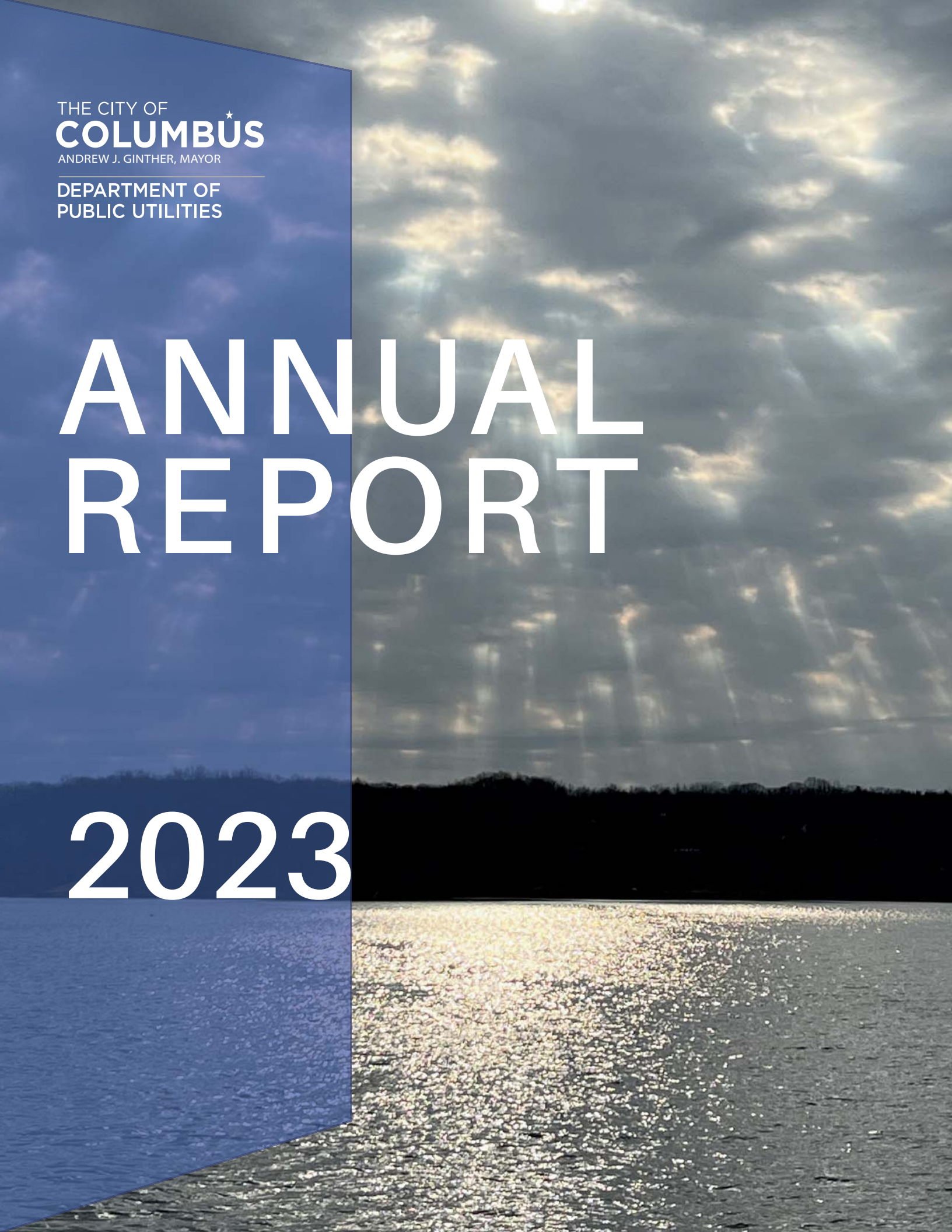


THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC UTILITIES

ANNUAL REPORT

2023



**DEPARTMENT OF
PUBLIC UTILITIES**



Andrew J. Ginther,
Mayor



Kristen Atha,
Director

**DEPARTMENT OF
PUBLIC UTILITIES**

- Kristen Atha, Director
- Kristian Fenner, Administrator, Division of Power
- Rob Priestas, P.E., Administrator, Division of
Sewerage and Drainage
- John Newsome, P.E., Administrator, Division of Water

2023 COLUMBUS CITY COUNCIL



From left to right in photo: Mitchell Brown, Lourdes Barroso de Padilla , Emmanuel Remy, Shannon Hardin (President), Nicholas Bankston, Shayla Favor, Rob Dorans, Public Utilities Committee Chair and President Pro Tempore

2023 COLUMBUS SEWER AND WATER ADVISORY BOARD

- Steven Gladman, Chairman
- Megan Kilgore, City Auditor
- Kathy Owens, Director, Department of Finance and Management
- Kristen Atha, Director, Department of Public Utilities
- James Bowman
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FROM THE DIRECTOR

Pride and anticipation -- those are the words in my thoughts when I reflect on 2023 and look ahead to 2024. We accomplished much, due to the excellent planning our department is known for and our staff coming together as a team. I'll highlight just some of our accomplishments during this year.

The Enhanced Meter Program began large-scale installation in early 2023, which will bring many benefits to our customers. Installations by contractors will continue through 2026. The project will touch every customer, replacing over 300,000 city water and power meters in Columbus and our contracting suburban communities.

A significant milestone for the Division of Sewerage and Drainage's (DOSD) Lower Olentangy Tunnel was in November with the completion of the southern portion of what will be a 3.2 mile long, 12 foot diameter sewer. It will relieve capacity issues and reduce sewer overflows northwest of downtown. Final completion of the project is expected at the end of 2026.

Our Division of Water (DOW) team continued design work of the long-planned fourth water plant in southwestern Delaware County near the Scioto River.

The DOW and our Regulatory Compliance staff were also preparing for upcoming new federal regulations on lead as well as per- and polyfluoroalkyl substances (PFAS) for all water operators. To help prevent our ratepayers from bearing potential costs, Columbus joined other cities in filing a lawsuit against manufacturers using what have become known as "forever chemicals."

Our smart street lighting project began in the Division of Power (DOP), which will replace all city streetlights with LED (light emitting diode) and provide a central control system. These upgrades will bring many environmental and efficiency benefits like energy savings and on greenhouse gas production.

Our Sustainable Columbus team continues to position our city as a national sustainability leader. Columbus was selected as one of the Bloomberg American Sustainable Cities (read more on page 4).

Many awards were received this year, a testament to our staff dedication:

- The Ohio Environmental Protection Agency (OEPA) recognized Columbus with the Encouraging Environmental Excellence Gold Level award. It recognized the city's excellence in environmental compliance, climate and sustainability policies and programs. Councilmember Emmanuel Remy and I joined Sustainable Columbus to accept the award from Ohio Environmental Protection Agency Director Anne Vogel.



In photo: Vogel, Remy, myself, Alana Shockey and Mikhail Yahnitskiy (DPU), and Carolyn Pittman (city council).

- The National Association of Clean Water Agencies awarded our Jackson Pike Wastewater Treatment Plant a Platinum Peak Performance Award in 2023.
- Numerous employees shined at the One Water Conference, held in Columbus in 2023, taking home top honors for our Tapping Team, Hydrant Hysteria, the Top Ops competitions, a surveillance laboratory award, Volunteer of the Year, and several safety certificates.
- Our Division of Power was selected again this year to receive the Reliable Public Power Provider designation for their continued great work for our city power customers.
- The DOSD Surveillance Laboratory received accreditation from the National Environmental Laboratories Accreditation Program.

