



# GIVING WATER A SECOND CHANCE

## 2019 Annual Community Report

Fiscal Year ended May 31, 2019



**Fox Metro**  
Water Reclamation District

### SERVICE COMMUNITIES:

Aurora, North Aurora, Boulder Hill, Montgomery, Oswego,  
Sugar Grove, and portions of Yorkville and Batavia.





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## LETTER FROM THE FOX METRO DISTRICT MANAGER

Fox Metro is pleased to present this **2019 Annual Community Report**. Originally formed in 1925 as the Aurora Sanitary District, Fox Metro is an independent, special district dedicated to operating and maintaining the community's publicly-owned wastewater sewer system. We are not part of a city or county government, but we coordinate our services closely with these entities to provide seamless service to the public. The services provided by Fox Metro include meeting the day-to-day needs of residences and businesses through the conveyance, treatment and disinfection of wastewater, along with planning and delivering multiyear, large-scale improvements that benefit the community long-term. Our focus is to protect the public's health, safety, and environment through responsible wastewater management. We also strive to recover resources, such as recycled water and energy that benefit the community.

This report is intended to be a brief but meaningful summary of the services that Fox Metro provides for our ratepayers, and a way for ratepayers to look transparently at how their contributions in the system are bringing benefit to the community through system maintenance, rehabilitation, and investment in the infrastructure of the future.

### 2019 BOARD OF TRUSTEES

**Judith Sotir,**  
President

**Michael Funkey,**  
Vice President

**Chris Childress,**  
Secretary/Clerk

**Dave Krahn,**  
Treasurer

**Al Heriaud,**  
Trustee

The information contained in this report is presented in a less technical format for ease of reading and comprehension by non-financial experts. A more in-depth financial review of our operations can be found in the Annual Financial Report (AFR). The AFR was prepared under generally accepted accounting principles and is available by contacting our accounting department at (630) 301-6824.

Thank you for your interest in Fox Metro, and we hope you find the information contained in the following pages helpful.

Respectfully,

Thomas Muth,  
**District Manager**

# ABOUT US

Fox Metro is a public utility serving residents and businesses in our service area. The service area encompasses over 130 square miles in portions of 4 counties. The wastewater treatment plant near Oswego includes filtration, biological treatment, chemical treatment, and seasonal disinfection. Fox Metro meets or exceeds rigorous compliance standards set forth by local, state, and federal government agencies.

## MISSION

Fox Metro's mission is to provide quality wastewater treatment to ensure a healthy environment for future generations. Fox Metro's philosophy is supplying leadership, innovation, and teamwork at the best value for the service community.

## IDEOLOGIES

- Protect public health from water-borne diseases and prevent pollution.
- Conform to the regulations set forth by governmental bodies.
- Provide continuous, efficient, and cost-effective service to the ratepayers.
- Plan for the services needed for future growth in the service area.
- Provide public transparency and accountability for Fox Metro's expenditures.
- Actively participate in the advancement of water pollution control through state and national organizations.
- Foster initiative and creativity for Fox Metro's employees to attain District objectives.



Fox Metro serves over  
**300,000 residents**  
in Aurora, North Aurora, Boulder Hill, Montgomery, Oswego, Sugar Grove and portions of Yorkville and Batavia.

## FAQS

**Why is wastewater treatment important?** Before wastewater treatment facilities like Fox Metro, sewage was discharged directly into streams and rivers without any treatment and resulted in disease transmission. Wastewater treatment facilities became standard throughout the United States in the 20th century, resulting in dramatically improved water quality and public health.

### What is Fox Metro responsible for?

- Conveyance and treatment of sanitary sewer discharge
- Ownership and maintenance of pipes over 15" and smaller pipes in unincorporated areas
- Protecting the environment while providing effective wastewater treatment

### What is Fox Metro NOT responsible for?

- Drinking water
- Storm water conveyance or treatment
- Sanitary sewer lines under 15" in incorporated areas
- Private connections from residences to sanitary service

# DISTRICT ACHIEVEMENTS

## FOX METRO EMPLOYEES TAKE PRIDE IN THEIR ROLE TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT.

**Nutrient Reductions:** Fox Metro's newest improvement projects are to reduce phosphorus entering the Fox River by approximately two-thirds. The reduction in phosphorus represents Fox Metro's commitment to help resolve nuisance algae and dissolved oxygen levels in the Fox River and the Gulf of Mexico.

