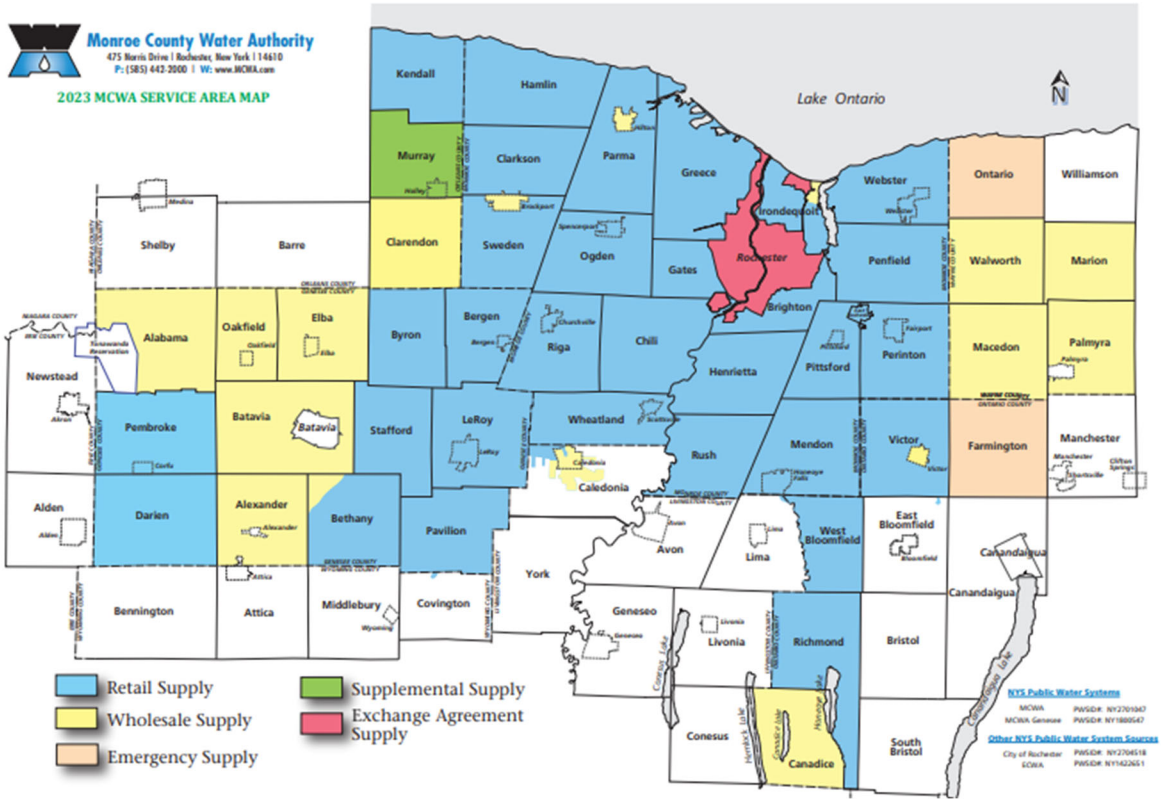
OPERATIONS OF THE MONROE COUNTY WATER AUTHORITY

BACKGROUND

The Monroe County Water Authority (the "Authority") services Monroe County and portions of each of the five surrounding counties. Our service area includes over 50 towns, villages, cities, and other water authorities. The Authority presently serves approximately 200,000 separate retail, wholesale, and other customer accounts. It also provides the City of Rochester with up to 26 million gallons per day (mgd) for distribution within its retail service area.



The Authority currently sets rates at levels sufficient to pay debt service on outstanding Authority obligations, to pay operating and maintenance expenses, and to make payments to the County under the existing lease and financing agreement between the Authority and the County.

WATER SUPPLY

The Authority's primary source of water is Lake Ontario. The water is treated at the Shoremont Water Treatment Plant (WTP) in the Town of Greece, and the 50 mgd Webster WTP in the Town of Webster. The Authority's other major source of water consists of water purchases from the City of Rochester pursuant to an existing exchange agreement. This water comes from Hemlock and Canadice Lakes in Livingston County south of Monroe County.

The Authority can also purchase water from the Town of Ontario, Wayne County, the City of Batavia, Genesee County, and the Erie County Water Authority. These sources are minor in relation to the overall water system and are for our convenience or pursuant to terms of agreements when the Authority became the provider of water.