It was exciting to re-establish the Children's Water Festival in May. Over 500 local fifth graders learned about the importance of water and the environment at Franklin Park. Thank you to the many volunteers from our department and other agencies that make this event a success. Thanks also to our volunteers at the Race for Global Water in October, which raises money for countries that do not have good access to clean water.

I couldn't be more confident in our team to move our utility agency forward.

PROTECTING THE ENVIRONMENT

SUSTAINABILITY

Sustainable Columbus is the city's sustainability initiative that is based within the Department of Public Utilities. The goals are to impart equity and environmental justice through bold climate action, guided by the Columbus Climate Action Plan,



which commits our community to carbon neutrality by 2050 and a 45% reduction in emissions by 2030.

Transitioning to clean, renewable energy is a critical strategy within the plan. In 2023 Sustainable Columbus supported the Division of Power to celebrate the start of construction on two solar projects. These projects will generate 45 megawatts of electricity annually, enough to power nearly 5,000 homes. The



solar installations will increase the percentage of electricity sourced from renewables from 50-60% for city power customers, one step closer to the 100% clean energy goal.

The Division of Power continued its commitment to Mayor Ginther's sustainability goals by working with Sustainable Columbus on the Climate Action

Plan strategies. For the year, over 60% of the division's energy came from renewable resources, including a 50% green component through power purchase contracts and the EcoSmart Choice opt-in program, which offset 100 million kilowatt-hours of energy with zero-emission renewable energy credits. The division, along with its solar developer, brought a portion of the Parsons solar site online by the end of the year.

PUBLIC EDUCATION AND PARTNERSHIPS

In October, the city co-hosted the Cash in on Clean Energy Tour with the Mid-Ohio Regional Planning Commission (MORPC). Headlined by Gina McCarthy, the first White House Climate Advisor and former EPA Administrator and organized by America is All In, it was one of only three workshops held across the U.S. Director Atha is shown with McCarthy in the photo.

The GreenSpot program was established in 2008 to educate, inspire, and recognize members that adopt green practices. The program totaled 25,735 household, business members and community groups, seeing growth from social media campaigns, 52 tabling/presentations, and eight newsletters. The GreenSpotLight awards recognize organizations for outstanding sustainability practices. The large business award winner in 2023, White Castle, earned this recognition due to their sustainable redevelopment of its business headquarters that resulted in energy cost savings, reduced water consumption, composting, and the construction of green transportation infrastructure. MJ Design Associates received the medium business category award due to their recycling/composting program, installation of energy-saving technologies, and their utilization of RideShare. The small business award went to Energility due to their energy conservation initiatives, sustainable transit practices, and their business operations which reduced a total of 33,130 metric tons of carbon emissions.

The Department of Public Utilities has an agreement with Franklin Soil and Water Conservation District (FSWCD) to implement stormwater education programs for Columbus residents. 1,587 residents participated in the GreenSpot Community Backyards programs via 23 workshops. 815 rebates were given to residents who implemented a backyard conservation practice including 154 rain barrel rebates, three free rain barrel rebates to low-income residents, and 658 native plant/tree rebates. 177 compost bins were distributed, funded by the Solid Waste Authority of Central Ohio. The rebate program was expanded to provide reimbursement up to \$2,500 to organizations for installation of native plants and green infrastructure (see photo of Friends of the Homeless Community Garden on next page). There were three rebates provided for rain gardens installed on private properties. The Central Ohio Master Rain Gardener program completed its second year with 30 participants. Nine Columbus residents earned their Master Rain Gardener certification, building six rain gardens in Columbus.





The Get Grassy program reached 6,025 local residents and received 59 new pledges. The FSWCD continued to partner with local lawn care companies to help educate on the beneficial impacts proper lawn care can have on Ohio waterways.

The education programs reached 6,129 Columbus students. The FSWCD partnered with Lead the Way Learning Academy to provide water quality education and career guidance for 68 students at Horizon Science Academy in collaboration with OEPA, MORPC, Ohio Department of Natural Resources and the Friends of the Lower Olentangy River. A partnership with City Year Columbus provided mentorship for two college students considering careers in the environmental field.



The PUP (Pick Up Poop) program encourages pet owners to clean up after their pets, which helps protect stormwater quality. The PUP program was present at various community events, including partnering with the Franklin County Dog Shelter and Adoption Center and WAGfest. The program gained 484 new pledges in 2023, bringing the total to 7,895.

The DOW Watershed Management section strives to protect the watersheds and reservoirs which supply drinking water for the central Ohio area. The Watershed Management section uses a variety of approaches to protect these essential resources including shoreline litter cleanups, educational initiatives, as well as active management and restoration of the lands surrounding the reservoirs. Achievements included the restoration of over nine acres of city reservoir lands through the planting of nearly 2,000 native trees and shrubs. The restoration work recognizes the importance of trees and a healthy vegetative buffer surrounding the reservoirs shorelines. The Watershed staff continued to maintain over 26 recycling bins throughout the reservoir park access areas, as well as a number of fishing

line collection bins and educational signage which helps visitors learn ways in which they can protect water quality. The annual fall reservoir litter cleanup was attended by over 100 community volunteers. Additionally, staff maintained active educational outreach with presentations to area schools, summer camps, and an updated system of reservoir information kiosks.

REGULATORY COMPLIANCE

The department, our customers, and the community at large continue to benefit from improvements to our environmental programs made through the ongoing implementation of the Environmental Management System (EMS). As a fundamental component of the department's overall sustainability efforts, the program facilitates compliance with environmental regulatory obligations, such as the Safe Drinking Water Act, Clean Air Act, permits with OEPA, as well as achievement of environmental objectives and protection of natural resources. Maintaining high-level environmental performance requires the awareness and active participation of all staff and our business partners. The effectiveness of the department's efforts to continually improve environmental performance is assessed annually through internal auditing of compliance with our environmental regulatory obligations, as well as auditing our self-declared conformance of the EMS to the rigorous International Organization for Standardization (ISO) 14001:2015 EMS standard.

The Division of Sewerage and Drainage (DOSD) oversees non-point source stormwater pollution by administering permits with OEPA. 4,139 inspections of active construction sites, 533 inspections of post-construction best management practices, field screens of 660 storm sewer outfalls, and investigations of 252 reported spills or suspected illicit discharges to the storm sewer system were done. Inspections were made at 147 businesses for compliance. Fines totaling \$11,750 were issued for notices of violation.

The Industrial Pretreatment Program in DOSD monitors discharges from permitted industries into the Columbus sewer system to ensure compliance with clean water goals. Through a partnership with Columbus Public Health, food sanitarians performed 3,249 restaurant inspections. Pretreatment staff investigated five grease incidents, met with 10 food service establishments as part of the Fats, Oils and Grease (FOG) Reduction Program, and distributed 687 door hangers in neighborhoods. There was one notice of violation issued for FOG related issues in 2023 and no fines or cost recoveries were issued.

CAPITAL REINVESTMENT

DIVISION OF POWER

Streetlighting

Current standards for the City of Columbus require all new streetlights to be light-emitting diode (LED). Also, as existing lights fail, they are replaced with LED. The Smart Lighting project will convert all existing high-pressure sodium lights to LED as the project progresses. Over 10,000 streetlights are now LED, approximately 18% of the city's street lighting system of around 59,000 lights.

