



# National Environmental Achievement

A W A R D S



Member Agency NEAA Awards | **Community Leadership Award**

**Clark County Water Reclamation  
District, NV**

Septic Conversion Project

**El Paso Water, TX**

Arroyo 1 Dam and Green  
Infrastructure Improvements

**Gulf Coast Authority, TX**

Trash Bash

**King County Wastewater  
Treatment Division, WA**

Sewer Heat Recovery

**Narragansett Bay Commission, RI**

Green Stormwater Projects in Central Falls, RI

**Northeast Ohio Regional Sewer District, OH**

Utility Assistance Resource Fairs

**Sacramento Area Sewer District, CA**

Confluence Regional Partnership Program



# CLARK COUNTY WATER RECLAMATION SEPTIC CONVERSION PROJECT

COMMUNITY LEADERSHIP AWARD



**Clark County  
Water Reclamation  
DISTRICT**

## SEPTIC CONVERSION PROJECT

100% OF COSTS FOR CONVERSION FROM SEPTIC TO SEWER  
AVAILABLE THROUGH CCWRD GRANT

### NO COST TO PROPERTY OWNERS



CCWRD has grant funds available for septic conversion. More than 115 homeowners in our community have already taken advantage of this opportunity. The average cost of conversion that has been saved by homeowners is \$44,107.

\*Once construction is completed, property owners will be responsible for annual sewer service fee, approximately \$273.48.

### IMPROVED PUBLIC HEALTH



The sanitary sewer system protects our community against disease and infection. It safely disposes of wastewater and sends it to our plant, where it can be treated and cleaned. Failed or leaking septic tanks and their leach fields can contaminate groundwater.

### ENVIRONMENTAL PROTECTION AND SUSTAINABILITY



Converting from septic to sewer can help CCWRD recover approximately 90,000 gallons per home per year. Once cleaned, this water can be reused in our community. So far, 11,250,000 gallons have been returned to Lake Mead from all CCWRD septic conversions.

### FINANCIAL BENEFIT



According to real estate professionals, converting from septic to sewer increases the value of a home. Also, once converted property owners can fully utilize the land above the septic tank. Finally, they can eliminate costly maintenance, chemical costs, and private pumping services associated with the upkeep of a private septic system.

91 - CONVERSIONS COMPLETED AS OF JANUARY 1, 2025

26 - PROJECTS IN DESIGN AND/OR UNDER CONSTRUCTION

8.2 MILLION GALLONS - ESTIMATED WATER SAVINGS PER YEAR

SEPTICCONVERSION@CLEANWATERTEAM.COM

WWW.CLEANWATERTEAM.COM/CONVERT

CHECK OUT A SEPTIC CONVERSION  
STORY HERE:



# 2025 National Environmental Achievement Awards

## Community Leadership Award

### Arroyo 1 Dam and Green Infrastructure Improvements

#### Challenge



Heavy rain overwhelmed infrastructure, causing severe flooding and damage to surrounding roads.

#### Going Green



Gabion structures provide structural functions while blending into natural surroundings.

#### Solution

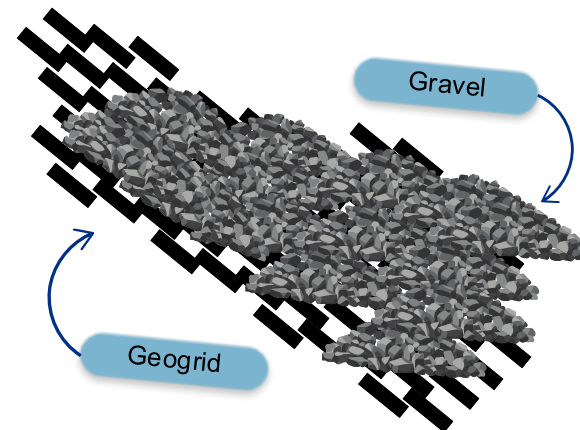


Project designed to decrease velocity of stormwater coming off the mountain.

Views of the mountain and access to trails are preserved while adding public safety measures to help reduce stormwater runoff.



First EPWater project to utilize geogrids, a low-lying material that provides stability and prevents erosion.



# GULF COAST AUTHORITY TRASH BASH

## COMMUNITY LEADERSHIP AWARD



Providing crucial administrative support, financial services, site coordination, and volunteers for 30 years.