**Biosolids as Fertilizer:** Fox Metro's treated solids are reused by farmers primarily in Kendall County for fertilizer. This local land application reduces the trucking costs, reduces agricultural needs for conventional fertilizers, and conserves space in landfills.

**Biosolids**  
are reused by  
farmers for fertilizer.



**Green Landscaping:** Fox Metro is converting available open areas into bioswales, prairies, and other native landscapes as areas are under construction for other improvement projects. These areas reduce mowing needs and provide valuable habitat for pollinators and wildlife.

**Effluent Reuse:** Fox Metro reuses an average 3 million gallons per day of treated effluent at the wastewater treatment plant for heating, cooling, and landscape watering.



**Effluent**  
is reused for  
heating, cooling  
and landscape  
watering.

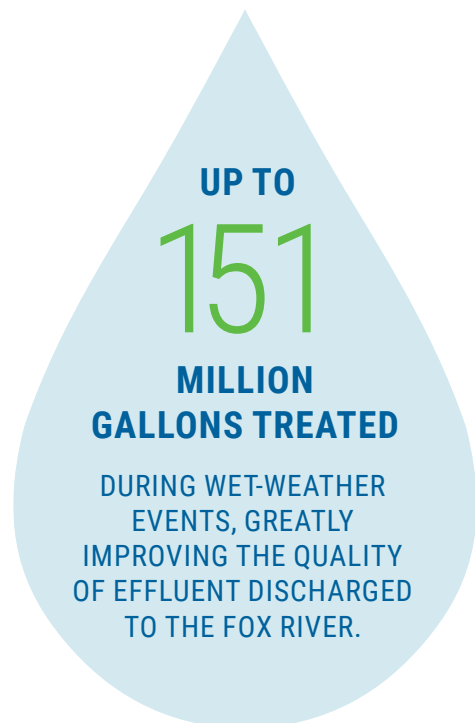
**Collection System Maintenance:** Fox Metro televises approximately 125,000 linear feet of sewer lines per year on a rotating basis to proactively address problems such as basement sewage backups. Maintenance and corrective actions include heavy jetting, debris vacuuming, and sewer lining.

**Regulatory Compliance:** Fox Metro successfully complies with applicable regulatory permits, including the National Pollutant Discharge Elimination System permit, Federally Enforceable State Operating Permit for air emissions, and biosolids land application. Fox Metro has attained compliance with the Combined Sewer Overflow policy ahead of schedule. The United States EPA allows an average of 4 to 6 overflow events annually, but Fox Metro has only discharged combined sewer flow three times over the past 4 years.

# STATISTICAL SNAPSHOT

## TREATING WASTEWATER SINCE 1929

WASTEWATER TREATED AND  
RETURNED TO THE ENVIRONMENT:



**12** **LIFT**  
**STATIONS**

OPERATED BY FOX METRO TO PUMP WATER  
TO THE WASTEWATER TREATMENT PLANT.

**186**

**MILES OF PIPES**

OWNED AND MAINTAINED BY FOX METRO,  
RANGING FROM 6" TO 84" IN DIAMETER.

**20,600+**

**LBS OF UNWANTED  
MEDICATIONS**

COLLECTED THROUGH  
THE END OF 2019.

