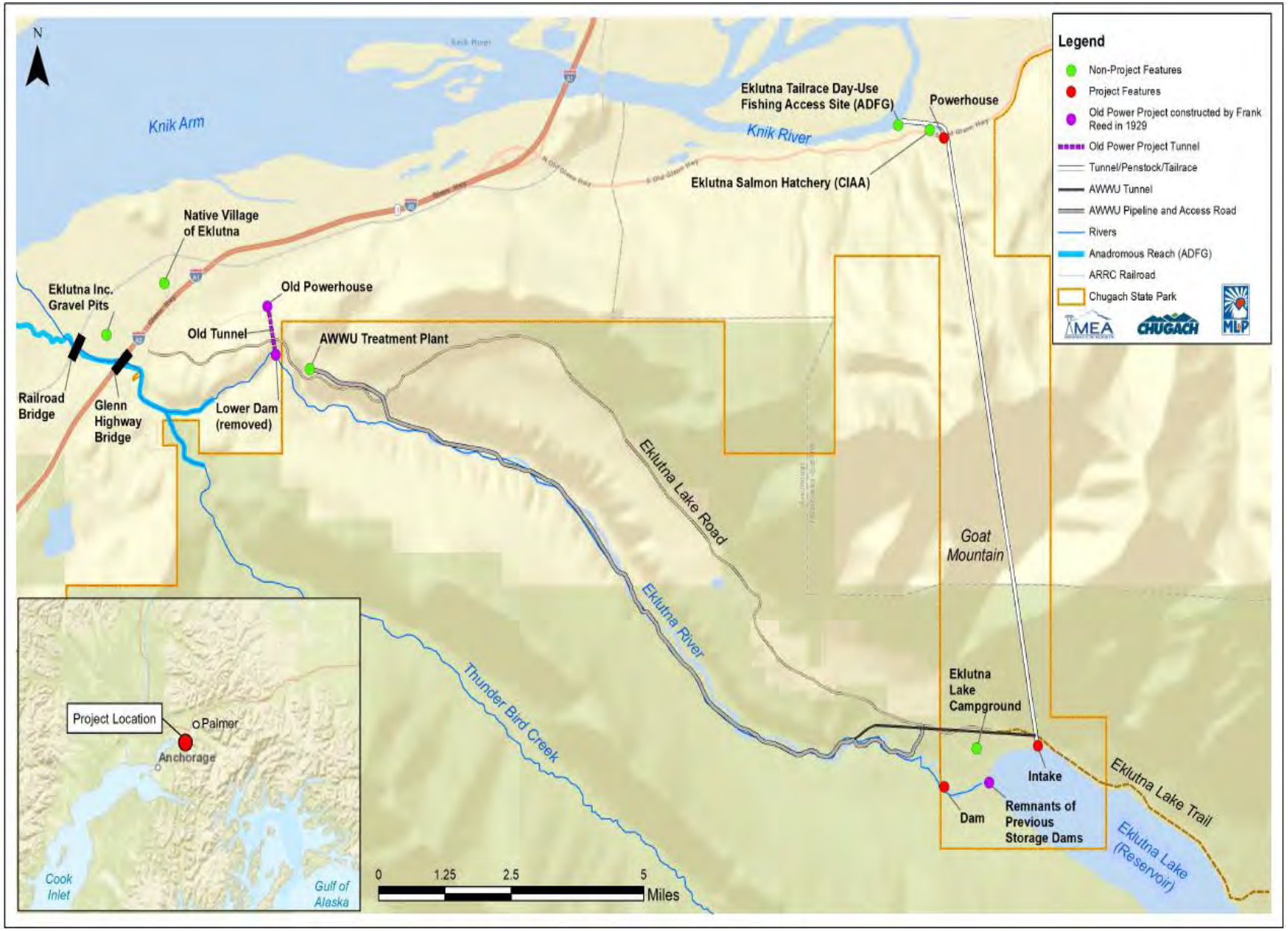
Organizational Overview

The Anchorage Hydropower Utility is an enterprise of the Municipality of Anchorage (MOA).

In 2020, the MOA sold Municipal Light & Power (ML&P) and with the closing of the sale transaction to Chugach Electric Association, Inc. (CEA), the nature of the electric service provided by the MOA converted from the provision of retail electric service to a significant portion of Anchorage, through generation, transmission, and distribution facilities, to the far more limited provision of wholesale-generation service through long-term contracts with two utility customers. MOA's ownership interest in the generation assets of the Eklutna Hydroelectric Project ("Eklutna Project") was not transferred to CEA and was retained by the MOA, as the Anchorage Hydropower Utility.

Anchorage Hydropower Utility is located approximately 30 miles northeast of Anchorage on the Old Glenn Highway. MOA, CEA, and Matanuska Electric Association, Inc. (MEA) share project costs through a proportionate share of ownership. Under separate power purchase agreements (PPAs), for a term of 35 years, CEA will purchase its proportionate share (64.29%) of ML&P's share, and MEA will purchase its proportionate share (35.71%), of the Eklutna output. Through these PPAs, CEA and MEA have agreed to purchase the entire output of the MOA's Eklutna Project ownership interest.

Visit the Eklutna Project website at: https://www.eklutnahydro.com/background/


N
Knik Arm
Knik River
Eklutna Tailrace Day-Use Fishing Access Site (ADFG)
Powerhouse
Eklutna Salmon Hatchery (CIAA)
Native Village of Eklutna
Eklutna Inc. Gravel Pits
Old Powerhouse
Old Tunnel
AWWU Treatment Plant
Railroad Bridge
Glenn Highway Bridge
Lower Dam (removed)
Eklutna Lake Road
Goat Mountain
Eklutna River
Thunder Bird Creek
Eklutna Lake Campground
Intake
Dam
Remnants of Previous Storage Dams
Eklutna Lake Trail
Eklutna Lake (Reservoir)
Project Location
Palmer
Anchorage
Cook Inlet
Gulf of Alaska
0
1.25
2.5
5
Miles
Legend
Non-Project Features
Project Features
Old Power Project constructed by Frank Reed in 1929
Old Power Project Tunnel
Tunnel/Penstock/Tailrace
AWWU Tunnel
AWWU Pipeline and Access Road
Rivers
Anadromous Reach (ADFG)
ARRC Railroad
Chugach State Park
MEA
CHUGACH
MLP

Anchorage Hydropower
Business Plan

Mission
Provide energy that is safe and reliable to meet purchase power agreement requirements.

