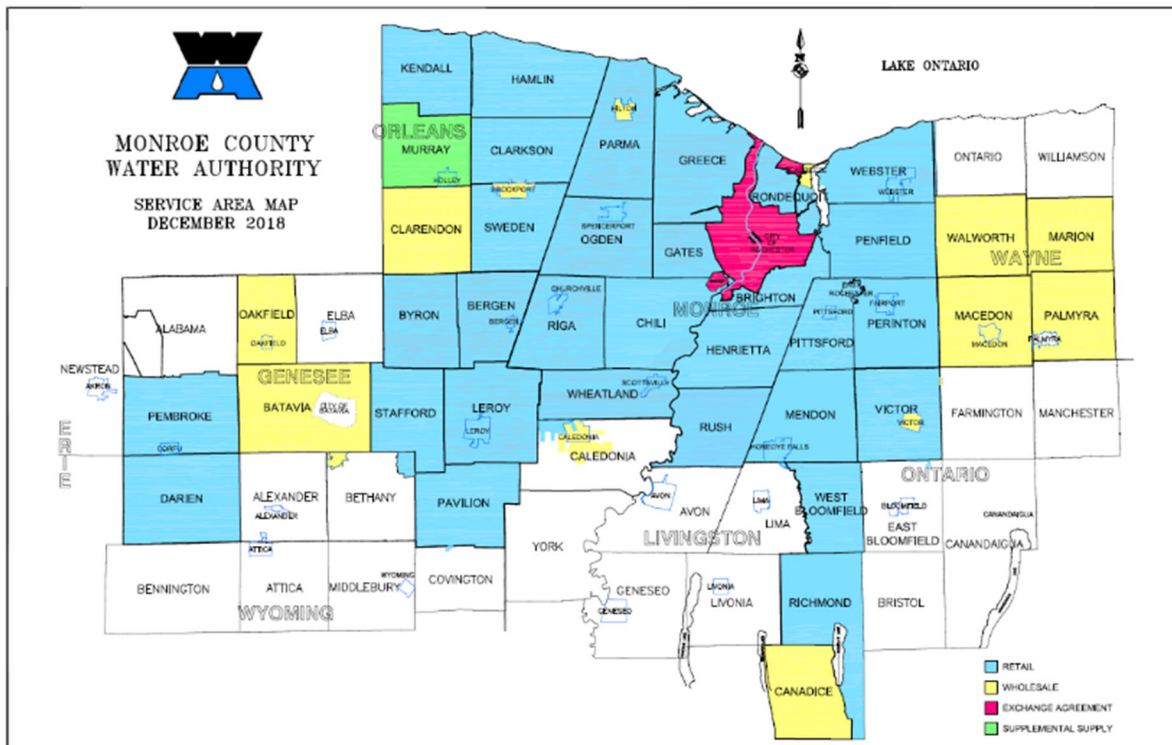


OPERATIONS OF THE MONROE COUNTY WATER AUTHORITY

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 3,400 miles of transmission and distribution mains, ranging in diameter from 2-inch to 60-inch. The water system operates 49 pumping stations to provide the pressure to distribute water to storage facilities and customers. The system includes two 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 2022 to achieve the projected revenues to cover total budgeted expenses.

Summary of Operating Revenues

	<u>2022</u>
Water Sales:	
Residential/Quarterly	\$67,471,091
Large Commercial/Monthly	7,346,583
Water Districts/Wholesale	<u>4,788,030</u>
Total Water Sales	\$79,605,704
Other Water and Operating Revenue	<u>5,336,214</u>
Total Operating Revenue	\$84,941,918

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

	2022
Administration	\$3,776,000
Production/Transmission	15,948,831
Engineering	3,249,832
Facilities, Fleet & Operations	13,889,840
Finance & Business Services	<u>6,973,322</u>
Total Functional Expenses	<u>\$43,837,825</u>

LONG-TERM DEBT ADMINISTRATION

The Authority has six water revenue bond series outstanding totaling \$135,025,000 as of December 31, 2022.

