




QUALITY OF WATER

QUALITY OF LIFE



MWS 2024 Annual Report

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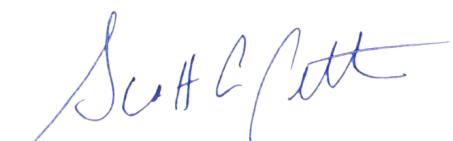
Whenever we sit down to put together the year's annual report, it is the perfect opportunity to look back on the year's work. It's a chance to celebrate our successes and recognize areas for improvement. One thing that becomes clear is the sheer hard work and dedication our employees bring to the table. At the end of the day, we care about more than just the quality of the water we deliver, the waste we treat, or the infrastructure we manage.

We care about the **quality of life** of all those in Nashville and we do not take our responsibility lightly.

2024 saw some incredible strides across Metro Water Services. Phase 2 of the 8th Avenue Reservoir historic rehabilitation is well underway, we've completed numerous upgrades at KR Harrington, and have embarked on a project to advance treatment processes at Omohundro. We continue to bring sustainability to the forefront of our work through our solar projects and tree plantings. There's only more to come as we enter 2025.

As we begin a new year, our mission remains the same— to supply, treat, and manage our resources in a sustainable manner for the benefit of all who live, work, and play in our community. We will continue to prioritize quality service while staying ahead of the curve through projects and process advancements. I encourage you to stay informed of our programs and monitor our progress by liking and following **@NashvilleMWS** on Facebook, Instagram, X, and LinkedIn.

This year has seen the culmination of years of hard work and the beginning of more exciting projects to come. It is my pleasure and honor to present to you this year's annual report.



Scott A. Potter, Director

ABOUT US

Nashville has had a public water system supplied by the Cumberland River since 1833. The water treatment and distribution facilities have grown gradually and have been expanded and upgraded to meet the needs of the community, as well as to comply with increasingly stringent water quality and public safety laws and regulations.

Metro Water Services provides public water (treatment and distribution) and wastewater (collection and treatment) services to customers located in Nashville/Davidson County and portions of five surrounding counties: Robertson, Rutherford, Sumner, Williamson, and Wilson. We provide stormwater and waste services for customers located in Nashville/Davidson County (526 square miles). The public drinking water system is also a vital part of the fire protection in the community. Along with these responsibilities, Metro Water Services also manages the Metro Nashville District Energy System (NDES). NDES delivers heat, ventilation, and air conditioning to buildings in the downtown corridor through a series of closed-circuit pipe systems carrying chilled water and steam.

Metro Water Services' Water, Sewer and Stormwater divisions are Metro enterprise operations, meaning that they are funded through the revenues generated from services provided to customers, and that the agency does not receive general tax funds to support their capital or operating and maintenance budget. Waste Services is separately funded through Urban Services District property taxes. Metro Water Services and Waste Services funds are maintained separately. NDES activities are funded solely from fees/rates from the Customers of the system and revenues generated from the general government.

1833

The city's Water Works was inaugurated, consisting of a reservoir and a steam driven pumping station

1889

8th Avenue Reservoir is completed at a cost of \$364,525

1889

The historic George Ryer Pumping Station is constructed

1961

Robert L. Lawrence Filtration Plant is completed

1958

Central Water Reclamation Facility is completed

1929

Dry Creek Reclamation Facility is completed

1963

Metropolitan Government of Nashville & Davidson County inaugurated and The Department of Water and Sewerage Services is created

1975

Whites Creek Reclamation Facility is completed

1978

K.R. Harrington Water Treatment Plant is completed



More than **3,000** miles of pressurized water mains, **35** reservoirs, **55** water pumping stations, and over **22,000** fire hydrants provide water supply and protection to approximately **226,500** customers (accounts). Finished drinking water is provided by **two** water treatment plants, R.L. Lawrence (Omohundro) which is rated for **90 million** gallons per day (MGD) and K.R. Harrington, rated for **112** MGD.



Stormwater services are provided for Nashville/Davidson County, covering **526** square miles. Nashville has the fourth largest municipal separate storm sewer system (MS4) in the nation with more than **71,000** inlets, **15,000** outfalls, and **1,300** miles of culverts.



Wastewater is collected by means of over **3,200** miles of sewer lines and **117** sewer pumping stations. Wastewater treatment is provided to approximately **229,500** customers (accounts) by **three** water reclamation facilities; Central, Dry Creek and Whites Creek. On average **151 million** gallons of sewage is treated per day.



Curbside trash and recycling services are provided to more than **144,000** curbside customers. Residents without curbside recycling services are able to use one of our **7** recycling drop-offs and all Davidson County residents have access to dispose of excess residential trash, bulky items, recyclables, compostables, hard to recycle items like mattresses and electronics, and other waste items at one of our **4** convenience centers.



At the Metro Nashville District Energy System's facility, natural gas and electricity are used to produce steam and chilled water. The steam and chilled water is then distributed through an approximately **97,400** feet of underground pipes to **21** customers across **42** locations in the downtown area.

Director

Legislation

Deputy Director
of Operations

Customer
Care

Development
Services

Engineering

Human
Resources

Business &
Finance

Waste
Services

System
Services

Stormwater

Water
Operations

Wastewater
Operations

XYLEM VUE

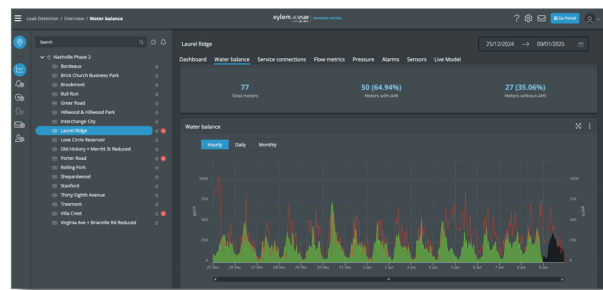
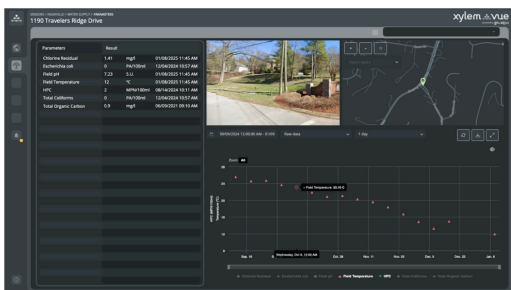
Managing a complex water distribution system with over 3,000 miles of water main, 35 reservoirs and 55 water pumping stations, can be challenging. Ensuring proper water pressure, water age, reservoir turnover, and chlorine residual is essential to our community's health and quality of life.

