



Marshall Water Softener Optimization and Replacement Program FAQs

Why is this Softener Salt Optimization/Replacement Program necessary?

The City of Marshall must meet a Minnesota Pollution Control Agency (MPCA) limit for chloride in the wastewater discharge for the city. Chloride is not removed in the wastewater treatment processes. The wastewater treatment facility discharges to the Redwood River and chloride is harmful to aquatic life in the river. Water softener salt (sodium chloride) is the primary source of the chloride.

Why is chloride a problem?

It is very difficult to remove chloride from water. Chloride discharged to the Redwood River is toxic to aquatic life including aquatic insects, fish, and other critters that are important parts of the food chain. The MPCA has standards to limit how much chloride is allowed in the water to protect aquatic life.

What is water hardness or hard water?

Hard water is water that contains higher amounts of dissolved minerals, mainly calcium and magnesium. These minerals may cause scaling on pipes and plumbing fixtures. More information can be found here, [Water Quality Association-Hard and Soft Water](#) and here, [USGS-Water Hardness](#). Hardness is measured in milligrams per liter or grains per gallon. A chart of hardness along with additional information is found [here](#).

Do I need a water softener?

The new hardness of Marshall's water is right at the border between moderately hard and hard. Some may find this level of hardness acceptable and can get by without a softener. You can save money by not having to buy salt and using water to regenerate the softener. Businesses/industries may require soft water for specific processes. You will notice that less soap is needed for washing with soft vs. hard water. Scaling due to hard water can shorten the life of appliances such as a hot water heater. There are several [Advantages and Disadvantages of Water Softening](#) listed on this link.

Why should I participate?

Marshall Municipal Utilities upgraded its water treatment facility in 2021 to remove hardness, and asked residents and businesses to adjust hardness from 36 down to the current 8 grains per gallon. Thank you to those that participated in this adjustment! It did help in reducing chloride in the wastewater discharge. However, more work is needed. The more that participate, the more likely the city will be able to meet the MPCA permit limit.

Who is eligible to participate?

Homeowners and commercial facilities such as businesses, apartment buildings, and schools are eligible to participate in the optimization (adjustment of settings). There must be a working water softener in the home/facility. The water softener must be timer-based to be eligible for the replacement rebate.

How do I participate?

A list of approved water conditioning contractors for this program is on this website: <https://bit.ly/3yDy5MT>. Contact one of them directly to come out and look at your softener and optimize it. They will be knowledgeable about what softeners are eligible for a replacement rebate and what replacement softeners meet the replacement salt efficiency requirements (minimum 4000 grains per pound of salt).

To make sure you get in on the free optimizations and rebates, contact a contractor as soon as possible.

Who are the approved optimizing and replacement contractors?

The approved contractors are local water conditioning companies that have undergone additional training to participate in the program. The list is posted on this website: <https://bit.ly/3yDy5MT>.

Who is running this Program?

The City of Marshall is working with Bolton & Menk on this program. Local water conditioning contractors will be conducting the work in the homes and businesses/facilities. All rebates will go through the city. Funding for this project is provided by the Minnesota Environmental and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR) and administered by the MPCA. The city provided matching funds.

Is there a cost for the optimization?

Optimization is free to homeowners and businesses. Contractors are being paid directly by the city through the grant program to conduct this work.

What benefits could there be for me?

Optimizing your softener will reduce the amount of salt it uses for regeneration. Depending on the softener and its current settings, you may be able to reduce your salt use by as much as 75% and save money by not having to purchase as much salt.

Should I call and schedule my optimization early?

Yes, rebate funds are limited, and will be provided on a first come first served basis. The sooner you schedule an appointment, the more likely you can participate in the free optimization and rebate toward replacement if your softener meets the eligibility requirements. Rebate applications must be submitted no later than 5/1/23. We expect funds to go quickly. Check the program [website](#) to see if funds are still available.

What will the technician be doing to my softener?

- Will check your current water softener settings
- If needed, will change the hardness to 8 grains/gallon
- May adjust salt dosage and other settings
- Will determine if your softener is a timer-based one that is eligible for a rebate to replace it.
- May recommend other work for commercial facilities such as brine reclaim or addition of a blending valve.
- May recommend other work that may not be part of the rebate program

How long will the optimization visit take?