The Authority provides water on a retail or wholesale basis. In retail areas the Authority supplies the water, maintains the distribution system, and bills the customer directly. In wholesale areas, a municipality or water district buys some or all of its water from the Authority, but maintains its own distribution and customer billing systems.

FACILITIES

The Shoremont and Webster Water Treatment Plants employ the direct filtration process using Lake Ontario as their source of supply. The main components of each plant are the raw water intake, pumping and transmission, chemical addition, rapid mixing, contact basins, filtration, residuals disposal, clearwell storage, and high lift pumping. The Authority also operates a small well supply to a plant in the Village of Corfu. With the exception of the Corfu plant, the entire water supply receives the same chemical process, coagulation, filtration, carbon absorption, and disinfection. The Corfu Water Plant uses carbon absorption, softening, and disinfection. Water is pumped from the treatment plants to storage facilities and customers in the water system service area through approximately 3,500 miles of transmission and distribution mains, ranging in diameter from 2-inch to 60-inch. The water system operates 47 pumping stations to provide the pressure to distribute water to storage facilities and customers. The system includes 2 reservoirs and 53 other storage facilities with an aggregate capacity of 140 million gallons. All service connections are metered, with the meters owned by the Authority.

As with most other water systems, our water usage also varies year to year depending on weather variations. Hot, dry summers tend to increase water usage, while colder and wetter summers tend to dampen or reduce water usage.

FINANCIAL HIGHLIGHTS

Water Authority Rates & Charges – The Authority sets its rates annually in concurrence with the adoption of its annual operating budget. The Authority is required by its Trust Indenture dated October 1, 1991 and Supplemental Indentures issued with and specific to each subsequent revenue bond issue (Trust Indentures) to set rates and fees sufficient to cover all its operating and capital expenses. The Authority raised rates in 2024 to achieve the projected revenues to cover total budgeted expenses.

Summary of Operating Revenues

	2024
Water Sales:	
Residential/Quarterly	$ 74,359,819
Large Commercial/Monthly	7,797,377
Water Districts/Wholesale	5,656,730
Total Water Sales	87,813,926
Other Water and Operating Revenue	5,590,274
Total Operating Revenue	$ 93,404,200

OPERATING EXPENSES

The Authority's expenses (excluding depreciation and amortization) are budgeted and tracked functionally by operating department. The Authority is functionally divided into: Administration; Production/Transmission; Engineering; Facilities, Fleet & Operations; and Finance & Business Services.

The following is a breakdown of the Authority's functional expenses by operating department (excluding depreciation and amortization):

Functional Expenses

	2024
Administration	$ 4,257,300
Production/Transmission	17,009,294
Engineering	5,044,432
Facilities, Fleet & Operations	15,633,540
Finance & Business Services	7,945,801
Total Functional Expenses	$ 49,890,367

LONG-TERM DEBT ADMINISTRATION

The Authority has six water revenue bond series outstanding totaling $125,510,000 as of December 31, 2024.

CREDIT RATINGS

The Authority is the recipient of very favorable credit ratings from both Moody's and Standard & Poor's. The Authority has an Aa1 rating assigned to its revenue bonds by Moody's Investors Service and an AA+ rating by Standard & Poor's. The Authority's bond ratings were last reviewed by Moody's Investors Service and Standard & Poor's in March of 2020. The Authority issues revenue bonds subject to its master Trust Indenture dated October 1, 1991 and Supplemental Indentures issued with and specific to each subsequent revenue bond issue.

Monroe County Water Authority
2024 Water System Accomplishments / Projects

Below is a summary of improvements made to the Monroe County Water Authority (MCWA) water system in 2024. This list includes both completed and ongoing projects, but does not include all bids and procurements completed.

Water Mains

- ✓ Completed the design, easement acquisition, permitting and commenced with construction of the 2024/2025 Cement Lining Project. This project includes the cleaning and cement mortar lining of approximately 14,850 linear feet of 6-inch cast iron water mains and the installation and replacement of appurtenances on various streets in the Ttown of Greece and Pittsford. Construction for the project is anticipated to be completed in 2025.

- ✓ Completed the design, permitting and bid the 2024 Structural Lining Project. This project includes the cleaning and cured-in-place structural lining of approximately 4,365 linear feet of 6-inch, 2,565 linear feet of 8-inch and 2,835 linear feet of 10-inch water mains and the installation and replacement of appurtenances in the Ttowns of Brighton, Greece, Irondequoit, Penfield and Pittsford. Construction for the project is anticipated to be completed in 2025.

