



# City of Blaine Anoka County, Minnesota

Blaine City Hall  
10801 Town Sq Dr NE  
Blaine MN 55449

## Legislation Text

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File #: MO 21-18, Version: 1

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**ADMINISTRATION** - *Jon Haukaas, Director of Public Works*

### **APPROVE PURCHASE OF FILTER MEDIA AND UNDERDRAIN LATERAL COMPONENTS FROM WATER SURPLUS**

In July of 2020, Water Treatment Plant No. 3 experienced a failure of the underdrain lateral system that allowed filter media to escape from the plant into the distribution system. The result of this failure was discoloration of the water affecting areas on the east side of the City for several weeks. In September, a similar failure occurred in two of the filters at Water Treatment Plant No. 2.

Investigations have determined that these failure were a result of joints in the underdrain system that broke from fatigue cracking after years of flexing in the backwash cycles. A change in media type and operation in 2016-2017 also contributed to the failures.

With help from consultants specializing in water filter operations, we have designed an appropriate repair to the issues. This repair requires the replacement of the underdrain laterals with a stronger material and additional support. The filter media will also need to be replaced in order to complete this work.

Water Treatment Plant No. 2 is currently our largest facility and only operating on two of its four filters due to the underdrain lateral failures. Staff is recommending we address repairs to this facility immediately. We will monitor WTP 1 and 3 for operation and may need to perform the replacement later this spring instead of waiting to include it in the 2022 budget.

Water Surplus has provided reasonable pricing for the components per the attached quote at a cost of \$195,366.29. They are also able to provide the rental of a media installation machine and technical assistance with the project at a cost of \$7950.00. The total estimated cost for this work is \$203,316.29

The filter and media design is the result of a Pilot study completed by SEH Engineering that selected the best performing materials for our specific water chemistry. As a result, this is a sole source acquisition based on a performance testing procedure.

This expense was not anticipated when the 2021 Water Capital Improvement Project Fund

Budget was adopted, and thus no specific appropriation was made for this item. Finance staff reviewed this item and determined that adequate reserves are on hand in the Water fund to cover these costs and staff requests funding be appropriated from reserves to complete the project.

By motion, approve payment of \$203,316.29 to the Water Surplus Co. for replacement underdrain laterals and filter media at Water Treatment Plant No 2.