



MEMORANDUM

Resolution 23-094, A Resolution of the City Council of Homer, Alaska Authorizing the City Manager to Apply for an Alaska Department of Environmental Conservation (ADEC) FY24 State Revolving Loan Fund Loan for the Water Master Plan Update. City Manager/Public Works Director.

Item Type: Backup Memorandum
Prepared For: City Council
Date: September 5, 2023
From: Janette Keiser, PE, Public Works Director/City Engineer
Through: Rob Dumouchel, City Manager

I. Issue: The purpose of this Memorandum is to request authorization to apply for an Alaska Department of Environmental Conservation (ADEC) Loan in the amount of \$80,000 to update the Water Master Plan.

II. Background:

We've received an update from the Alaska Department of Environmental Conservation (ADEC) about the FY24 Intended Use Plan for the State Revolving Loan Fund (SRF) and related Principal Forgiveness Subsidies. There is good news. The City's been offered Principal Forgiveness Subsidies for several important projects. One of them is a Water Master Plan Update.

Homer's existing Water Master Plan was developed in 2006, with a planning horizon of 20 years. In some ways, this 2006 report is still timely. The population was projected to be 9,699 people in 2020. It is 2023 and we have not reached that population within Homer's city limits. The average demand for water was projected to reach 1,330,000 gallons per day in 2021. In 2022, our Average Daily Flow was 533,000 gallons per day, with a Daily Maximum Flow of 1,138,000 gallons. However, change has occurred and is likely to continue.

Homer is contemplating the expansion of its Port facilities, which could increase water demand. The areas outside Homer's city limits are expanding and substantial amount of that expansion relies on water trucked from Homer. The Water Master Plan states,

"If the water source were to shut down, the community would have sufficient storage for approximately 3.3 days during the summer, assuming the Water Treatment Plant has a power

supply...Sometime after 2016, a supplemental reservoir may be required to provide additional water to the system in the event of a low flow event (drought).”

Droughts do happen. It was a drought that caused Seldovia to run out of water in 2018 and require water to be transported from Homer to Seldovia.

We have already begun looking further into the future. For the past three years, Homer has been working with the Kachemak Bay National Estuarine Research Reserve (KBNERR) to develop a groundwater map and budget for the groundwater affecting the Bridge Creek Reservoir, Homer’s only water source and its weakest link. KBNERR’s report will be submitted soon and we need help putting their research into context with our long term water plans as well as calibrate our water plans with the effects of climate change. An update to the Water Master Plan would help us accomplish these efforts, thereby substantially improving the resilience and security of the City’s water distribution system.

We’ve been offered a Principal Forgiveness Subsidy in the amount of \$37,500 for a Water Master Plan Update. The estimated cost is \$80,000. It is necessary to submit a loan application to the ADEC in order to “lock in” the Principal Forgiveness Subsidy. Once we the loan is offered to us, we will present Council with an ordinance appropriating the funds.

III. RECOMMENDATIONS: That the City Council authorize the City Manager to apply for a \$80,000 loan from the ADEC for the Water Master Plan Update.