Services
Anchorage Hydropower owns 53.33% of the generation assets of the Eklutna Hydroelectric Project. Anchorage Hydropower sells all of its electric output to Chugach Electric Association and Matanuska Electric Association pursuant to purchase power agreements. Anchorage Hydropower is currently subject to economic regulation by the Regulatory Commission of Alaska.

Business Goals
- Provide electricity to satisfy the purchase power agreements.
- Maintain $3 million cash reserve in accordance with Regulatory Commission of Alaska Order U-19-020(39).
- Maintain 180 days of cash on hand to cover operating expenses.
- Maintain equity and earn net income at a level sufficient to continue to ensure the long-term financial stability of the utility.
- Operate the electrical system with optimum economic efficiency and strict adherence to environmental standards.

Strategies to Achieve Goals
- Implement industry best practices and streamline business processes to ensure the financial and operational integrity of the utility.
- Work collaboratively as owners of the Eklutna Hydropower Project to implement predictive maintenance program to reduce or eliminate outages and interruptions

Performance Measures to Track Progress in Achieving Goals
1. Maintain positive Net Income

About Anchorage Hydropower Utility

History
In 1929, the privately owned, Anchorage Power & Light Company (AP&L) began supplying electricity from a hydroelectric power plant on the Eklutna River, 30 miles northeast of Anchorage. In 1943, the city acquired the Eklutna plant from AP&L. In 1955, the U.S. Bureau of Reclamation completed construction of a new, larger plant on the Eklutna River. The city contracted for 16,000 kilowatts of generating capacity from that plant and "little" Eklutna was transferred to the federal government. In 1997, Municipal Light & Power (ML&P), Chugach Electric Association, Inc. (CEA), and Matanuska Electric Association, Inc. (MEA) jointly took ownership of the Eklutna Hydroelectric Plant. In 2020, through the sale of ML&P, the Municipality of Anchorage (MOA) retained its ownership interest in the generation assets of the Eklutna Hydroelectric Project (Eklutna Project). MOA, CEA, and MEA each own an undivided interest in the Eklutna Project in the following percentages: MOA, 53.33%; Chugach, 30%; and MEA, 16.67%.

Services
The Eklutna Project has 40 megawatts of generation capacity and produces approximately 130,000 kilowatt-hours of electricity per year.

The Eklutna Lake is the main source of Anchorage's drinking water and a major source of electricity via a hydroelectric dam that diverts almost all of the water that used to comprise the Eklutna River. Eklutna hydroelectric power is the lowest cost renewable energy in Southcentral Alaska.

Regulation
The utility is regulated by the Regulatory Commission of Alaska (RCA) and subject to abide by the rules and regulations in the utility's tariff, if any, or in special contracts with customers.

Anchorage Municipal Code (AMC) section 26.10.068 provides that revenue received from CEA Power Purchase Agreement (PPA) must be distributed to the MOA Trust Fund. It also provides that additional revenue may be distributed to the general government budget, subject to the requirement that the utility maintain sufficient reserves to meet anticipated capital and operating expenses and as required by the RCA.

The RCA requires that the MOA maintain a reserve fund of not less than $3,000,000 to support the MOA's share of anticipated operations. If for any reason these reserves are not met, the utility is prohibited from paying a dividend to general government and depositing CEA's payments to the trust.

Physical Plant
The 40-megawatt (MW) Eklutna Project is in Southcentral Alaska approximately 30 miles northeast of downtown Anchorage near the Native Village of Eklutna. The U.S. Bureau of Reclamation (USBR) constructed the project in 1955, which included rehabilitation of an existing dam at the outlet of Eklutna Lake.

The rehabilitated dam was damaged in the 1964 earthquake, at which point a new and taller embankment dam was constructed just downstream. The new dam is an earth and rockfill structure 815 feet long and 41 feet high with a rectangular concrete spillway that runs through the dam. Eklutna Lake, approximately 7 miles long and 1 mile wide, is located within Chugach

State Park and provides almost 90 percent of the domestic water supply for the MOA. The intake structure for the Eklutna Project is located 36 feet below the natural lake level. From there, water is diverted north into a 4.6-mile-long tunnel through Goat Mountain and then into a 1,370-foot-long penstock before reaching the powerhouse located on Old Glenn Highway. The tailrace flows under the highway and then discharges into the Knik River. The powerhouse contains two generating units.

Visit the Eklutna Hydropower website at: https://www.eklutnahydro.com/background/

Anchorage Hydropower Utility
Highlights and Future Events

The 1991 Fish and Wildlife Agreement (Agreement) gives deadlines for specific milestones in the consultation, program development, and implementation processes. These deadlines, listed below, are all relative to the date on which ownership of the project was officially transferred from the federal government to the three local utilities (October 2, 1997). This date is referred to as the Transaction.

Before the Governor issues the final Fish and Wildlife Program, the Agreement requires the owners to develop study plans, conduct the necessary studies, prepare study reports, develop a draft Fish and Wildlife Program, engage the public, and to consult with agencies and interested parties multiple times throughout the process. In order to allow adequate time to meet these requirements, the owners have initiated the consultation process early.

- 2022 – Initiate the consultation process no later than 25 years after the transaction date
- 2024 – Issuance of the Final Program by the Governor at least 3 years prior to implementation
- 2027 – Begin implementation of the Program no later than 30 years after the transaction
- 2032 – Complete implementation of the Program no later than 35 years after the transaction

The planned schedule to provide the Governor with a Proposed Fish and Wildlife Program is shown below, with updates through Fall of 2021.

