



# DISTRIBUTION SYSTEM IMPROVEMENTS

## Confronting the State's Rapidly Aging Infrastructure

Nationwide, it is well-known that the aging infrastructure throughout the country must be addressed in a timely, cost-effective manner.

The U.S. Environmental Protection Agency (EPA) estimates that nationwide \$472.6 billion in infrastructure investments is needed in our water systems from 2015 to 2034 to continue to provide safe drinking water to the public.

### New Jersey's Aging Infrastructure

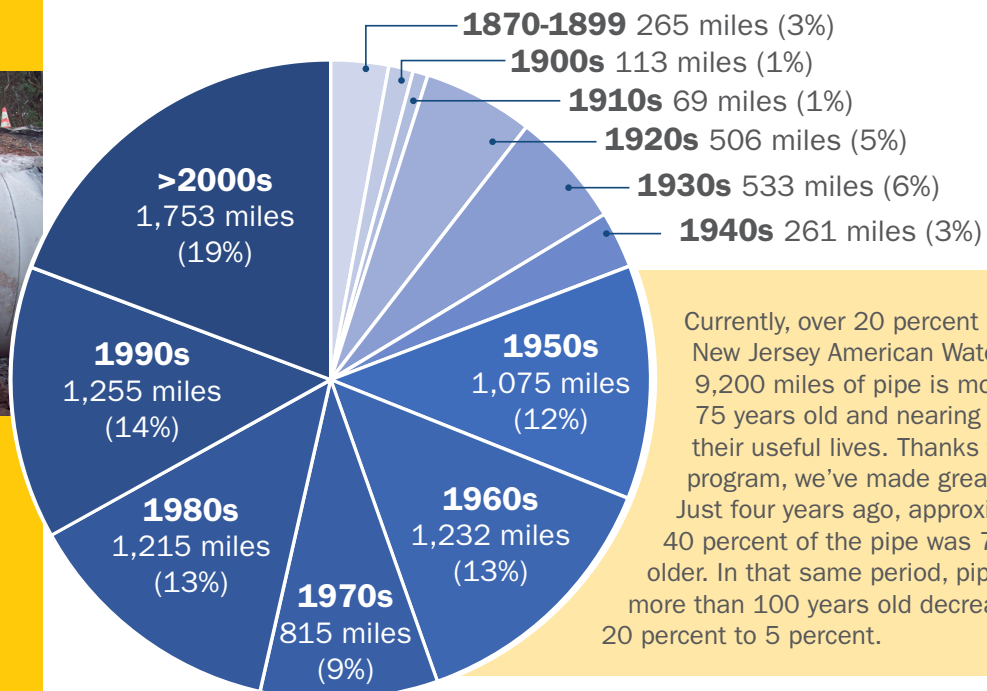
New Jersey's drinking and wastewater infrastructure continues to approach the end of its useful life. A significant percentage of the state's drinking water infrastructure was installed between 1890 and 1970 – and in less than 10 years, the vast majority of this pipe will have reached, or aged beyond, the reasonably expected life span. The problem is real and accelerating, but it is also masked because unlike the roads and bridges we all travel across, much of our water infrastructure is underground and out of sight. EPA estimates that of the \$472.6 billion needed to cover

infrastructure improvements, New Jersey water systems will require an investment of \$8.58 billion, with more than 60 percent of this needed for transmission and distribution projects.

### Water utilities can't ignore the issue

The impacts of water providers not addressing this problem can result in an unreliable supply of safe drinking water; increased service interruptions; more frequent and costly emergency repairs; insufficient water flow and pressure; and lack of sufficient water infrastructure to support local and state economic growth. This cannot happen.

### Age of New Jersey American Water's Pipes by Decade



Currently, over 20 percent of New Jersey American Water's 9,200 miles of pipe is more than 75 years old and nearing the end of their useful lives. Thanks to the DSIC program, we've made great strides. Just four years ago, approximately 40 percent of the pipe was 70 years or older. In that same period, pipe that is more than 100 years old decreased from 20 percent to 5 percent.





