

# Worthington Public Utilities Water Softener Optimization and Replacement Program FAQs

# Why is this Softener Salt Optimization/Replacement Program necessary?

Worthington Public Utilities must meet a Minnesota Pollution Control Agency (MPCA) limit for chloride in the wastewater discharge. Chloride is not removed in the wastewater treatment processes. The Worthington Municipal Wastewater Treatment Facility discharges to Okabena Creek, and chloride is harmful to aquatic life in the creek. 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 Okabena Creek 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, <u>Water Quality Association-Hard and Soft Water</u> and here, <u>USGS-Water Hardness</u>. 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?

Worthington Public Utilities (WPU) water is considered hard at about 17 grains per gallon. The connection to the Lewis and Clark Regional Water System established in 2019 allowed WPU to blend community water and provide a softer water to our customers (from 24 down to 17). Hardness may vary by a few grains based on how much softer water is mixed with local well water. Many residents will still want to treat this water to avoid scale formation and other hard water problems, and businesses/industries may require soft water for specific processes. There are several Advantages and Disadvantages of Water Softening listed on this link.

There are alternatives to an ion-exchange water softener that don't use salt. See the question below for more information.

# 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 Okabena Creek. See "<u>Are salt-free water</u> <u>conditioning systems right for you?</u>" for a study of consumer preferences.

Most salt-free water conditioners are not third party tested to verify their effectiveness. However, <u>template assisted crystallization devices have shown significant scale</u> <u>prevention</u>. Do your homework, before considering purchasing one of these devices. More information on salt-free water conditioners is found <u>here</u>. Salt-free water conditioners are eligible for a rebate but must be pre-approved by WPU.

# Why should I participate?

WPU added a connection to the Lewis and Clark Regional Water System which allowed Worthington Public Utilities (WPU) to blend community water and provide a softer water to our customers. Since mid-2019, WPU has been delivering water at 17 grains hardness compared to 24 grains hardness. Residents and commercial facilities can set their water softeners to the new lower hardness and save money in less salt use as well reduce the salt (chloride) discharge to Okabena Creek. The more that participate, the more likely WPU 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 timerbased or have a salt efficiency less than 3350 grains/lb. salt to be eligible for the replacement rebate. Certain Culligan water softeners are eligible for a retrofit rebate which includes replacement of parts to increase salt efficiency.

# How do I participate?

A list of approved water conditioning contractors for this program is on the <u>website</u>. Contact them directly for an appointment to check your water 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 the <u>website</u>. Note: Currently there is only one local contractor on the list since there is only one in town. Other water conditioning dealers or plumbers may participate by contacting WPU and participating in required training.

# Who is running this Program?

WPU 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 WPU. 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 Minnesota Pollution Control Agency (MPCA). WPU will provide 20% matching funds.

# Is there a cost for the optimization?

Optimization is free to homeowners and businesses. Contractors are being paid directly by WPU 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 50% and save money by not having to purchase as much salt. The water softener may use additional water as it will recharge more frequently.

# 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 to WPU no later than 5/1/23. We expect funds to go quickly. Check the program 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 17 grains/gallon +/- a few grains based on measured hardness
- May adjust salt dosage and other settings
- Will determine if your softener is time clock controlled or meets the low efficiency requirement to be eligible for a rebate to replace it, or is.an older Culligan Medalist water softener that can be retrofitted/upgraded
- 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 non-working 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) or inefficient softener that you want to replace, make an appointment with a contractor to determine if it is eligible for up to \$700 (\$4000 for businesses) toward a salt-efficient replacement softener.

## How do I tell if my water softener is eligible for replacement or upgrading?

Time clock and certain inefficient softeners are eligible for a rebate or upgrade. Timerbased, also known as time clock, softeners are set to regenerate based on a schedule, such as every 3 days. These generally use a lot of salt. Demand-based or demandinitiated softeners regenerate based on water use and are usually much more efficient. <u>Check here</u> for some photos and information comparing timer-based and demandinitiated softeners. Contact an approved contractor to determine if your softener is eligible for replacement.

# 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.

## What if I installed a new softener before 7/5/22?

Unfortunately, the program is not retroactive.

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

The first phase of this program is limited to installation by a water conditioning professional. If funds remain partway through the program, WPU may consider expanding eligibility.

#### What if I already adjusted my water softener hardness setting to 17 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 customer of WPU?

You must be a customer serviced by both Worthington Public Utilities and Worthington Municipal Wastewater Treatment Facility to be eligible to participate in the program.

#### What if my softener is old?

If it is a timer-based softener it is eligible for a replacement rebate. If it is old and does not meet salt efficiency of 3350 grains per pound of salt, it is eligible for a rebate. All softeners are eligible for the free optimization for salt use.

#### Why are replacement rebates limited to certain water softeners?

WPU is targeting the least salt efficient water softeners. Since they use the most salt, WPU will get the greatest salt removal and best cost/benefit by targeting these softeners. Funds are limited and must be spent in the best way to help us reduce the chloride discharge into Okabena Creek.

#### 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: <a href="http://www.epa.gov/watersense/fix-leak-week">www.epa.gov/watersense/fix-leak-week</a>

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 <u>video</u> 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 and upgrade rebates. Rebates and free optimization are contingent on fund availability. Check the <u>website</u> for an update on remaining funds. We expect them to go quickly.

## When will the program end?

The program began on July 5, 2022 and will end May 1, 2023. Rebate applications must be submitted no later than 5/1/23 to be eligible. Rebates will be provided contingent on fund availability. If funds are not used by May of 2023, the program may be extended.

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.







Real People. Real Solutions.