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
2022 Water System Accomplishments / Projects

Below is a summary of improvements made to the Monroe County Water Authority (MCWA) water system in 2022. This list includes both completed and ongoing projects, but does not include all bids and procurements completed.

Water Mains

- ✓ Completed the design, permitting and replacement of a 30-inch cone valve with a 30-inch butterfly valve on the 48-inch diameter transmission main on Mt. Read Boulevard at English Road in the Town of Greece.
- ✓ Completed the design, permitting and replacement of a 30-inch cone valve with a 30-inch butterfly valve on the 48-inch diameter transmission main on Mt. Read Boulevard at Maiden Lane in the Town of Greece.
- ✓ Commenced with the design, permitting and easement acquisition of the Golden Road water main replacement project in the Town of Chili. This project will consist of the replacement of approximately 2,000 linear feet of 6-inch water main and appurtenances.
- ✓ Commenced with the design and permitting of the Kings Highway North Water Main Replacement project. This project will consist of the replace of approximately 2,375 linear feet of 8-inch water main on Kings Highway in the Town of Irondequoit.
- ✓ Commenced with the design and permitting of the Oatka Creek water main replacement. This project will consist of the replacement of approximately 385 linear feet of 8-inch water main under Oatka Creek adjacent to Wheatland Center Road in the Town of Wheatland.
- ✓ Commenced with the design and permitting of the emergency replacement of water main pipe hangars under the Landing Road Bridge over NYS Route 490 in the Town of Brighton. Approximately 16 hangars and rollers that support the water main will be replaced across the entire span of the bridge.
- ✓ Commenced with the design and permitting of the North Union Street Water Main Replacement Project. This project will include the replacement of approximately 1,800 linear feet of 12-inch water main and appurtenances on North Union Street from Upton Avenue and the Ogden Parma Town Line Road in the Town of Ogden.
- ✓ Completed the design, permitting and construction of the Thayer Road Water Main Replacement Project. This project consisted of the replacement of approximately 80 linear feet of 12-inch water main along Thayer Road in the Town of Perinton. The work for this project was completed by in house field crews.
- ✓ Commenced with the construction of the River Meadow Drive Main Replacement project. The project was designed, permitted and bid in 2021 with construction commencing and substantially completed in 2022. The project consists of the replacement of approximately 4,200 linear feet of 6-inch water main and appurtenances on River Meadow Drive and Hazel Street in the Town of Henrietta.
- ✓ Completed the design, permitting and bid the Brace Road, Lyndon Road, and Orchard Street water main replacement project. This project will consist of the replacement of approximately 2,200 linear feet of 8-inch water main and 250 linear feet of 12-inch water main on Lyndon Road in the Town of Perinton,

1,870 linear feet of 6-inch water main on Orchard Street in the Village of Webster, and 3,250 linear feet of 8-inch water main on Brace Road in the Town of Victor. Construction is scheduled to commence in 2023.