Meeting the above needs requires a commitment to innovation and sustainability in managing our city's water resources. This led us to expand our adoption of Xylem Vue, a cutting-edge software and analytics platform that will further support our proactive approach to optimizing our water operations. This expansion marks a significant milestone in our ongoing mission to improve customer service while minimizing cost and environmental impact.

Through advanced algorithms and machine learning, the Xylem Vue platform gives us the ability to create a network-wide digital twin that displays operating conditions, even in areas where there are no sensors – helping us to diagnose potential issues in the distribution system and optimizing operations to ensure the highest water quality.

This tool has already shown its benefit. Utilizing Xylem Vue, Metro Water Services found that lower water usage in a specific area led to water age in a reservoir being higher than preferred. Armed with this insight, operators made tank fill adjustments, lowering the tank fill limit. With the ability to access and monitor real-time data, operators were able to confirm that the water age in the tank decreased, resulting in higher water quality. Thanks to this kind of advanced modelling, coupled with the digital twin, we continue to proactively ensure delivery of safe, high-quality drinking water to our community, prevent system disruptions and increase customer satisfaction.

By expanding our use of the Xylem Vue platform to enhance our existing system and more efficiently access and utilize network data, we are increasing our capability to make proactive, data-driven decisions that ensure a safe and reliable water supply for our residents.



8TH AVENUE RESERVOIR HISTORIC REHABILITATION

The 8th Avenue Reservoir is a treasured icon that overlooks Nashville. Originally constructed in 1889 and known as the City Reservoir, it has provided fire protection and drinking water to Nashville residents for 135 years. The reservoir was divided into 2 chambers by a center wall, each holding 25.5 million gallons. The west chamber was taken offline in 2004 and for almost 20 years, downtown Nashville relied on the eastern 25.5-million-gallon tank for their drinking water and fire suppression supply.

In 2015, Metro Water Services decided to design and build a dual-chambered, 35-million-gallon, baffled, drinking water storage tank within the walls of the historic reservoir.

Phase 1, construction of a 15-million-gallon concrete tank within the walls of west chamber was completed in spring of 2023.

Upon completion of Phase 1, the eastern chamber of the reservoir was drained and taken out of service to begin Phase 2, the construction of a 20-million-gallon concrete tank that will connect to the first tank, and removal of the center wall between the original chambers.

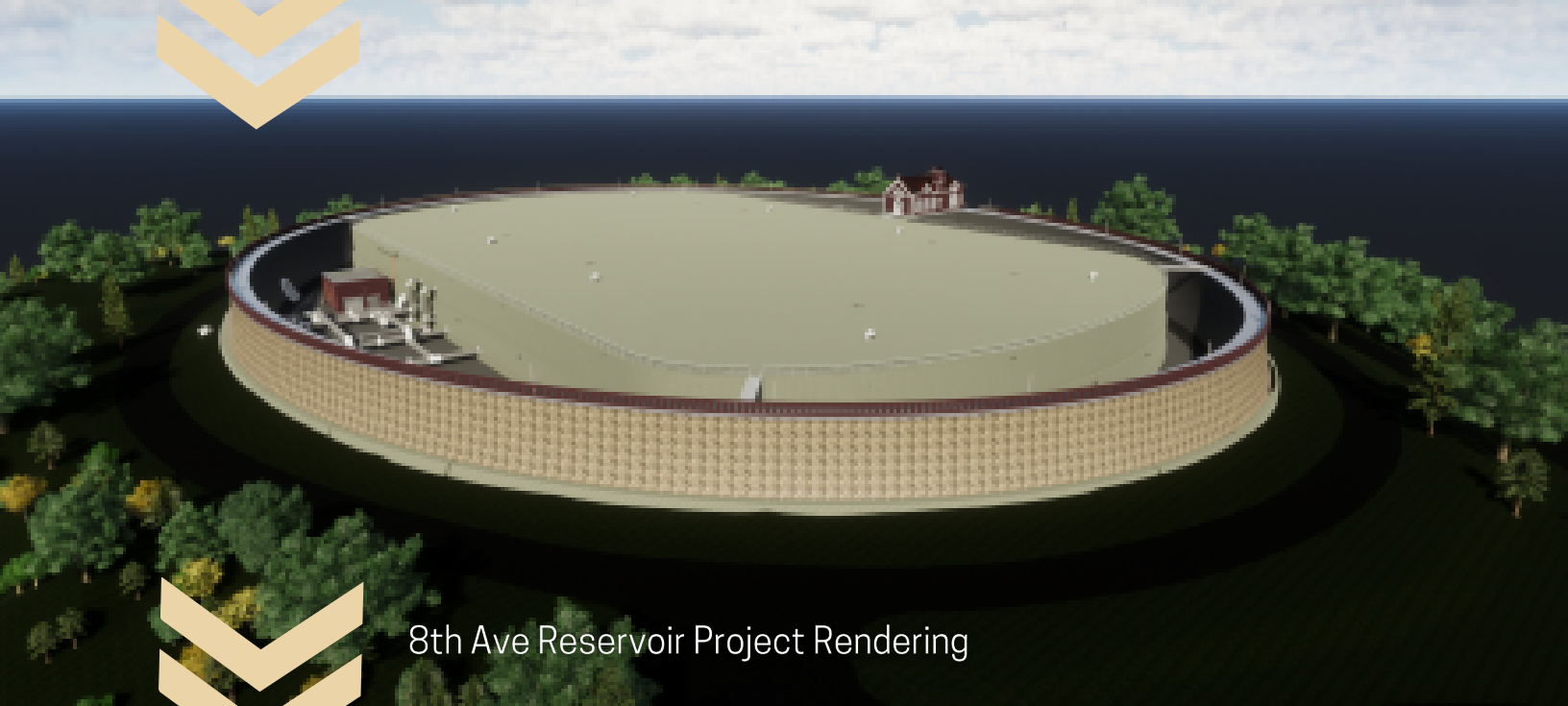
In 1912, the eastern half of the reservoir wall failed due to shifting soils causing an immense amount of property damage. Completely taking the old reservoir out of service was a tremendous milestone for the city and the risk of a repeated flooding catastrophe was eliminated with new infrastructure constructed on almost 800 micropiles (combined) drilled into bedrock.

