Regional Drinking Water Back-Up Supply

Department of Public Works

City of Minneapolis

Location:

The project will be constructed a several locations in Northern Minneapolis and near the water treatment campus at the southern edge of the city of Fridley.

Total project cost: $46,000,000

Request for state funds in 2014: $1,500,000

Additional state funds to be requested in 2016: $3,500,000

Additional state funds to be requested in 2018: $4,500,000

Non-state funds available or to be contributed to the project:

All funds not paid by state or other grants will be paid for by the City of Minneapolis through utility revenue funds. The city is also searching for additional grant funds from other sources, but none have been identified to date.

Project description and rationale:

This request is for state funding to assist in the design and construct a system of ground water wells and pipelines. The system would provide an alternative water source for Minneapolis and our suburban customers. Currently, the Mississippi River is the only source of water for about a half million people in the region. While the River has been a reliable source for over 100 years, we believe it is prudent to construct an alternative source to allow us to overcome potential future natural or man-made disasters that could affect the River or the treatment plants.

Many residents fully rely on Minneapolis water, including the whole city of Minneapolis and customer cities of Golden Valley, New Hope, Crystal, Columbia Heights, and Hilltop. The population in these cities is over 465,000. MSP Airport (with an average of over 90,000 passengers per day) and Fort Snelling also fully rely on Minneapolis water.

Further, several sectors of economic activity rely on water to be successful daily. Data from the 2007 Economic Census reveal that about $77,000,000 of business is conducted each day in sectors such as Retail trade, Accommodations, Food Services, Health Care and Social Assistance, Arts, Entertainment, and Manufacturing.

The proposed project would fortify the region's economy and personal welfare by improving the reliability of continuous water supply even if there is a problem in the Mississippi River. The system would be operated on a very limited basis to make sure it remains operational when needed. The limited use would maintain the goal of Metropolitan Council to use surface water wherever possible to preserve Ground Water resources in our region.

Estimated total project costs by category:

Engineering & Project Management	$ 4,000,000
Construction - Well Drilling	$ 12,000,000
Construction - Pipelines, Structures, and Emergency Power	$ 30,000,000
TOTAL	$ 46,000,000

For new construction project: identify the new square footage requested. For remodeling, renovation, or expansion projects: identify the total square footage of current facilities and new square footage requested:

Not Applicable

Project schedule:

Each year, added capacity will become useful to supporting of the water supply as wells and pipeline segments are completed.

The project will be conducted incrementally until the needed water capacity is achieved, currently predicted to be completed over 10 years, beginning in 2014. Each well may have more or less capacity than predicted, so the final number of wells, and the number of years to complete the whole system will be adjusted based on capacity gained in each well.

Tentative work in first year:

- Develop standard design details for common items in the overall project, like structures to hold meters, valves and control systems.
- Begin well drilling on east side of river, near Fridley campus.
- Design the piping system near the treatment plant to maximize redundancy.

Tentative work in following years:

- Drill more wells on east side of river.
- Drill test well in Tunnel City-Wonewoc formation on west side of river.
- Construct piping from wells on east side of river to treatment plant.

- Design first under-river crossing.
- Begin well drilling on west side of river.
- Begin pipe construction on west side of river.

Project contact persons:

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