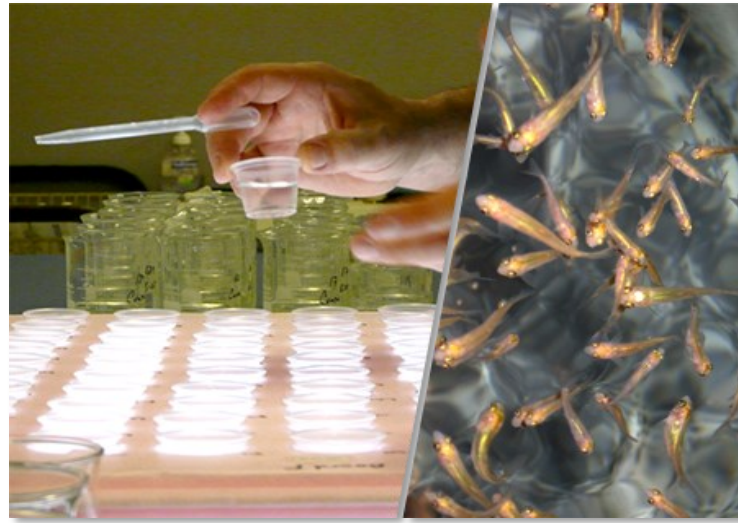


## In The Lab

Every year, UMJA provides a sample of our Final Effluent to American Aquatics for WET (Whole Effluent Toxicity) Testing. The WET test uses aquatic, bacterial, or vertebrate species to measure the toxicity of the Effluent along with the impact on established aquatic and biological communities that could be found in the reservoir. American Aquatic uses Pimephales Promelas (fathead minnow) and Ceriodaphnia Dubia (water flea) specifically, to determine if there is an adverse effect (usually death) on the organisms. A tank is set up with our Effluent and the appropriate specimen on Monday. The effluent will be changed twice, once on Wednesday and once on Friday. This will allow for acute and chronic analysis. UMJA has been providing this sample for years with a 100% success rate.



## Did You Know... Manhole Leakage Capacities and Cost

Leak Size	1/16"	1/8"	1/4"	1/2"	3/4"	1"
Gallons/Minute @ 1 P.S.I	0.0370	0.1480	0.591	2.36	5.31	9.45
GPM - Crack around entire 27" Manhole	3	13	50	200	450	801
GPD - Crack around entire 27" Manhole	4,517	18,068	72,151	288,116	648,262	1,153,686
Total Gallons per Year <small>(Average 100 Rain days - crack around entire 27" Manhole)</small>	451,708	1,806,831	7,215,117	28,811,635	64,826,179	115,368,624
Yearly Treatment Costs @ \$2.00/1000 Gallons	\$903	\$3,614	\$14,430	\$57,623	\$129,652	\$230,737

Data extrapolated from the Gorman-Rupp Company, Engineering Data

## In the Newsfeed... Upper Montgomery Joint Authority

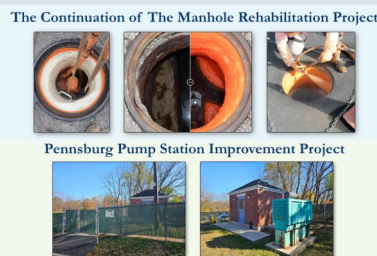
UMJA Staff prepared meals for 200 community members at the first Monday Meal at the New Goshenhoppen UCC with the help of Tosco's.



Congratulations to Greg Young on his 20 year anniversary with UMJA!



UPPER MONTGOMERY JOINT AUTHORITY  
Receives \$114,000 Grant



UMJA is an Equal Opportunity Provider and Employer



# 2025 SPRING NEWSLETTER

UPPER MONTGOMERY JOINT AUTHORITY

## Billing/Accounting News

### Online Portal

Since the roll out of our new billing system in June 2024, we have had about 1/3 of our customers create accounts on our new Customer Portal. Once registered on the site, you can easily pay your current invoice, view consumption usage and set-up E-Billing and/or AutoPay. To set-up a new account, you will need your full account number (use all capital letters and include all dashes) and your CID number, both of which can be found in the middle section of your billing invoice or by calling or emailing the office to request this information, [billing@umja.org](mailto:billing@umja.org). The Customer Portal can be accessed at <https://umja.authoritypay.com/> or by following the link on UMJA's website, [www.umja.org](http://www.umja.org) under \*NEW\* CUSTOMER PORTAL. Once on the portal, click on "Not Registered?" to create an account and an email will be sent to you to confirm your registration.