- ✓ Completed the design, easement acquisition, permitting and commenced construction for the South Lake Street Water Main Replacement project. This project includes the replacement of approximately 2,450 linear feet of 6-inch water main with 8-inch ductile iron water main, on South Lake Street in the Town of Pavilion.

- ✓ Completed the design, permitting, easement acquisition, and construction of the Buffalo Road Tank Water Main Connection project. This project consisted of the installation of 1,650 linear feet of 16-inch water main and appurtenances near Buffalo Road in the Ttown of Bergen.

- ✓ Completed the construction of the Golden Road Main Replacement project. This project included the replacement of approximately 1,885 linear feet of 6-inch ductile iron water main and appurtenances, including 31 water services on Golden Road in the Town of Chili.

- ✓ Completed the construction of the S. Landing Road and Penfield Road Water Main Connections project. This project included the abandonment of a section of 12-inch water main in the existing railroad right-of-way near S. Landing Road in the Town of Penfield and the installation of approximately 1,100 linear feet of 6-inch and 8-inch water main and appurtenances.

- ✓ Completed the construction of the Paul Road Main Replacement project. This project included the replacement of approximately 9,930 linear feet of 8-inch water main and appurtenances, including 62 water services on Paul Road in the Town of Chili.

- ✓ Completed the design, permitting, easement acquisition and substantially completed construction of the East Manitou Road Main Replacement project. This project included the replacement of approximately 10,605 linear feet of 8-inch water main and appurtenances, including 82 services on East Manitou Road in the Town of Greece.

- ✓ Completed the design, permitting, easement acquisition and commenced construction of the Frisbee Hill Road Main Replacement project. This project includes the installation of approximately 4,650 linear feet

of 8-inch water main and appurtenances on Frisbee Hill Road in the Town of Greece. Construction for this project is anticipated to be completed in 2025.

- ✓ Completed the design, permitting, easement acquisition and substantially completed construction of the Glen Iris and Colonnade Water Main Replacement project. This project included the replacement of approximately 4,680 linear feet of 6-inch and 8-inch water main and appurtenances, including 68 water services on Glen Iris Drive and Colonnade Drive in the Town of Henrietta.

Water Storage Facilities

- ✓ Completed construction of the 2024 Tank Rehabilitation project. This project included the rehabilitation and coating of the West Webster water storage tank which is a 1 million gallon welded steel, standpipe water storage tank in the Town of Webster.

- ✓ Completed design, bid and commenced construction of the Walker Road Electrical, Mechanical and Plumbing Contract. This project includes the installation of a new electric service to the tank site, installation of an emergency stand-by generator and installation of piping and controls for the tanks' disinfection by-product system. This work is scheduled to be completed in 2025.

- ✓ Commenced construction of the Walker Road Water Storage Tank project. This project includes the construction of a new 1.63 million gallon precast, prestressed concrete water storage tank including site and piping improvements on Walker Road in the Town of Pavilion. The work for this project is scheduled to be completed in 2025.

- ✓ Cleaned and inspected the following water storage facilities:
  - Moseley Road Tank
  - Riga Tank
  - Union Street Tank
  - Chestnut Ridge Tank
  - Elmgrove Tank
  - West Lake Road Tank
  - Lee Road West Tank

Water Districts

At the request of Towns in the MCWA service area, we assist with their implementation of water district projects. In 2024 we:

- ✓ Provided support for the following completed and activated water district projects:
  - Byron - Water Improvement Benefits Area #1 — 150,000 lf & 224 services
  - Stafford – Water District #12 — 28,450 lf & 78 services

  Total: 178,450 lf & 302 services

- ✓ Provided support for the following water district projects currently in construction:
  - Clarkson – Water Improvement Benefits Area #1 — 69,500 lf & 178 services

  Total: 69,500 lf & 178 services

- ✓ Provided review comments for the following water district projects currently in design phase:
  - Pavilion - Water District #7 — 22,350 lf & 41 services

  Total: 22,350 lf & 41 services

- ✓ Provided preliminary comments for the following proposed water district projects:

• LeRoy - Water District #12	173,000 lf & 356 services
• Pembroke - Water District #4	14,700 lf & 67 services
• Pembroke - Water District #5	109,500 lf & 307 services
	Total: 297,200 lf & 730 services

Developer Main Extensions (DME's) Program

- ✓ Generated 35 Main Extension Agreements (MEA), and 21 were executed. Generated 20 Water Service Installation Agreements (WSIA) and 17 were executed. Placed 31 projects in service this year compared to 27 in 2022/2023.