- ✓ Completed the design, permitting and easement acquisitions for the Ontario Street Main Replacement project. This project will consist of the replacement of approximately 1,500 linear feet of 6-inch water main on Ontario Street in the Town / Village of East Rochester. Construction for this project will be completed in 2023.
- ✓ Designed, permitted, bid and awarded the Fourth Section Road and Owens Road Water Main Replacement project. This project consists of the replacement of approximately 8,000 linear feet of 12-inch water main along Fourth Section Road and 1,700 linear feet of 12-inch water main along Owens Road in the Town of Sweden. Construction is anticipated to begin in 2023.
- ✓ Completed the design, permitting and bid the Rochester Street, Scottsville – West Henrietta Road, and Stuart Road Water Main Replacement project. This project consists of the replacement of approximately 3,335 linear feet of 6-inch water main, 1,015 linear feet of 8-inch water main in the Village of Scottsville and the Town of Chili. Construction for this project is anticipated to commence in 2023.
- ✓ Completed the design, permitting and construction of the Clinton Avenue and Elmwood Terrace Water Main Replacement project. This project consisted of the replacement of approximately 260 linear feet of 6-inch water main and 4560 linear feet of 8-inch water main at 1815 S. Clinton Avenue and on Elmwood Terrace in the Town of Brighton.
- ✓ Completed the construction of the Azzano Circle water main connection. This project consisted of the installation of approximately 250 linear feet of 8-inch water main on Azzano Circle in the Town of Victor.
- ✓ Completed the construction of the Trabold Road Water Main Replacement Project. This project consisted of the replacement of approximately 1,370 linear feet of 8-inch and 1,670 linear feet of 12-inch water main on Trabold Road in the Town of Gates.
- ✓ Completed the design, permitting and bid the Van Voorhis Road and Mendon Ionia Road Water Main Replacement Project. This project consists of the replacement of approximately 4,580 linear feet of 8-inch water main and appurtenances on Van Voorhis Road in the Town of Pittsford and approximately 1,000 linear feet of 8-inch water main and appurtenances on Mendon Ionia Road in the Town of Mendon. Work is scheduled to commence in 2023.
- ✓ Performed acoustical leak detection survey of approximately 500 miles of water main.
- ✓ Commenced with the planning and purchase of emergency electrical power generators to be installed at the East River Road Valve Vault, and Gallup Road Valve Vault.

Water Storage Facilities

- ✓ Commenced with the design and permitting of the of the 2023 Tank Rehabilitation project. The project includes the rehabilitation of the Shoremont Water Treatment Plant (SWTP) backwash tank in the Town of Greece and the Gloria Drive tank in the Town of Penfield. The SWTP backwash tank is a 0.6 million gallon welded steel ground storage tank and the Gloria Drive tank is a 1.05 million gallon welded steel

ground storage tank. The project will include making minor structural repairs, improvements to meet current sanitary and safety requirements, and receive a new interior and exterior coating.

- ✓ Completed design, bid and commenced with the construction of the 2022 Tank Rehabilitation project. The project includes the rehabilitation of the Lee Road East Tank in the Town of Greece. This tank is a 5.0 million gallon welded steel ground water storage tank. The rehabilitation includes making repairs to the steel, sanitary and safety improvements, and a new interior and exterior coating. The work began on the tank and is expected to be completed in the first quarter of 2023.
- ✓ Designed, bid and completed the construction of the 2022 Water Storage Tank Demolition project. This project included the demolition and site restoration of the 0.1 million gallon Honeoye water storage tank and the 0.1 million gallon Pinewood Hill water storage tank in the Town of Richmond.
- ✓ Cleaned and inspected the following water storage facilities:
 - Alleyn’s Rose Tank (2yr warranty)
 - Eastview Tank
 - Garbutt Tank (2yr warranty)
 - High Street (2yr warranty)
 - Middle Road Tank
 - Pembroke Tank
 - SWTP Backwash Tank
 - West Bloomfield Tank
 - White Road Tank
- ✓ Commenced with the planning and purchase of emergency electrical power generators to be installed at the West Bloomfield Tank, Darien Tank, and West Brighton Tank.

Water Districts

At the request of Towns in the MCWA service area, we assist with their implementation of water district projects. In 2022 we:

- ✓ Provided support for the following completed and activated water district projects:
 - Sweden – Lake and Redman Road Water District (Road crossings) 600 lf & 0 services
 - Bergen - Water Improvement Benefits Area #1 – Contract A 96,235 lf & 220 services
 - Total: 96,835 lf & 220 services
- ✓ Provided support for the following water district projects currently in construction:
 - Bergen - Water Improvement Benefits Area #1 – Contract B 68,100 lf & 144 services
 - Total 68,100 lf & 144 services
- ✓ Provided review comments for the following water district projects currently in design phase:
 - Byron - Water Improvement Benefits Area #1 150,000 lf & 380 services
 - Stafford – Water District #12 28,450 lf & 78 services
 - Henrietta – Middle Road Water District 3,750 lf & 10 services
 - Total: 182,200 lf & 468 services
- ✓ Provided preliminary comments for the following proposed water district projects:
 - Clarkson – Water Improvement Benefits Area #1 62,500 lf & 178 services
 - Totals: 62,500 lf & 178 services