Progress on Smart Lighting projects continued:

- The Linden pilot area construction was completed and staff were working with the vendor on system integrations.
- Hilltop Phase one construction, which converts 3,794 street lights to LED and connects them to the smart lighting control system, was 75% complete and estimated to finish construction in 2024.
- Design for Smart Lighting Phase 2, on the southeast side of Columbus, was 95% complete and anticipated to start construction in 2025.
- Smart Lighting Phase 3 design was in the procurement phase and anticipated to start design in 2024.

O'Shaughnessy Hydro Turbine Facility Improvements

Construction at the O'Shaughnessy Hydro Turbine Facility Improvements project continued in 2023 and is now 75% complete. The turbines were being reassembled and final controls connections made, for substantial completion.

Columbus Power Distribution System Circuits

The division updates one underground and one overhead circuit annually to improve overall reliability. A 14041 Circuit Reliability Improvement project was completed in 2023. New switches and reclosers will provide the additional sectionalizing capability to reduce the number of customers without power during an outage. This circuit comes from our Furnace Substation just south of downtown and primarily travels east along Livingston Avenue, serving many customers on the east side of Columbus. In addition to selected pole replacements, much of the line was reconductored and multiple reclosers and fuses were added along the line for reliability benefits.



Parsons Avenue Solar Site

Along with its solar developer, DOP brought a portion of the Parsons Avenue solar site, on the grounds of DPU's Parsons Avenue Water Plant, online by the end of the year. See ground breaking event photos, top: Director Atha and Mayor Ginther in center, on left Assistant Director Derek Anderson, Deputy Director Alana Shockey and DOP Administrator Kristian Fenner; and with developer representatives on right. Middle photo: Fenner welcomes attendees; bottom: solar panels.

DIVISION OF SEWERAGE & DRAINAGE

Over the past year, the division made significant capital investments in the sewer collection system and wastewater treatment plants to ensure that the system works properly for the health and safety of our community while reducing environmental impact, and preparing for future needs.

Sewer System Engineering

Lower Olentangy Tunnel

As part of the requirements of the city's consent orders with the state in the Integrated Plan and the 2015 Wet Weather Management Plan Updated Report, a 17,000 linear foot, 12 foot diameter sanitary relief tunnel known as LOT has been



under construction from the upstream end of the previously constructed OARS (Olentangy-Scioto-Interceptor-Sewer {OSIS} Augmentation Relief Sewer) tunnel at Vine Street to Tuttle Park north of Lane Avenue. At Tuttle Park it will relieve flow from three existing sewers: Franklin Main, Olentangy Main and OSIS. A 90 inch diameter micro-tunnel will also be constructed to relieve OSIS and Franklin Main near Second Avenue,

and a 36 inch relief sewer will be constructed to relieve a Designed Sewer Relief (DSR) on the Kinnear Subtrunk on Third Avenue into LOT. Several milestones were met in 2023 at these sites:

- **Vine Street:** The excavation and blasting of the Vine Street shaft was completed (see photo with project manager Jeremy Cawley) and the upper section had the final walls and the upper base slab poured in preparation for receiving the tunnel boring machine (TBM).
- **Gowdy Field:** Work involved setting up, installing and commissioning the TBM for the southern portion of the tunnel. Once tunneling began in March, the operations changed to handling the spoils from the tunneling efforts and coordinating the supplies necessary for the machine's proper operation. Work also included the installation of the 36 inch Kinnear Subtrunk Relief sewer, and the remaining portion of the sewer within 3rd Avenue was completed via traditional open cut construction.
- **2nd Avenue:** Work involved relocating the existing utilities to allow for the construction of the two shafts near Bradley and Perry streets. Shaft construction began at Perry Street in March and both sites had their excavation completed by the end of the year.
- **Tuttle Park:** The contractor set up and completed the future shaft construction and excavation by the end of the year.
- **Tunneling:** The southern portion of the main tunnel began mining from the Gowdy Field shaft in March and was completed in November when the TBM broke into the Vine Street shaft. After the machine was removed it was relocated back to Gowdy Field to be reconditioned for beginning the northern portion of the tunnel in 2024 (picture below).



Rickenbacker Intermodal Sanitary Sewer Extension Project

The Rickenbacker Intermodal Sanitary Extension Project installed approximately 6,000 feet (15 - 24 inch) gravity sewer and eliminated the Rickenbacker pump station. The project utilized open-cut excavation for the majority of the alignment and jack-and-bore methods in five areas of stream and roadway crossings. Construction began in early 2023 and was substantially completed in the fall.

Intermodal Sanitary Subtrunk Extension

The Intermodal Sanitary Subtrunk Extension (ISSE), an 8,500 foot, 54 inch sewer tunnel, was under construction. It is an extension of an existing 60 inch sewer that passes through the Village of Lockbourne. The goal is to extend sewer service into the Northern Pickaway Joint Economic Development District. The project was started in spring 2023 and should be completed spring 2024, a year ahead of schedule. The extension was originally conceived as open cut construction as it was located in a mostly undeveloped area that was formerly a military golf course. However, during the initial design phase, the design team recommended shifting to micro-tunnel construction due to factors including high groundwater, disruption of traffic, and disturbance to existing businesses. Despite the higher cost usually associated with micro-tunneling compared to open-cut methodologies, the winning contractor secured the project at \$21 million less than the engineer's estimate. Factors included a comprehensive geotechnical study and a well-designed construction plan to minimize costly launch shafts.

CAPITAL REINVESTMENT CONT.

Blueprint Columbus

Blueprint Columbus is the alternative to portions of the Wet Weather Management Plan, submitted to the OEPA in 2005, to address sewer overflows and the 2002 and 2004 consent orders with the state. The final Blueprint Columbus integrated plan was approved in 2015. The plan utilizes greener alternatives and residential infrastructure improvements to solve wet weather problems, instead of building more costly sewer tunnels or “gray solutions.” The four main strategies, or pillars, of the plan include: residential home sewer lateral lining, roof water redirection, sump pumps, and green infrastructure. For more information please call 614-645-1253 or visit columbus.gov/Blueprint. Highlights of progress in 2023 are below.



Blueprint North Linden 1 Lateral Lining Improvements

Three Blueprint Columbus lateral lining projects were under construction in the North Linden 1 project area. These projects were recommended in the city's Integrated Plan, with rehabilitated sewer service laterals from the main to within several feet of all residential structures using cured-in-place lining technology. The lining of laterals will eliminate infiltration into the city's sewer system by sealing leaking joints and cracked pipes, thereby reducing the number and volume of activations of DSR's during wet weather events. The three projects rehabilitated over 1,000 laterals, with two to be completed before the end of 2024, another in 2025, with a fourth project beginning in 2024. The Blueprint outreach team was active in Linden throughout the year, through engagement with residents, Oakland Nursery, farmer's markets, collaboration with



Green Columbus for the Linden Tree Giveaway, and a volunteer day at St. Stephen's Community House. (See photos this column).



Blueprint Hilltop 1 Palmetto-Westgate

Construction began in the Hilltop 1 project area in 2023. In preparation, the outreach team attended various events in the Hilltop area including Summer Jam West, the Hilltop Bean Dinner and the South Central Hilltop Night (Day) Out. The team held a community construction kickoff meeting for Westgate green infrastructure. This public meeting attracted a record-breaking 250+ attendees (see photo) and generated a positive perception of the project in this area. Along with the maintenance supervisor and project manager, the outreach team carried out a promise of relocating two trees in Westgate Park that were in conflict with the proposed rain gardens and were replanted nearby. The team also participated in the Hilltop Tree Giveaway with Green Columbus, which provided free trees to hundreds of Hilltop residents. The team also spent a day at the Hilltop YMCA prepping boxes of food for the holiday giveaway.