- ✓ Processed 55 initial and 55 revised DME application submissions this year compared to 55 initial and 54 revised in 2022/2023. Of the 55 DME initial application reviews, 26 were installed under a WSIA.

New Service Program

- ✓ Coordinated the creation of 688 new 1-inch service accounts:
  - 425 from DMEs,
  - 139 from water districts,
  - 36 from secondary source change-overs,
  - 88 from new construction.

Large Service Program

- ✓ Processed 68 initial and 54 revised Large Service application submissions this year compared to 51 initial and 44 revised in 2022/2023.

Backflow Prevention Program

- ✓ Reviewed 151 applications this year, compared to 148 in 2022/2023.

Booster Pump Stations

- ✓ Completed construction of emergency bypass pump connections at the Buffalo Road Booster Pumping Station (BPS) in the Town of Chili. The new connections will be used to maintain pumping capacity when needed during emergencies or if the BPS is off-line.

- ✓ Completed construction of a pump replacement project at the East Henrietta BPS in the Town of Henrietta. This project consisted of replacement of 75-horsepower (hp) Pump Nos. 1 and 2, rehabilitation of the 75-hp motor for Pump No. 2, installation of new 12-inch discharge isolation butterfly valves, and modifications to existing piping at the station.

- ✓ Continued design of an improvements project at the Industrial Street BPS in the City of Rochester, which includes replacement of Pump No. 1 and its variable frequency drive (VFD) with a new 350 hp pump and VFD; replacement of existing pump suction and discharge piping and valves; replacement of the existing bypass piping valve; and other associated improvements to reverse the direction of pumped flow through the BPS.

- ✓ Assisted Genesee County's consulting engineer with startup of the new Golden Road BPS in the Town of Chili, which is a component of the Genesee County Phase 2 Water Supply project to increase supply to Genesee County. Startup of Pump No. 1 was delayed and is anticipated to be completed in spring 2025.

- ✓ Assisted Genesee County's consulting engineer with construction of improvements to the North Road BPS, Morgan Road BPS, Riga BPS, and Scottsville BPS, which is a component of the Genesee County Phase 2 Water Supply project to increase supply to Genesee County. Construction anticipated to be completed by summer 2026.

- ✓ Coordinated with Genesee County's consulting engineer during the construction of improvements to the North Road BPS, Morgan Road BPS, Riga BPS, and Scottsville BPS, which is a component of the Genesee County Phase 2 Water Supply project to increase supply to Genesee County.

- ✓ Rehabilitated the sodium hypochlorite storage and feed systems at the North Road BPS, Scottsville BPS, Twin Hills BPS, and Pembroke BPS.

- ✓ Initiated construction of improvements at the Pavilion BPS including a new sodium hypochlorite storage and feed room and system; replacement of the existing heating, ventilating, and air conditioning (HVAC) unit; replacement of the existing electrical service; installation of a new electrical power generator and automatic transfer switch (ATS); and replacement of the existing roof.

- ✓ Completed rehabilitation of the 250 hp Pump No. 3 at the North Road BPS including replacement of pump bearings, seals, and shaft sleeves.

- ✓ Completed rehabilitation of the 50 hp Pump No. 1 at the Churchville BPS including replacement of pump bearings and lantern ring.

- ✓ Purchased new 50 hp VFDs to replace the VFDs for Pump Nos. 1 and 2 at the Mendon BPS. Installation anticipated to be completed in spring 2025.

- ✓ Completed replacement of the 100 hp VFD for Pump No. 2 at the Denise BPS.

- ✓ Completed replacement of the 75 hp VFDs for Pump Nos. 1 and 2 at the Pembroke BPS.

- ✓ Completed installation of new 60 hp VFDs for Pump Nos. 1 and 2 at the Harek BPS.

- ✓ Completed installation of new 7.5 hp VFDs for Pump Nos. 1 and 2 at the Barchan Dune BPS.

- ✓ Completed installation of a new 100 hp VFD for Pump No. 3 at the Moseley Road BPS.

- ✓ Completed installation of new 40 hp VFDs for Pump Nos. 1 and 2 at the Woodcliff BPS.

- ✓ Completed installation of a new 75 hp VFD for Pump No. 1 at the Harris BPS.

- ✓ Completed replacement of the HVAC unit at the Darien BPS.