**0** **AMOUNT OF  
PROPERTY  
TAXES**

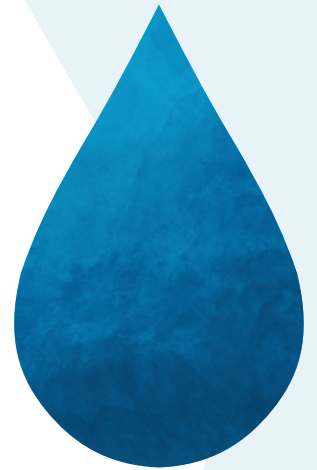
USED TO FUND  
FOX METRO

5



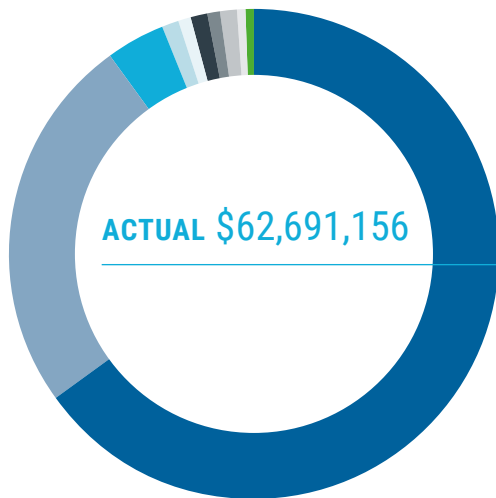
# REVENUES

Fox Metro is proudly, solely and effectively funded by user fees and have not levied property taxes in over 25 years. Fees are collected based on water usage, fees for new connections and annexations, and pretreatment fees for businesses with large outflows. This means users are only charged for their actual usage, and not subjected to additional costs on behalf of other users in Fox Metro's District.



**BUDGET \$64,959,220**

May 31, 2019



	ACTUAL	BUDGET
Water Fees	\$40,796,451	\$39,690,220
IEPA Loan Receipts	16,514,303	21,500,000
Connection Fees	2,544,886	2,400,000
Other Income	983,439	683,500
Investment Income	705,525	157,900
Annexation Fees	415,829	60,000
Replacement Taxes	360,537	235,000
Pretreatment Recovery Revenue	286,187	220,000
Sewer T.V. Inspection Charges	74,099	6,000
Montgomery Pump Station Operation	9,900	6,600
<b>TOTAL REVENUES</b>	<b>\$62,691,156</b>	<b>\$64,959,220</b>

## REVENUES VARIANCE

**Annexation Fees & Sewer T.V Inspection Charges** – New residential developments.

**Investment Income** – Interest rate improvements over prior years resulted in a positive variance over expectations.

**Other Income** – The District received a rebate check for participating in the ComEd Energy Efficiency Program.

**Pretreatment Recovery** – Continuous improvement of testing and compliance of industries within the District.

**Replacement Taxes** – These taxes are income taxes collected by the State of Illinois from businesses and distributed to local governments. They are not levied directly by Fox Metro. Budgets are prepared on a lagging basis, and some variances are expected. The District sets lower expectations to make sure the anticipated revenues will cover the anticipated expenditures for the year.

**IEPA Loan Receipts** – SRF Project volume varies from year to year.

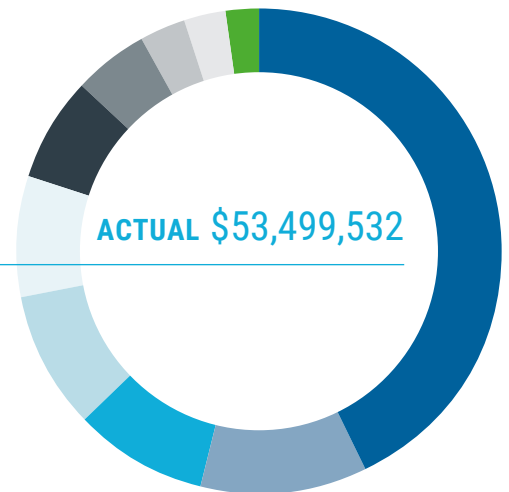
# EXPENDITURES

Fox Metro apportions the funds collected by user fees for continued operations and capital improvements. Fox Metro takes many well considered steps to be proactive to changes, rather than reactive, to keep costs low. Excess funds not used in the current fiscal year are held for continuous improvement projects and debt payments.

**BUDGET \$66,409,831**

May 31, 2019

	ACTUAL	BUDGET
Capital Expenditures & Related Debt Payments	\$24,337,115	\$39,021,256
Administration & IT	5,705,847	6,201,700
Operations	4,858,223	4,644,650
Engineering	4,588,097	5,075,460
Other	3,857,753	1,434,000
Maintenance	3,726,426	3,434,600
Field Operations	2,554,970	3,291,810
Automation & Electrical	1,627,922	1,223,700
Lab & Pretreatment	1,351,829	1,355,355
Billing	891,350	727,300
<b>TOTAL EXPENDITURES</b>	<b>\$53,499,532</b>	<b>\$66,409,831</b>



## EXPENDITURES VARIANCE

**Capital Expenditures & Related Debt Payments** – Not all anticipated projects were completed. Expectation of continuation of projects into FY20 and beyond.

