



DEPARTMENT OF PUBLIC WORKS



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MEMO

July 19, 2018

To: Board of Public Works

From: Tim Young, Pretreatment Coordinator

Subject: **Softener Salt Optimization Program**

The Clean Water Plant is continuing efforts to reduce chlorides from entering the sewer system. The largest source of chloride loadings (75%) is salt used in the regeneration of water softeners. The Plant is required by DNR to reduce chlorides, which can be harmful to fish and aquatic life. Salt usage can be reduced by as much as 50% through softener optimization without any change in softened water quality. Optimizing salt use will ensure that softeners use only the salt needed, which reduces salt costs and handling while still providing softened water and reducing chlorides. The City is working with the Water Quality Association (www.wqa.org) and local water conditioning companies in this cooperative effort to reduce salt use. All softeners discharging to the City's collection system must be targeted for optimization if our chloride reduction goal is to be achieved.

Optimizations would be performed by certified technicians from the water conditioning companies. A secure online tool has been developed for data entry and tracking. The cost of the optimizations would be shared between the City and these companies. A proposed appropriation of \$30 per optimization would be provided to the water conditioning companies by the City. In addition, a nominal copayment of \$10 would be paid by the softener owner to the water conditioning company at the time of each optimization. Phase I of the program would be carried out from 2018-2022, which will encompass our upcoming Clean Water Plant permit term. High-volume water users would be prioritized because they are likely to be high salt users as well. Phase II of the program would be proposed later as additional softener adjustments will be needed after the switchover to Lake Michigan water.

The attached documents provide more details regarding the program, including the estimated program timetable and cost, the contract that would be set up with each water conditioning company, a letter that would be sent to all high water users, the optimization report form, and an informational flyer that would be sent with all water bills.

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