2019 – During the last week of August, the owners' team conducted a site reconnaissance of the Eklutna River. The primary goal was to provide the project owners' technical and regulatory staff with the chance to review and observe site conditions and project facilities. In addition, the site reconnaissance allowed technical staff to assess the potential scope of study efforts needed to provide the Governor and his/her staff with data to establish the Fish and Wildlife Program required by the 1991 Fish and Wildlife Agreement. For more information, please reference the trip report which can be found under Final Documents at: Documents - Eklutna Hydro

2020 – In June 2020, a Technical Work Group (TWG) was established for study planning purposes. The TWG consists of technical experts and representatives from the following entities:

- Native Village of Eklutna
- Alaska Department of Fish and Game
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- Trout Unlimited
- Alaska Pacific University
- Alaska Institute for Climate and Energy
- Hydropower Project Owners

Earlier in the year, the project owners acquired aerial imagery, spherical videography, and LiDAR of the entire Eklutna River as well as the northeastern shoreline of Eklutna Lake along the lakeside trail. The spherical videography is now available online at: https://biglook360.com/eklutna/ Segments 1-7 show the river and lake shoreline going upstream at a higher altitude, while segments 8-14 are going downstream at a lower altitude. The imagery, videography, and LiDAR will be utilized during the ongoing study planning process this year and during subsequent study implementation.

The following information can be found at the project website: https://www.eklutnahydro.com/project-schedule/

September 2020 – the project owners' technical team held several meetings with the TWG to establish a study program framework. The project owners then developed Draft Study Plans and distributed them to the TWG on October 26, 2020, for review and comment. The comment deadline was November 25, 2020. A subsequent TWG meeting was held on November 30, 2020, to review the TWG's comments on the Draft Study Plans.

March 2021 – After receiving comments from the Technical Work Group (TWG) and others on the Draft Study Plans, the project owners held multiple meetings with the TWG in November and December 2020 to discuss their comments. The project owners then revised the study plans based on all comments received and distributed the Revised Draft Study Plans to the TWG on January 18, 2021, for a second round of review and comment. Another meeting with the TWG was held on January 25, 2021, to review the major revisions to the study plans and to answer any clarifying questions from the TWG before the comment deadline on January 29, 2021. The project owners revised the study plans again to address the second round of comments from the TWG, and then distributed the Proposed Final Study Plans to the parties to the 1991 Fish and Wildlife Agreement on February 24, 2021, for review and concurrence. The project owners are currently working to obtain all necessary permits and authorizations for the planned summer field work season.

The project owners were happy to report that letters had been received from all of the parties in the 1991 agreement officially concurring with the scope of work in the Study Plans. Following the process outlined by the state agencies, the concurrence letters from the four state agencies and the Proposed Final Study Plans were then sent to the Alaska Energy Authority (AEA) as the governor's representative for review. The AEA provided no additional comments, and the Study Plans were finalized in May 2021.

June - August 2021 – Two of the primary studies being conducted in 2021 were an instream flow study and a geomorphology/sediment transport study. Both of these studies require a team to establish transects (cross sections) in the river for data collection. The project team conducted a site visit with the Technical Work Group (TWG) to establish exact transect locations. In order to collect data for both the instream flow and geomorphology/sediment transport studies, the project owners planned to use the drainage outlet gate at the base of the spillway in the dam to release specific flows into the river in the fall of 2021. However, this gate is not used on a regular basis and a large pile of rocks and debris had accumulated in front of it over the years. The project owners hired a team of divers to remove the rocks from the front of the gate so the gate could be inspected and determine if it was operational to conduct the study flows. The rock and debris removal was initiated and was scheduled to be completed in August. Upon inspection, there was some concern that the gate was not in good enough condition to

conduct the flow releases in the fall 2021, so the decision was made to replace the gate in August at the same time as the remaining rock and debris are removed.

September 2021 – During the study planning process, concerns were raised that the study flow releases would result in unusually high flow conditions in the Eklutna River resulting in potentially hazardous conditions. Although there is no official public access to the Eklutna River, the river is still open for fishing, and trespassing to access the river does occur. With that in mind, the project owners have developed a Public Safety Plan in coordination with the Native Village of Eklutna, Eklutna, Inc., Chugach State Park, and the Anchorage Water and Wastewater Utility. The plan includes placing warning signs at all known access points to the Eklutna River and near the pond upstream of the dam, as well as, a formal notification of the flow release schedule to all of the project stakeholders, downstream landowners, and Native Village of Eklutna.

The study flow releases are also likely to mobilize and transport a large portion of the accumulated sediment from behind the lower dam site. Both the Alaska Department of Transportation and Public Facilities and the Alaska Railroad Corporation have expressed concern that the sediment would deposit downstream near their respective bridges and potentially cause negative impacts. The project owners reviewed all relevant available data and did not anticipate any negative impacts to downstream infrastructure. However, out of an abundance of caution, the project owners will monitor the streambed near the highway and railroad bridges daily during the study flow releases for any unanticipated sediment deposition or scour that would be cause for concern.

After replacing the drainage outlet gate at the spillway, consulting with the downstream landowners, and obtaining all of the necessary permits and authorizations, the project owners initiated the study flow releases. Drone footage of the flow releases at the dam can be viewed **here.**

- Monday, September 13 – Initiated flow releases at 150 cfs
- Friday, September 24 – Decrease flows to 75 cfs
- Wednesday, September 29 – Decrease flows to 25 cfs
- Wednesday, October 6 – Decrease flows to 0 cfs

On September 14, representatives from the Anchorage Water and Wastewater Utility and the Native Village of Eklutna joined board members and CEOs from Chugach Electric and Matanuska Electric at the Eklutna Canyon campground to observe the study flow releases and learn more about the necessary preparation and expected outcomes of this part of the study program.

