

## HOW YOU CAN HELP

There are some maintenance items that the home owners can perform to keep this situation to a minimum. When you experience any discolored water, you can open your outside faucets and flush the discolored water out of your system. We provide 2,000 gallons of water with a minimum water bill for flushing each month because of the iron in our system. We have been discouraged from giving water away, but as long as we have the iron and the potential for discoloration, we will continue to provide the free water with the minimum bill to flush your system from the meter to your furthest faucet. Also check your water heater.

*Water is the Stuff of Life*



In many cases the source of the discoloration is in the hot water heater. As you heat the water with the sequestered iron, the iron has a tendency to fall to the bottom of the heating vessel.

Clothes? If clothes get stained, do not dry! Come to office for some Iron Out Powder (Free) and run those clothes through another rinse cycle.

## IMPORTANT FACTS

We have some of the best water in the area!

Many other communities are trying to tap into this source.

Many characteristics of this groundwater such as softness and low in contaminants provides safe drinking water and other low cost maintenance requirements to our homes.

### S S Water Supply

Phone (830)779-2837

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YOUR LOGO HERE

# Understanding Iron in the Groundwater Source



Iron is a natural deposit that is present in our groundwater!

I want to take this opportunity to address your concern of the water quality in our area. We have a great source of groundwater and we are always proud of our annual water quality report. I enthusiastically brag about our water source and will always take the time to address any concerns that our members have concerning the quality of our drinking water.

The source of water for our system is ground water from the Carrizo Aquifer. Please refer to our water quality report on our web site: [www.sswater.net](http://www.sswater.net). Annual and monthly samples far exceed levels set by the State of Texas and the Environmental Protection Agency for safe drinking water standards. We have a very safe and reliable drinking water supply.

S S Water Supply Corporation  
(830) 779-2837



## Iron In the Source Water—Treatment

One component that is naturally in the Carrizo water is iron; it is not a contaminant, but a nuisance or officially known as a constituent. The iron content is such that the State of Texas requires the water to be treated either by filtering or sequestering. For over 30 years, S S Water Supply Corporation has been using the sequestering method to treat the water supply for iron. When the water is pumped out of the ground you can't see the iron particles with the naked eye, but when the iron is oxidized it will discolor the water from a slight yellow to a red in color if no treatment method is used. Chlorine is a disinfectant that continually destroys any bacteria throughout the distribution system.

Our system has been free from harmful bacteria for over 23 years. Chlorine is also an oxidizer, and when you mix an oxidizer with the dissolved iron in the water, you end up with rust or red-discolored water. So, before we introduce chlorine into the water, we treat the ground water with a poly-phosphate to sequester the iron or hold it in suspension and protect it from the oxidizing chlorine. It works 99% of the time and is an approved method by the State of Texas for treating this water quality issue.

The other method approved by the Texas Commission on Environmental Quality is to filter the iron from the water. This removes most of the iron from the water and reduces the chances of discolored water. The filters are very expensive costing nearly \$950,000 each for five different locations and they will not remove 100% of the iron. You must build a filtration unit, water storage tanks to hold water to clean the filter media, and high service pumps for backwashing the filter's media. Your Board of Directors has contemplated this treatment method for years, and is currently saving money to build filtration units. The Board of Directors believes that they can save the money in the next 5 years to begin the process of building the first filtration units. It would be too costly to borrow the money which means our members would have to pay the principle and interest for the loan through a substantial rate increase.

## Iron—Not an Easy Fix

Once the filters are placed in service, the potential for discolored water will not decrease for several years due to the iron deposits coating the inside of every water main in the distribution system. The cost to treat the water will increase due to additional maintenance, chemicals, utility and creating a waste stream of concentrated iron water that must be disposed of properly. So for now, we continue sequestering the iron and trying very hard to deliver crystal clear water to your taps.

The process of adding poly-phosphates to the water causes some iron to harden and coat the inside of the main lines. When we experience a break or an increased velocity situation, some of this iron coating will become dislodged. We actively flush our system to prevent this, but our crews can't be everywhere and sometimes we deliver discolored water to your residence. It is clean-potable water that is safe to drink. We have a requirement to provide palatable water, but sometimes our water doesn't look good enough to drink. We ask that whenever you experience any discoloration in your water to perform some of the maintenance techniques in the following paragraph and if the discolored water situation does not clear up, then please call our office and we will dispatch a crew to flush the main line.