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The implementation of the DSIC has effectively accelerated much needed distributions system improvements. This helps to minimize the impacts of aging infrastructure and related service issues that can cost up to 10 times more to fix as an emergency than under a well-thought-out water infrastructure renewal plan.



## A step forward in 2012

In recognition of the need to accelerate the rate at which the state's water infrastructure is renewed, the New Jersey Board of Public Utilities created a distribution system improvement program.

The program allowed for a more timely recovery of investments by water utilities to rehabilitate and replace eligible water distribution system components. Eligible projects include distribution main replacement and rehabilitation; hydrant, valve and service line replacements.

These critical projects help to enhance safety, reliability, water quality, system flows and pressures.

## DSIC is a proven tool

The program's infrastructure projects are funded through a Distribution System Improvement Charge (DSIC) that appear as a separate item on customers' bills. DSIC is a proven regulatory tool that allows for modest surcharges outside of the general rate

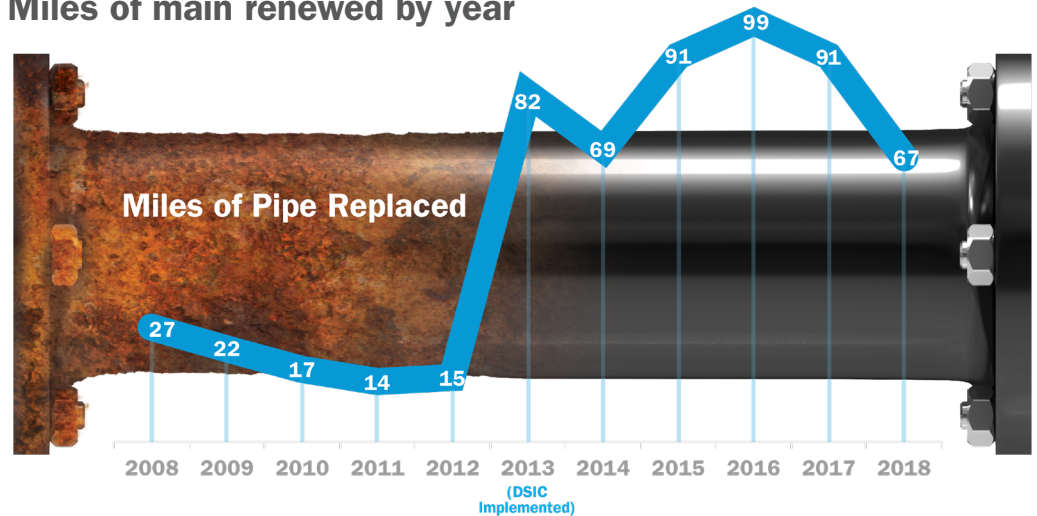
proceeding for rehabilitating and replacing aging infrastructure, while maintaining BPU oversight.

## Fast forward to 2018: How the DSIC has benefitted our customers

Since New Jersey American Water implemented the DSIC program in 2012, the company has...

- replaced over 535 miles of main, 72,000 service lines, 12,000 hydrants and 15,000 valves.
- lowered its water main replacement rate from over 500 years to below 130 years—well within the NJ Water Quality Accountability Act requirement of 150 years.
- invested a total of \$710 million in DSIC-eligible system improvement projects to replace or rehabilitate aging infrastructure—that's over \$100 million annually since inception of the program.

## Miles of main renewed by year



## Accelerated projects create jobs

A key economic benefit of DSIC is that the projects funded by the program will stimulate job creation in New Jersey. Based on a report published by the Water Research Foundation and Water Environment Research Foundation, every \$1 million invested in infrastructure expenditures supports five jobs directly and 11 jobs indirectly within other industries that are supported by the utility expenditure. This means that \$50 million spent on DSIC projects supports approximately 800 jobs.



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