



GREENE COUNTY
Sanitary
Engineering

GREENE >>
FORWARD
Clean, soft, reliable water.

Greene County: Moving Forward to Improve Water Quality





Today's Topics

Greene Forward: Water System Improvement Projects

Water Treatment Plant Upgrades

Water Softening Technology

Benefits of Softened Water

What to Expect During Water Softening Transition

Greene Forward: Water System Improvement Projects

What: Greene County Sanitary Engineering Department is upgrading the water and sewer system across its service area to soften and enhance water quality and increase system reliability.

Why: Greene County has aging infrastructure, hard water and growing demand. Greene Forward will upgrade and add new facilities to keep delivering clean water and sewer services for the next generation.

When: Work is well underway on a series of projects to improve water quality. Essential work on the existing treatment plant that includes transition to softened water will be completed this summer.



Water Treatment Plant Upgrades



Expand Capacity

Increases capacity from 10.5 to 12 million gallons per day with footprint for future increase to 16 million



Reinforce Reliability

Increases level of redundancy and operational flexibility (like an insurance policy)



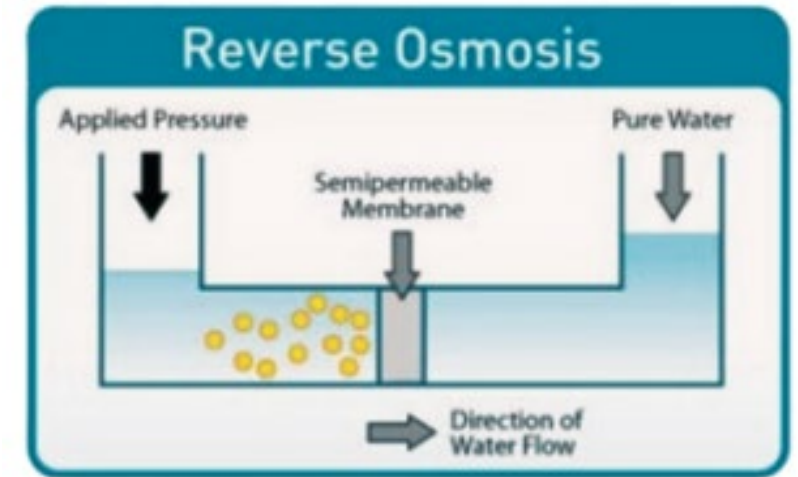
Add Softening Technology

Improves water quality and longevity of water-using appliances and plumbing fixtures



Water Softening Technology

- The water softening process is safe and will improve water quality
- Water will be softened using a reverse osmosis system that removes contaminants and impurities from water with a semi-permeable membrane
- Pressure moves water through the membrane removing high mineral content from underground sources , particularly calcium and magnesium, chemicals, bacteria, viruses and other harmful substances
- The water treatment plant improvements will reduce the water hardness from the current **27 grains per gallon to 140 mg/l or 8 grains per gallon**



Benefits of Softened Water

Water Quality	Equipment Maintenance	Cost Savings
<ul style="list-style-type: none">• Improved taste, appearance and smell• More efficient cleaning – Less soap required with softened water• Significantly reduced hard water stains on silverware, fixtures, appliances, and clothing• More efficient heating with soft water than hard water due to less build-up of scale.	<ul style="list-style-type: none">• Water softeners may no longer be needed• If use of water softener continues, less salt replacement is needed• Less frequent repairs or replacement of plumbing fixtures and water using appliances.	<ul style="list-style-type: none">• Reduction in cost for salt used in water softeners (if use continues)• Decreased cost for replacement of fixtures water-using appliances• Decreased cost for soap and detergents because of better cleaning efficiency• Decreased energy use from heating efficiency

What to Expect During Water Softening Transition

- Softening transition and water quality improvements will happen in phases
- Transition to soft water will begin late Summer 2024 and will be completed in phases
- Water quality testing will continue to confirm the process is working as expected
- Customers with in-home water softeners should recalibrate or discontinue use of the water softener
- Customers can test the hardness of their water and should adjust water softeners based on preference
- Mineral content in the water will change and customers may choose to supplement in some cases



Frequently Asked Questions

Why does the water treatment plant upgrade include water softening technology?

The public water supply in Greene County comes from underground sources. As the water is pumped from beneath the ground surface, it passes through limestone, which results in hard water that has a high concentration of minerals, particularly calcium and magnesium. The reverse osmosis filtration system being installed at the water treatment plant will reduce the hardness level from the current 27 grains per gallon to about 8 grains per gallon. This added treatment process will improve overall water quality.

How does a reverse osmosis membrane treatment system work?

Reverse osmosis membrane treatment works by forcing water through a semi-permeable membrane that removes calcium and magnesium from the water. It is a physical process that does not include the addition of chemicals.

When will we start to receive softened water?

In late Summer of 2024, we will begin to phase in operation of the reverse osmosis membrane treatment process to gradually lower the hardness of the finished water. Throughout this transition phase, we will keep you informed through updates posted to the Greene Forward website and other communications channels so you know what to expect.

Frequently Asked Questions

Will the water softening process affect the taste of my water?

Customers who are not already using a water softener to manage water hardness may notice a difference in the taste of water. Customers often report that hard water has a mineral-like or metallic taste, which should be improved by the lowering of minerals in the water. If you have been using a water softener in your home, you may not notice a difference in water taste. You may need to make adjustments to your water softener to manage your personal preferences.

Can I remove my water softener?

Removing your water softener is a matter of personal preference. Water is currently supplied at 27 grains of hardness per gallon. Water from the upgraded plant, once transitioning is complete, is anticipated to be around 8 grains of hardness per gallon. You can continue using your softener to treat further if desired, but you may need to recalibrate your softeners regeneration cycle for the lower hardness level to realize the savings in lower salt consumption.

How can I test the hardness of my water?

Retailers such as Home Depot and Lowes have water hardness test kits available for in home use.

Will the new softened water hurt my plants?

Most plants may benefit and be resilient from the change of the hardness level from 27 grains per gallon to 8 grains per gallon. However, more sensitive plants may need additional nutrients.

Plant Completion Timeline

Milestone No. 1 Softened Water Delivery - August 31, 2024

Milestone No. 2 Substantial Completion - September 20, 2024

Milestone No. 3 Final / Contract Completion - November 19, 2024

Questions & Answers

For more information

greeneforward.com

Greene County Sanitary Engineering

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