Phase 2 is progressing well and will be complete in early 2025. The 2 new tanks will safely provide 35 million gallons of drinking water storage capacity for the city. The reduced storage capacity allows for better water turnover and the new concrete tanks have baffled walls allowing for better water movement. Both features help improve water quality.

Phase 3 will consist of a new entry building, restoration of the historic gatehouse that sits above the reservoir, and site beautification to preserve this gem for Nashville and the generations to come. It is anticipated to begin in 2026.



8th Ave Reservoir, constructed in 1889



8th Ave Reservoir Project Rendering



8th Ave Reservoir, 2024



UPGRADES TO KR HARRINGTON

Metro Water Services' K.R. Harrington Water Treatment Plant (KRH), built in 1978, works with the historic Omohundro Water Treatment Plant to supply drinking water to the city of Nashville. Both KRH and Omohundro utilize a conventional water treatment process and have a capacity of 90 million gallons per day (MGD).

The 18 filters at KRH began showing signs of their age and a filter condition assessment was done by Carollo Engineers in 2021. This assessment led to a project that rehabilitated and modernized all 18 filters, with the goal of less operation and maintenance attention. Additionally, it was decided that the existing filters will be converted to post-filter granular activated carbon contactors in the future to address more stringent regulations on contaminants of emerging concern such as per- and polyfluoralkyl substances (PFAS), etc.

The original filters were conventional granular filters with layers of gravel, sand & anthracite on a ceramic tile underdrain. The new filters utilize a nozzle-based monolithic underdrain provided by Orthos Liquid Systems – a concrete tile floor with sleeves cast into the concrete and filter nozzles designed to meet our filter specifications installed on the sleeves. This design allows us to alter the filter nozzles to maintain compatibility with any new filter media designs that may be desired in the future.

The project was constructed by Sundt Construction and began in February of 2023. Throughout construction, KRH remained in operation and met all State and Federal drinking water regulations. This required intricate construction sequencing that required modification throughout the project. The project will be officially complete in August when all 18 of the upgraded filters will be service.

The project resulted in longer filter runs (time between filter backwashing/cleaning) and the ability to treat additional water. Capacity at KRH has now increased from 90 MGD to 112 MGD.

Don't take our word for it! Sign up for a tour of KRH and see it for yourself.



The new filters utilize a nozzle-based monolithic underdrain provided by Orthos Liquid Systems - a concrete tile floor with sleeves cast into the concrete and filter nozzles designed to meet our filter specifications installed on the sleeves.

PROCESS ADVANCEMENTS

Utilizing the results of the Pilot Plant highlighted in the 2020 Annual Report, Metro Water Services has embarked on a project to advance our treatment facilities to continue to provide high quality drinking water to the city of Nashville well into the future.

Construction for process advancements began at the Historic Omohundro Water Treatment Plant in February of 2024 with an anticipated completion date of 2035.

- 1 Increase water treatment capacity by 67%
- 2 Build a water system for future risks
- 3 Protect Nashville's drinking water supply from extreme weather events, including flooding
- 4 Replace aging infrastructure systems with modern facilities
- 5 Provide water quality advances beyond the existing treatment process

New state-of-the-art pumping, flash mix, flocculation, sedimentation, filtration, clearwell storage, and chemical facilities will replace old infrastructure, some dating back to 1888. To address contaminants of emerging concern and meet increasing regulatory demands, an advanced treatment process will also be added—granular activated carbon (GAC) contactors. The use of post-filter GAC contactors will provide improved protection against taste and odor compounds and emerging contaminants that are difficult to remove with conventional processes. In addition to treatment process improvements, the treatment capacity will be increased by 67% from 90 million gallons per day (MGD) to 150 MGD. Additionally, flood mitigation measures will be included in the project to protect the facility from future floods.

To learn more about the project and watch us advance, visit the website at advancingmwwater.org.

The Central Dog Park is an idea that formed through the community meeting process with the Historic Germantown and Salemtown neighborhoods.



CENTRAL WRF UPGRADES

Metro Water Services undertook a major upgrade of its Central Water Reclamation Facility (WRF) to address critical needs, including reducing Combined Sewer Overflow (CSO) discharges, maximizing treatment capacity, improving operational efficiency, and enhancing community relations. The project significantly increased the facility's peak capacity from 330 million gallons per day (MGD) to 410 MGD.

The upgrade aimed to:

- Reduce CSO discharge frequency and volume.
- Maximize secondary treatment capacity during wet weather.
- Reduce energy consumption.
- Improve the operability of a complex facility.
- Eliminate on-site gaseous chlorine storage.
- Reduce debris accumulation from wipes.
- Enhance community relations.

The Central WRF faced numerous operational challenges due to multiple expansions since its initial construction in 1958, resulting in mismatched clarifiers, complex return activated sludge (RAS) systems, inaccurate flow splitting, limited automation, poor oxygen transfer in aeration basins, inefficient grit removal, and the storage of hazardous gaseous chlorine. Prior to this latest upgrade, it was imperative for Metro Water Services to identify key areas for upgrades through modeling testing leading to the identification of over 100 MGD of additional peak capacity through strategic improvements.

Key upgrades include:

- **New Headworks Building:** A new capacity headworks building replaced two existing structures, consolidating grit and debris removal into a single, more efficient location with an improved screening process.
- **Aeration System Improvements:** An anaerobic selector was installed to improve sludge settleability. Fine bubble aeration technology replaced the previous system, significantly improving oxygen transfer and reducing energy consumption.
- **Pumping Station and Sedimentation Enhancements:** The Central Pumping Station's capacity increased from 160 MGD to 240 MGD. Primary and secondary sedimentation processes were improved, including the complete replacement of some secondary clarifiers.
- **Disinfection Upgrade:** Gaseous chlorine disinfection was replaced with ultraviolet (UV) disinfection for secondary effluent and sodium hypochlorite for wet weather flow, eliminating a major safety and community concern.