**Engineering** – Engineering fees mostly relate to outside consulting fees. Since not all anticipated projects were completed, related engineering fees were lower than expectations.

**Field Operations** – Rigorous proactive maintenance helps avoid the high cost of unexpected pump repairs and replacements. Unpredictability of repairs and replacements causes budget variances.

**Other** – Governmental Accounting Standards Board (GASB) Statement 89 was implemented during the fiscal year, causing a non-cash expenditure of \$2.3M. This standard enhances the relevance and comparability of the presentation of Capital Assets. For more information about GASB 89 visit [www.gasb.org](http://www.gasb.org).

# CAPITAL ASSETS

Fox Metro has developed a comprehensive long-term capital improvement plan and several other planning documents that have been approved by Fox Metro's Board of Trustees and the Illinois Environmental Protection Agency. The decision-making for these projects is predicated upon the age of the asset, its overall condition and an assessment of the year-to-year maintenance costs versus the cost of rehabilitating or replacing the asset. Additionally, the performance of the asset is evaluated in terms of meeting Fox Metro's level of service goals when considering rehabilitation, improvement or replacement. All capital improvements, their funding, and implementation schedule are based upon needs of satellite partners and projected population growth as well as the age and condition of assets.

## FEATURED PROJECTS

**New Operations and Maintenance Building:** The new Operations and Maintenance Building will replace the existing building, which was constructed as part of the original wastewater treatment plant in 1929. This building has been retrofitted several times over the past 90 years and is well past its useful life. The new building construction cost is estimated at over \$14 million.

**Field Operations Building Addition:** Located at 1135 S. Lake Street in Montgomery, this building serves as a satellite location to better serve the pump stations and maintain the collection system. The building addition will provide more office and meeting room space for the engineering and field operations department. The estimated construction cost is approximately \$640,000.

**Sewer Lining Projects:** Fox Metro is in the process of lining deteriorated sewer lines throughout the service area, especially in the oldest areas of downtown Aurora. Approximately 5,000 linear feet each year are lined to reduce infiltration and inflow and to provide structural stability within the existing pipe. These projects not only extend the life of the current infrastructure, but also improve system reliability and plant capacity at a lower cost than dig and replace solutions.

**Phase 2 Capital Improvement Projects:** See the next page for a detailed description of the phosphorus reduction requirements fulfilled by this project.

## CAPITAL ASSETS (IN MILLIONS)

### CAPITAL ASSETS NOT BEING DEPRECIATED

Land and land rights	\$10.7
Construction in progress	18.0
<b>TOTAL</b>	<b>28.7</b>

### CAPITAL ASSETS BEING DEPRECIATED

Buildings and improvements	198.5
Sanitary sewers and improvements	136.8
Plant machinery, vehicles, and equipment	81.2
Office furniture and equipment	0.9
Capitalized engineering and other costs	4.4
Less accumulated depreciation	-152.2
<b>TOTAL</b>	<b>269.6</b>

### CAPITAL ASSETS, NET

<b>TOTAL</b>	<b>298.3</b>
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# CAPITAL IMPROVEMENT

**Beginning in November 2015, the first stage of Phase 2 – South Wastewater Treatment Facility Improvements** – began construction to provide additional hydraulic capacity and adds the capability of nutrient removal. The project offsets the reduction in capacity at the North Facility resulting from a conversion to biological phosphorus removal. The purpose of this project is to meet state and federal mandates for environmental compliance. **Phase 2 was completed in 2019 and was comprised of four projects.**

## 1) Waubonsie Interceptor River Crossing:

The Waubonsie Interceptor Project was needed to convey flow to the new South Facility. Construction was completed in April 2017.

## 2) South Wastewater Treatment Facility Improvements:


The South Facility includes raw sewage pumping, grit removal, primary clarifiers, primary sludge pump station, secondary treatment facilities, secondary clarifiers and solids thickening with a chemical feed facility for supplemental phosphorus reductions. All facilities have been designed to allow for expansion in order to construct future phases. Wastewater treatment began at the South Facility in July 2019.

## 3) North Wastewater Treatment Facility Improvements:


The North Facility upgrades are needed for phosphorus reduction. Construction was completed in October 2019.

