CITY OF HOMER
HOMER, ALASKA

City Manager/
Public Works Director

ORDINANCE 23-57

AN ORDINANCE OF THE CITY COUNCIL OF HOMER, ALASKA AMENDING THE FY24 CAPITAL BUDGET BY APPROPRIATING AN ADDITIONAL $35,000 FROM THE WATER CAPITAL ASSET REPAIR AND MAINTENANCE ALLOWANCE (CARMA) FUND TO PURCHASE ONE MEMBRANE FILTER MODULE FOR THE WATER TREATMENT PLANT.

WHEREAS, Ordinance 23-23(A-3) adopted the FY24/25 Capital Budget, which authorized $80,000 in FY24 to procure one membrane filter train; and

WHEREAS, An additional funding of $35,000 is necessary to complete the FY24 purchase after negotiating technical and financial factors and the cost of the consultant support; and

WHEREAS, The City's water is treated with a sophisticated system of long, small-diameter hollow threads, which, when connected together in a frame, comprise a "membrane filter", referred to as a "train"; and

WHEREAS, The Water Treatment Plant (WTP), built in 2007, has room for five membrane filter trains, which have a predicted life span of 10-15 years; and

WHEREAS, The WTP currently has five filter trains operating that are currently operating and past their expected useful life; and

WHEREAS, The FY25 Capital Budget includes $80,000 to procure a second membrane filter train, and the intent is to budget for the purchase of one each in FY26, FY27 and FY28.

NOW, THEREFORE, THE CITY OF HOMER ORDAINS:

Section 1. The Homer City Council hereby amends the FY24 Capital Budget by appropriating an additional $35,000 to fund the increased purchase price of one membrane filter module for the Water Treatment Plant as follows:

Fund	Description	Amount
256-0378	WTP Membrane Train	$35,000

Section 2. The total appropriation is $115,000 as follows:

Fund	Description	Amount
256-0378	WTP Membrane Train - Existing Appropriation	$80,000
256-0378	WTP Membrane Train – Additional Funding	$35,000

Section 3. The City Manager is authorized to execute the appropriate documents.

Section 4. This is a budget amendment ordinance, is temporary in nature, and shall not be codified.

ENACTED BY THE CITY COUNCIL OF HOMER, ALASKA this 27th day of November, 2023.

CITY OF HOMER

KEN CASTNER, MAYOR

ATTEST:

MELISSA JACOBSEN, MMC, CITY CLERK

YES: 6
NO: 0
ABSTAIN: 0
ABSENT: 0

Introduction: November 13, 2023
Public Hearing: November 27, 2023
Second Reading: November 27, 2023
Effective Date: November 28, 2023

CC-23-257

MEMORANDUM

Ordinance 23-57, An Ordinance of the City Council of Homer, Alaska Amending the FY24 Capital Budget by Appropriating an Additional $35,000 from the Water Capital Asset Repair and Maintenance Allowance Fund to Purchase One Membrane Filter Module for the Water Treatment Plant. City Manager/Public Works Director.

Item Type: Backup Memorandum

Prepared For: City Council

Date: October 31, 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 an additional appropriation of $30,061 from the Water CARMA for the purpose of paying increased costs of providing membrane replacement modules for the Water Treatment Plant (WTP).

II. **Background:**

Homer's drinking water treatment technology involves the use of modules of very small diameter membranes, which are hung on racks, similar to a drying rack of angel hair pasta. Water passes through the membranes, which trap sediment, organics and other particles. The WTP contains space for six of these racks, called "membrane trains" of which five are currently in use. The sixth rack allows Homer to accommodate larger flows as water demand increases over time. The original membrane trains were installed in 2009, with an expected life span of 10-14 years. Thus, we are at the end of their useful life, so we have developed a plan for replacing them over the next few years. The FY24 Capital Budget includes $80,000 to purchase one membrane train and the FY25 Capital Budget includes $80,000 to purchase a second membrane train. We now know the cost of the first membrane train, including a modest contingency, is $95,000. We need an additional appropriation of $30,061 to cover the extra cost of the first membrane train.

We will be asking for additional appropriations in future years to address future purchases. We are contemplating purchase of five membrane trains in total to replace each of the original membrane trains.

We are also requesting an additional $15,061 to cover the costs of the HDR Task Order. We needed help to review the specifications of the membrane trains, as some of the characteristics of the technology has changed in the past 14 years. Plus, we need to ensure brand new membranes won't adversely affect our current flow conditions at the WTP. So, we commissioned HDR, the original WTP designers to help us negotiate design parameters and features for the new membrane trains as well as to negotiate price indices. HDR's Task Order 23-04 for this work was authorized by Resolution 23-006 and cost $15,061. The work has been done. We now have a final proposal from the manufacturer, Zenon Environmental Corporation (Zenon), for the new membrane trains.