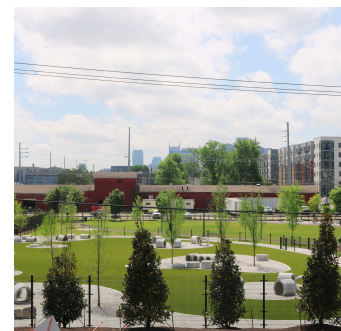
The project delivered significant benefits. The Central WRF now achieves a peak treatment capacity of 410 MGD. The implemented upgrades addressed long-standing operational challenges, simplifying control and improving treatment consistency. Energy conservation was achieved through fine bubble aeration and UV disinfection. Increased solids capture supports greater biogas production at the Central Biosolids Facility.

In addition to operational benefits, Metro Water Services worked with the resident of Germantown and Salemtown to meet longstanding community needs. The project included a new community walking path, recreation area, improved bus stops, lighting and the Central Dog Park. The Central Dog Park is an idea that formed through the community meeting process with the Historic Germantown and Salemtown neighborhoods to bring collaborative planning and design to the Treatment Plant Capacity Improvements and Combined Sewer Overflow Reduction project.

The Central WRF upgrade represents a significant investment in Nashville's wastewater infrastructure, providing long-term benefits for the environment, the community, and the city's water services. The project resulted in several awards recognizing the efforts of Metro Water Services staff and contractors in the planning and construction: Clean Water Technology Award and the Project Excellence Award from the Kentucky-Tennessee Clean Water Professionals and The Grand Conceptor Award, from the American Council of Engineering Consultants (ACEC).

The Grand Conceptor Award is the highest project honor given by the ACEC at the Tennessee Engineering Foundation. The annual Engineering Excellence Awards competition recognizes engineering firms for projects that demonstrate an exceptional degree of innovation, complexity, achievement and value. The project that is selected is meant to represent the single best project in Tennessee for the year.

The project was delivered under budget, allowing for additional upgrades, such as the full replacement of all secondary clarifiers. The cost per gallon of added capacity was significantly less than constructing new equalization storage. The \$400 million upgrade of the Central WRF will help prepare Nashville to grow into the future and better protect the environment, while improving quality of life for all who live and work here.



20 YEARS OF NDES

Metro Water Services and the Nashville District Energy System (NDES) Energy Generating Facility commemorated 20 years of providing alternative heating and cooling services to Nashville's downtown core with a proclamation and open house in December 2023.

Operated by Constellation Energy Services, the NDES facility has provided Nashville customers with a greener alternative for their heating and cooling needs, while reducing energy demands since December 2003. NDES has been managed by MWS since 2020.

The process uses steam and chilled water to meet the heating and cooling needs of 42 customer buildings in Nashville's downtown core and on the East Bank from a centralized location. This allows for its customers to eliminate the need to have onsite HVAC units, boilers, furnaces, or the need to use fuel or electricity in water heaters.


To accomplish this work, NDES uses natural gas boilers and electric chillers to deliver steam and chilled water to its customers. Utilizing 97,443 feet of pipe, NDES delivers steam and chilled water to its customers 24/7 with a 99.9% system reliability rate since 2006.

NDES also helps advance Nashville's sustainability with 70-80% of the steam being recycled and reuse of nearly 100% of the chilled water used for cooling.

For more information on NDES, please visit nashvilledistrictenergy.com.



Operated by Constellation Energy Services, the NDES facility has provided Nashville customers with a greener alternative for their heating and cooling needs, while reducing energy demands since December 2003



METRO WATER SERVICES Metro Nashville DISTRICT ENERGY SYSTEM Constellation

CONDENSER WATER PUMPS AND COOLING TOWERS



The chillers require refrigerant to be cooled as part their cycle. This process is accomplished using condenser water, a series of pumps, and cooling towers. The warm condenser water is pumped to the cooling towers where it is cooled down using fans and an evaporation process.

Facts: Warm water is pumped to the cooling towers and is cooled down using fans and evaporation. 18 cooling towers installed on the roof of this building. Five 350HP pumps circulate the water from the chiller to the roof.

Did you know? The DES helps advance Nashville's sustainability through its closed loop networks. In addition to 70-80% of steam being recycled, nearly 100% of the chilled water used for cooling is reused.

MWS SOLAR: A BEACON OF SUSTAINABILITY

In 2020, Metro Water Services embarked on a 4MW solar program that leveraged a unique approach of establishing a “solar services” contract to lease solar panels to avoid upfront capital costs while providing cheaper energy costs to offset operational expenses. This approach was the first of its kind in the Tennessee Valley Authority (TVA) service territory and won TenneSEIA’s “Solar Champion” award.

Recognizing the importance of renewable energy to reduce operational costs and minimize environmental impact, Metro Water Services’ solar efforts began 12 years ago with our first solar project, installation of a 50kW system on the roof of the Route Services building. Since then, we have steadily expanded solar capacity, committing to produce 10MW by the end of 2028. A very important step toward this goal has been the construction of multiple solar arrays, including a 437 kW (1066 panels) ground mount at the Central Water Reclamation Facility (WRF) and 949 kW (2314 panels) ground mount at the Whites Creek WRF.

However, the Omohundro South Campus solar field marks our most ambitious installation to date, with a design capacity of 2.6 megawatts of clean, renewable energy. The new ground-mounted array is designed to produce enough energy to offset the consumption of approximately 324 homes based on the Environmental Protection Agency’s (EPA) average home use per year (2023 data). This installation added 5,824 panels, bringing Metro Water Services’ total solar panel count to 10,246, enhancing the efforts of decarbonization one infrastructure at a time. In addition to the environmental benefits, these solar projects help stabilize energy costs for customers by reducing reliance on fossil fuels.