October 2021 – The study flow releases ended on October 6. The project owners were happy to report that field crews successfully collected data at established transects throughout the Eklutna River during each of the study flow releases. Additional transects in the river were surveyed before and after the study flow releases to examine how sediment would move under various flows. As expected, a large portion of the accumulated sediment from behind the lower dam site was mobilized and transported downstream by the study flow releases. Time-lapse videos of the sediment wedge can be viewed **here**. However, no significant sediment deposition or scour was observed at the downstream highway or railroad bridges, and no public safety incidents were reported. The project team started analyzing the data that was collected in 2021 and drafting study reports.

The first year of field work has been completed, the project owners have initiated the study planning process for 2022. The project owners planned on continuing some of the aquatics studies that were initiated in 2021, as well as conducting new studies that will focus on other resource areas including terrestrial, recreation, and cultural resources. With that in mind, the project owners have established three new Technical Work Groups (TWGs) for each of the new focus areas. The following entities are currently participating in one or more of the TWGs.

- Native Village of Eklutna (aquatics, terrestrial, recreation, cultural)
- Alaska Department of Fish and Game (aquatics, terrestrial, recreation)
- Alaska Department of Natural Resources – Chugach State Park (recreation)
- Alaska Department of Natural Resources – Office of History and Archaeology (cultural)
- U.S. Fish and Wildlife Service (aquatics, terrestrial, cultural)
- National Marine Fisheries Service (aquatics)
- Trout Unlimited (aquatics, recreation)
- Alaska Pacific University (aquatics, terrestrial)
- Hydropower Project Owners (aquatics, terrestrial, recreation, cultural)

November 2021 – Preliminary results from the studies in 2021 were presented to the aquatics Technical Work Group (TWG). The team continued to work on drafting year 1 study reports, which were planned to be distributed to the aquatics TWG in February, 2022, for review and comment.

Also, a proposed study program framework for year 2 was presented to all four TWGs. After receiving feedback from the TWGs regarding the studies to be conducted next year, the team immediately started drafting the year 2 study plans, which were distributed in February for review and comment. The year 2 study plans were planned to be distributed to all four TWGs as well as the parties to the 1991 agreement.

February 2022 – The draft year 1 study reports and the draft year 2 study plans were distributed to the Technical Work Groups (TWGs) and the parties to the 1991 Agreement (parties) on February 11. The TWGs and the parties had one month to review and provide comments to the project owners. Shortly after the comment deadline, the project owners scheduled a series of TWG meetings to address any substantive comments that would warrant further discussion. The project team revised as appropriate and distributed the Proposed Final Year 2 Study Plans to the parties for concurrence. The goal of the project owners was to receive concurrence from all of the parties by mid-May so that a second field season by late May could be initiated. The year 1 study reports and year 2 study plans were posted to the documents page of the project website.

March 2022 – The comment deadline for the draft year 1 study reports and year 2 study plans was March 11. A series of TWG meetings were scheduled for the week of March 21 to review the substantive comments that warranted further discussion. The draft year 2 study plans, and all of the comment letters were posted to the documents page of the project website.

April 2022 – The project team conducted a series of TWG meetings the week of March 21 to review the substantive comments on the draft year 2 study plans that warranted further discussion. This included comments on the study area, methods, and schedule for several key studies being conducted this year, including the geomorphology and sediment transport study, instream flow study, water quality study, fisheries studies, terrestrial wildlife studies, recreation study, cultural resources study, and engineering studies. The project team then developed a comprehensive comment-response table, revised the year 2 study plans, and distributed the proposed final year 2 study plans to the parties to the 1991 Agreement on April 1 for review and

concurrence. The proposed final year 2 study plans, which includes the comment-response table as an appendix, will be posted to the documents page of the project website.

The project team has started to develop fish habitat and sediment transport models using the instream flow and geomorphology data that was collected last year. Part of this process includes establishing Habitat Suitability Criteria (HSC) curves for the Eklutna River. The project team distributed a draft technical memorandum with recommended HSC curves to the Aquatics TWG on February 25 for review and comment and then met with the Aquatics TWG on April 18 to discuss further. The project team is now working to finalize the HSC curves for the Eklutna River and will post the final tech memo to the documents page of the website. Modeling results will be presented to the Aquatics TWG later this year.

May 2022 – The project owners have received concurrence letters from all of the parties to the 1991 Agreement. The three state agencies (Alaska Department of Fish and Game, Alaska Department of Natural Resources, and the Alaska Department of Environmental Conservation) concurred with the proposed scope of work for all of the proposed studies. The two federal agencies concurred with the proposed scope of work for 10 of the proposed studies but have reserved their concurrence on the proposed year 2 efforts for both the instream flow study and the geomorphology and sediment transport study until modeling results are available later this year. The project team will finalize the study plans and post them to the documents page of the website along with all of the concurrence letters.

June 2022 – After obtaining all of the necessary permits, the project team initiated the second study year by conducting some early season study efforts this spring, which included:

- Collecting new LiDAR data and aerial imagery of the Eklutna River to further assess how the flow releases last year moved sediment throughout the river
- Downloading winter flow data from the stream gages in the river and winter temperature data from the thermistor strings in the lake
- Deploying both time-lapse and motion-sensitive wildlife cameras at key locations along the river to determine what species are using the study area
- Sampling for moose browse to help assess if moose numbers now are below the habitat carrying capacity
- Surveying for migratory waterfowl, shorebirds, and raptors to assess their seasonal use of wetlands and other habitat

September 2022 – During field work this week, two hand-hewn logs from the Eklutna Alex cabin were found on the lake shoreline near the Eklutna Lake Campground, nearly seven miles from where they originated at the head of the lake. Since this is a well-used area of the park known for people making campfires, there was concern that the cabin logs may be vulnerable to burning or damage. McMillen Jacobs notified the Native Village of Eklutna, Chugach State Park, and State Historic Preservation Office within 24 hours so that a plan could be developed to move/protect them. The cabin logs have since been returned to Eklutna Village. The tribe intends to preserve the remnants and perhaps feature the cabin logs in a display with interpretive information.