### Sale of a Property

Any property that is serviced by UMJA requires a lateral inspection to be completed before settlement. The inspection request should be provided to UMJA approximately 30 days (or more) prior to the settlement date. The "Lateral Inspection Request" form can be found on UMJA's website, [www.UMJA.org](http://www.UMJA.org), under [resources](#) then [forms](#). The completed form, along with the inspection fee of \$700, must be received by UMJA before we can add the inspection to the schedule.



### In Need of Financial Assistance?



The Open Link offers programs to help meet the critical needs of income eligible residents by providing financial assistance for basic utilities. To contact the Open Link call (215)-679-4112 or online at <https://theopenlink.org/>.

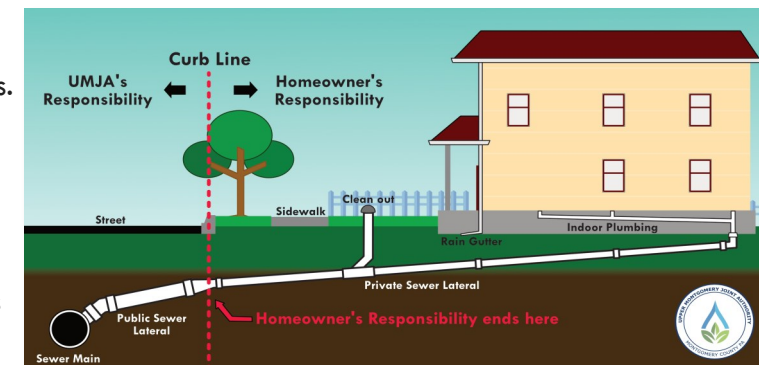
## What is a Property Inspection?

As part of our ongoing efforts to maintain a safe and efficient sewer system, we encourage all property owners to schedule a property inspection. This quick inspection helps ensure that no inappropriate connections—such as roof downspouts, floor drains, and sump pumps—are linked to the sewer system.

When water from these illegal connections enters the system, it undergoes unnecessary treatment, taking up valuable space and resources.

This increases operational costs, which ultimately raises sewer bills. The inspection itself takes only about five minutes, and as a thank-you, the Authority offers a \$25 credit, applied to your next sewer bill.

\*Please note, this inspection does not include a sewer lateral inspection, which examines the pipe running from your house to the mainline.



Property Inspections are at **zero** cost to the property owner.

# Operations Corner : Weather Effects

## Ideal Weather

A wastewater treatment plant consists of mostly microbiology and mechanical components. Weather has an immense effect on how efficiently the equipment runs and how proficient the wastewater treatment process performs. Seasonal changes can bring challenging weather, so it is crucial for operators to make necessary process changes in order to maintain the high quality effluent returning to the reservoir.

Water temperature range between 20°C and 35°C (68°F and 95°F)

Plant daily flow total 1-2 million gallons per day



## Cold Weather

We all see our gas mileage significantly drop during the winter season. The equipment at the treatment plant also experiences a loss in efficiency in cold temperatures. Extra preventive maintenance and monitoring is crucial to ensure all equipment continues to run smoothly through these winter months.

Like you and I, the microbial life within the treatment process begins to slow down during the winter season. Responsible for removing nutrients, pollutants, and breaking down organic compounds from the wastewater, the microbiology is essential to the quality of the effluent returned to the reservoir. As water temperatures fall below the optimal range, microbial activity is reduced significantly. For every 10°C drop, activity is nearly cut in half. So, in order to maintain proficient treatment through the winter season, we aim to store 20% more microbiology to counteract the drop in temperature.



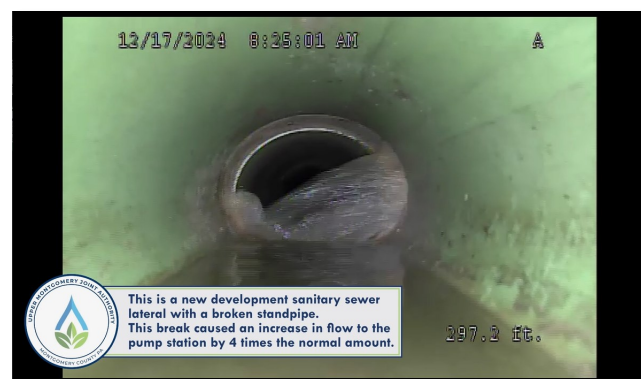
## Drought

New drought records were set all across Pennsylvania in late 2024. The most impressive record being 42 consecutive days without rain in the Philadelphia area. Anyone who drove past Green Lane this past fall season saw first-hand how a drought affects our environment. Green Lane Reservoir usually stores 4.4 billion gallons of water. The water level had reached an all time low with only 3.0 billion gallons of water.