The official announcement of the Omohundro South Solar installation was celebrated in February of 2024. Honoring this crucial step toward a cleaner, more resilient community, Mayor O’Connell commented: “Projects like this one put us on the path to securing a clean and reliable energy future for Nashville.” Every year, we continue to highlight the significant role that Metro Water Services’ solar program will play in shaping a more sustainable and energy-efficient Nashville. Our efforts are celebrated in all TVA service territories, with every project significantly reducing reliance on the grid during summer peak demand periods, an important step toward Metro’s 100% renewable energy standard.

PLANTING ROOTS



Meet Eric Keuhler,
an International
Society of
Arboriculture (ISA)
Board Certified
Master Arborist. The
ISA Board Certified
Master Arborist
credential is the
highest level of
certification offered
by ISA. As of 2022,
there were a total of
1,000 master
arborists worldwide.
Metro Water
Services is incredibly
lucky to have Eric
and other highly
certified
professionals
working with us.

Trees play a crucial role in stormwater management. They reduce stormwater runoff by intercepting rainwater with their canopy and their root systems promote water absorption. Additionally, trees act as living filters, removing pollutants from stormwater, thus improving water quality, and protecting our waterways. This is why Metro Water Services is Metro's lead campaign partner for Root Nashville, a public-private campaign, led by Metro Nashville and the Cumberland River Compact, to plant 500,000 trees across Davidson County by 2050. Every tree planted in Nashville acts as stormwater infrastructure; therefore, our commitment to urban forestry goes far beyond the success of the Root Nashville program.

In addition to reducing stormwater runoff and improving water quality, trees provide a multitude of other benefits including wildlife habitat, reducing the urban heat island effect, mitigating air pollution, carbon sequestration, and increased property values. Tree benefits increase as trees grow, highlighting the importance of providing ongoing maintenance of larger trees. Metro Water Services has an Urban Forestry team of 7 members who are passionate about their work.

Street trees provide \$9.85 million in environmental, economic, and social benefits to our community each year. For every \$1 invested in our street trees, we realize a benefit of \$3. In FY 2024, nearly 3,000 trees were planted in Davidson County. 741 of these trees were planted through the Tree Bank, an account with funds used to plant trees on public properties. These funds are received from development projects that cannot meet their tree density requirements.

Beyond plantings and tree maintenance, our Urban Forestry team does so much more. They maintain our tree inventory, conduct the Urban Tree Canopy study, as well as monitor trees on Metro Water Services properties. They ensure newly planted trees are trained to grow in a way that maximizes canopy strength and water these trees for their first two summers to ensure establishment. Outside of the hands-on management of our tree canopy, the Urban Forestry team also takes care to educate the public on proper tree care. They provide helpful information through social media and our website, as well as staffing booths at events and sitting on the Metro Tree Advisory Committee. Caring for the environment is a team effort and the more people that participate, the bigger the benefits.

You can learn more about Nashville's trees by visiting our website: www.nashville.gov/departments/water/stormwater/tree-information.



SUSTAINABILITY MASTER PLAN

There are multiple ways in which Metro Water Services has contributed to Metro’s sustainability and resilience goals and its own triple bottom line in recent years. Sustainability initiatives have largely focused on what are known as *mitigation activities*—efforts that seek to reduce or eliminate the practices and trends that are contributing to the warming of the planet. These primarily comprise efforts to reduce greenhouse gas emissions from fossil-fuel-based energy generation and traditional vehicle internal combustion engines, as well as building and appliance design optimization to reduce energy consumption and waste generation.

Resilience activities have focused on *adaptation actions* that result in hardening and modifying infrastructure and systems to better withstand impacts from climate hazards and respond and recover more quickly. These have included the installation of on-site, distributed generation power systems that are not subject to grid outages; modification to building design to account for increasing flood levels; creating contingency plans and emergency response protocols that are specifically focused on climate risk scenarios; and increased use of green infrastructure to better manage stormwater runoff during extreme rain events. Environmental protection activities, which contribute to both sustainability and resilience goals, are also highlighted in the department’s achievements.

The table on the following page provides summarized highlights of the achievements realized to date, which have delivered economic, social, and/or environmental benefits to the department and its customers.

Initiative Name	Outcomes and Benefits Realized to Date
On-site Solar Generation	4.9 MW installed \$224,500 electrical cost saved to date
Biomethane Gas Onsite Usage	11,000,000 lbs CO2 emissions reduced; \$1,353,000/year energy cost savings
LEED Building Design and Construction	4 LEED Gold buildings
Lighting and HVAC Upgrades	\$193,000/year energy cost savings
Fine Bubbles at Dry Creek WRF	\$694,000/year energy cost savings
Alternative Filter Backwash Procedures	327.7 million gallons/year of water saved; \$57,000/year in energy cost savings
WRF Channel Aeration Optimization	\$158,000/year in energy cost savings
Biosolids: Diverting Waste Sludge from Landfill	\$5 million/year saved in disposal costs and energy; Revenue of approx. \$4 million by 2028 from sales of Music City Gold
Low Impact Development	Mandatory for new developments unless site limitations exist
Electrical Resilience and IP5 and ENEL X Participation	
The Home Buyout Program	470 homes purchased and removed from risk and 240 acres green space created
Expanding Metro's Tree Canopy	The Root Nashville campaign planted the 50,000th tree in December 2024
The Rain Barrel Program	Subsidized the purchase of over 3,500 rain barrels that can collectively intercept over 175K gallons of rain water
Water Quality Improvement Program	633 rain gardens, 55,212 trees planted, 137 stream segments adopted, 57,000 sq ft of impermeable surfaces removed, 401 stream clean-up events, and 2,810 feet of stream banks stabilized
Watershed Improvement Fund	Four water quality projects completed and one planned for FY26 completion
Soil and Water Conservation	In its 79th year, Davidson Co's SWCD served our mission to empower landowners with technical planning and cost-share options to improve their land management for agricultural production. In 2024, we partnered with federal, state, and local groups to educate ~ 9,000 residents. 13 contracts were completed with \$202,469.64 paid in cost-share for BMPs, and 557 total acres impacted.
Visual Stream Assessments	Over 240 miles of impaired streams assessed
Every Other Week Recycling	25% increase in material recycled curbside 2470.5 increase in tons total to date month over month
MWS Staff Compost Collection	6.67 tons (13,340 lbs) diverted to date