Volunteers meet on the day of the event across multiple clean-up sites to coordinate, organize, and contribute to picking up trash and recyclables.

3-4 GCA employees attend monthly planning calls beginning in September.



2 administrators send out & receive sponsorships from October to March & perform accounting duties over 100 hours.

2 facilities participate in site organization, along with 15-20 GCA employees.

3-4 employees organize supply pick-up at GCA's Washburn Tunnel site for the entire event.

### 30 Years of Results

Volunteers	Trash (tons)	Tires	Recycled (tons)	Shoreline (miles)
121,705	2,505.17	12,410	23.41	2,067.92



# KING COUNTY WASTEWATER TREATMENT DIVISION SEWER HEAT RECOVERY PILOT PROJECT

COMMUNITY LEADERSHIP AWARD



A public-private partnership to heat and cool a new 1.6 million sq. ft. complex with a county sewer line - one of the first and largest commercial systems in the nation.

[Take a tour video](#)



King County | Wastewater Treatment



# Narragansett Bay Commission's Green Stormwater Infrastructure Projects in Central Falls, Rhode Island



**Water Quality Improvements**

**Reduced Combined Sewer Overflows**

**Reduced Stormwater Flows to WWTF**

**Resiliency Against  
Increasing Storm Intensity**

**Environmental Cleanup**

**Urban Redevelopment**

**Collaboration and Shared Trust**

# NORTHEAST OHIO REGIONAL SEWER DISTRICT UTILITY ASSISTANCE RESOURCE FAIRS COMMUNITY LEADERSHIP AWARD



NEORSD employees help connect customers with the support from utilities and services they need at one of four 2024 Utility Assistance Resource Fairs. [neorsd.org/help](https://neorsd.org/help)

2024

Rate Reduction program  
enrollments in 2024:

**2,041**

Total families served  
at Resources Fairs in 2024:

**848**

Crisis Assistance Awards  
in 2024 (total \$267,000+)

**1,040**

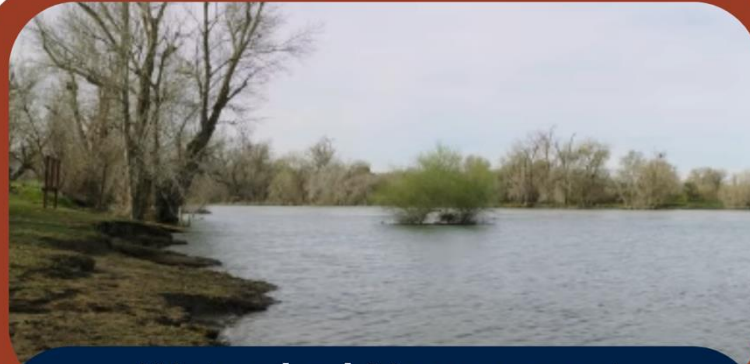


# SACRAMENTO AREA SEWER DISTRICT CONFLUENCE REGIONAL PARTNERSHIP PROGRAM

## COMMUNITY LEADERSHIP AWARD

This distinctive grant program uses non-rate, non-fee revenues to fund community programs that expand the Sacramento region's environmental, educational, and economic vitality. Grants are available to our customers, non-profit organizations, public agencies, and developers.

**SacSewer provided over \$26M  
in grants since 2017.**



**Watershed Management  
American River Parkway Cleanup  
Septic System Conversion**



**Sewer Lifeline Rate Assistance**



**Sewer Impact Fee Waivers  
Economic Development**



**Public Education**

Member Agency NEAA Awards | **Operations & Environmental Performance Award**

**City of Columbus Department of Public Utilities, OH**

Blueprint Columbus

**Derry Township Municipal Authority, PA**

Waste & Energy Recovery Enhancements at the Clearwater WWTF

**Madison Metropolitan Sewerage District, WI**

Working Together to Protect Freshwater

**Milwaukee Metropolitan Sewerage District, WI**

Fresh Coast Green Infrastructure Programming



# BLUEPRINT COLUMBUS

Cleaner streams.  
Stronger neighborhoods.