Wastewater Treatment Plants



Jackson Pike Wastewater Treatment

The Plant Screening improvements will upgrade the current mechanical screen dewatering and disposal systems and increase process reliability during wet weather events. It was in detailed design with construction expected to begin in late 2024. The Digester Improvements Project will upgrade a 30-year-old facility, providing an economical means to reduce the plant's sludge volume and produce methane fuel for boilers and electrical generation. It was in preliminary design with an expected construction start in late 2025. The Cogeneration Facility Project installs generators and other equipment to provide beneficial reuse of digester biogas, which will produce about half of the total electricity used at the plant and large amounts of boiler heat for the treatment process and buildings. Construction began in 2021 (see photo above).

Southerly Wastewater Treatment Plant

The Digestion Process Expansion began construction in 2022. The project involves a new, seventh digester and modifications to the six existing ones (see photo). Construction is scheduled to be completed in 2025. The Digestion Process Expansion Phase II project has completed



preliminary design and will begin detailed design in 2024. Construction is anticipated to begin in 2026. The Organics Receiving and Bioenergy Utilization Facility project completed preliminary design and began detailed design. This project will add two three-million-gallon digesters, a gas cleaning and cogeneration facility, and a fats, oils, and grease and organic food waste facility. It is scheduled to begin construction in 2024. The Main Drain Alternative Pipe Route improvement is key to safeguarding the plant's processes, structures, and buildings from flood damage. It was in detailed design and is expected to start construction in 2024.

Sewer Maintenance Operations Center (SMOC)

The Archive/Records Storage and SMOC Locker Room Renovations will create a department-wide archive, records, and file storage area in the former police property room at the Fairwood Avenue facility. Construction begins in 2024 and is expected to reach completion in 2025. The SMOC Inventory Control Consolidations project will consolidate the 16 separate rooms currently located throughout the Fairwood Facility used for storage. Installing a fiber optic to the Emig Road facility, updates to the Matrix system, and building a new prefab building will also be completed. The project is currently in detailed design and expected to start construction in mid-2024.

Compost Facility

The Compost Facility Odor Control Improvements is the first of three upgrade projects planned. The improvements and repairs to the facilities process, odor control, and electrical systems were in the construction phase with a planned completion of 2025. Renovations to the administration building locker rooms also got underway.

Other Improvements

The Small Capital Project Program was utilized in 2023 to upgrade the Southerly service building boiler train and upgrade the cooling system for the raw sewage pump building electrical room. At Jackson Pike, the raw sewage pump cone valve actuators and the disinfection piping are being replaced. The program is also upgrading communications at our Dodge Park pump station.

The HVAC and Air Purification Program was funded to address the needs of the Jackson Pike and Southerly plants, SMOC, and Compost facilities. Three HVAC contracts were under construction with two more in design, totaling 14 units upgraded since the program began.

Roof replacements were completed for the Jackson Pike Administration Building and Compost Vehicle Maintenance Building. Design was completed for several other locations.

The DOSD Stormwater/Sanitary Pump Stations Evaluation and Upgrade Programs identify and prioritize the needs of the stormwater/sanitary pump stations to ensure that they remain an integral part of the collection system. The programs will create a list of maintenance and construction projects to be implemented to renovate these pump stations and ensure uninterrupted operation. The stormwater pump station team completed eight total applicable condition assessments, and the sanitary pump station team has completed condition assessments of all 10 applicable pump stations.

CAPITAL REINVESTMENT CONT.

DIVISION OF WATER

The Division of Water operates and maintains an extensive water supply system consisting of our watersheds, reservoirs, dams, three water plants and a water distribution system. Over the past year, the division made significant capital investments in these assets to maintain a safe and reliable water supply and to prepare for our future needs. Some of the major activities and accomplishments for 2023 are summarized below.

Water Distribution

In 2023, the Division of Water legislated over \$40 million in existing distribution infrastructure improvements through its Replacement and Rehabilitation Program. This program annually prioritizes replacement of water mains that require repeated maintenance due to breakage and the need to improve water flow to service areas. Major replacement and rehabilitation projects in 2023 included:

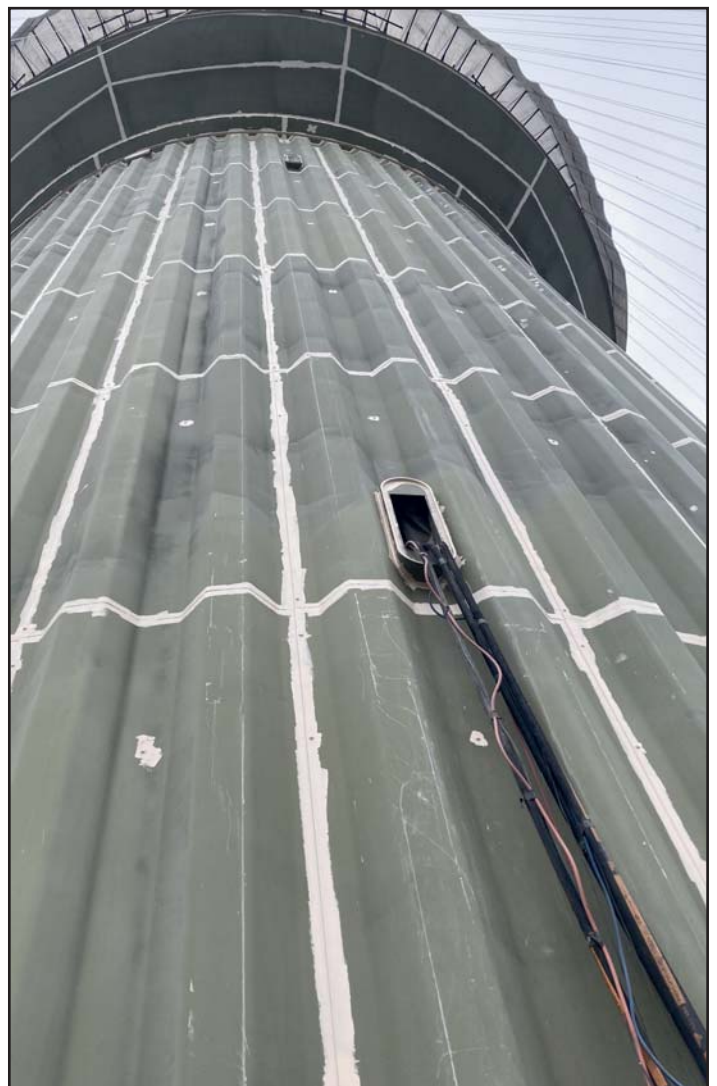
- Varsity Avenue Area Water Line Improvements project, which included approximately 9,100 linear feet of new mains ranging from six to eight inches in diameter.
- Roswell Drive Area Water Line Improvements, which included approximately 9,400 linear feet of new mains six to eight inches in diameter.
- Edsel Avenue Area Water Line Improvements project, which included approximately 11,600 linear feet of new mains ranging from six to 12 inches in diameter.
- South Weyant Ave Area Water Line Improvements project, which included approximately 10,700 linear feet of new mains six to eight inches in diameter.