2,921 trees planted



974 trees maintained



2,461 stormwater requests



42 capital projects completed



1,853 work orders completed

Fleet



612 vehicles

Stormwater



2,794,890 customer bills generated



9 wholesale customers



753,302 calls taken



269 pieces of legislation filed

Customer Care & Admin

BY THE NUMBERS

335 adults reached through tours



Over **3,000** students reached



170 events attended



Outreach

Laboratory



Average of **67** daily samples



24,523 total samples taken



22,025 public fire hydrants in service



601 water main breaks



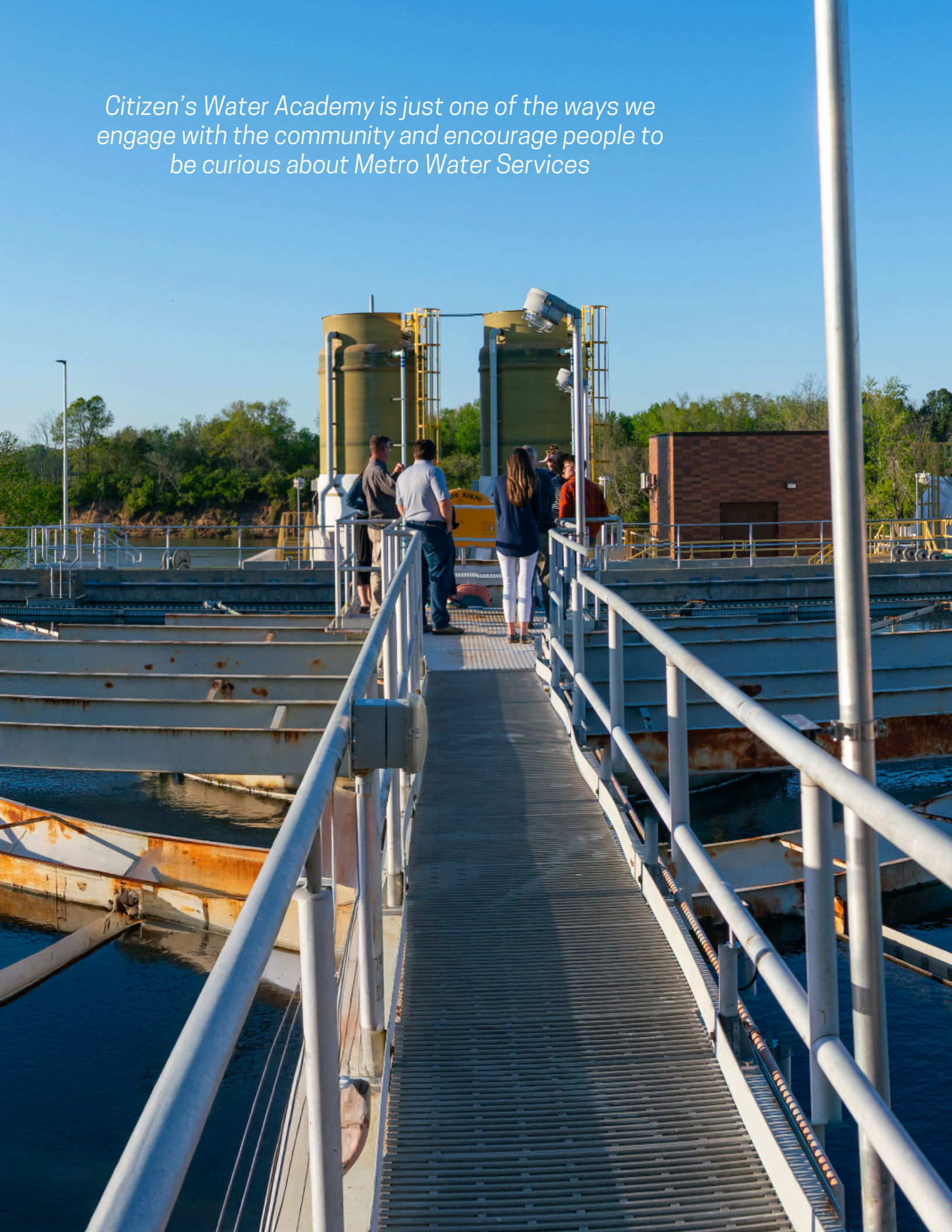
20 water main breaks per 100 miles of pipe

System Services

The data presented here reflects the initiatives and hard work delivered by MWS to maintain a high quality water program.



Citizen's Water Academy is just one of the ways we engage with the community and encourage people to be curious about Metro Water Services



FINANCIALS

Management of the Metropolitan Government of Nashville and Davidson County (the “Metropolitan Government”), Department of Water and Sewerage Services (the “Department” - an enterprise fund of the Metropolitan Government), offer readers of the Department's financial statements this overview and analysis of the financial activities of the Department for the fiscal year ended June 30, 2024. This information should be read in conjunction with the Metropolitan Government’s audited financial statements.

The Department provides water and sewerage service to most of Davidson County, Tennessee, and small portions of the surrounding counties. It serves approximately 227,000 water accounts and 230,000 sewer accounts. Activities are funded entirely from revenues generated from its operations, with no tax revenues from the Metropolitan Government. A covenant with bondholders provides assurance that there will be adequate funds for necessary major repairs and replacement of facilities, by requiring revenues to equal at least 110% of the sum of the year's operating budget (exclusive of depreciation and certain other expenses) and the debt service on its outstanding revenue bonds. These monies, not required for normal operations, flow into the Surplus Fund to be used to finance ongoing capital requirements of the Department, as supplemented with revenue bonds.

In January of 2024, water and sewer rates were increased for the fourth consecutive year. Ordinance BL2019-045, which was adopted by the Metropolitan Nashville Davidson County Council on December 10, 2019, outlines the rate structure and four annual rate increases followed by increases based on the annual consumer price index. In accordance with Ordinance BL2019-045, water and sewer rates were increased by in January of 2025 the greater of 2% or the increase in the CPI-U which at the time was 2.6%.

