

PUBLIC INFORMATION SESSION ON TRENTON WATER WORKS

February 1st, 2018
Meeting of the Trenton City
Council

INTRODUCTIONS

Merkle Cherry, Director of Public Works

Terry McEwen, Business Administrator

William Mitchell, Water Treatment Plant Superintendent

Sean Semple, Assistant Director of Public Works

Joe Stanley, Mott McDonald, Senior Vice President, PE, PP, CME

Henry Amoroso, Interim Finance Director

Trenton Water Works (“TWW”) is one of the oldest publicly owned water utilities in the United States and one of the ten largest in New Jersey.

TWW filters, treats, and distributes water for residents and businesses in Trenton, as well as portions of Ewing, Hamilton, Hopewell, and Lawrence, with about 225,000 customers in total.

The primary source of water is the Delaware River, with connections to other systems available as needed

TWW maintains a vast infrastructure inventory, including the filtration plant, pump stations, a reservoir, storage tanks, and over 683 miles of distribution pipes

TWW employs top licensed operators and has had nationally known engineering firms as partners for decades up through the present day

The New Jersey Department of Environmental Protection (“NJDEP”) regulates all New Jersey water utilities

BACKGROUND ON THE TRENTON WATER WORKS

TWW is a large complex water system, one of the ten largest water utilities in New Jersey

Finished water reservoir (Usable capacity about 85 MG)

Four – one million gallon elevated storage tanks

0.7 million gallon (usable) standpipe (Jones Farm Tank)

0.6 million gallon hydropillar (Hopewell Tank)

3.2 MGD booster pumping station (Booster 3 Pumping Station)

2.0 MGD booster pumping station (Klockner Booster Station)

69 MGD (45 firm) Central pump station

SYSTEM STORAGE AND PUMPING

Approx. 683 miles of water main ranging in size from 4" to 48"

Approx. 8,700 valves ranging in size from 4" to 48"

Approx. 3,487 fire hydrants

Two 5 MGD emergency interconnections with NJ American Water

3 MGD interconnection with Aqua New Jersey (TWW to Aqua)

0.5 MGD interconnection with Aqua New Jersey (TWW to Aqua)

DISTRIBUTION SYSTEM COMPONENTS

WATER QUALITY: ALWAYS PURE

During this period of heightened attention and recent events, TWW has *always* maintained quality, safe, and healthy drinking water

A boil water advisory is just that: an **advisory** it is precautionary in nature

A *minimum* of 24-hours to test the water

Subsequent water test samples following the boil water advisory confirmed that the water met quality and safe drinking water standards

WATER QUALITY: ALWAYS PURE

The City has been **proactive**, notifying NJDEP according to their rules whenever a concern arose; the City did not wait for the NJDEP to find something

Every time a concern was reported, after laboratory testing, the water was proved to be **safe** and each event was properly mitigated according to established NJDEP procedures, with the NJDEP informed of the City's process

WATER QUALITY: ALWAYS PURE

Many of these events are not unique to the TWW, particularly among older systems and in bad weather, but the NJDEP's actions have been unusually focused on TWW and have created unnecessary concerns among residents

COMMUNICATIONS: POLICY AND PROCEDURE

State law and the NJDEP define the process on how the public is informed about concerns at TWW and every water utility in New Jersey

The City and the TWW *must* follow NJDEP's process, which can sometimes add time and create consternation for the public's understanding

Once NJDEP is notified, the affected areas need to be identified by TWW and reviewed by NJDEP

The contents of notifications must comply with regulations and be approved by the NJDEP and sometimes **cannot** include the information residents hope to learn about

INFRASTRUCTURE AND INVESTMENTS: BUILDING A FUTURE

TWW is **not alone** among older water utilities that have a substantial amount of infrastructure needs to keep up with modern technology and regulations

The filtration plant has a capacity of 60 MGD a day and has been in service since 1955

TWW has worked with its nationally recognized engineering professionals and City leadership to create a financially sustainable **capital plan**

The City has used bond financing and Environmental Infrastructure Trust loans to pay for infrastructure investments, including improvements to the reservoir and filtration plant

TWW replaces older infrastructure, like smaller distribution pipes, whenever possible and maintains a substantial cleaning and lining program