Large Diameter Valve Replacements, Part 3

The goal of this project was to replace valves, ranging in size from 20 to 24 inch diameter, on critical mains to improve the reliability of the water distribution system. This was the third project as part of the division's large diameter valve replacement program.

North District East Tank Painting

This project included the blasting and re-painting of a two-million gallon steel fluted column tank. Other improvements included safety improvements such as ice guards, fall protection tie-off lugs, and handrail opening safety gates. (See photos).



Water Plants and Watershed Management

Reservoir/Dam Improvements

Construction continued on the Hydroelectric Facility Improvements, including demolition work, installation of the rehabilitated turbines and new electrical gear, and rehabilitation of the generators. Design of gatehouse improvements was completed and bids received for the construction contract. The Miscellaneous Watershed Facility Improvements Project achieved substantial completion. Design work began on the Hoover Dam Improvements Part 2.

Dana G. “Buck” Rinehart Utilities Complex (Dublin Road)

Construction continued on the Water Quality Assurance Laboratory Renovation Project, where staff continued to work in the temporary lab facilities while the contractor completed demolition and started on new work inside the lab.

Dublin Road Water Plant

Construction on the Clarifier Improvements Project continued, including installation of new flocculation drives and clarifier mechanisms, and concrete repair work in the basins. (See picture). Bids were received and construction began on the plant laboratory improvements. Design was completed on the Caustic Feed project.

Hap Cremean Water Plant

The Intake and Low Head Dam Improvements achieved substantial completion and the new gripper rake system was placed into operation. Construction continued on the Basin Concrete Rehabilitation Part 2 projects with concrete repair and rehabilitation work performed throughout the basin complex. Construction continued on the Pump Monitoring Project and construction started on the HCWP Hypochlorite

Disinfection Improvements Project. Design was completed and construction started on the Door and Lock Improvements Project and the Lime and Soda Ash Dust Collection Improvements Project. Design work continued on the Plant Drains and Water System Improvements Project.

Parsons Avenue Water Plant

The Lockbourne Road Quarry Embankment Improvements Project was completed and construction continued on the Well Pump Replacement Project. Design was completed and construction started on the Hypochlorite Disinfection Improvements Project and the Lime Slaker and Soda Ash Feeder Replacement Project. Design work continued on the Control Room Renovation project and design work started on the plant's Laboratory Renovation Project.

Residuals Management

Design work began on the Residuals Dewatering Turnkey Services Project and continued with scope/fee development for the associated operating/maintenance contract. Design was completed and bids received for Lagoon 3 Residuals Removal Project.

Fourth Water Plant

The consultant team for the Division of Water's fourth water plant was selected and a contract issued for study phase services. Under the study phase, treatment process alternatives and site layout options were evaluated and the initial capacity of the plant was selected. Preliminary design phase services began. To learn more please visit: <https://cbuswater4.com/fourth-water-plant-project/>.



CUSTOMER SERVICE AND



Customer service provided by department staff includes support for Columbus water, sewer, stormwater and electricity accounts, and for the city's contracting full-service water and sewer suburban communities. An over 50-person call center answers billing questions, schedules service calls, and helps resolve issues normally 55 hours per week. Customers can pay their bills online, over the phone, by mail and in person at various locations.

The customer portal, originally rolled out in 2017, finished off the year with 201,908 active enrolled customers, a 7% increase over the prior year. The portal provides ways for customers to sign up for paperless e-bills, to pay online, enroll in autopay, and other features.

Several programs were available to assist customers paying account balances in 2023, including payment plans and these discount/payment relief programs:

- Low Income Water/Sewer Discount Program of 20% off consumption charges. New in 2023, those qualified also received a \$60 one-time bill credit to help offset rate increases, which were necessary to continue addressing aging infrastructure, prepare for continued growth in central Ohio, and plan for upcoming regulatory changes
- Low Income Water/Sewer Discount for Multi-Unit/Master Metered Properties
- Senior Water and Sewer Discount Program
- Senior Citizen Electricity Discount Program
- Power Payment Relief Program

Customer Service Highlights	2023	2022	2021
Total customer calls	327,442	341,971	281,668
Total field/meter related service calls	71,896	85,640	64,562
Low income water/sewer discount participants	7,221	5,788	5,760
Senior water/sewer discount participants	3,554	3,557	3,534
Senior power discount participants	215	206	193
Customer Accounts Billed			
Water (includes contracted communities)	283,347	281,983	280,742
Sewer (includes contracted communities)	280,624	279,192	277,978
Stormwater	200,349	199,629	199,332
Power	18,793	17,264	16,605

COMMUNITY RELATIONS



This project was delayed by a few years due to a worldwide microchip supply chain shortage and is scheduled to continue through early 2027. By the end of the year, approximately 14,000 water and 3,300 power advanced metering infrastructure meters had been installed.



These upgrades promise numerous benefits, including increased meter accuracy, enhanced customer service, and improved operational efficiency. A customer portal for the initiative was under design, offering new features such as setting up alert notifications for leaks. To learn more, please visit columbusemp.org.



Residents continued to benefit from the Project Dry Basement sewer backup prevention program, which began in 2004. An additional 59 backflow valves were installed, bringing the total installations to 1,774.

The communications team coordinated media and public records requests, printed materials and reports, and OEPA and other regulatory-required communication pieces. Staff provided residents information at 11 Rise Up Columbus resource fairs in 2023 (see photos right). Facebook and Twitter/X social media followers continued to grow, and an

Instagram account was created this year. The department also uses LinkedIn to help promote job openings.



The Division of Power maintained their Reliable Public Power Provider status in 2023.

For more information about our services, please visit columbus.gov/utilities.



MAINTAINING OUR SYSTEMS

Power Distribution System

The Division of Power maintains 473 miles of distribution circuits, substations, and street lighting circuits throughout Columbus.

The division is also responsible for maintaining the Ohio Department of Transportation's freeway lights on major highways within the city and the Division of Water's O'Shaughnessy Reservoir dam's hydroelectric unit. The division's maintenance summary for 2023 is below.

Over 18,000 customers enjoyed reliable city power in 2023. The revenue from selling municipal power allows the division to maintain and energize around 59,000 streetlights throughout Columbus.

The Division of Power provides a reliable and cost competitive alternative for customers in the Columbus power service area. For more information, please call 614-645-7216 or visit columbus.gov/utilities.



Sewer Collection System

The 4,650 miles of city-owned sewers are maintained by the Sewer Maintenance Operations Center (SMOC), the largest staffed section of the Division of Sewerage and Drainage. This responsibility includes 2,626 miles of sanitary sewers, 1,824 miles of storm sewers, and 156 miles of combined sewers. An additional 43 miles of county-owned sewers are maintained under contract.

Other system responsibilities include the inspection and maintenance of the Franklinton Floodwall gates and 14 gate wells, 20 regulators, 15 siphons, 34 sluice gates, the Alum Creek Storm Tank, 15 sanitary and 16 storm pump stations monitored by a SCADA system, along with numerous stormwater control facilities, catch basins, inlets, ditches, flap gates and manholes. The photo shows Sewer Maintenance employees in front of the Rich Street floodwall gates during an exercise.

