

WELCOME

Maintaining the Water Flow How SJW ensures 99% water delivery reliability

February 8, 2023



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- Welcome
- What is the Distribution System Department?
- Distribution System Overview
- Leak Repairs
- Preventative Maintenance
 Activities
- Capital Improvement Initiatives
- Q&A

What is the Distribution System Department?

- Responsible for installing water service and maintaining 99% water delivery reliability to your home and work
- Largest department within San Jose Water (76 employees)
 - 67 field staff (workers, drivers, crew leaders)
 - 6 administrative
 - 3 clerical staff
- Major responsibilities
 - New service installations
 - Leak repairs
 - System preventative maintenance
 - System Capital Improvement programs



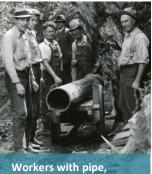


Distribution System Department Through History

- SJW is over 150 years old
 - Founded in 1866, served about 400 customers in the Santa Clara and San Jose area
- Some currently functioning parts of our distribution system are more than a century old
 - Oldest active pipeline is from 1879
- As the area expanded with population growth and economic booms, the SJW system increased to meet the needs of the growing community







Workers in Pipeline Trench, 1950

Workers with pipe, 1934



Crew truck with tow-behind compressor circa 1960's



Field crew using a truck-mounted compressor 1930s



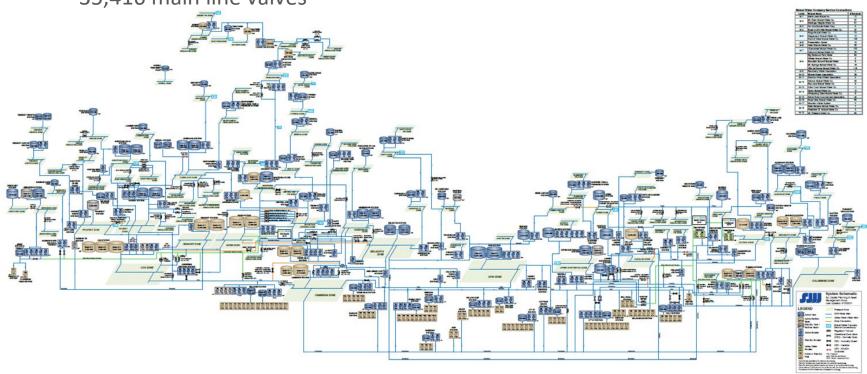
Crew truck circa 1917



Today's Distribution System Department by the Numbers

- 226,800 service connections
- 2,405 miles of pipe
- 35,416 main line valves

- 20,147 hydrants
- 3,948 air valves
- Fix 900+ leaks a year (main breaks + services)





Leak Repairs

Common Leaks

- 900+ total leaks identified per year
- Most leaks are identified by customers
- Approximately 200 main leaks/year
- Residential + Commercial system





When a Main Breaks....











Inventory on Crew Trucks

- Full circle clamps in all ranges to repair up to 6" mains
- PE pipe in ½" 1" for service repairs and installations
- Assorted sizes of PVC pipe and fittings
- Brass repair fittings
- Miscellaneous hydrant parts
- Skinner clamps
- Tapping Saddles

















What happens When You Contact SJW about a Leak?

- Customer contacts Customer
 Service
- Field Service investigates
- Referred to Distribution System
 Department
- Priority code assigned (1, 2 or 3)
- Contingency operations





Work Order Management System

- Manages workflow
- Supplies data to support engineering for future replacements
- Tracks system pipe replacements through Service Information Orders



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SAN JOSE WATER

What Happens During a Leak Repair?