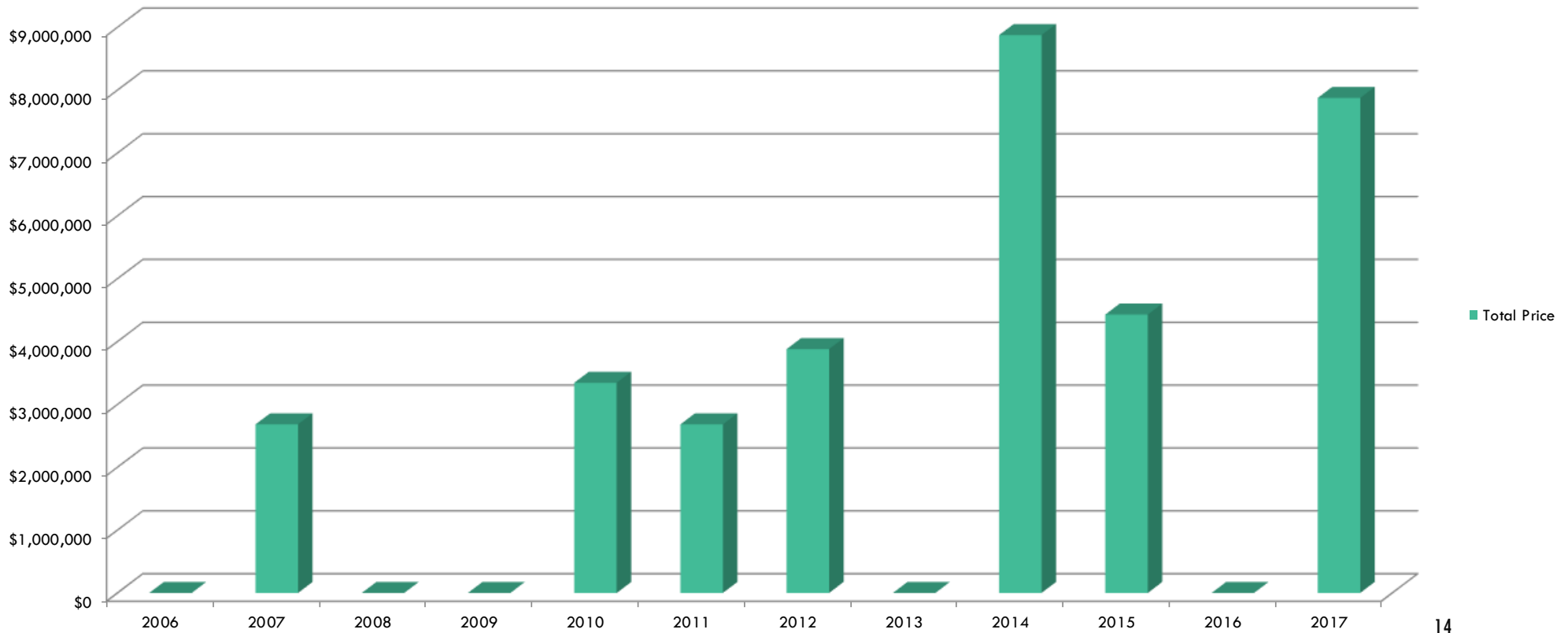
CAPITAL PROJECTS OVER THE PAST FOUR YEARS

Project	Year	Construction Cost
Filtration Plant Sump Improvements	2013	\$ 339,926
Ewington North Area Cleaning and Lining	2014	\$ 8,875,773
Whitehorse Tank Improvements	2017	\$ 2,819,838
Brandon Farms, Lawrence and Ewing Tanks Improvements	2017	\$ 3,241,800
Hamilton Phase III - C&L	2015	\$ 4,429,371
Central Pump Station Rehabilitation	2015 - 2017	\$ 8,512,442
MDF Polymer Upgrades	2015 - 2018	\$ 845,787
Sodium Hypochlorite Conversion	2016 - 2018	\$ 3,800,000
Ewing Booster Station Upgrades	2017 - 2018	\$ 746,875
Ewington South C&L	2017	\$ 7,573,130
Total		\$ 41,184,942