October 2022 - Leadership from the Native Village of Eklutna (NVE) and the owners of the Eklutna Hydroelectric Project met on October 19 to discuss continued opportunities to work together and collaborate on the efforts around the 1991 Fish & Wildlife Agreement. Led by NVE Tribal Council President and Chair Aaron Leggett, several members of the Council joined Anchorage Municipal Manager Amy Demboski, Chugach Electric CEO Arthur Miller, Matanuska

Electric (MEA) CEO Tony Izzo, along with board members and staff from the organizations. The Tribal Council members recounted some of the history of the Eklutna people, the Eklutna River, and surrounding land, as well as compelling stories of individual experiences and relationships with the area. The meeting also focused on opportunities for the stakeholders to work together on possible funding sources as the study efforts are finalized and potential fish and wildlife mitigation and enhancement projects are studied.

November 2022 – Using the data that was collected before, during, and after the study flow releases last year, the project team has developed an instream flow model and a sediment transport model for the Eklutna River. Preliminary results from both of these models, as well as some preliminary fisheries and water quality results from the lake studies, were presented to the Aquatics Technical Work Group (TWG) during a series of three meetings this fall. At each of these meetings, the project team also presented ideas for potential engineering solutions that would provide flows into the Eklutna River and fish passage into Eklutna Lake. Next steps include phase 1 of the engineering feasibility and cost assessment, which includes developing conceptual designs and high-level cost estimates. Supplemental instream flow analysis and phase 1 engineering results (conceptual designs and high-level cost estimates) will be presented to the Aquatics TWG this winter.

February 2023 – On February 13, the project team presented the preliminary 2D fish habitat modeling results to the Aquatics Technical Work Group (TWG). This supplemental analysis was conducted for specific reaches of the Eklutna River that could not be evaluated as part of the 1D fish habitat modeling effort due to hydraulic complexity, channel instability, and access issues. The full year 2 study results were distributed to the TWGs in March for review and comment, including the conceptual designs and cost estimates developed during phase 1 of the engineering feasibility and cost assessment. These results will inform the comprehensive alternatives analysis to be initiated in the spring of this year.

March 2023 – The Alaska Section of the American Water Resources Association held their annual conference in Anchorage on March 6 – 8, 2023. The Eklutna Hydroelectric Project team was invited to present at the conference. Samantha Owen, the Project Manager, presented an overview of the hydro project, the requirements of the Fish and Wildlife Agreement, and the overall study program. Kathy Dubé, the Geomorphology and Sediment Transport Study Lead, presented her study results and discussed how these results will be used to inform the development of a future Fish and Wildlife Program. The draft Year 2 study reports were distributed to the Technical Work Groups (TWGs) on March 24. During the week of March 27th, the project owners held a series of TWG meetings to provide a broad overview of the study results, answer questions, and go over the next steps. The TWGs will have one month to review and provide comments to the project owners by April 21st. The project team will then revise the reports as appropriate and distribute the Final Year 2 Study Reports and comment responses in May.

April 2023 – The alternatives analysis process has begun. The first in a series of 5 alternatives analysis meetings was held April 6th with the project owners, members of the Technical Work Groups (TWGs), and parties to the 1991 Fish and Wildlife Agreement in attendance. The alternatives analysis process was presented including the Cost Effectiveness and Incremental Cost Analysis model. Attendees were invited to submit comprehensive alternatives for analysis using a form listing the various component options. These alternatives will be discussed at upcoming alternatives analysis meetings.

May 2023 – The second alternatives analysis meeting was held May 17th. The Phase 1 engineering for the replacement dam alternative was presented, followed by a review of over 30 comprehensive alternatives submitted by the hydro project owners and several stakeholders including the Native Village of Eklutna, Alaska Department of Fish and Game, Chugach State Park, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Trout Unlimited, and The Conservation Fund. Each of the comprehensive alternatives was analyzed using a cost effectiveness model, and results were presented at the meeting. Attendees were invited to revise and resubmit their comprehensive alternatives, if desired, for further discussion at upcoming alternatives analysis meetings with an aim of narrowing down potential alternatives.

August 2023 - The alternatives analysis meetings wrapped up with the fifth and final alternative analysis meeting held on August 9th. After participants were given an opportunity to revise and resubmit their comprehensive alternatives at the May meeting, five stakeholders, including Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, Trout Unlimited, The Conservation Fund, and the hydro project owners, provided revised alternatives, bringing the number of alternatives considered to 36. Revised alternatives were analyzed using the cost effectiveness model and discussed during the June meeting. Participants were then asked to provide their preferred alternatives; 13 preferred alternatives were presented and discussed at the July meeting. The 13 preferred alternatives fell into four general categories: replacement dam (4 alternatives), existing dam with variable exist fishway (2 alternatives), existing dam with no fish passage (1 alternative), and use of the AWWU portal valve (6 alternatives). Potential impacts of the preferred alternatives on other resources, including wetlands, wildlife, public water supply, recreation, and cultural resources were discussed. The August meeting also included a discussion on potential monitoring and adaptive management.

December 2023 - The hydro project owners have prepared their Draft Fish and Wildlife Program and Draft Summary of Study Results and made these documents available for review and comment on October 27, 2023. Signatories to the 1991 Fish and Wildlife Agreement, including the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, and the Alaska Department of Natural Resources, as well as the Native Village of Eklutna, have reviewed the hydro project owners Draft Program and provided comments and recommendations.

February 2024 - In January 2024, the project owners held six public meetings to present their Draft Fish and Wildlife Program: two in Palmer, two in Anchorage, and two in Eagle River. A presentation about the Draft Program was made at each meeting and technical experts involved in the study program were available to answer questions. The public had the opportunity to comment on the Draft Fish and Wildlife Program and Draft Summary of Study Results through February 19, 2024. Comments can be found at: Documents - Eklutna Hydro

April 2024 - Over the past several months, the Project Owners have considered the comments received on the Draft Fish and Wildlife Program and have consulted with the Parties to the 1991 Agreement and the Native Village of Eklutna. Based on this input, the Project Owners developed the Proposed Final Fish and Wildlife Program and submitted it to Governor Dunleavy on April 25th. The Parties to the 1991 Agreement have 60 days from the submittal of the Proposed Final Program to submit written comments and provide alternative recommendations to the governor for the protection, mitigation, and enhancement of fish and wildlife affected by the Eklutna Project. The due date for these comments is June 24, 2024. The Project Owners then have 30 days to submit written reply comments to the governor.

