



**Request for City Council Committee Action  
From the Department of Public Works**

**Date:** December 2, 2008  
**To:** Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee  
**Subject:** **Fridley Membrane Filtration Plant Project**

**Recommendation:**  
Receive & File

**Previous Directives:**  
None

**Prepared by:** Shahin Rezania, PE, Director, Water Treatment & Distribution Services (2418)

**Approved by:**

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Steven A. Kotke, P.E., City Engineer, Director of Public Works

**Presenters:** Shahin Rezania, PE, Director, Water Treatment & Distribution Services

**Reviews**

Permanent Review Committee (PRC):	Approval	NA	Date
Civil Rights Affirmative Action Plan	Approval	NA	Date
Policy Review Group (PRG):	Approval	NA	Date

**Financial Impact** (Check those that apply)

- No financial impact - or - Action is within current department budget (If checked, go directly to Background/Supporting Information)  
 Action requires an appropriation increase to the Capital Budget  
 Action requires an appropriation increase to the Operating Budget  
 Action provides increased revenue for appropriation increase  
 Action requires use of contingency or reserves  
 Business Plan:  Action is within the plan.  Action requires a change to plan.  
 Other financial impact (Explain):  
 Request provided to department's Finance Dept. contact when provided to the Committee Coordinator

**Community Impact**

Neighborhood Notification: Not Applicable  
City Goals: Not Applicable  
Comprehensive Plan: Not Applicable  
Zoning Code: Not Applicable

## Background/Supporting Information

For decades, the City of Minneapolis operated two water treatment plants: the Columbia Heights Filtration Plant constructed in 1913 and the Fridley Filtration Plant constructed in 1925. In the early 1990s the Columbia Heights Filtration Plant had reached the end of its operational life and needed replacing. The City convened a team of public health and other water treatment experts to evaluate the proper course of action for replacing it.

In 1999, at the conclusion of that extensive process, the Minneapolis Water Works Advisory Committee recommended that the City build an ultrafiltration plant to replace the aging facility at Columbia Heights. The project was completed and the Columbia Heights Membrane Filtration Plant became operational in 2005. The decision to replace the old plant with a new ultrafiltration plant remains a good one.

The Advisory Committee also recommended the accelerated replacement of the Fridley Filtration Plant because of the likelihood that new water regulations would make the plant obsolete.

Public Works staff believes it is prudent to reevaluate the plan to replace the filtration plant in Fridley.

There are a number of factors that point to the need for further consideration:

- In contrast to the original Columbia Heights Filtration Plant, the Fridley Filtration Plant is not nearing the end of its useful life. The plant was originally built with a better design that has made it possible for modifications and improvements over the years.
- When the decision was made to move towards ultrafiltration, it was expected that regulations governing *Cryptosporidium*, a protozoan parasite, would require some form of advanced treatment, such as ultrafiltration. New regulations confirm that our existing plant can meet the *Cryptosporidium* regulations without ultrafiltration and, based on our source water supply, we do not anticipate changes in the regulations or source water conditions that would cause ultrafiltration to be necessary.
- The on-going operation and maintenance costs of an ultrafiltration plant are higher than for a conventional plant. Combined with the fact that construction cost estimates have risen dramatically over the past several years (estimates are now more than \$100 million), it means a new plant at Fridley would surely require a rate increase to our customers.

Public Works staff will be evaluating the situation before returning with a recommendation in the first cycle of 2009 on whether or not to proceed with the Fridley Membrane Filtration Plant.