- ✓ Completed installation of a new 500 hp, 480-volt (V) motor, and purchased a new 500 hp VFD for Pump No. 2 at the Lee Road BPS. Installation of the VFD is anticipated to be completed in spring 2025.

- ✓ Initiated design of electrical and HVAC improvements to the Lee Road BPS including replacement of the high voltage switchgear and transformers; replacement of the motor control centers (MCCs); replacement

of the 500 hp, 4160V motor for Pump No. 3; replacement of the 700 hp, 4160V motor and VFD for Pump No. 5; and replacement of the HVAC equipment.

- ✓ Completed replacement of the magnetic flow meter at the North Road BPS.

- ✓ Completed replacement of the ATS for the electrical power generator at the Victor-Holcomb BPS.

- ✓ Completed replacement of the ATS for the electrical power generator at the Victor-Egypt BPS.

- ✓ Purchased a new ATS for the electrical power generator at the LaSalle Parkway BPS. Installation anticipated spring 2025.

- ✓ Completed installation of new emergency pump connection riser pipes at the Pembroke BPS in the Town of Pembroke to facilitate connections for portable emergency bypass pumping equipment.

- ✓ Completed installation of a new portable generator connection cabinet at the Buffalo Road BPS. The new connection cabinet will be utilized to connect a portable electrical power generator to provide electrical power to the BPS when needed during a power outage.

- ✓ Completed demolition of the Allens Creek BPS, which was no longer needed for operation of the transmission and distribution system.

Treatment Plants

<u>Shoremont Water Treatment Plant</u>

- ✓ Completed bidding and initiated construction of the West 1 Plant Improvements – Phase 3 project that consists of improvements to Filter Nos. 9 through 12 including replacement of backwash, surface wash, influent, and drain valves and actuators; replacement of effluent rate of flow controllers; installation of filter-to-waste piping; and electrical, instrumentation, and control improvements. Construction is anticipated to be completed in spring 2025.

- ✓ Completed construction of the Granular Activated Carbon (GAC) Replacement – West 2 Filters project that consisted of replacement of the GAC media in Filter Nos. 13 through 16.

- ✓ Completed replacement and upgrade of the programmable logic controllers (PLCs) for the West 1 Plant Filter Nos. 9 through 12.

- ✓ Continued with planning and procurement of materials and equipment for replacement and upgrade of the PLCs for the East Plant Filter Nos. 1 through 8.

- ✓ Completed rehabilitation of the 24-inch and 16-inch pressure regulating valves (PRVs) for the Backwash PRV system.

- ✓ Initiated design of improvements to the Fluoride Chemical Storage and Feed System including rehabilitation of the bulk storage tank; replacement of feed system equipment; replacement and upgrade of the heating and ventilating system equipment; architectural modifications to the Fluoride Storage and Feed Room; and replacement and upgrade of the electrical, instrumentation, and control system equipment.

- ✓ Initiated planning and design of a new fiber optic ring for the supervisory control and data acquisition (SCADA) communication network to improve redundancy for PLC controls.

- ✓ Completed replacement of the Babbitt bearing for the 1750 hp High Duty Pump No. 4.

- ✓ Initiated design of installation of new isolation valves for the 54-inch and 42-inch diameter raw water mains.

- ✓ Purchased a new benchtop turbidimeter for the Water Quality Laboratory.

- ✓ Completed replacement and upgrade of the level sensors for the intake wells at Low Lift Pump Station Nos. 1 and 2.

- ✓ Completed a comprehensive evaluation and inspection of the carbon dioxide storage system by the equipment manufacturer.

Webster Water Treatment Plant

- ✓ Completed rehabilitation of the Sodium Permanganate Chemical Feed System equipment at the Lake Water Pump Station.

- ✓ Initiated design of improvements to the Fluoride Chemical Storage and Feed system including replacement of select feed system equipment, and replacement and upgrade of the ventilating system equipment.

- ✓ Initiated construction of improvements to the Emergency Disinfection Gaseous Chlorine Storage and Feed System including demolition of the chlorinator equipment; installation of cylinder-mounted vacuum regulators for conversion to an all vacuum system; installation of new cylinder scales; replacement of rotometers, flowmeters, and injectors; and replacement of chlorine sensors. Construction is anticipated to be completed by spring 2025.

- ✓ Completed design and bidding for installation of a new dry-type scrubber for the Emergency Disinfection Gaseous Chlorine Storage and Feed System. Installation is anticipated to be completed by fall 2025.