July 2024 - Two of the parties to the 1991 Agreement, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), submitted written comments to Governor Dunleavy on the Proposed Final Fish and Wildlife Program. The Native Village of Eklutna (NVE) and the Anchorage Assembly also submitted comments to Governor Dunleavy. The Project Owners have responded to the comments on the Proposed Final Program in a letter to the governor on July 24, 2024.

The 1991 Agreement now calls for the Governor to review the Proposed Final Program, the comments, testimony, summary and analysis materials, and any alternative recommendations for the protection, mitigation, and enhancement of fish and wildlife resources by October 2, 2024.

Source: Eklutna Hydro. Accessed September 11, 2024. https://www.eklutnahydro.com/project-schedule/, Source: Eklutna Hydro. Accessed September 11, 2024. Eklutna-Newsletter-Spring-2023.pdf (eklutnahydro.com)

October 2024 – The Governor issued the final Fish and Wildlife Program for the protection, mitigation of damages to, and enhancement of fish and wildlife affected by the Eklutna Hydroelectric Project. The Agreement mandates that the Governor give equal consideration to eight factors and seek to reconcile differences between the various parties subject to the Agreement.

The Final Approved Program accepted a request by the Municipality of Anchorage and Native Village of Eklutna to include the study of the Pumped Storage Hydro alternative.

The Final Program includes, among other things:

- Construction of a new valve and release structure located adjacent to the Anchorage Water and Wastewater Utility portal valve to restore year-round flow to the Eklutna River one mile downstream from the Eklutna Dam
- Automation of the existing outlet gate at the base of the spillway at Eklutna Dam for remote operation
- Development of a channel maintenance flow regime to support fish habitat over the long term
- Construction of eight new bridges for AWWU to access water pipeline infrastructure currently accessible by fording the River
- One-time payment of $234,000 for lakeside trail repairs
- Creation of a Monitoring and Adaptive Management Plan that includes the establishment of a Monitoring and Adaptive Management Committee
- Three limited reopeners for the study and potential construction of a fixed wheel gate to replace the existing overflow spillway, provisions to review fish passage alternatives, and the study of Pumped Storage Hydro that may restore fish passage
- Immediate implementation of the Final Program
- Reserving any remaining funds from the study of the fixed wheel gate for other protection, mitigation, and enhancement measures for fish and wildlife
- Addition of one more member, appointed by the Governor, to the Monitoring and Adaptive Management Committee

The complete decision document can be found here: https://gov.alaska.gov/wp-content/uploads/10.02.24-Governor-Eklutna-Decision.pdf

October 2024 – December 2024 – Two meetings of the Parties were held to begin discussing the terms and conditions of the Eklutna Pumped Storage Hydro study.

December 2024 - At the December 18, 2024, Eklutna PSH meeting, stakeholders convened to discuss the terms and conditions for a pumped storage hydropower (PSH) study at Eklutna, as directed by the Governor's decision on the Final Fish and Wildlife Program. The group generally supported a collaborative approach to defining success criteria and screening alternatives. The MOA proposed funding and leading the study with Stantec as the consultant and committed to pursuing funding. A screening matrix will be developed to evaluate multiple alternatives using weighted criteria, with the top two advancing to a higher level of design and cost analysis. The meeting concluded with an agreement to refine the study scope, criteria, and schedule collaboratively, with MOA seeking letters of support from other parties to strengthen its grant applications.

April 2025 - The Eklutna Lake Pumped Storage Hydropower (PSH) Working Group began meeting on April 7, 2025. The Anchorage Hydropower Utility retained Stantec Inc and Huddle AK to facilitate the process. The first meeting focused on establishing a structured decision-making process for screening PSH project alternatives. The project team, including AHP, Stantec and Huddle AK, presented a proposed framework consisting of five steps: defining the process, clarifying objectives, developing success criteria, formulating alternatives, and scoring them. The objective was to deliver a report to the Adaptive Management Committee by September 2025.

The Working Group reviewed eight objectives from the 1991 Agreement and Governor's directive, agreeing that each alternative should be scored individually based on how well it meets these objectives. Alternatives involving the existing hydropower infrastructure, the AWWU pipeline, and new diversions from nearby creeks were introduced. Cultural considerations, legal compliance, and water quality—particularly concerning Knik River—were highlighted. It was agreed that each organization would submit initial success criteria for screening, with results to be compiled and weighted in subsequent meetings.

The Working Group met a second time on April 28, 2025. The Working Group reviewed and refined the success criteria for evaluating pumped storage hydropower (PSH) alternatives and discussed six (6) preliminary concepts presented by Stantec. The group addressed key issues such as defining pass/fail criteria, ensuring clarity around cost comparisons and water quality impacts, and evaluating potential regulatory implications, including FERC jurisdiction. Draft alternatives included variations using existing infrastructure and new water supply reservoirs on Hunter and Thunderbird Creeks, each with differing effects on hydropower, public water supply, and fisheries. Stakeholders agreed to reweight the revised success criteria and provide additional feedback before the next meeting, and formal scoring and alternative ranking.

May 2025 – The Eklutna PSH Working Group met for a third time on May 29th. The project team presented seven (7) detailed pumped storage hydropower (PSH) alternatives, each designed to provide instream flow, fish passage, and energy storage. The alternatives included different approaches using existing infrastructure or new reservoirs, and were evaluated with schematics, water models, cost estimates, and energy projections. Stakeholders discussed assumptions around energy use, infrastructure risks, and how alternatives compare to the existing Portal Valve option. Although the Parties were tasked with scoring the alternatives, not all Parties submitted scores.