Sewer Maintenance	2023	2022	2021
Repairs	1,120	1,258	1,298
Catch basins/inlets inspected	8,392	8,138	11,394
Catch basins, inlets, manholes cleaned	6,242	6,805	8,376
Miles power cleaned	113	164	164
Miles closed circuit televised	44	52	57
Total work orders	8,246	8,954	8,730

Power Maintenance	2023	2022	2021
Wire/cable repaired (feet)	138,582	120,971	68,199
Transformer kVA installed/ removed	11,468	2,888	6,483
Luminaires repaired	2,098	1,787	1,238
Lamps repaired	5,790	5,210	4,722
Wooden poles replaced	322	268	206
Standard poles replaced	256	209	110
Total work orders	16,702	14,612	16,589



Water Supply and Distribution System

The Division of Water maintains 3,589 miles of waterline, which includes 2,539 miles in Columbus and 1,050 miles in contracted suburban service areas. Included in the waterline repair totals are leaks discovered by pitometer survey crews, who perform proactive testing to locate underground system leaks that do not surface.

Other maintenance responsibilities include: 38 water tanks (26 in Columbus, 12 in suburban contracted areas) and 27 booster stations (15 in Columbus, 12 suburban). The division also maintains about 26,000 Columbus fire hydrants in partnership with the Columbus Division of Fire, and various valves throughout the system.

The Division of Water also maintains meters and curb boxes for over 280,000 accounts in the Columbus metropolitan area.

The division maintains three in-stream reservoirs: Hoover (picture right), Griggs and O'Shaughnessy; the John R. Douth Upground Reservoir; and a facility on Alum Creek Reservoir owned by the U.S. Army Corps of Engineers.

Water Maintenance	2023	2022	2021
Main Line Leak Repairs			
Columbus	287	322	343
Suburban contracted	161	210	228
Total	448	532	571
Taps/Service Lines			
Repaired	263	207	212
Replaced	1,799	1,966	1,662
Cut-off at main	55	47	52
Put in-shapes	293	226	137
New taps main line	63	57	28
Valves			
Repaired	56	72	68
Replaced	165	110	167
Hydrants			
Repaired	1,256	1,180	1,186
Replaced	61	19	27
Total work orders	4,198	4,083	3,766



WATER TREATMENT

The water treatment staff, supported by the Water Quality Assurance Laboratory, ensure that the water delivered to your tap meets or exceeds all requirements of the Safe Water Drinking Act. Columbus' water plants use a complex multi-barrier treatment process to assure safe drinking water is delivered to over 1.4 million consumers in Columbus and to 24 contracting entities.

Sources of Columbus' drinking water include rivers, creeks, reservoirs, and wells. Columbus water customers receive water from one of the following three plants, which have undergone many upgrades and expansions since being put into service to keep pace with OEPA regulations and population growth. The service area map is on the next page.

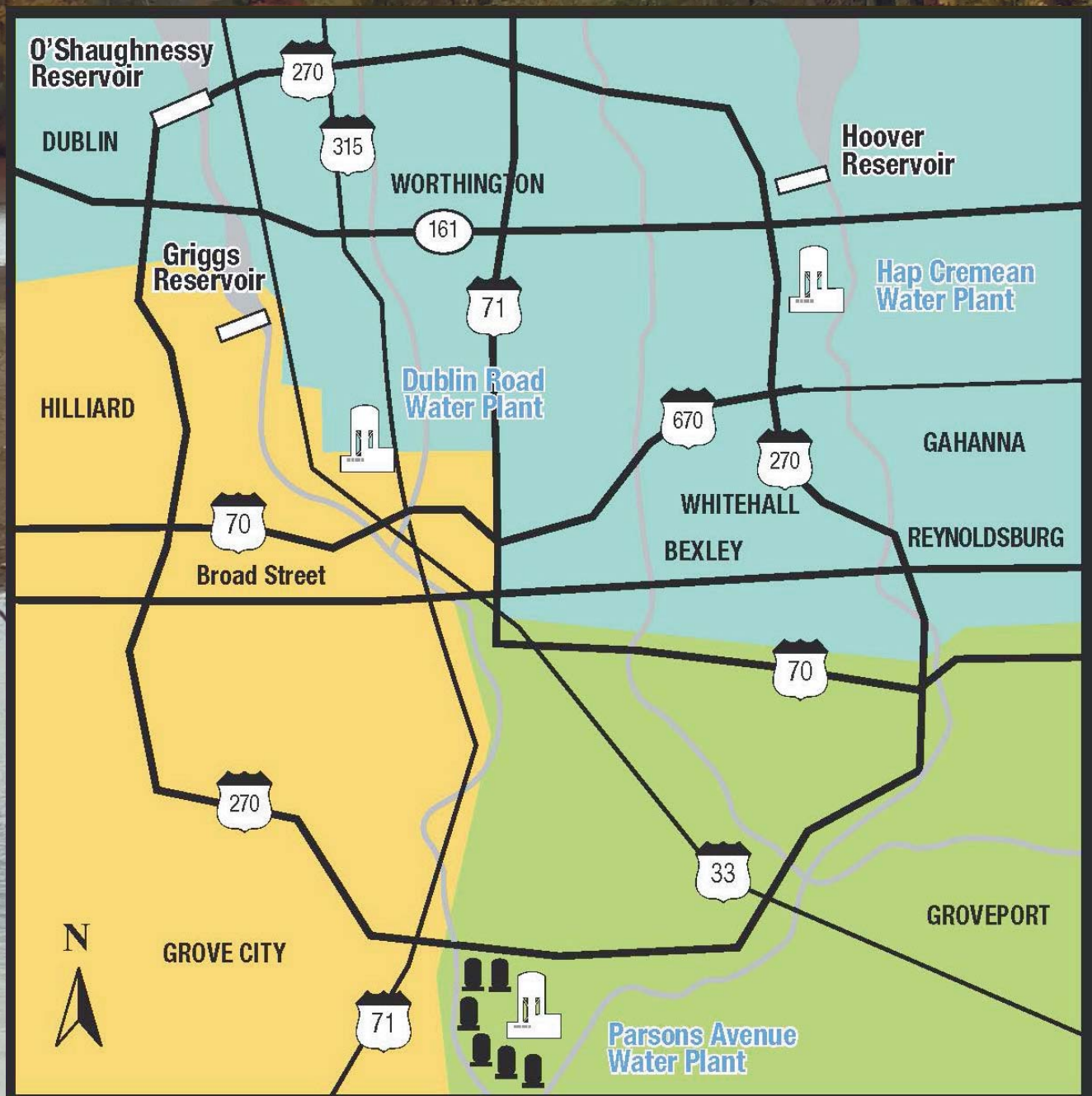
- The Dublin Road Water Plant serves downtown Columbus and the western and southwestern portions of Franklin County, using water from the Griggs and O'Shaughnessy reservoirs on the Scioto River and the John R. Douth Upground Reservoir in Delaware County. Put into service in 1975, the current water plant replaced a 1908 plant, which had replaced the first water treatment works from 1871. This plant (in photo) provided 38.5% of the water in the service area in 2023 and has a capacity of 80 million gallons per day (MGD).
- The Hap Creman Water Plant on Morse Road, opened in 1956, serves the largest area, including northern and northeastern Franklin County and The Ohio State University. The water source is Hoover Reservoir on Big Walnut Creek, and supplemental water is pumped from the Alum Creek Reservoir (not Columbus owned) during dry periods as needed. The Hap Creman plant provided 44.7% of water in the service area and has a 125 MGD capacity.
- The Parsons Avenue Water Plant, which went into service in 1984, draws water from wells and serves southeastern Franklin County. This plant provided 16.8% of the water in the service area and can treat up to 50 MGD.