UMJA's daily flow rate also hit record lows from the drought. Compared to the optimal daily flow of 1-2 million gallons per day, we saw daily average flows lower than 500,000 gallons per day. Flow amounts higher or lower than the optimal range, can cause imbalances within the treatment process. Daily operations required more attention and extra monitoring was necessary to ensure the treatment process remained proficient with such a lack of flow. Various tanks were taken offline throughout the process due to the lack of flow.

UMJA's effluent outfall, located within the reservoir, was visible for the first time in years. Even though the daily flow was cut significantly, our effluent was the only water source in a large section of the dried up reservoir. The outfall became home to many frogs, crayfish, and minnows throughout the drought.

## Effects on the collection System



The drought we all experienced within the late months of 2024 had a small impact on the collection system. Due to very little rainfall, the inflow and infiltration was at an all time low, leading to a reduced flow in our collection system. This can make it difficult to detect sources of infiltration in private sewer laterals and illegal sump pump connections. A benefit of lower flows coming through our pump stations is that they need to run less. This reduces costs in maintenance, replacements, and time spent attending to these pump stations. As the weather shifts and temperatures drop, snowfall will increase our inflow & infiltration once it begins to melt.

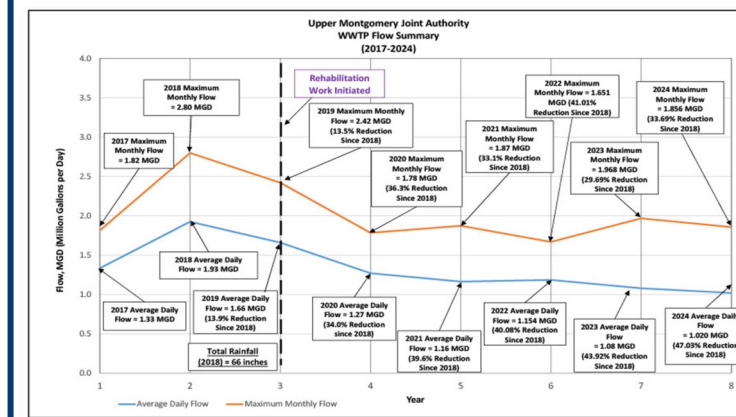


Operation Manager Jason DiPietro attended The New England Water Environment Association Annual Conference and Exhibit to participate on an operations panel discussing side stream biological phosphorus removal with other industry professionals. UMJA has successfully operated this process for 4 years.



## NASTT Mid-Atlantic Chapter Innovations in Trenchless Technology Seminar, Rutgers University

Jennifer Leister, Executive Director, presented UMJA's extensive I&I reduction efforts through its advanced rehabilitation work at the NASTT Mid-Atlantic Chapter Innovations in Trenchless Technology Seminar at Rutgers University. This work resulted in significantly reduced overflows within the collection system. Over the past 6 years, UMJA has seen a reduction in infiltration by 48%. Overall the rehabilitation work has essentially paid for itself and will continue by reducing pumping, treatment, chemical, and energy costs in addition to allowing for future development for many years to come.



## ACE Program

### UMJA Continues Partnership with ACE Mentorship Program with Upper Perkiomen High School

The Authority is proud to announce its continued participation in the ACE Mentorship Program in partnership with Upper Perkiomen High School. This nine-week program, beginning Tuesday, February 3rd, will introduce 25 students to various aspects of the utility industry.

Students will engage in a curriculum that includes topics such as wastewater treatment, construction, collection system rehabilitation, steam fitting, and CAD. Each week, industry experts will mentor the students, providing them with professional skills and real-world applications. The program will conclude with a celebratory Perkiomen Watershed kayak tour.

The ACE Mentorship Program is an initiative that fosters partnerships between high schools and industry professionals.

The program aims to support high school students in reaching their career goals through mentorship, education, and hands-on experience.

For more information about the ACE Mentorship Program and how it supports high school students, please visit [acementorphilly.org](http://acementorphilly.org).