The Zenon's proposal covers membrane replacement over a period of five years, anticipating purchase of one membrane train each year. This locks in the base price for all five membrane trains. Prices will be adjusted for inflation.

The total value for the purchase of five membrane trains is $463,870. The Annual Payment is $92,774 for the first year. Payments for subsequent years will be subject to inflationary adjustments, in accordance with the US CPI-U, All Urban Consumers. In addition to the membrane trains themselves, this price includes fiber repair kits and other parts required to connect the new membranes to the existing frameworks. In the event future City Councils do not appropriate funds for future payments, we have the option to terminate the purchase agreement. Once terminated, there is no option to restart the agreement; we will need to start from scratch.

The City's water treatment plant operators have the skills, abilities and tools to install the new membrane trains once we receive them. We may ask HDR to help commission the new membrane trains to ensure smooth transition between old and new flow parameters. We will assess the need, and request funding, for this possibility when we get the first train.

Homer City Code allows exceptions to be made to bidding requirements in the cases where a sole source procurements is justified, HCC 3.16.060(i). A sole source procurement is justified in this case because Zenon (1) provided the original membrane trains and (2) is the only manufacturer of these specialized membranes in the country.

Zenon's cost proposal is deem fair and reasonable, because it is based on the price guarantee formula that was part of the original purchase in 2009, adjusted for inflation, shipping and other incidental costs we've been able to identify and negotiate, such as costs for the repair kits, etc. The membranes themselves are manufactured in Hungary and subject to U.S. Custom duties, which are subject to change. Because of this, we recommend a small contingency be provided to account for small cost adjustments.

Delivery is projected to be 52 weeks after receipt of a purchase order.

We are asking for a total increase in appropriation of $35,000, which includes $15,000 for the additional costs for the membrane trains and $15,061 for the cost of the HDR Task Order and a contingency amout:

• HDR Task Order	$ 15,061
• Membrane train	$ 95,000
• Contingency	$ 4,939
Total needed	$115,000
• Currently authorized	$ 80,000
Additional $ needed	$ 35,000

III. RECOMMENDATION: That the City Council appropriate an additional $35,000 from the Water CARMAS fund to pay for the acquisition of membrane filter trains for the Water Treatment Plant, including (a) purchase of one membrane filter train and (b) consultant services related to the transaction.

CITY OF HOMER
FINANCIAL SUPPLEMENT

PROJECT NAME	Additional Funding - WTP Membrane Filter	DATE	11/08/2023
DEPARTMENT	Public Works	SPONSOR	PW Director
REQUESTED AMOUNT	$ 35,000		

DESCRIPTION	
	An additional funding of $35,000 is necessary to complete the FY24 purchase after negotiating technical and financial factors and the cost of the consultant support. The City's water is treated with a sophisticated system of long, small-diameter hollow threads, which, when connected together in a frame, comprise a "membrane filter", referred to as a "train". The Water Treatment Plant (WTP), built in 2007, has room for five membrane filter trains, which have a predicted life span of 10-15 years. The WTP currently has five filter trains operating that are currently operating and past their expected useful life.

FUNDING SOURCE(S)	OPERATING	GF CARMA	GF FLEET CARMA	PORT RESERVES	WATER CARMA
	0%	0%	0%	0%	100%
	HAWSP	HART-ROADS	HART-TRAILS	PORT FLEET RESERVES	SEWER CARMA
	0%	0%	0%	0%	0%

FUNDING SOURCE 1: WATER CARMA (256-0378)		FUNDING SOURCE 2:		FUNDING SOURCE 3:	
Current Balance	$ 2,119,591	Current Balance		Current Balance	
Encumbered	$ 821,770	Encumbered		Encumbered	
Requested Amount	$ 35,000	Requested Amount		Requested Amount	
Other Items on Current Agenda	$ 0	Other Items on Current Agenda		Other Items on Current Agenda	
Remaining Balance	$ 1,262,821	Remaining Balance		Remaining Balance	
FUNDING SOURCE 4:		**FUNDING SOURCE 5:**		**FUNDING SOURCE 6:**	
Current Balance		Current Balance		Current Balance	
Encumbered		Encumbered		Encumbered	
Requested Amount		Requested Amount		Requested Amount	
Remaining Balance		Remaining Balance		Remaining Balance	