- ✓ Completed evaluation and initiated design for replacement of the electrical and control conduit and conductors in the Filter Gallery.

- ✓ Completed evaluation and initiated design of extension of the fire protection system for a new document storage room.

- ✓ Completed a comprehensive evaluation and inspection of the carbon dioxide storage system by the equipment manufacturer.

- ✓ Completed fabrication and installation of a new panel for the Intake Crib to replace a missing panel.

- ✓ Completed installation of a new support for the Backwash PRV.

Corfu Water Treatment Plant

- ✓ Completed rehabilitation of Well Pump No. 2 including replacement of the motor; repair of the discharge piping; and repair of the VFD.

Pressure Regulating Valves

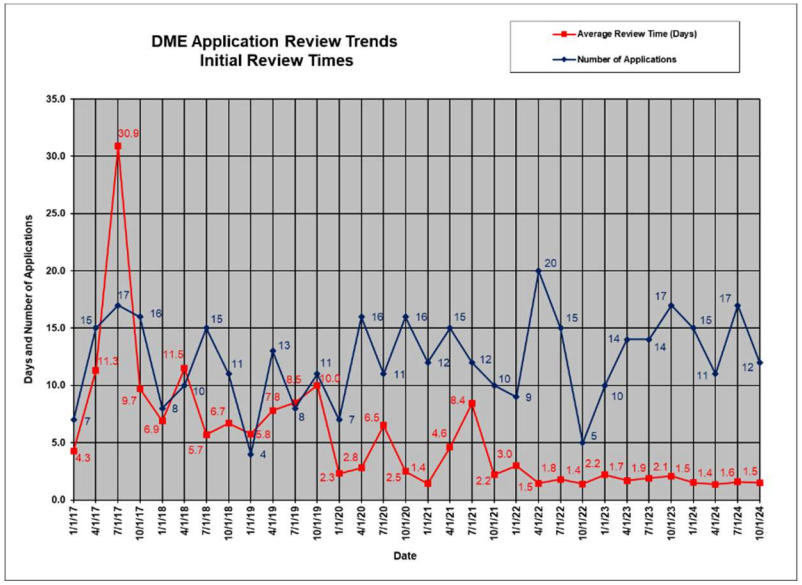
- ✓ Completed installation of an actuated isolation valve on the discharge piping of the 2-inch PRV and position indicators for the 2-inch and 6-inch PRVs at the Dillon Road PRV.

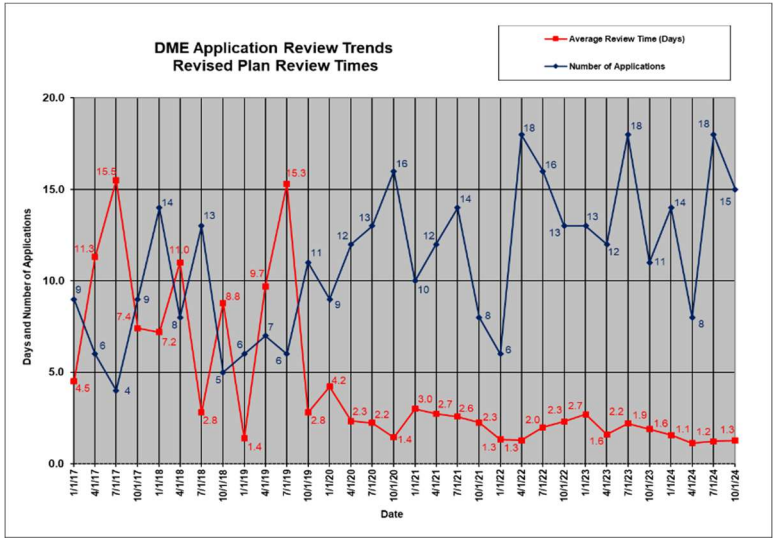
- ✓ Completed installation of an actuated isolation valve on the discharge piping of the 2-inch PRV and position indicators for the 2-inch and 6-inch PRVs at the York Road PRV.

