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# WATER QUALITY TOWN HALL

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NOVEMBER 5, 2021

SALINE CITY HALL

# RESOURCES



## City of Saline

Department of Public Works

Department of Water  
Production and Wastewater  
Quality

Office of the City Manager

Office of the Mayor



## Washtenaw County

Health Department



## State of Michigan

Department of  
Environment, Great  
Lakes, and Energy

# CURRENT WATER TREATMENT PROCESS

## Off-site wells

- Water sourced from five wells

## Greensand filters

- Removes iron and manganese

## Reverse osmosis system

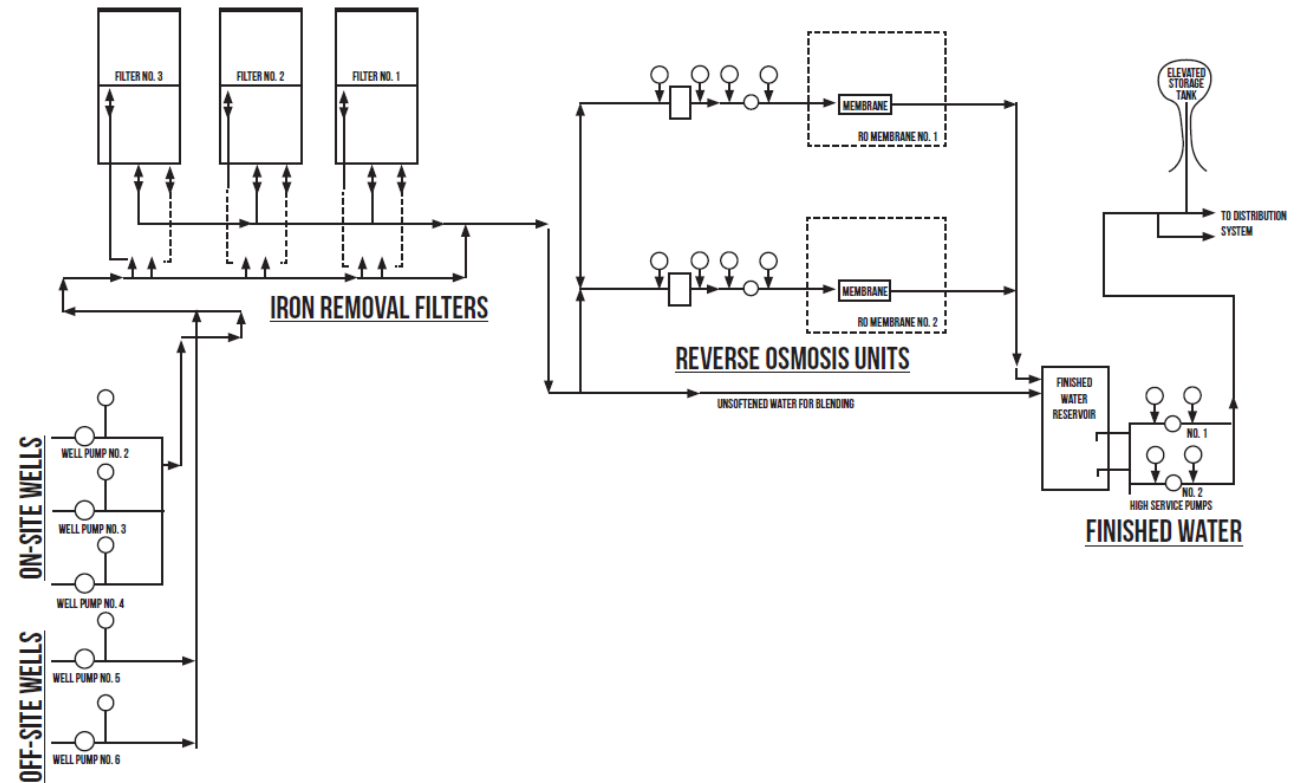
- Reduces hardness (calcium and magnesium)

## Chlorine disinfection

Fluoride additive;  
phosphate additive  
(corrosion control)

## System entry point testing

Elevated storage  
and distribution







# WATER QUALITY TESTING

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- Routine compliance testing:
  - Daily testing of system entry point for hardness, iron, pH, phosphorus, chlorine, and fluoride
  - Twelve monthly tests for bacteria and residual chlorine throughout the distribution system
    - This level of testing is in excess of state minimum requirements
  - Four monthly distribution system tests for pH, alkalinity, sulfate, chloride, and orthophosphates
    - This level of testing is in excess of state minimum requirements
  - Annual or semi-annual testing in accordance with other state requirements such as for unregulated contaminants or high regulated contaminants like lead and copper

# RECENT TESTING RESULTS

## STATE AND FEDERAL

- No violations of monthly or daily water quality testing parameters
- No samples exceeding state action levels for lead and copper

## LOCAL RESIDENTIAL TESTING

- Free residential testing for pH, hardness, iron, and chlorine
- Twenty-nine samples received
- One result significantly outside of targeted hardness range
  - Cause identified
- One result significantly outside of targeted iron and residual chlorine range
  - Currently investigating

# DISTRIBUTION SYSTEM

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- 50 miles of water main
  - HDPE (plastic)
  - Ductile iron
  - Cast iron
- Two elevated water tanks
- System wide flushing occurs twice a year in spring and fall
- Repairing main breaks







# HYDRANT FLUSHING

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- System wide flushing completed October 21<sup>st</sup>
- Part of regular system maintenance
- Identified as a best practice standard by water distribution professionals
- Removes sedimentation
- Increase in discoloration and sediment during and directly following flushing due to agitation





## COMMON ISSUES

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- Iron build up in pipes or mains
  - Typically resolved by regular flushing
  - No iron filtration prior to 2005
- Water heaters
  - Tanks should be drained annually as part of regular home maintenance
  - If sedimentation was pulled into the tank during flushing or a brown water event, drain the tank, run cold water until clear, and refill tank
- Aerators/faucets
  - Aerator screens should be cleaned as part of regular home maintenance
  - Confirm the age or material of your faucet are not the culprit
- Age or material of pipes inside the home
  - Some homes may require in-line filters due to the age of plumbing
- Existing home softener system
  - Perform regular maintenance on your water softener system to avoid sediment or build up of iron and manganese in the tank





# MAINTENANCE AND CAPITAL PROJECTS

- Water Plant
  - Adding third high service pump (FY 22/23), and rebuilding existing high service pumps (FY 24/25)
  - Greensand media filter replacement and painting (FY 22/23)
  - Adding third water tower (target FY 24)
  - EGLE Lead and Copper Rule compliance
- Distribution system
  - Dead end flushing
  - Valve maintenance/assessment
  - Residential meter replacement program
  - Painting Henry Street Tower
  - Water main lining and replacement
    - FY 22 – Highland, Hillcrest, Lawson, Michigan Ave (lining)
    - FY 23 – Maple, Marlpool, Forestbrooke
    - FY 24 – N Ann Arbor, Transmain #2 (WTP to Bennett)
    - FY 25/26 – anticipated Six Trails Loop, N Industrial Drive





## OTHER CONSIDERATIONS

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- Policy considerations
  - Limiting irrigation system run times or dates to reduce seasonal strain on the distribution system
  - Promotion of smart meter irrigation
- Expanded testing
  - Launching program with Washtenaw County Health Department to offer free lead and bacteria testing to residents who have recurring water discoloration concerns





# CONTACT US

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