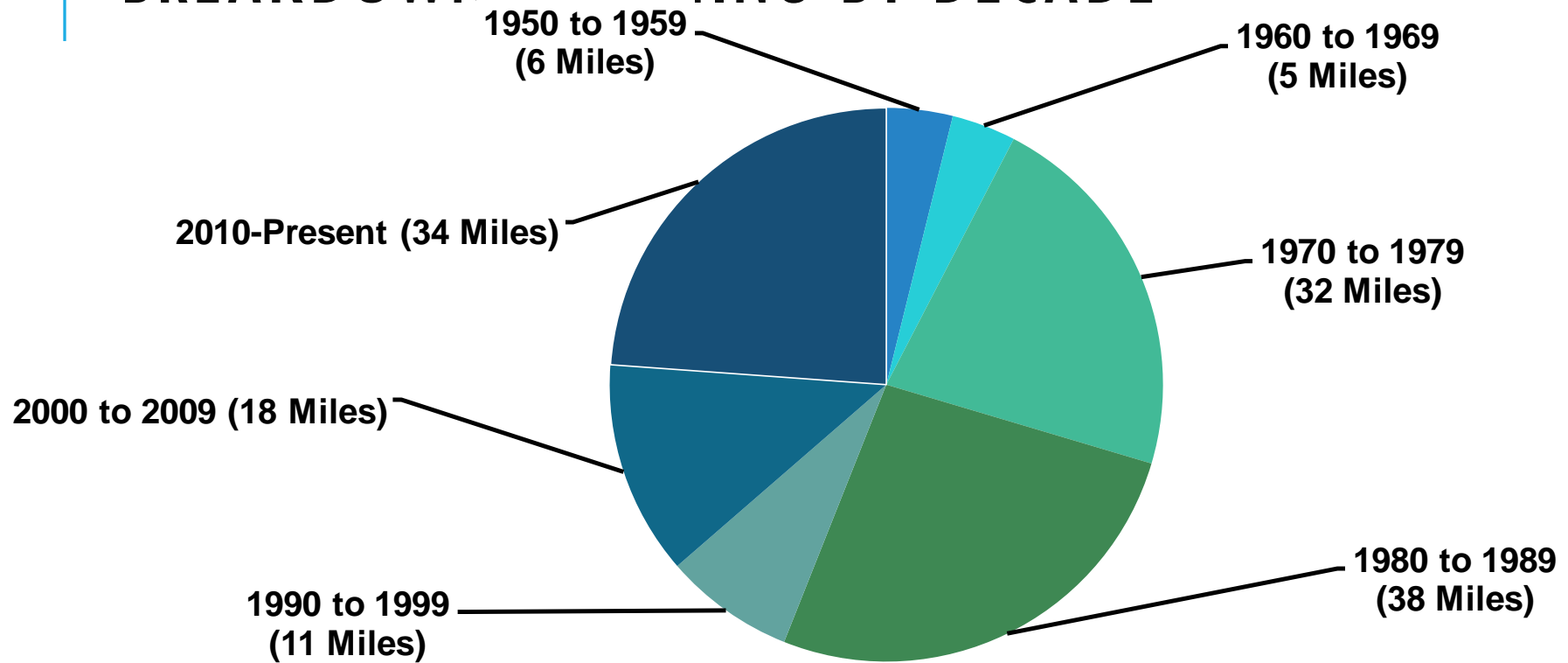
UPCOMING CAPITAL PROJECTS

Project	Construction Cost
Pennington Reservoir Permanent Cover	\$ 10,438,000
Chlorine Contact Basin Rehabilitation	\$ 4,800,000
Water Filtration Plant Intake Improvements	\$ 2,000,000
Security System & Buildings Improvements	\$ 24,000,000
2018 - 2023 Cleaning & Lining Project	\$ 20,000,000
Total	\$ 61,238,000

\$33 MILLION CLEANING AND LINING INVESTMENT (2007- 2017)



BREAKDOWN OF LINING BY DECADE



STAFFING

TWW has **always** had the required licensed professional operators on staff, but has faced challenges recruiting additional licensed operators to augment its staff capabilities

- With every retirement, there are fewer and fewer licensed operators available statewide (and around the country)
- TWW and other publicly owned utilities struggle to compete with the salaries offered by the private sector, as well as the residency requirement

TWW has taken steps to better advertise available positions and to look to the community to train and recruit, including our public schools

PROFESSIONAL SERVICES

In order to speed up meeting staffing goals, the TWW entered into emergency contracts with two nationally recognized operating firms, with a specialty in water infrastructure

Four high level operators have been working at the treatment plant for two weeks, and more will be arriving in the coming days

The City is contemplating how best to meet longer term staffing goals by continuing to work with industry professionals, adjusting salary scales, improving community training programs, and speeding up the hiring process

This Administration will never support a privatization or sale of the Trenton Water Works