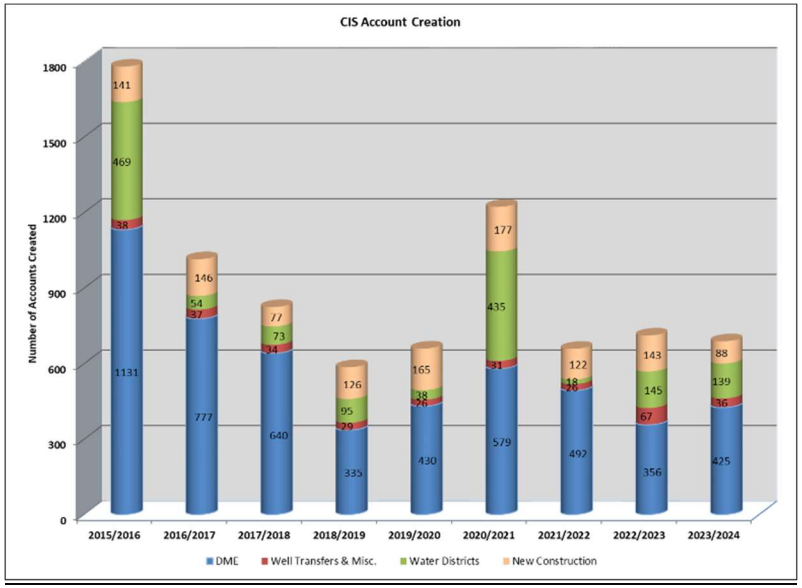
Other Facilities

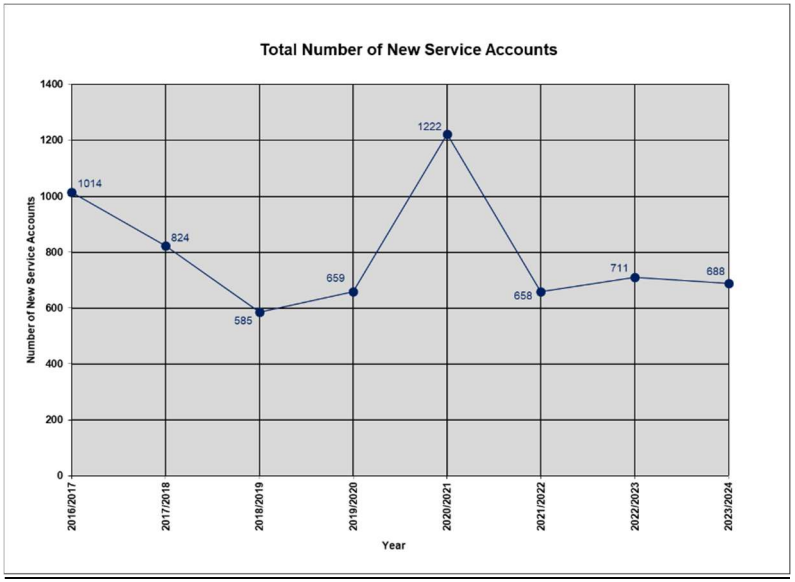
- ✓ Completed construction of lead pipe loop testing facilities at the Wisconsin Street building (former BPS and storage facility) and initiated the conditioning phase of the distribution system joint corrosion control treatment study with the City of Rochester Water Bureau.

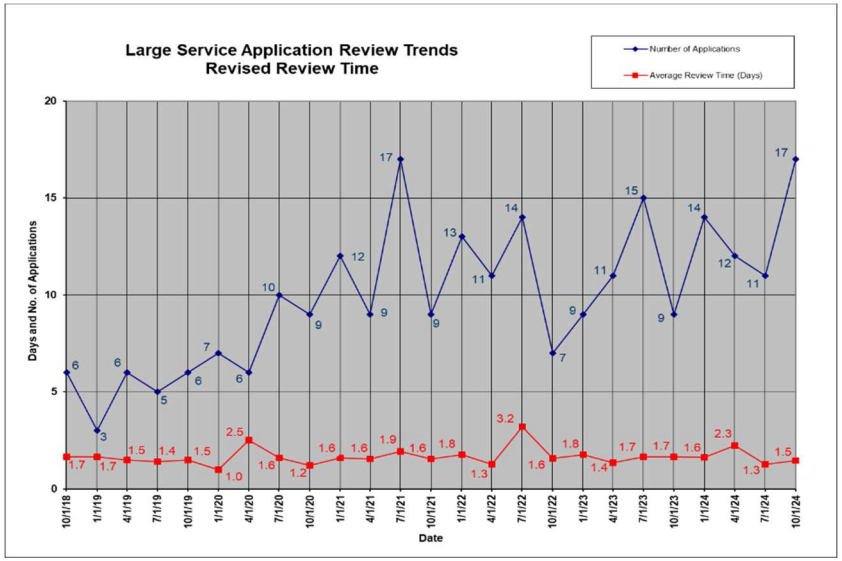
- ✓ Completed replacement and upgrade of cellular communication equipment, and installation of new cellular communication equipment at 45 facilities including Shoremont WTP, and various BPSs, storage, and PRV facilities.