Developer Main Extensions (DME’s) and New Services

- ✓ Generated 23 Main Extension Agreements (MEA), and 18 were executed. Generated 17 Water Service Installation Agreements (WSIA) and 15 were executed. Placed 41 projects in service this year compared to 39 in 2020/2021 and 26 in 2019/2020, and 49 in 2018/2019.
- ✓ Processed 49 initial and 53 revised DME application submissions this year compared to 49 initial and 44 revised in 2020/2021 and 50 initial and 50 revised in 2019/2020. Of the 49 DME initial application reviews, 24 ended up being installed under a Water Service Installation Agreement (WSIA).

New Service Program:

- ✓ Coordinated the creation of 658 new 1-inch service accounts:
 - 492 were generated by DMEs.
 - 18 were generated by water districts.
 - 26 were generated by secondary source change-overs.
 - 122 were generated by new construction.
- ✓ Processed 48 Large Service application submissions this year compared to 56 in 2020/2021

Booster Pump Stations

- ✓ Completed the construction of the Harek Road Hypochlorite Building Addition at the Harek Road Pump Station in the Town of Gates. The existing building addition had deteriorated and was in need of replacement. In 2021 the design and permitting of the facility was completed along with the demolition of the existing building addition, making room for a new stick built structure constructed by Water Authority field crews. Construction of the new building addition was completed in 2022.
- ✓ Completed the design, permitting and commenced with the construction of Emergency Pump Connections at the Riga Booster Pump Station in the Town of Riga and the Morgan Road Booster Pump Station in the Town of Chili. The emergency pump connection will be used to maintain pumping capacity when needed during emergencies or if the pump stations are off-line. MCWA field crews commenced with the installation of these facilities. Construction is anticipated to be completed in early 2023.
- ✓ Commenced with the design of the pump replacement project at the East Henrietta Booster Pump Station in the Town of Henrietta. This project will consist of the replacement of two pumps, the installation of an additional 12-inch butterfly valve and modifications to existing piping at the station.
- ✓ Designed, bid and commenced with construction of the 2022 Roof Replacement project. This project consisted of the replacement of approximately 1,650 square feet of modified bitumen built up roof roofing system and appurtenances at Low Lift Pump Station #2 in the Town of Greece and the replacement of approximately 1,150 square feet of metal standing seam roof system and appurtenances at the Shetler Road Pump Station in the Town of Richmond.
- ✓ Completed the design, bid and construction of the 2021 Site Security Fence Installation project. This project included the installation of fencing at the Twin Hills Pump Station in the Town of Parma, installation of fencing and a gate at the Echo Street Pump Station in the Town of Irondequoit, and made repairs to existing fencing at the Parrish Rd Reservoir in the Town of Mendon and repairs to the fencing at the Temperance Hill Tanks in the Town of Stafford.
- ✓ Assisted Genesee County's consulting engineer with completion of construction of the new Mumford BPS in the Town of Wheatland, which is a component of the Genesee County Phase 2 Water Supply project to increase supply to Genesee County.

- ✓ Assisted Genesee County's consulting engineer with completion of construction of the new Churchville BPS in the Town of Riga, which is a component of the Genesee County Phase 2 Water Supply project to increase supply to Genesee County.
- ✓ Assisted Genesee County's consulting engineer with completion of design and construction 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.
- ✓ Assisted Genesee County's consulting engineer with continuation of design 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.
- ✓ Completed installation of a new portable generator connection at Morgan Road BPS.
- ✓ Purchased two 250 horsepower (hp) variable frequency drives (VFDs) to replace the existing VFDs for Pump Nos. 3 and 4, and completed rehabilitation of the 75 hp Pump No. 2 at the North Road BPS.
- ✓ Completed repair of the 600 hp VFD for Pump No. 2 at the Echo Street BPS.
- ✓ Completed rehabilitation of the 400 hp motor for Pump No. 6 at the Mount Read BPS.
- ✓ Commenced with the conversion of the Wisconsin Street BPS from a storage facility to a site housing lead loop testing for a joint corrosion control study with the City of Rochester Water Bureau.
- ✓ Commenced with the planning and purchase of equipment and materials for improvements to the Pavilion BPS.
- ✓ Purchased a 100 hp VFD to replace the existing VFD for Pump No. 2 at the Thornell Road BPS.
- ✓ Purchased a new 75 hp VFD for Pump No. 2 at the Harris Road BPS.
- ✓ Commenced with the planning and purchase of an emergency electrical power generator to be installed at the Grandview BPS.

