Why are Chlorides a Problem?

Just as eating too much salt can make you thirsty, excess dissolved chlorides make freshwater aquatic life "thirsty", too, as the water they live in dehydrates them. Unlike us, however, they can't go get a drink of fresh water! This constant dehydration impairs the ability of aquatic life to grow and thrive. It can also help certain salt-tolerant invasive species thrive over native aquatic life. Very high levels of chlorides can even leach into groundwater, leading to a salty taste and problems for people with dietary salt limitations.

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CITY OF ROCHESTER
WATER RECLAMATION PLANT

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Prevent Chloride Pollution

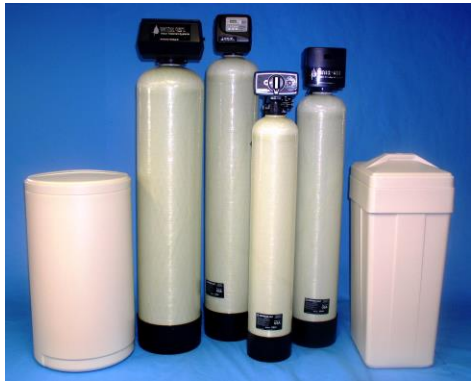
Protect Aquatic Life by Getting Your Water Softener Working Efficiently

What are Chlorides?

The most common substance we encounter that contains chlorides is table salt (sodium chloride). Chlorides are also a component of many other types of salts and other products we use every day. The largest source of chlorides in wastewater is from our water softeners. Water softeners use several pounds of salt (generally sodium chloride) every time they regenerate. For an average family of four, this amounts to 560 or more pounds of salt in a year, or 11-12 fifty-pound bags (more if the softener is operating inefficiently). That's a lot!

Chloride Removal is Not Easy!

Once chloride compounds are added to water, it is very difficult to remove them. Unlike other problematic components found in wastewater (e.g., phosphorus and nitrogen) there is currently no feasible way to remove chlorides from wastewater using biological processes. Instead, energy-intensive reverse-osmosis would have to be used. This process uses membranes that become fouled (requiring cleaning) and produces a concentrated brine that is difficult to dispose of. The easiest (and much less expensive option) for cities and their residents is to prevent as much chloride pollution as possible from entering the waste stream in the first place. The best place to start reducing chlorides is with the biggest contributor, our water softeners.



Big Ways to Help

- Replace your water softener with a high-efficiency model, *especially* if your current softener regenerates on a timer rather than by demand.
- A high efficiency softener will remove over 4000 grains of hardness per pound of salt used.
- Softening water used outdoors (for watering lawns, gardens, etc.) is unnecessary; be sure that the plumbing going outside doesn't go through the softener.

Smaller Ways to Help

- Rochester's well water runs at 17 grains of hardness per gallon year-round; set your softener accordingly
- Many people find even lower settings acceptable; experiment to see what level of hardness you are willing to accept

Remember, using less salt saves you money along with helping the environment!