At June 30, 2024, assets and deferred outflows of the Department were \$3.5 billion and exceeded liabilities and deferred inflows by \$1.8 billion (total net assets). In 2024, unrestricted cash and cash equivalents increased by approximately \$7.3 million to \$123.6 million, and restricted cash/cash equivalents decreased by approximately \$39.1 million. These changes were a result of spending the 2021 bond proceeds on Consent Decree related projects and offset by increased water and sewer rates. For 2024, capital assets increased by approximately \$345.6 million, before depreciation expense of \$108.0 million, for a net increase of \$237.6 million. These assets were acquired using revenues of the Department, revenue bonds, commercial paper, grants, and contributions.

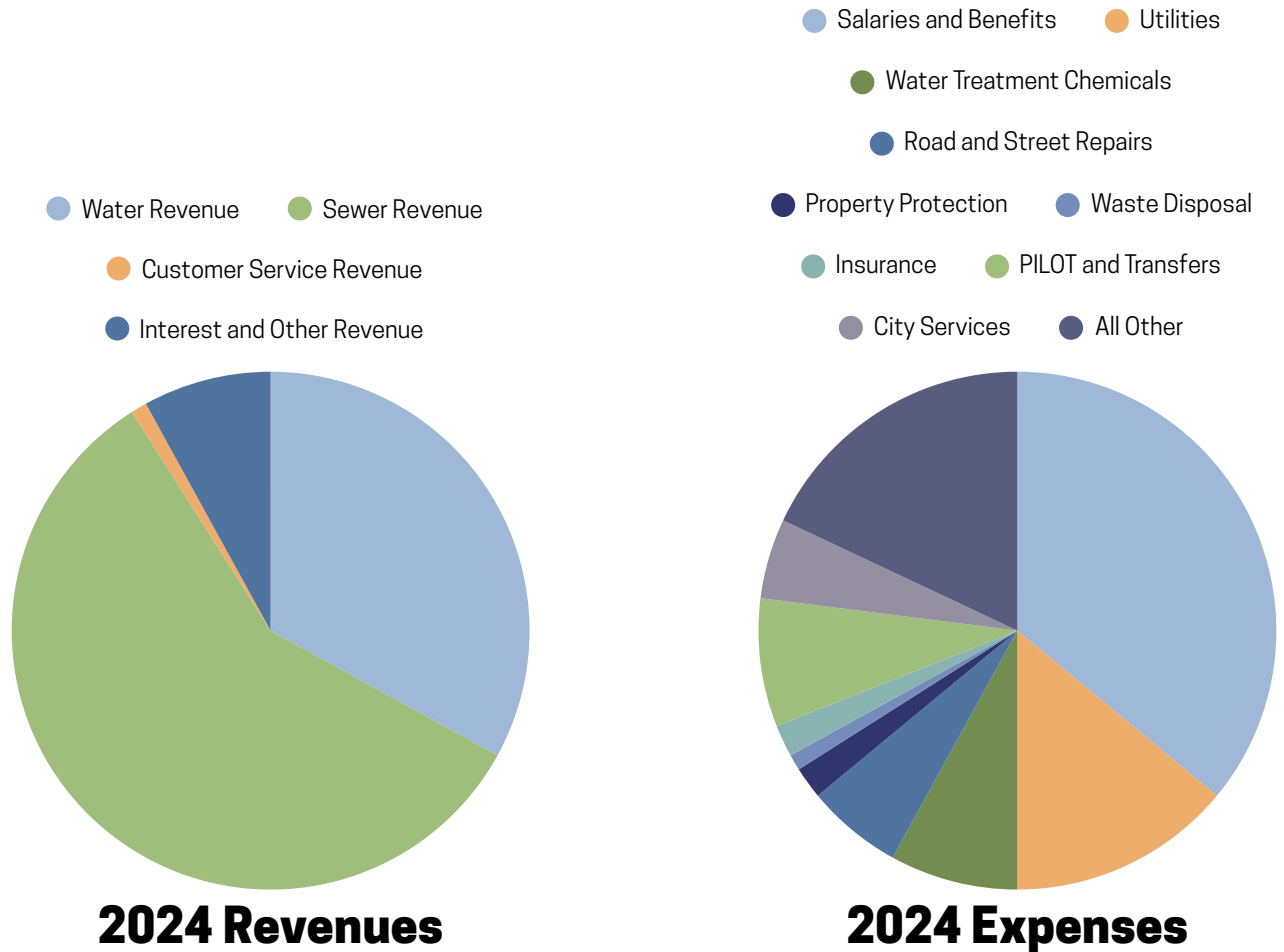
In 2024, the rate increase, and continued economic development positively impacted operating revenues of \$375.9 million, an increase of \$10.8 million as compared to 2023. Operating expenses for 2024 were \$287.2 million, an increase of \$25.3 million from 2023 mainly driven by three factors: increases in contractual services, increases in personnel costs, and finally increases in depreciation expense. Contractual Services increased by \$7.3 million due to current economic conditions, new contracts, and increased utility costs. The \$10.1 million increase in personnel services was due to increases in employee salaries realized beginning July 1, 2023. Finally, the Department capitalized \$90.4 million in assets during fiscal year 2023, the depreciation from which greatly contributed to increased annual expense of \$5.6 million to \$108.0 million in fiscal year 2024. The Department ended 2024 \$5.6 million under its operating budget of \$183.7million. Investment income increased from \$191.6 million in 2023 to \$21.3 million in 2024, following a period of increased interest rates and capital grants and contributions decreased \$6.0 million to \$46.1 million in 2024.