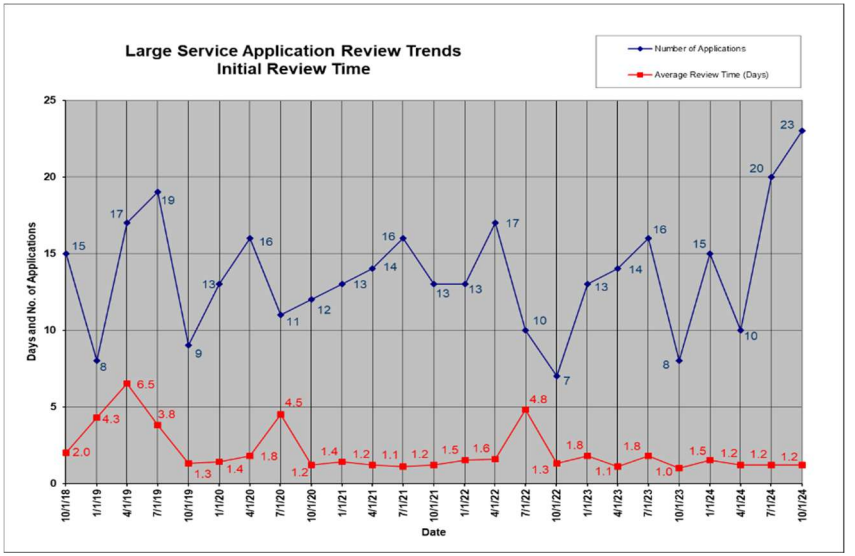

DME Application Review Trends
Initial Review Times
Average Review Time (Days)
Number of Applications
Days and Number of Applications
Date

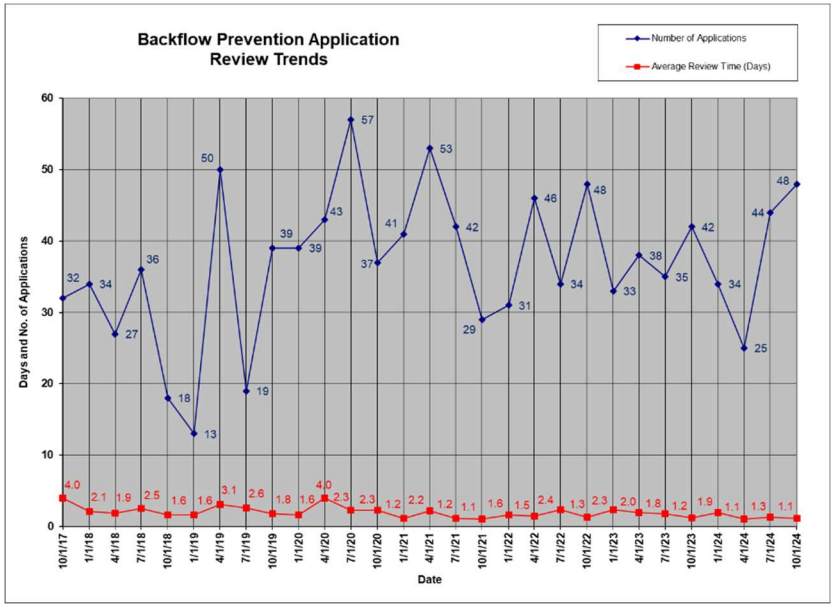

DME Application Review Trends
Revised Plan Review Times
Average Review Time (Days)
Number of Applications
Days and Number of Applications
Date


CIS Account Creation
Number of Accounts Created
2015/2016
2016/2017
2017/2018
2018/2019
2019/2020
2020/2021
2021/2022
2022/2023
2023/2024
DME
Well Transfers & Misc.
Water Districts
New Construction


Total Number of New Service Accounts
Number of New Service Accounts
Year


Large Service Application Review Trends
Revised Review Time
Number of Applications
Average Review Time (Days)
Days and No. of Applications
Date


Large Service Application Review Trends
Initial Review Time
Number of Applications
Average Review Time (Days)
Days and No. of Applications
Date


Backflow Prevention Application
Review Trends
Number of Applications
Average Review Time (Days)
Days and No. of Applications
Date