Treatment Plants

Shoremont Water Treatment Plant

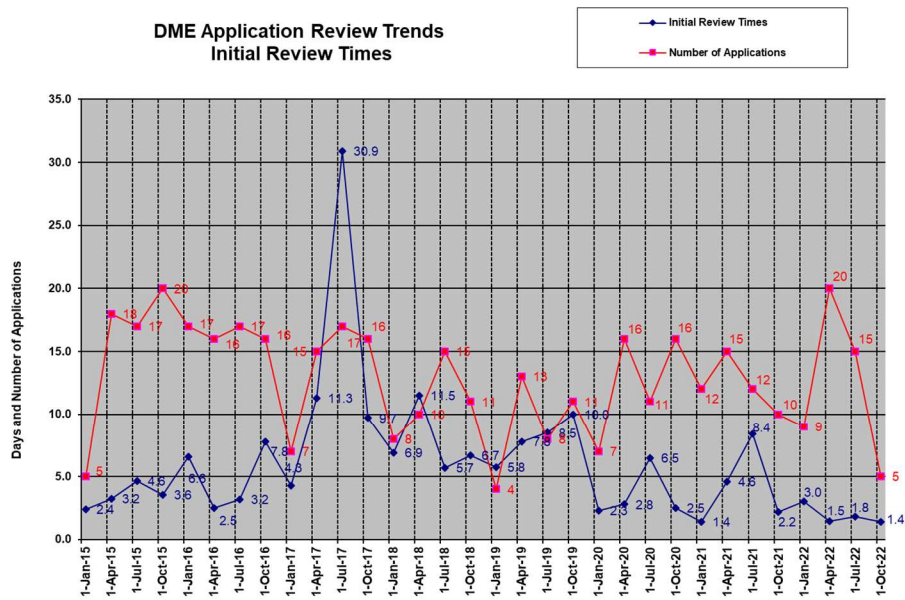
- ✓ Completed bidding and initiated construction of the West 1 Plant Improvements – Phase 2 project that consists of rehabilitation of filter Nos. 9 through 12 including replacement of the underdrain, backwash water troughs, surface wash system, filter media, and associated appurtenances.
- ✓ Completed replacement of the 480 volt (V) electrical power Main Distribution Panel.
- ✓ Completed bidding and construction of the 2022 GAC Replacement – East Filters Phase 1 project that consisted of replacement of the granular activated carbon (GAC) filter media in Filter Nos. 2, 4, 6, and 8.
- ✓ Completed design and bidding of the GAC Replacement – East Filters Phase 2 project that will consist of replacement of the GAC filter media in Filter Nos. 1, 3, 5, and 7.

- ✓ Completed rehabilitation of the pre-filtration sodium hypochlorite disinfection storage and feed system for the East, West 1, and West 2 plants.
- ✓ Commenced with rehabilitation of the post-filtration sodium hypochlorite disinfection storage and feed system for the East and West 1 plants.
- ✓ Commenced with the design and procurement of materials and equipment for rehabilitation of the post-filtration sodium hypochlorite disinfection storage and feed system for the West 2 plant.
- ✓ Commenced with procurement of a new 24-inch gate valve to replace the existing Backwash PRV System Isolation Valve.
- ✓ Completed replacement of the East Loading Dock overhead door.
- ✓ Commenced with planning, design, and procurement of materials and equipment for replacement and upgrade of the programmable logic controllers (PLCs) for Filter Nos. 1 through 16.

