

Effects of Salt on Our Environment

Other than health implications of salt, what are the effects of salt?

- May impair the groundwater quality;
- Negatively impacts some plant and animal life; and
- Increases utility cost to mitigate the salt problem.

Let's Work Together

The City asks you to voluntarily disconnect your self-regenerating water softener, and to be conscientious about your household products that may contain salt. Additional suggestions on how you can help is listed in "How To Do Your Part".

Important Numbers

Please contact the City of Lompoc, at one of the numbers below, for more information on how you can further protect our environment.

Wastewater: (805) 736 - 5083

Water: (805) 736 - 1617

Conservation: (805) 875 - 8298

Stormwater: (805) 875 - 8275

How To Do Your Part!

- **Conservation is key.** Consider using less salty products and putting less down the drain.
- **Consider choosing liquid instead** of powder laundry soaps and detergents.
- **Consider using dryer sheets** instead of liquid softeners.
- **Sweep** instead of hosing down an outside area.
- **Avoid overwatering.** If practical, install programmable sprinklers for watering.
- **Use a rain barrel** to capture rain water and use for irrigation.
- **Use environmentally friendly compost** instead of chemicals and fertilizers on your lawn.
- **Live by example.** Teach your children about conserving water quality; everything that goes down the drain must be processed before being returned safely to the environment.
- **Educate others.** Choose pollution prevention. Less is better.
- **Disconnect self-regenerating water softening units** and/or switch to portable exchange water softening unit in your home or business. The City's Municipal Code currently prohibits the discharge of self-regenerating water softeners and similar devices into the sanitary sewer (Chapter 13.16)
- Check the EPA website for environmentally friendly products:



<http://www.epa.gov/dfe/pubs/projects/formulat/formpart.htm#98>

SALT. IT CAN EFFECT MORE THAN YOUR HEALTH.



IT CAN EFFECT OUR ENVIRONMENT.

**Utilities Department
Wastewater Division**
(805) 736-5083
wwtp-info@ci.lompoc.ca.us



Water Supply



The City of Lompoc depends on groundwater for its water supply. The groundwater is treated at the City's Water Treatment Plant and meets or exceeds Federal and State water quality standards. To view the City's most recent Consumer Confidence Report (CCR), please visit: www.cityoflompoc.com/utilities/water.

Typically, the groundwater going into City's Water Treatment Plant is high in total dissolved solids, most of which are dissolved salts. Most of the dissolved salts occur naturally, however some are from common household products.

How Salt is Introduced into the Environment

Not all salts occur naturally. Some salts are introduced into the environment as a result of adding products to water during daily household chores, these eventually end up down the drain. For example, detergents or soaps, shampoos, water softeners, and many other commonly use household products, all contribute to the salt in the environment. Fertilizers also contribute salt when irrigation occurs after fertilizer is applied. Salts may also come from chemicals and disinfectants used in many different industrial processes.

The City's Wastewater Treatment Plant is not designed to remove salts from the water. Therefore, salts put into the sanitary sewer are passed through the Wastewater Treatment Plant, and released into the Santa Ynez River basin.

Lompoc Valley's Common Salt Contributors

The common salt contributors in the Lompoc Valley are self-regenerating water softeners, soaps and powder detergents.

Self-Regenerating Water Softeners

The purpose of water softeners is to remove hardness in water by using salt, in most cases sodium. Periodically, the self-regenerating water softener has to "recharge" so it can continue to remove "hardness". During the recharge process a significant amount of salt solution (approximately 40-150 gallons one to three times per week) is discharged to the sanitary sewer. This high concentration of brine exceeds the City's local limits for sodium (limit 270 mg/L) and total dissolved solids (limit 1100 mg/L), contrary to the City's Municipal Code (Chapter 13.16).

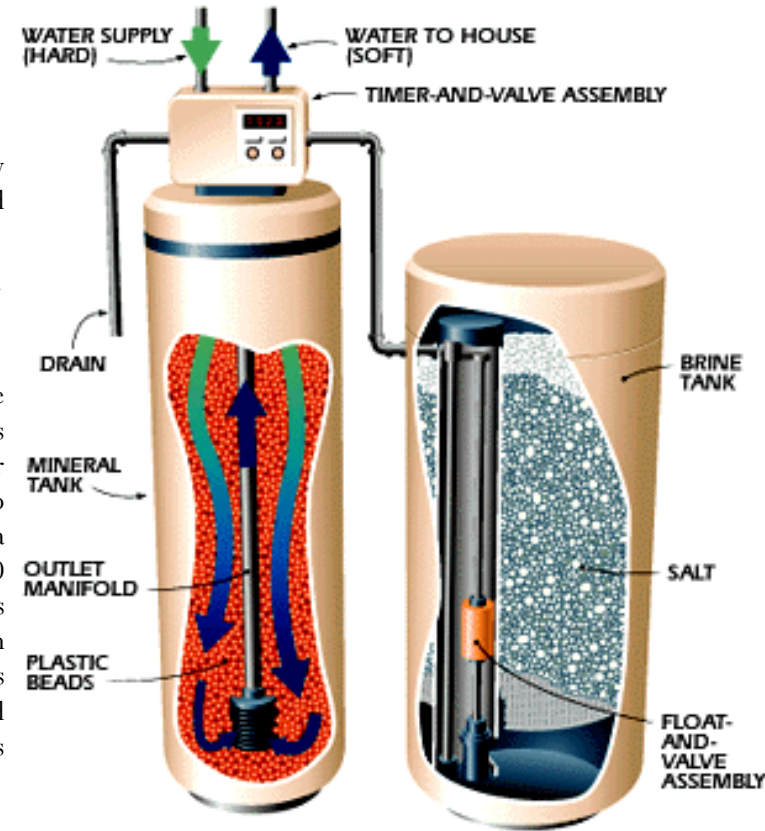
Consider using alternative softening methods!

Soaps and Powder Detergents



Soaps and powder detergents contain builders which make up more than half the weight of the box of detergent. The principal function of builders is to soften hard water and make the wash water alkaline. To do this, salt, sometimes in the form of sodium carbonate, sodium citrate, or sodium borate, is added to the soap and/or powder detergent to assist in the cleaning process.

Products containing sodium borate, commonly called borax or sodium perborate, is a double "offense". Sodium perborate is an ingredient in oxygen bleach



Picture of a Self-Regenerating Water Softener (PopularMechanics.com).

and contains both sodium and boron, two different kinds salts to the sanitary sewer.

According to EnergyStar, an average family does 300 loads of laundry per year putting approximately 12 pounds of salt in the sewer system (determined using the concentrated powder laundry detergent). That may not seem like much, but if everyone in the Lompoc Valley (population 57,550 in 2003), used powdered laundry detergent more than 31 tons of salt would be added to the Santa Ynez River basin annually.

Consider using alternative products or use only when necessary!

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