

Agency: Commerce, Community and Economic Development**Grants to Municipalities (AS 37.05.315)****Grant Recipient: Wrangell****Federal Tax ID: 92-6000144****Project Title:****Project Type: Equipment and Materials**

Wrangell - Water Treatment Plant Pilot Study

State Funding Requested: \$250,000**House District: 33 / Q**

Future Funding May Be Requested

Brief Project Description:

Perform a Pilot Study that would provide appropriate information and direction toward the replacement of Wrangell's slow sand and ozone filtration system for its water treatment process.

Funding Plan:

Total Project Cost:	\$250,000
Funding Already Secured:	(\$0)
FY2015 State Funding Request:	<u>(\$250,000)</u>
Project Deficit:	\$0

Funding Details:

If funded, the pilot study would recommend the type of improvements necessary to maintain water quality and reduce maintenance costs and funding would be sought to implement those improvements

Detailed Project Description and Justification:

Wrangell's slow sand and ozone filtration water treatment plant has been in operation for over 10 years. In that time, there have been numerous issues that have developed creating potential health risks and operational/maintenance costs.

The current treatment system does not work effectively with Wrangell's surface water supply. Wrangell's water source is surface runoff water that is very high in organics. When these organics are chlorinated, HAA5s and TTHMs levels become high which are known carcinogens. The filtration system attempts to remove organics through ozone filtration before chlorination, however not enough of the organics are removed through the process. Additional processes are also needed in order to address high levels of lead, copper, and disinfectant byproducts.

Currently, the sand filter screens clog easily, resulting in a failure to supply the necessary filtering or as quickly as customer demands require. The filters have to be scraped or cleaned every 1 to 2 weeks, rather than quarterly as designed. The continual cleaning does not allow the necessary film to build that provides the safe filtration. Furthermore, there is no backup generator during power outages or a sand recycler to address filtration. Lastly, EPA regulations require a fenced settling pond for back flush water.

There are a number of possible improvements that can be added to the system in order to provide increased water quality through organic removal. Several vendors have been consulted and have made suggestions, but a pilot study to determine which system works best with Wrangell's water supply is desperately needed prior to the investment in a proper filtration system.

This project is necessary before modifying our current water treatment system to address the demand for clean drinking water. The increased water demand and its increased pressure on the water system leaves Wrangell vulnerable to emergency response conditions which would demand water from our reservoir, which would supply unchlorinated water with the potential of bacterial contamination and a threat to the system's ability to deliver safe and reliable drinking water.

Following completion and review of the pilot study, enhancements would be added to Wrangell's water treatment facility including a backup generator.

Project Timeline:

Upon receipt of funding, a pilot study would be implemented to determine which system works best with Wrangell's water supply. Following that study, the proper filtration system would be purchased and installed.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

City and Borough of Wrangell

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No