June – 2025 – The Eklutna Lake PSH Working Group met for a fourth time on June 23, 2025. Emphasis of this meeting was stakeholder review, discussion and revisions on the project Work Plan and Alternatives. Key topics included the role of public involvement, treatment of non-revenue benefits and risk costs, renewable energy assumptions, and fish habitat impact assessments. The group agreed to include public outreach focused on informing—not guiding—technical decisions and to exclude non-revenue benefits and risk costs from the initial screening but acknowledged they could be considered in future phases. Concerns were raised about ensuring consistent and transparent cost assumptions and decision-making processes.

July – August 2025 - Final revisions to the work plan and concurrence letter were made and the MOA received concurrence from all Parties on the terms and conditions of the work plan.

on the terms and conditions of the work plan.

Anchorage Hydropower Utility
External Impacts

A Fish & Wildlife Agreement in 1991, with the United States Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the State of Alaska (the State) came to an agreement that requires the owners to:

- examine, and quantify if possible, the impacts to fish and wildlife from the Eklutna Hydroelectric Project
- examine proposals for the protection, mitigation and enhancement of fish and wildlife affected by the hydroelectric development
- consider the impacts of any protection, mitigation, or enhancement (PME) measures on other environmental resources and beneficial public uses as well as available means to mitigate those impacts
- develop and propose a Fish & Wildlife Program to the Governor.

The Governor will then review the proposal and issue a final Fish & Wildlife Program giving equal consideration to:

- the purposes of efficient and economical power production
- the protection, mitigation of damage to, and enhancement of fish and wildlife
- the protection of recreation opportunities
- municipal water supplies
- the preservation of other aspects of environmental quality
- other beneficial public uses
- requirements of State law

Throughout this process, the owners are required to consult with the USFWS, the NMFS, State resource agencies including the Alaska Department of Fish & Game (ADF&G), the Alaska Department of Environmental Conservation (ADEC), the Alaska Department of Natural Resources (ADNR), and any other interested parties. The USFWS, NMFS, and the State agreed that this process obviates the need for the owners to obtain a license for the project from the Federal Energy Regulatory Commission (FERC). The Native Village of Eklutna and Anchorage Water & Wastewater Utility are also included in the process.

Source: Eklutna Hydro https://www.eklutnahydro.com/background/

Anchorage Hydropower Utility
Capital Overview

Capital Project Selection Process
The Eklutna Operating Committee (EOC), of which the Municipality is a member, reviews engineering and operating reports, maintenance schedules, and other information about the condition of the generation assets of the Eklutna Power Project (the Project). The EOC develops a five-year capital plan and develops and approves a current year capital project budget based on need, available resources, and schedule.

Significant Projects
Fish & Wildlife Project – In compliance with the 1991 Fish and Wildlife Agreement between the Eklutna project owners, the Federal government, and the State of Alaska, Anchorage Hydropower is responsible to pay for 19.04% of the costs associated with developing and implementing a Fish & Wildlife Study Plan, designed to mitigate any effects of the hydroelectric activity of the Project on fish and wildlife in the area.

Impacts on Future Operating Budgets
The entity must retain equity for the payment of capital projects in the future. The Municipality is responsible for 19.04% of the Eklutna generation capital expenditures and any future Fish & Wildlife project expenditures.

Anchorage Hydropower Utility
8 Year Summary
($ in thousands)

Financial Overview	2024 Actuals Unaudited	2025 Proforma	2026 Approved	2027	2028	2029	2030	2031
				Forecast				
Revenues	5,126	4,403	4,922	4,970	5,015	5,060	5,105	5,150
Expenses and Transfers [1]	3,514	6,163	6,105	6,154	6,203	6,252	6,301	6,350
Net Income(Loss)	**1,612**	**(1,760)**	**(1,183)**	**(1,184)**	**(1,188)**	**(1,192)**	**(1,196)**	**(1,200)**
Charges by/to Other Departments	31	29	82	84	86	88	91	93
Municipal Enterprise/Utility Service Assessment	-	-	-	-	-	-	-	-
Dividend to General Government	300	1,000	300	300	300	300	300	300
Transfers to General Government [2]	**331**	**1,029**	**382**	**384**	**386**	**388**	**391**	**393**
Operating Cash	804	300	515	533	551	572	592	592
Construction Cash Pool	-	1,654	1,075	872	724	786	780	1,300
Restricted Cash	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Total Cash	**3,804**	**4,954**	**4,590**	**4,405**	**4,275**	**4,358**	**4,372**	**4,892**
Net Position/Equity 12/31	5,200	10,900	9,717	8,533	7,345	6,153	4,957	3,757
Capital Assets Beginning Balance	-	8,175	8,883	9,483	10,083	10,683	12,445	14,608
Asset Additions Placed in Service	8,175	708	600	600	600	1,762	2,163	3,431
Net Capital Assets (12/31)	8,175	8,883	9,483	10,083	10,683	12,445	14,608	18,039
Equity Funding Available for Capital	-	-	600	600	600	1,762	2,163	3,431

[1] Expenses shown include all transfers to General Government and all non-cash items: depreciation (including depreciation on assets purchased with grant funds) and amortization activities.

[2] Included in total expenses calculated in Net Income.