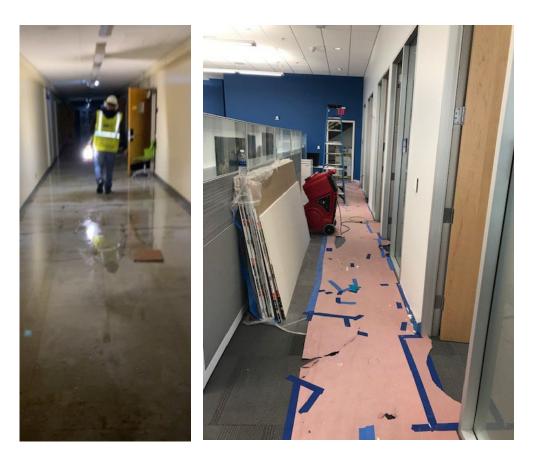
- Breaking ground
- Excavation
- Disinfection processes
- Repair methods
- Backfill
- Compaction
- Cleanup
- Sample testing





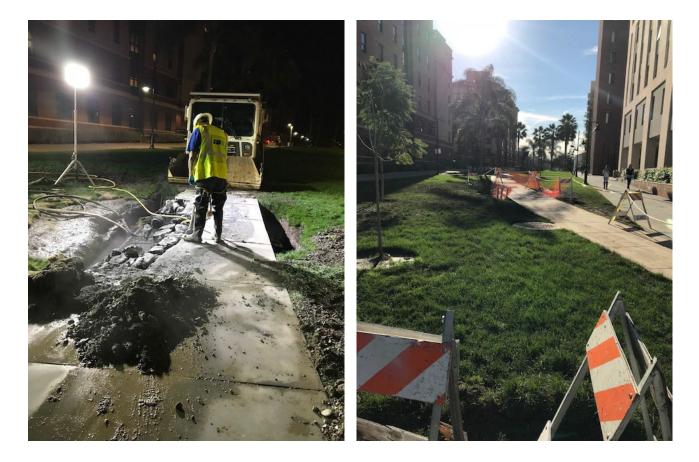
Resolving Leak Repair Issues

- Property insurance claims
 - Restoration
 - Flood damage





Resolving Leak Repair Issues





Underground Service Alert Locating

CA GOV Code 4216

- USA one call center
- Call 811 before you dig
- Ticket information
- Utilities, mark facilities
- Damage prevention
- Safety









Leak Detection Programs

- Internal leak detection team with 2 full-time leak detection technicians
- Leak detection programs
- Advanced leak detection technologies enable SJW to prioritize replacement for highest probability of failures to the system







Preventative Maintenance

Hydrant and Valve Inspections

- Proactively identify hydrants
 & valves for replacement
- Valve exercising







Hydrant Painting

- SJW-sponsored summer internship program
- Paint 2,400 hydrants yearly
- Look for obvious issues
- Clear vegetation
- Every hydrant has unique identifier and is tracked in GIS
- New paint helps emergency and SJW service personnel locate hydrants





Capital Improvements

Capital Improvement Initiatives

Hydrant Replacement Program

- Replace outdated legacy hydrants
- 100/year

Valve Replacement Program

• 30/year

Air Valve Replacement Program Service Replacement

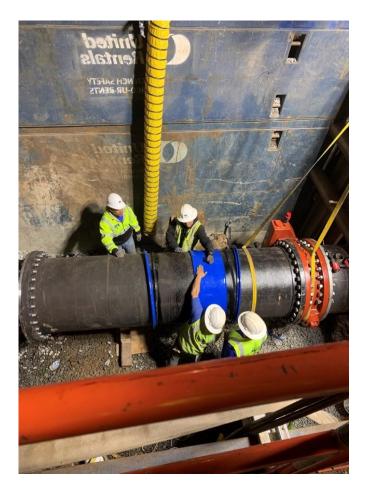
- 800 service replacements/year
- Replace lines and meters

Sampling Stations

• 35/year

Main Installation

• 500 – 1,000 FT pipe replacements





New Installations

- Main installations
- Service installations
- Hydrant installations





Additional Responsibilities

- Safety and Environmental Compliance
- Customer Service
- Support other departments
- Serve the community





Questions?

Thank You!

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