The visit should take about 30 minutes to an hour depending on the size and complexity of your system.

Will optimization affect my water quality?

Your softened water should remain unchanged. The water softener may regenerate more frequently if set to a lower dose.

What if I'm going to be installing or replacing a softener?

If you don't have an existing softener, you are not eligible for the rebate. If your softener isn't in working condition, you are not eligible for the rebate. However, if you have a working timer-based (timeclock) softener, softener 15 years or older, or a softener that has a salt efficiency <3350 gr/lb that you want to replace, make an appointment with a contractor to determine if it is eligible for up to \$700 toward a salt-efficient replacement softener.

How do I tell if my water softener is time clock-based?

Timer-based, also known as time clock, softeners are set to regenerate based on a schedule, such as every 3 days. Demand-based or demand-initiated softeners regenerate based on water use and are usually much more efficient. [Check here](#) for some photos and information comparing timer-based and demand-initiated softeners.

What if I don't have a softener?

If you do not currently have a water softener and are getting by without one, keep it that way. Adding a water softener will add salt to the water treatment plant. If you decide you need a softener, purchase one with a minimum salt efficiency of 4000 grains hardness per pound of salt.

Should I consider a salt-free water conditioner and are they eligible for a rebate?

Salt-free water conditioners are not water softeners. Most prevent formation of scale. The hardness minerals are still in the water, but they aggregate into tiny clumps which prevents them from forming a hard scale on plumbing fixtures and appliances. Some deposits, films, or spotting may be visible but can be wiped off. There are advantages and disadvantages of these devices. A big advantage is they do not use any salt. You will save money and keep salt out of the Redwood River. See "[Are salt-free water conditioning systems right for you?](#)" for a study of consumer preferences.

Most salt-free water conditioners are not third party tested to verify their effectiveness. However, [template assisted crystallization devices have shown significant scale prevention](#). Do your homework, before considering purchasing one of these devices. More information on salt-free water conditioners is found [here](#).

Salt-free water softeners are eligible for a rebate but must be pre-approved by the City of Marshall.

Are do-it-yourself water softener installations eligible for the rebate?

The first two phases of this program are limited to softeners and salt-free devices installed by a water conditioning professional. If funds remain, the city may consider expanding eligibility.

What if I already adjusted my water softener hardness setting to 8 grains?

Optimization includes adjusting to the correct hardness, but also adjusting salt dose and other settings to increase salt use efficiency. If only the hardness was set, contact an approved contractor to complete the rest of the optimization.

What if I am not a city of Marshall resident?

You must be a customer of Marshall Municipal Utilities and discharge to the Marshall Wastewater Treatment Facility to be eligible to participate in this program.

What if my softener is old?

If it is 15 years old or older, it is eligible for a replacement rebate. Timer-based softeners, and salt inefficient softeners (verified by contractor) are also eligible. Other water softeners are not eligible for a replacement rebate, but are eligible for the free optimization.

What else can I do to reduce salt use?

The more water you use, the more often your softener will regenerate and use salt in that process. Water conservation practices will help you reduce water use.

Fix any water leaks. Find out more here: www.epa.gov/watersense/fix-leak-week

If you are softening your outside water, consider having a plumber remove the outside hose bibb from the softener. Softened water is not good for grass and other plants, and it costs you more in salt to soften the outside water. If you have a contractor out to optimize your softener, they may be willing to test the outside water hardness to determine if it is being softened.

Softening just the cold water, especially to the kitchen faucet, will reduce salt use. This [video](#) shows you how to test your outside water and kitchen faucet cold water for hardness.

How much money is available for rebates and optimization?

The program has \$100,000 in funds to use for the free optimization, and for replacement rebates. Rebates and free optimization are contingent on fund availability. Check the [website](#) for an update on remaining funds. We expect them to go quickly.

When will the program end?

The program began on 5/5/22 and will end in 6/30/24 (the end date was extended). Rebate applications must be submitted no later than 4/30/24 to be eligible. Rebates will be provided contingent on fund availability. Check the website, or ask your approved contractor to make sure funds are available before replacing your water softener.

Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR) and administered by the MPCA.