Anchorage Hydropower Utility
Statement of Revenues and Expenses

	2024 Actuals Unaudited	2025 Proforma	$ Change	2025 Revised	$ Change	2026 Approved	26 v 25 % Change
Operating Revenue							
Wholesale Power Sales	1,603,431	1,603,000	29,151	1,632,151	16,322	1,648,473	1.00%
Water Diversion Income	332,533	300,000	(50,000)	250,000	-	250,000	0.00%
Total Operating Revenue	**1,935,964**	**1,903,000**	**(20,849)**	**1,882,151**	**16,322**	**1,898,473**	**0.87%**
Non Operating Revenue							
Chugach Revenues	2,590,754	2,500,000	114,483	2,614,483	26,145	2,640,628	1.00%
Investment Income	600,179	-	417,000	417,000	(34,000)	383,000	-8.15%
Other Income	24	-	-	-	-	-	0.00%
Total Non Operating Revenue	**3,190,957**	**2,500,000**	**531,483**	**3,031,483**	**(7,855)**	**3,023,628**	-0.26%
Total Revenue	**5,126,921**	**4,403,000**	**510,634**	**4,913,634**	**8,467**	**4,922,101**	**0.17%**
Operating Expense							
Salaries and Benefits	74,919	227,689	124,210	351,899	35,461	387,360	10.08%
Overtime	-	-	-	-	-	-	0.00%
Total Labor	74,919	227,689	124,210	351,899	35,461	387,360	10.08%
Travel	3,433	-	-	-	5,000	5,000	0.00%
Contractual/Other Services	264,281	358,478	393,238	751,716	-	751,716	0.00%
Equipment/Furnishings	-	-	-	-	5,000	5,000	0.00%
Transfers to Other Funds	2,588,597	4,246,634	-	4,246,634	26,145	4,272,779	0.62%
Dividend to General Government	300,000	1,000,000	-	1,000,000	(700,000)	300,000	-70.00%
Manageable Direct Cost Total	3,156,311	5,605,112	393,238	5,998,350	(663,855)	5,334,495	-11.07%
Municipal Enterprise/Utility Service Assessment	-	-	-	-	-	-	0.00%
Depreciation/Amortization	251,997	301,362	-	301,362	-	301,362	0.00%
Non-Manageable Direct Cost Total	251,997	301,362	-	301,362	-	301,362	0.00%
Charges by/to Other Departments	30,983	28,875	-	28,785	53,520	82,305	185.93%
Total Operating Expense	**3,514,210**	**6,163,038**	**517,448**	**6,680,396**	**(574,874)**	**6,105,522**	**-8.61%**
Non Operating Expense							
Total Non Operating Expense	**-**	**-**	**-**	**-**	**-**	**-**	**0.00%**
Total Expense	**3,514,210**	**6,163,038**	**517,448**	**6,680,396**	**(574,874)**	**6,105,522**	**-8.61%**
Net Income (Loss)	**1,612,711**	**(1,760,038)**	**(6,814)**	**(1,766,762)**	**583,341**	**(1,183,421)**	**-33.02%**
Appropriation:							
Total Expense		**6,163,038**	**517,358**	**6,680,396**	**(574,874)**	**6,105,522**	**-8.61%**
Less: Non Cash Items							
Depreciation/Amortization		300,966	396	301,362	-	301,362	0.00%
Total Non-Cash		300,966	396	301,362	-	301,362	0.00%
Amount to be Appropriated (Function Cost/Cash Expense)		**5,862,072**	**516,962**	**6,379,034**	**(574,874)**	**5,804,160**	**-9.01%**

Anchorage Hydropower Utility
Reconciliation from 2025 Revised Budget to 2026 Approved Budget

		Positions		
	Expenses	FT	PT	Temp/ Seas
2025 Revised Budget (Appropriation)	**6,379,034**	**2**	**-**	**-**
2025 One-Time Requirements				
- 2025 ONE-TIME - Dividend to General Government	(700,000)	-	-	-
Transfers by/to Other Departments				
- Charges by Other Departments	53,520	-	-	-
- Transfer to Other Funds	26,145	-	-	-
Changes in Existing Programs/Funding for 2026				
- Salaries and benefits adjustments	35,461	-	-	-
2026 Continuation Level	**5,794,160**	**2**	**-**	**-**
2026 Approved Budget Changes				
- Office furniture and equipment	5,000	-	-	-
- Travel	5,000	-	-	-
2026 Approved Budget	**5,804,160**	**2**	**-**	**-**
2026 Budget Adjustment for Accounting Transactions (Appropriation)				
- None	-	-	-	-
2026 Approved Budget (Appropriation)	**5,804,160**	**2**	**-**	**-**
	2026 Approved FTE			
	2.0	**2.0**	**-**	**-**

Anchorage Hydropower Utility
2026 Capital Improvement Budget

(in thousands)

Projects	Debt	State	Federal	Equity	Total
Fish & Wildlife	-	-	-	325	325
Total	**-**	**-**	**-**	**325**	**325**

Anchorage Hydropower Utility
2026 - 2031 Capital Improvement Program

(in thousands)

Projects	Year	Debt	State	Federal	Equity	Total
Anchorage Hydropower Utility						
Fish & Wildlife	2026	-	-	-	325	325
	2027	-	-	-	325	325
	2028	-	-	-	325	325
	2029	-	-	-	325	325
	2030	-	-	-	325	325
	2031	-	-	-	325	325
		-	-	-	1,950	1,950
	Total	**-**	**-**	**-**	**1,950**	**1,950**

Fish & Wildlife

Project ID	2021003	**Department**	Anchorage Hydropower Utility
Project Type	Rehabilitation	**Start Date**	January 2021
District	Assembly: Section 2, Chugiak/Eagle River, Seats A & C	**End Date**	December 9999
Community Council	Eklutna Valley		

Description

Fish and Wildlife costs are for the development of studies required by the agreement.

The Assembly amended this project in the Approved 2025 Capital Improvement Budget to read:
Anchorage Hydropower Capital appropriation is subject to Assembly approval of the 1991 Fish & Wildlife Program Budget for 2025.

Comments

The Eklutna Operations Committee has approved projects that are required for components of generators. The Chugach Electric Association (CEA), Municipality of Anchorage (MOA), and Matanuska Electric Association (MEA) proportionately share the costs as approved in the sale agreement:
CEA - 64.29%
MOA - 19.04%
MEA - 16.67%

Version 2026 Approved

		2026	2027	2028	2029	2030	2031	Total
Revenue Sources	**Fund**							
Net Position	531200 - Anchorage Hydropower CIP	325	325	325	325	325	325	1,950
Total (in thousands)		**325**	**325**	**325**	**325**	**325**	**325**	**1,950**