

2021 Budget: Water, Sewer & Wastewater

Presentation for City of Orange Township

Monday, 7 June 2021



BY THE NUMBERS...

METERS (46782)

WATER MAINS (4)

Commercial Coupling (142)

Auxiliary Power (4)

SOURCING (2) Ground Water/EOIC

Valve Chambers (4)

MARINE CROSSING (1)

CONNECTIONS (2) EOIC; NJAW

FIRE HYDRANTS (586)

WATER SERVICES (4686)

INDUSTRIAL COUPLINGS (56)

6,000,000 Gallons of Water Storage

EXPOSED VALVES (645)

DISTRIBUTION LINES (317K Linear Feet)

Pressure Reducing Valves - PRV's (17)

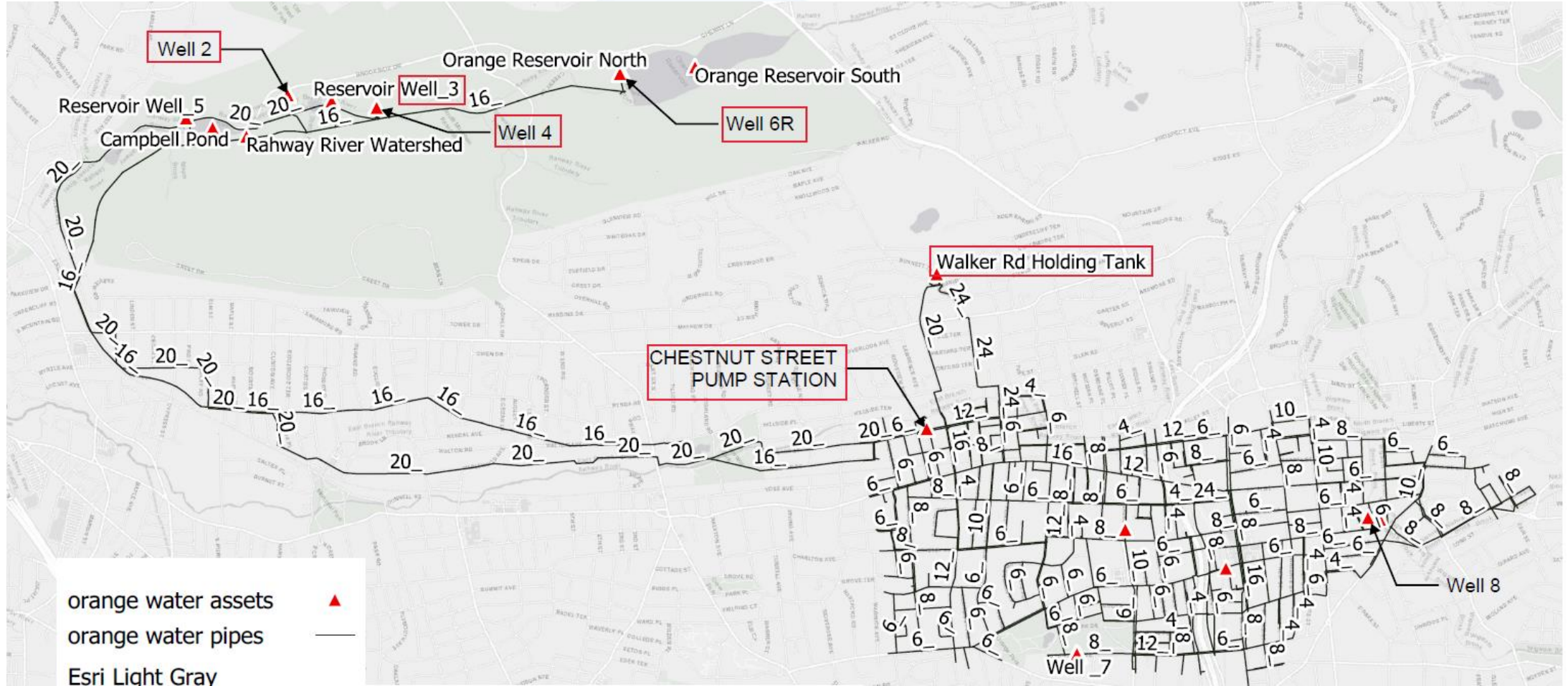
(12) Federal Programs

(6) Ground Water Wells

127 SUEZ Employees



City of Orange – Distribution System Map



Orange Water Works

Orange Water Works Budget is the culmination of our NJ-DEP Utility License (NJ PSID -717001) and our Strategic Asset Management Plan of Operations.

Projecting revenue and expenditures during this re-organization process has been challenging and as we've seen in review of past critical issues for the Water and Sewer Utility, many of the same issues occur over and over again:

- Expenses and requests versus revenue
- Compliance and State Agency Compliance Policies
- Management & Maintenance Costs
- How best to allocate resource
- Balancing adjustments to taxes, rates, and fees with needs and what the City can afford



Ultimately it is all about —

- Our CITIZENS**
- Services the Water & Sewer Utility Provides
- Ability to Spread Resources Fairly and Adequately to do the Most Good
- Keeping the Utility Fiscally Strong



Despite the extreme operational challenges of the Pandemic, many positive developments have been initiated and completed in the City of Orange Township Water, Sewer and Stormwater Utility

A strong and sustainable Program has been established to meet the commitment to the upcoming projects .

The **FY2021 Budget** was developed in coordination with our Water Operations & Maintenance Contractor, Suez Water Technologies & Solutions.

