



City of Homer

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Public Works

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MEMORANDUM 18-015(S)

TO: Mary K. Koester, City Manager
FROM: Carey Meyer, Public Works Director
DATE: January 18, 2017
SUBJECT: **ADEC Municipal Match Grant Opportunity
\$1.6M Remaining – Water System Project Options**

In 2013-14, the City completed the design of various water distribution/storage system improvements using an EPA SAAP grant in which 55% of the design cost was covered by the grant. In 2015, the City applied for and received an ADEC Municipal Matching grant to construct the first phase of an overall water distribution/storage improvement project. The first phase consisted of distribution system improvements (Kachemak Drive and Shellfish Avenue water main extensions) and was completed in 2017 under budget. There remains \$1,600,000 in the grant award. The scope of work associated with the ADEC grant can be modified to include portions of the second and third phases of the overall project, which consists mainly of storage and PRV station improvements.

The centerpiece of the overall water distribution/storage project was the construction of a new storage tank. Other new improvements that could be covered by the grant included piping needed to connect the tank to the distribution system and micro-hydro turbine installations. Existing infrastructure that would be replaced/renovated under the grant include the A-Frame tank, A-Frame PRV station, and Spit water main rehabilitation. Public Works has reviewed the projects that can be funded with the remaining grant funds and developed three options.

Option 1 constructs a new water storage tank and connects it to the water distribution system (through the Quiet Creek Subdivision). It provides storage redundancy, more dependable fire protection, prepares for micro hydro turbines. It utilizes all of the available grant monies, but requires \$1,204,565 in HAWSP funds.

Option 2 focuses on construction of properly sized piping through the proposed Quiet Creek Subdivision (that ultimately will connect the tank to the distribution system), and renovates the existing A-Frame tank and PRV Station. It focuses on taking care of existing infrastructure, assures that water main infrastructure through the Quiet Creek Subdivision is completed in the most cost effective manner, and minimizes HAWSP fund expenditures to \$309,262.

Option 3 provides funding only for the oversizing of pipe through the Quiet Creek Subdivision and upsizes the existing East End Road stub out and requires \$33,630 in HAWSP funding.

Option 1 – .75MG Water Storage Tank Construction/Piping to Distribution System (\$2,373,576)

(1,169,011 Grant, \$501,004 City Match, \$703,561 Additional City Contribution)

	<u>Design</u>	<u>Construction</u>
a) construct .75 MG water storage tank	\$ 12,000	\$1,720,140
b) installation of 1,700 LF of 12” water transmission main (<i>between the tank and the water system</i>)	\$ 28,611	\$ 408,725
c) installation of PRV Vault (<i>between the tank and the water system</i>)	\$ 7,000	\$ 85,000
d) oversizing 2300 LF (from 8” to 12”) of new main being installed (<i>between the tank and the water system</i>), and	\$ 3,500	\$ 58,100
e) abandoning a 6” undersized water main and installing 80 LF of 12” water main across East End Road (<i>between the tank and the water system</i>), and	<u>\$ 7,900</u>	<u>\$ 42,600</u>
	\$ 59,011	\$2,314,565

Option 2 – Piping to Distribution System/”A” Frame PRV Station Replacement (\$1,030,875)

(\$721,613 Grant, \$309,262 City Match, \$0 Additional City Contribution)

	<u>Design</u>	<u>Construction</u>
a) installation of 650 LF of 12” water transmission main (<i>between the tank and the water system</i>)	\$ 11,800	\$ 117,975
b) installation of PRV Vault (<i>between the tank and the water system</i>)	\$ 7,000	\$ 85,000
c) oversizing 2300 LF (from 8” to 12”) of new main being installed (<i>between the tank and the water system</i>), and	\$ 0	\$ 61,000
d) abandoning a 6” undersized water main and installing 80 LF of 12” water main across East End Road (<i>between the tank and the water system</i>), and	\$ 7,900	\$ 42,600
e) Rehabilitate A-Frame Water Storage Tank	<u>\$ 29,500</u>	<u>\$ 295,000</u>
f) replacement of “A” Frame PRV station.	<u>\$ 9,100</u>	<u>\$ 364,000</u>
	\$65,300	\$ 965,575

Option 3 – Oversizing Water Main/Stub-Out Upgrade – Quiet Creek Subdivision (\$112,100)

(\$78,470 Grant, \$33,630 City Match, \$0 Additional City Contribution)

a) oversizing 2300 LF (from 8” to 12”) of new main being installed (<i>between the tank and the water system</i>), and	\$ 3,500	\$ 58,100
b) abandoning a 6” undersized water main and installing 80 LF of 12” water main across East End Road (<i>between the tank and the water system</i>), and	<u>\$ 7,900</u>	<u>\$ 42,600</u>
	\$ 11,400	\$ 100,700

Recommendations:

The Homer City Council pass a resolution approving modifying the scope of work of Municipal Matching Grant #40909 to include work as described as Option 2 (construction of properly sized water main through the proposed Quiet Creek Subdivision and the replacement/renovation of the existing A-Frame tank and PRV Station).