A report on drinking water quality is released to the public annually, known as the Drinking Water Consumer Confidence Report. Please visit [Columbus.gov/Water-CCR/](https://columbus.gov/Water-CCR/) to view the current report, or request a copy by contacting Customer Service at 614-645-8276 or UtilityLeadRep@columbus.gov. For water quality questions, please contact the Water Quality Assurance Lab at 614-645-7691 or WaterQuality@columbus.gov.



Finished Drinking Water Summary	2023	2022	2021
Total billion gallons	53.0	53.0	51.8
Average million gallons per day	145.1	145.1	141.9
Estimated service population	1,383,417	1,366,092	1,257,866
Average per capita consumption gallons per day (includes industry/business usage, total pumped divided by the estimated population)	105	106	113
Central Ohio precipitation	41.5"	45"	40"

WATER SERVICE AREA MAP



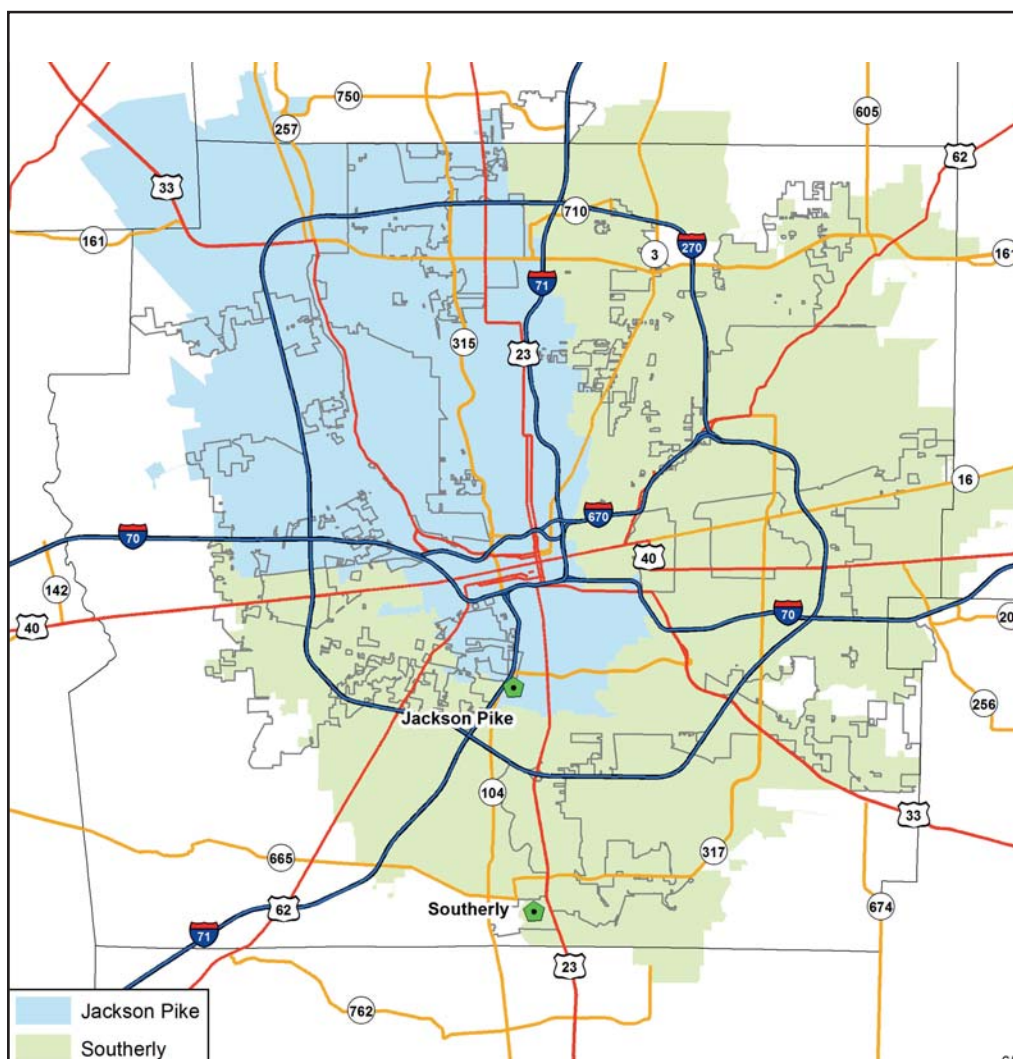
WASTEWATER TREATMENT

The Division of Sewerage and Drainage operates two 24-hour, award-winning wastewater treatment plants serving the city and 26 contracting suburban communities.

The Jackson Pike Wastewater Treatment Plant, located just south of downtown along I-71, was built in 1935 and has a design capacity of 68 MGD, with a peak treatment capacity of approximately 150 MGD. It serves the central and western half of Franklin County.

The Southerly Wastewater Treatment Plant, on the south side near Lockbourne, was built in 1967 and serves eastern Franklin County. Average daily design flow is 114 MGD with a peak capacity of 330 MGD, as well as 110 MGD of wet weather treatment capacity. Both plants discharge treated water into the Scioto River and have undergone numerous upgrades in recent years to keep pace with central Ohio's growth and OEPA regulatory requirements.

The Division of Sewerage and Drainage also operates a Compost Facility, which was built in 1980 as an environmentally friendly alternative to beneficially reuse wastewater residuals. The biosolids are made into a popular organic mulch and soil enrichment product known as Com-Til, which is available to the public. For more information please visit columbus.gov/com-til/ or call 614-645-3153.



Wastewater Treatment Summary	2023	2022	2021
Total billion gallons	66	70	68
Average millions gallons per day	181	191	181
Carbonaceous Biological Oxygen Demand removed	98%	98%	98%
Suspended solids removed	98%	98%	98%
Central Ohio precipitation	41.5"	45"	40"
Dry Tons Bio-solids Handled			
To compost	15,384	10,337	9,997
To beneficial reuse	12,681	12,021	13,837
Dry tons to energy (gas)	19,119	20,771	20,247
Total	47,183	43,129	44,082
Compost Facility Production			
Incoming sludge (wet tons)	59,023	53,021	51,653
Incoming sludge (dry tons)	15,384	10,337	9,997
Average percent dry solids	19.4%	19.7%	19%
Com-Til solid/donated (cubic yards)	69,743	64,862	42,623
Total yard waste received (wet tons)	28,012	13,615	21,115
Total Com-Til revenue	\$836,890	\$786,520	\$486,972



