Staff Report

File #: 20-402
Version: 1

Date: 10/26/2020
Item #: 3.3d.

TO: Mayor and City Council

THROUGH: Steve Powers, City Manager

FROM: Peter Fernandez, PE, Public Works Director

SUBJECT:

Application for Funding from the Energy Trust of Oregon for Geren Island Water Treatment Facility Projects.

Ward(s): All Wards
Councilor(s): All Councilors
Neighborhood(s): All Neighborhoods
Result Area(s): Good Governance; Natural Environment Stewardship; Safe, Reliable, and Efficient Infrastructure.

ISSUE:

Shall Council authorize the City Manager to apply for and, if granted, accept up to $400,000 in grant funding from the Energy Trust of Oregon to offset the costs for Ozone Treatment Upgrades, Process Pump Station Upgrades, and Ranney Groundwater Well Pump Station construction at the Geren Island Water Treatment Facility?

RECOMMENDATION:

Authorize the City Manager to apply for and, if granted, accept up to $400,000 in grant funding to offset the costs for Ozone Treatment Upgrades, Process Pump Station Upgrades, and Ranney Groundwater Well Pump Station construction at the Geren Island Water Treatment Facility.

SUMMARY:

Salem's water treatment facility at Geren Island (Treatment Facility) has served Salem residents with quality drinking water since 1937. Surface water from the North Santiam River is treated with a biologically active slow sand filtration process to produce Salem's drinking water. In May and June 2018, low concentrations of cyanotoxins passed through the Treatment Facility and were detected in Salem's distribution system. As a result of those detections, the City took immediate steps to purchase testing equipment and develop algal toxin treatment systems through a combination of

short-term and long-term investments.

The long-term solution for removing algal toxins from our drinking water source is to add an ozone treatment process. Ozone is one of the strongest disinfectants used to treat water and has been used in the U.S. since the 1940s. In addition to adding an ozone treatment process at the Treatment Facility, ground water will also be developed to supplement surface water from the North Santiam River. Approximately 10 million gallons per day of ground water is expected to be produced from the new Ranney Groundwater Well on Geren Island.

The Energy Trust of Oregon provides project development assistance in the form of cost-share funding for projects such as the Ozone Treatment Facility, Process Pump Upgrades, and Ranney Groundwater Well Pump Station. Upon Council approval and submittal of the Production Efficiency Application, the Energy Trust will review the proposed project for funding subject to it meeting the grant program's financial, technical, and budgetary requirements. The Energy Trust has previously funded similar project in cities throughout the state.

FACTS AND FINDINGS:

The City's anticipated cost for design, construction, and start-up of the Treatment Facility improvements is approximately $60.5 million. If authorized by Council, the City will apply for up to $400,000 of incentive funding from the Energy Trust of Oregon to supplement City funds for the improvements.

Staff has had preliminary conversations with representatives from the Energy Trust of Oregon regarding the project scope and funding availability. As a result of these conversations, staff is optimistic that the Energy Trust will approve the grant funding for this project. Upon submittal of the application, the Energy Trust will need about three to six months to assess the application, present the request to their Board of Directors and/or Executive Director, and execute a long-term funding agreement.

BACKGROUND:

The Treatment Facility improvements are currently funded with revenue bonds and utility rates. The anticipated grant funding will supplement City funds for elements of the project that provide energy efficiency components as follows:

- Ozone Treatment System - installation of ten percent ozone generators, multiple side stream pumps, cooling pumps with an oversized heat exchanger, and variable speed drives for the off-gas ozone destruction system.

- Process Pump Station - installation of variable speed drives on pumps.

- Ranney Groundwater Well Pump Station - installation of customized mixed flow pumps and variable speed drives on pumps.

Construction of the Ozone Treatment System and Process Pump Station Upgrades is underway with completion scheduled for April 2021. Construction of the Ranney Groundwater Well will begin in December 2020 and be complete in November 2021.

Brian D. Martin, PE
City Engineer

Attachments:
1. None