Statements of Net Position
Condensed Financial Information as of
June 30, 2024

	2024	2023
Total current assets	\$ 306,340,823	\$ 270,719,626
Total capital and other non current assets	3,204,622,191	3,010,634,879
Total assets	<u>3,510,963,014</u>	<u>3,281,354,505</u>
Deferred charge on refunding	15,762,979	17,630,947
Pensions	15,382,458	14,236,872
Total deferred outflows of resources	<u>\$ 31,145,437</u>	<u>\$ 31,867,819</u>
Total current liabilities	\$ 405,938,852	\$ 254,984,163
Total noncurrent liabilities	1,311,798,842	1,344,543,282
Total Liabilities	<u>\$ 1,717,737,694</u>	<u>\$ 1,599,527,445</u>
Pensions	\$ 1,582,141	\$ 2,013,359
Total deferred inflows of resources	<u>\$ 1,582,141</u>	<u>\$ 2,013,359</u>
Total net Position	<u>\$ 1,822,788,618</u>	<u>\$ 1,711,681,520</u>

Statement of Revenue, Expense, and Changes in Net Position
June 30, 2024

	2024	2023
Operating revenues	\$ 375,895,121	\$ 365,119,079
Depreciation (expense)	(107,997,666)	(102,429,938)
Other operating (expenses)	<u>(179,223,491)</u>	<u>(159,494,600)</u>
Operating income	88,673,964	103,194,541
Investment income	31,165,461	19,668,842
Interest expense	(48,111,714)	(38,567,737)
Other	812,531	493,681
Capital grants and contributions	72,542,773	52,051,546
Transfers to other funds of the Metropolitan Government, net	<u>(2,480,316)</u>	<u>(2,786,621)</u>
Change in net Position	116,139,333	134,068,308
Net Position, beginning of year	<u>1,577,613,212</u>	<u>1,577,613,212</u>
Net Position, end of year	<u>\$ 1,693,752,545</u>	<u>\$ 1,711,681,520</u>

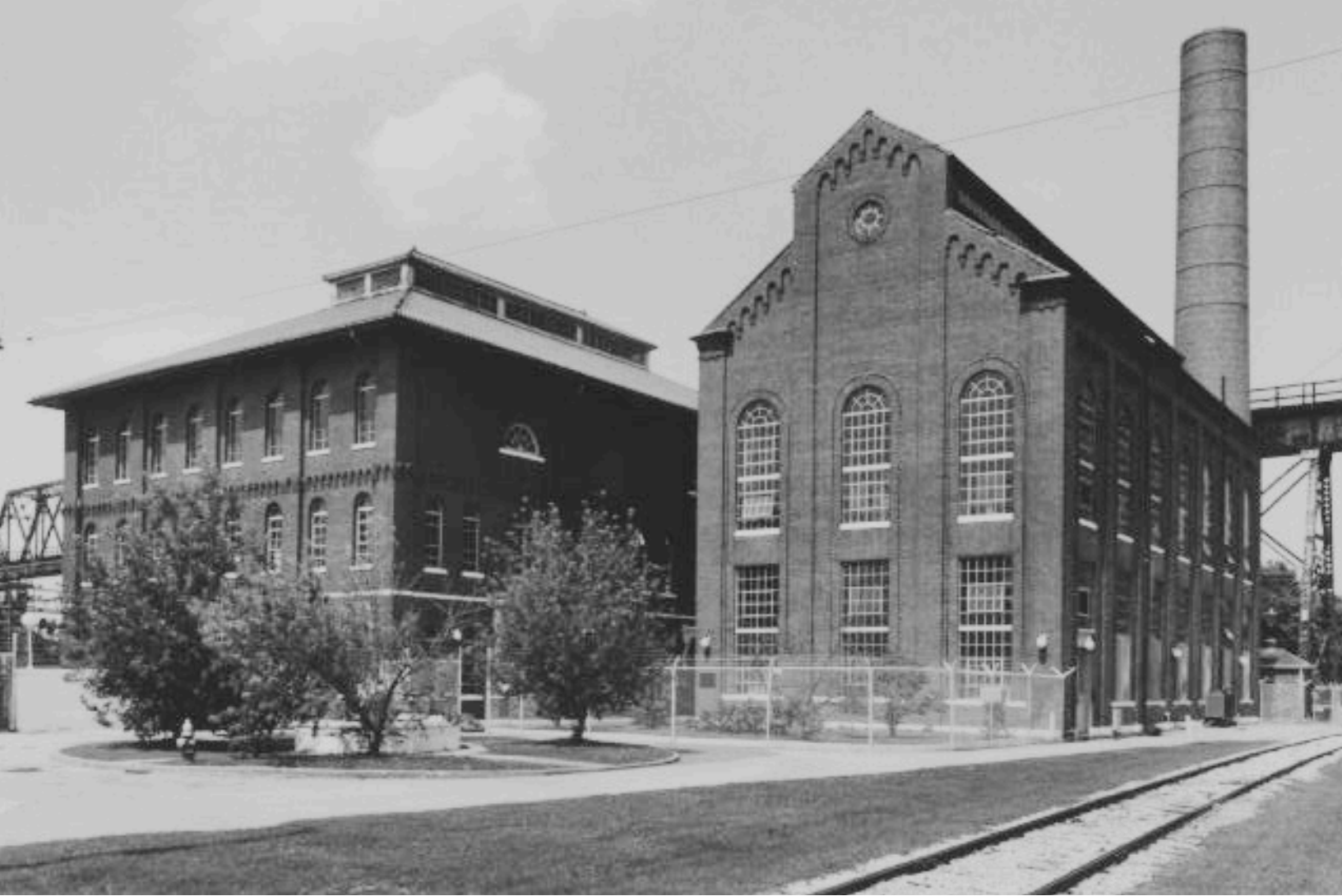


In 2009, the Metropolitan Government established a Stormwater Division of the Department as a stand-alone enterprise fund with its own set of service fees, which are now an itemized part of the water bill. Stormwater operations is funded solely through stormwater fees and any associated bonds supported by those fees. This financial statement does not include stormwater.

On July 1, 2020, the Department assumed management of the Metropolitan Government of Nashville Davidson County District Energy System (NDES). NDES delivers heat, ventilation, and air condition to buildings in the downtown corridor through a series of closed-circuit pipe systems carrying cooled and heated water. DES activities are funded solely from fees/rates from the Customers of the system and revenues generated from the general government.

On July 1, 2021 the Department assumed management of the Metropolitan Government of Nashville Davidson County Waste Services activities which includes resident recycling and waste collection in the Urban Services District, commercial trash collection in the downtown corridors, county-wide refuse collection convenience centers and drop off points, and oversight of the county’s closed landfills. Waste Services activities are funded solely from Solid Waste fees and revenues generated from the general government.

Please note that information is a summary and does not contain all of the information available in the full Comprehensive Financial Annual Report at www.nashville.gov/departments/finance/division-accounts/comprehensive-financial-reports



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