REVENUES AND EXPENDITURES

DIVISION OF SEWERAGE AND DRAINAGE

Sanitary Enterprise Fund	2023	2022	2021
Revenue			
Beginning Cash Balance	\$206,457,813	\$189,063,724	\$182,920,064
Sewer Service Charges	\$272,515,739	\$253,107,178	\$237,151,482
Wet Weather Fees	\$48,306,216	\$45,281,478	\$42,594,596
Investment Earnings	\$10,213,883	\$4,053,400	\$3,656,462
System Capacity Charges	\$9,148,987	\$8,700,565	\$8,451,144
Storm Sewer Reimbursements	\$3,270,142	\$10,642,976	\$7,007,232
Other	\$1,408,752	\$1,693,131	\$2,420,813
Debt Refinancing	\$191,132	\$102,590	\$0
Adjustments	\$8,475	\$0	\$0
Total Revenue	\$345,063,327	\$323,581,318	\$301,281,729
Expenditures			
Personnel	\$40,958,240	\$38,035,129	\$40,247,538
Supplies and Materials	\$11,625,100	\$11,271,261	\$9,354,071
Services	\$42,060,578	\$39,421,010	\$35,706,456
Pro-Rata	\$14,710,291	\$13,968,868	\$12,763,525
Other	\$72,750	\$30,476	\$77,427
Capital Equipment	\$831,209	\$1,294,491	\$1,664,025
Debt Service	\$193,052,909	\$165,757,944	\$164,580,427
Sewer Share of DPU	\$13,662,117	\$11,356,826	\$11,498,519
Transfers	\$46,520,718	\$25,051,046	\$19,246,082
Total Expenditures	\$316,973,194	\$306,187,051	\$295,138,070
Ending Cash Balance	\$234,547,946	\$206,457,992	\$189,063,724

Stormwater Enterprise Fund	2023	2022	2021
Revenue			
Beginning Cash Balance	\$33,557,834	\$29,687,937	\$23,991,068
Storm Sewer Charges	\$46,487,739	\$45,653,450	\$44,373,502
Investment Earnings	\$1,667,446	\$605,213	\$516,385
Storm Penalties	\$466,910	\$509,310	\$104,258
Other	\$1,733	\$16,124	\$245,463
Debt Refinancing	\$36,759	\$0	\$0
Adjustments	\$20,982)	\$8,321)	\$146,402
Total Revenue	\$48,639,605	\$46,775,776	\$45,386,010
Expenditures			
Personnel	\$2,231,481	\$2,090,075	\$2,013,378
Supplies and Materials	\$100,443	\$59,325	\$29,506
Services	\$1,633,918	\$873,853	\$702,047
Pro-Rata	\$2,105,216	\$2,100,859	\$1,957,727
Capital Equipment	\$0	\$0	\$27,958
Other	\$0	\$0	\$75,000
Debt Service	\$13,653,225	\$13,132,840	\$12,362,758
Reimbursement to Sanitary	\$3,270,142	\$10,642,976	\$7,007,232
Storm share of DPU	\$3,643,231	\$3,034,122	\$3,060,407
Department of Technology Allocation	\$1,650,328	\$1,454,822	\$1,621,817
Street Cleaning	\$10,992,244	\$9,517,006	\$9,171,726
Transfers	\$0	\$0	\$1,659,585
Total Expenditures	\$39,280,229	\$42,905,878	\$39,689,141
Ending Cash Balance	\$42,917,211	\$33,557,835	\$29,687,937



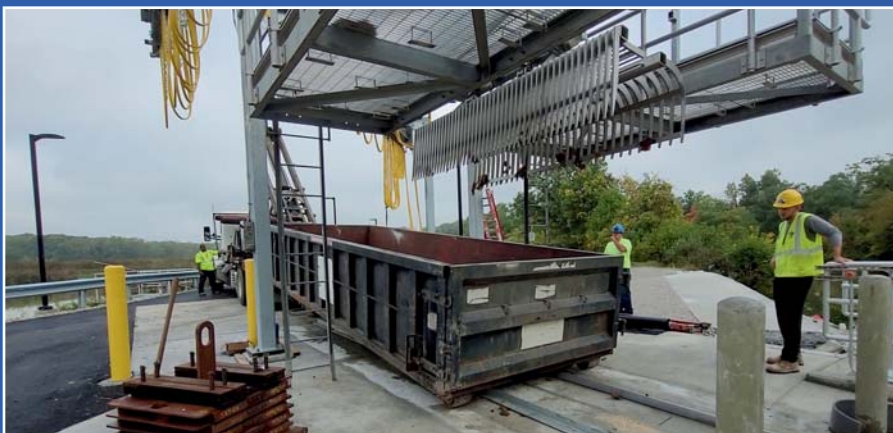
REVENUES AND EXPENDITURES

DIVISION OF POWER

Electricity Enterprise Fund	2023	2022	2021
Revenue			
Beginning Cash Balance	\$26,027,231	\$29,687,582	\$29,186,224
Commercial	\$70,869,354	\$69,488,502	\$67,917,163
Residential	\$8,299,847	\$9,813,262	\$9,684,621
Investment Earnings	\$1,024,427	\$195,849)	\$1,096,913
Kilowatt Hour Tax Reduction	\$3,360,752)	\$3,358,596)	\$3,312,758)
Other	\$3,090,487	\$566,337	\$3,417,631
PCRA (Power Cost Reserve Adjustment)	\$6,895,492	\$8,335,493	\$7,538,338
Debt Refinancing	\$19,317	\$15,317	\$0
Adjustments	\$1,167,747	\$0	\$0
Transfer In	\$929,273	\$670,000	\$0
Total Revenue	\$88,935,192	\$85,334,467	\$86,341,909
Expenditures			
Personnel	\$9,594,729	\$9,383,762	\$9,602,060
Purchase Power	\$54,615,258	\$58,032,854	\$56,096,092
Supplies and Materials	\$5,137,573	\$2,786,864	\$2,558,117
Services	\$11,318,336	\$8,606,241	\$8,004,967
Pro-Rata	\$3,861,687	\$3,837,883	\$3,767,405
Other	\$5,681	\$877	\$20,000
Capital Equipment	\$3,140,123	\$2,875,168	\$3,155,449
Debt Service	\$1,888,940	\$1,384,161	\$888,925
Power Share of DPU	\$2,685,677	\$2,087,004	\$1,747,536
Total Expenditures	\$92,248,003	\$88,994,814	\$85,840,551
Ending Cash Balance	\$22,714,421	\$26,027,235	\$29,687,582

DIVISION OF WATER

Water Enterprise Fund	2023	2022	2021
Revenue			
Beginning Cash Balance	\$154,782,817	\$143,287,139	\$127,677,442
Water Charges	\$218,873,767	\$206,023,733	\$205,433,741
Water Billing Penalties	\$2,475,635	\$2,654,655	\$652,912
Investment Earnings	\$6,722,475	\$2,805,358	\$2,550,384
System Capacity	\$7,655,558	\$6,549,597	\$7,054,852
Sewer Billing Charges	\$4,416,718	\$5,063,940	\$2,311,606
Meter Service Fees	\$1,118,675	\$856,391	\$919,750
Other Revenue	\$1,983,038	\$1,851,511	\$2,725,469
Debt Refinancing	\$0	\$215,155	\$0
Adjustments	\$0	\$0	\$0
Total Revenue	\$243,245,865	\$226,020,340	\$221,648,715
Expenditures			
Personnel	\$40,858,010	\$39,235,625	\$40,320,105
Supplies and Materials	\$29,879,582	\$24,289,767	\$19,493,772
Services	\$29,517,322	\$27,496,439	\$26,852,144
Pro-Rata	\$10,320,157	\$9,871,158	\$9,447,406
Other	\$65,321	\$29,558	\$18,686
Capital Equipment	\$1,363,105	\$599,564	\$1,545,547
Debt Service	\$102,880,005	\$102,620,019	\$78,448,311
Water Share of DPU	\$12,535,755	\$10,297,435	\$10,407,765
Transfers	\$0	\$0	\$19,505,281
Total Expenditures	\$227,419,258	\$214,439,565	\$206,039,018
Ending Cash Balance	\$170,609,425	\$154,867,914	\$143,287,139





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