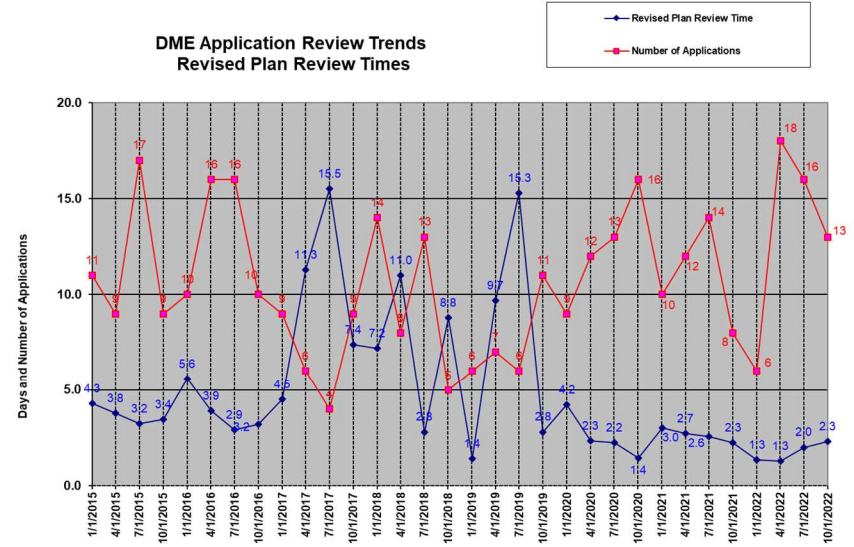
Webster Water Treatment Plant

- ✓ Completed construction of the Generator Optimization – Phase 2 project that consisted of automation of generator switchgear and installation of new uninterruptible power supply (UPS) equipment at the Webster Water Treatment Plant; and installation of a new 1500 kW generator and automation of the generator switchgear at the Lake Water Pump Station.
- ✓ Completed repair and reinstallation of the 1,000 hp High Lift Pump No. 4.
- ✓ Completed replacement and upgrade of 12 turbidimeters at the Webster Water Treatment Plant and Lake Water Pump Station.

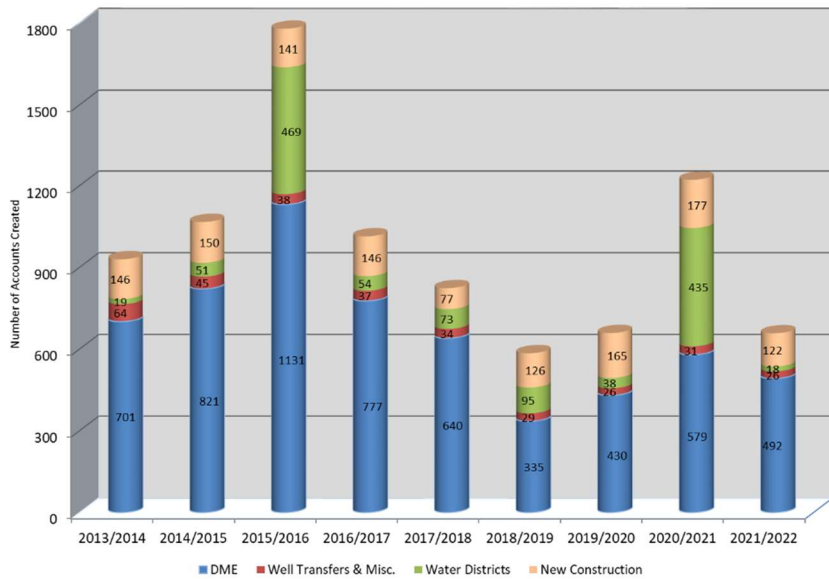
DME Application Review Trends
Initial Review Times



DME Application Review Trends
Revised Plan Review Times



CIS Account Creation



Total Number of New Service Accounts