This year the Budget was developed with emphasis on the end in sight:

- How much revenue is available; what funding programs are available to our Municipal Utility
- How can these Funds be allocated to cover as many needs as possible
- Taking the next step (Phase III) of our Asset Management Plan Implementation - Redundancy



Funding isn't unlimited – the City has finite resources and there simply aren't enough funds available to fix everything they from our Assessment and Needs Analysis, but these **(5) Projects** represent the City of Orange Township to our Regulatory and Compliance Agencies at the New Jersey Department of Environment Protection, Department of Dam Safety & Inspection, Department of Stormwater Management and the **Safe Drinking Water Act (SDWA)**: the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, DEP/EPA sets standards for drinking water quality and with its partners implements various technical and financial programs to ensure drinking water safety. One of these programs is **NJ DEP Infrastructure Financing Program**.



Actions For a Changing World and a Changing Environment

WATER INFRASTRUCTURE CHALLENGES



Emerging Infrastructure Risks

Workforce and Training

Paying for Infrastructure Improvements

Disparity of Capabilities and Resources

Characteristics of a Public Good Resource



Capital Improvements Bond Ordinances



A **bond ordinance** authorizes the **capital** improvement, appropriates money for that purpose, and authorizes the issuance of **bonds** or notes to finance all or part of the cost.



Asset Management Programming* - CMMS: Phase 3

Aging infrastructure of our water system is one of the most critical issues presently faced by our utility. This challenge is being tackled with the aid of computerized maintenance management systems (CMMS) and asset management techniques.

Physical assets such as **pipes, valves, pumps, wells, tanks, hydrants** and **treatment facilities** have deteriorated over time, adding to the cost of operation and maintenance in our water and wastewater utility, while also losing value as they age. In addition to the monetary loss from this depreciation, it also becomes more difficult to maintain a high level of service and meet customers' expectations. Disruptions in water supply or wastewater management have a significant impact on the local community and environment, as well. With the right asset management policy and practices, **combined with state-of-the-art utility maintenance software**, our water managers **can ensure they make data-driven investments** at the right time. Doing so helps with the maintenance of assets and minimizes future repair, replacement and rehabilitation costs as well. **Effective Utility Management is our Goal.**



**Pursuant to N.J.A.C. 7:19-6.3(c); N.J.A.C. 7:19-6.6
Permit # 5077 NJ DEP Water Utility Operations*



Source Wells, Water Transmission & Distribution

Rehabilitation and Commissioning of Wells 5 & 8*

The Project's mission is to **renew the service life** and **provide enforcement** as necessary for all **Water Pipeline Mains: Transmission, Distribution and Well Water Source Assets**.

Wells 5 & 8 (one in the South Mt Wellfield and one within City Limits) are integral tools for the continued health and redundancy of our Water Utility. Rehabilitation of these Wells is critical to infrastructure improvement activities within neighborhoods and sensitive environmental areas to ensure the Quality & Quantity of Water for the needs of the Community.

**Pursuant to N.J.A.C. 7:19-6.3(c); N.J.A.C. 7:19-6.6
Permit # 5077 Clean Water Drinking Act NJDEP*



Wastewater Management & Levels of Service

Wastewater Collection System Rehabilitation*

For **wastewater management utilities**, asset management can be defined as managing infrastructure capital assets to minimize the total cost of owning and operating them, while delivering the service levels customers desire.

Asset management programs with **long-range planning, life-cycle costing, proactive operations and maintenance**, and capital replacement plans based on cost-benefit analyses can be the most efficient method of meeting this challenge. Use of asset management will help protect sewers and extend financial resources by:

- Making sure components are protected from premature failure through proper operations and maintenance.
- Facilitating proactive capital improvement planning and implementation over longer cycles to reduce annual and overall costs.
- Reducing the cost of new or planned investments through economic evaluation of options using life-cycle costing and value engineering.
- Focusing attention on results by clearly defining responsibility, accountability, and reporting requirements within the organization.

**Pursuant to N.J.A.C. 7:19-6.3(c); N.J.A.C. 7:19-6.6*



WATER METER REPLACEMENT PROGRAM

Water Meters: Long-Term Performance Solutions

Objectives:

Improve Water Accountability

Reduce Water Meter Reading Expenses Using Technology

Improve Customer Service

Reduce Environmental Impacts

- Water Loss & Conservation
- Energy Use for Pumping Water
- Energy Consumption for Meter Reading
- New Federal Lead Requirements***

Pursuant to N.J.A.C. 7:19-6.3(c); N.J.A.C. 7:19-6.6

**EPA Regulations: [Toxic Substances Control Act \(TSCA\)](#), [Residential Lead-Based Paint Hazard Reduction Act of 1992 \(Title X\)](#), [Clean Air Act \(CAA\)](#), [Clean Water Act \(CWA\)](#), [Safe Drinking Water Act \(SDWA\)](#), [Resource Conservation and Recovery Act \(RCRA\)](#), and [Comprehensive Environmental Response, Compensation, and Liability Act \(CERCLA\)](#) among others.*



Utility Infrastructure System Optimization

Preserving & Protecting Our Water Resources*

Cost Effectiveness



Sustainability



System Optimization



SMART Solutions



For Timely
Economic Planning

**Pursuant to N.J.A.C. 7:19-6.3(c); N.J.A.C. 7:19-6.6*

The East Orange Water Company installed their first water meters in 1915; the average age of our current meters is 25 years.



Water Compliance

PFAS: A National Issue With a Local Solution*

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Questions & Answers

Thank you for your continued support