## 4) Tertiary Filter System Enhancements:



Tertiary filters provide an enhanced level of treatment on the wastewater before it is discharged to the environment. The final tertiary filter will be installed in 2020, three years ahead of schedule to help improve the Fox River.



New heating and cooling equipment in the mezzanine of the headworks building.



(LEFT) Non-potable water pump station – secondary control building. (RIGHT) Aerial of new south facility.



Return Activated Sludge (RAS) pumps in secondary control building.

# DEBT STATUS

Fox Metro has the ability to issue long-term debt to finance the construction, acquisition, and replacement of capital assets as well as provide short term cash flow if necessary. The only form of debt held by Fox Metro are Eight Illinois Environmental Protection Agency (IEPA) Loans. These loans are low interest and funded by the IEPA Revolving Loan Fund. A reserve account is maintained by Fox Metro in the amount of annual principal and interest payments. At May 31, 2019, this reserve had a balance of \$3,313,215.

## SPECIFIC CAPITAL IMPROVEMENT LOANS UNDERTAKEN BY FOX METRO:

### Upgrade and Expansion of Fox Metro Wastewater Treatment System

**INITIATED:** 2000

**STATUS:** Project complete. Loan in repayment through 2021.

### Temperature Phased Anaerobic Digestion System (TPAD)

**INITIATED:** 2008

**STATUS:** Project complete. Loan in repayment through 2029.

### Excess Flow Pump Station and Disinfection Improvements

**INITIATED:** 2009

**STATUS:** Project complete. Loan in repayment through 2030.

### Excess Flow Treatment Facility

**INITIATED:** 2011

**STATUS:** Project complete. Loan in repayment through 2032.

### Cedar Glen Subdivision Sanitary Sewer Improvements

**INITIATED:** 2012

**STATUS:** Project complete. Loan in repayment through 2032.

### Montgomery/Sugar Grove Interceptor Extension

**INITIATED:** 2014

**STATUS:** Project complete. Loan in repayment through 2033.

### South Wastewater Treatment Plant and Waubonsie Interceptor River Crossing

**INITIATED:** 2016

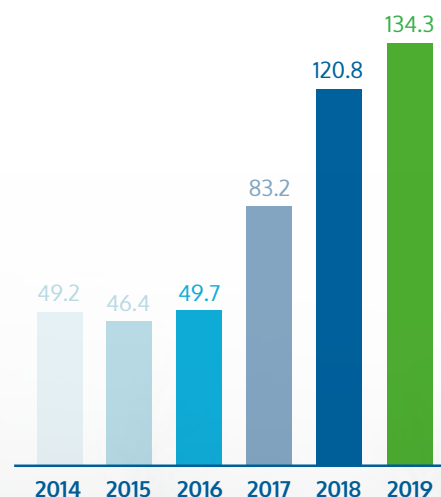
**STATUS:** Project substantially complete. Loan in repayment through 2038.

### North Facility Improvements

**INITIATED:** 2018

**STATUS:** Project complete. Loan in repayment through 2039.

## TOTAL DEBT\* (IN MILLIONS)



\*The capital improvements detailed on the prior page have necessitated the debt increase.



# PUBLIC EDUCATION & OUTREACH

## 2019 PUBLIC OPEN HOUSE

In October 2019, the employees of Fox Metro donated their time for an Open House. The day included public education, tours, and family-friendly activities. Over 500 community members attended this event which showcased the new South Plant Facility.

Plant tours  
showcased  
the new South  
Wastewater  
Facility.



Wastewater  
education and  
fun activities  
were offered  
to the public.





# Fox Metro

Water Reclamation District

## LOCAL EVENTS

Fox Metro's staff dedicates time and effort to educate residents about wastewater issues and Fox Metro's services. These local events include:

- Aurora 4th of July Parade
- Aurora Greenfest
- Aurora Kiwanis One-Day Event
- Aurora University Career Fair
- Oswego ECO Earth Day
- Montgomeryfest Parade
- STEM conference at Fermilab
- Plant Tours (throughout the year)
- Medication Take Back (at several public events throughout the year)

## Protecting the environment one drop at a time.

We at Fox Metro strive for continuous improvement and transparency, so we welcome input for future Annual Community Reports. Comments, questions, or suggestions can be sent to [info@foxmetro.org](mailto:info@foxmetro.org).

**FOXMETRO.ORG**