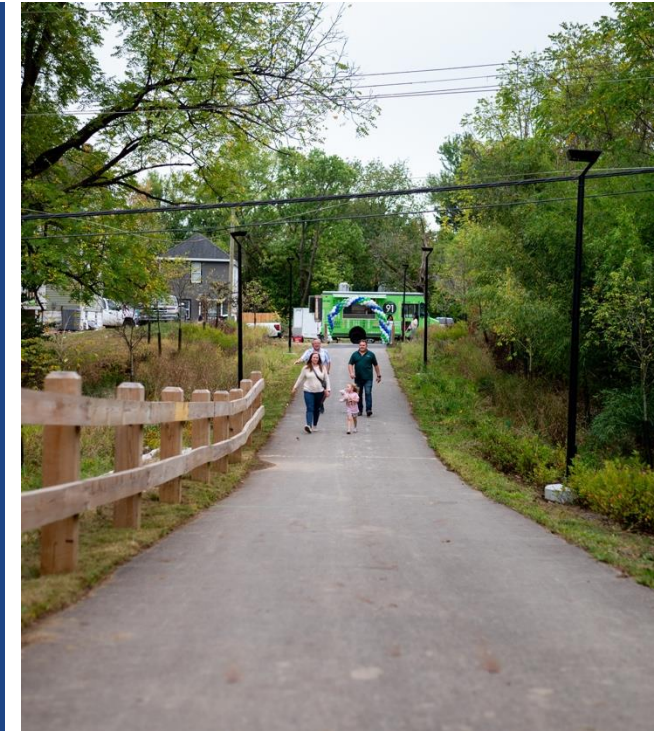
## What is Blueprint?

Blueprint Columbus is a multi-phase approach to eliminate sanitary sewer overflows and improve the quality of stormwater discharges. By redirecting rainwater away from your home and relining your wastewater pipe, excess water is prevented from entering the sanitary sewer system.

Local Blueprint crews install and maintain rain gardens and pervious pavement to beautify and strengthen Columbus neighborhoods.

## Benefits of Blueprint

- Creates cleaner streams and rivers
- Filters stormwater discharges
- Improves existing sewer infrastructure
- Uses native plants and local materials
- Creates green spaces in our neighborhoods
- Engages neighborhoods and residents
- Adds permanent local jobs
- Addresses EPA consent order requirements.



Lateral Lining

4500  
Laterals  
Lined



Roof Water Redirection

2,525  
Downspouts  
Redirected



Sump Pumps

1800+  
Sump Pumps  
Installed



Green Infrastructure

653  
Rain Gardens  
14  
Paver Streets

# DERRY TOWNSHIP MUNICIPAL AUTHORITY (HERSHEY, PA) WASTE & ENERGY RECOVERY ENHANCEMENTS AT THE CLEARWATER WWTF

## OPERATIONS & ENVIRONMENTAL PERFORMANCE AWARD

The Future is..Efficient - *Committing to "Net Zero Energy"*

- Project Goals & Objectives
  - Self-sustainable WWTF operations by utilizing on-site beneficial renewable energy
  - Decrease dependency on the energy marketplace
  - Generate operational cost savings to the benefit its ratepayers
- Project Outcome
  - New Combined Heat and Power (CHP) Building with two (2) 1,000-kW CHP systems
  - CHPs fueled by biogas generated from Co-Digestion of High Strength Organic Waste (HSOW) with municipal sludges
  - Improved biogas storage, conveyance, and conditioning capacity
  - Electric Utility Interconnection and Net Metering
  - Expand plant-wide building heat recovery system and controls
- Performance Measures
  - Annual electricity, NG, fuel oil savings - \$400k ("Net Zero")
  - Estimated annual REC sales - \$200k
  - Additional annual HSOW Acceptance Revenue - \$180k



# UNSALTING OUR FRESHWATER THROUGH POLLUTION PREVENTION

Madison Metropolitan Sewerage District's forward-thinking pollution prevention program addresses challenges with chloride (salt) in freshwater.

## LEADING THE WAY

Community engagement, partnerships, technical education and incentives have helped spark significant shifts in salt use.

Our model inspired local, regional and national change in chloride management, winter deicing and water softening.

## PROGRAM SUCCESSES

Our program has reduced **over 600,000 pounds** of chloride from wastewater discharges.

Costs have amounted to under **\$1 million**, far less than \$300 million for a built solution.



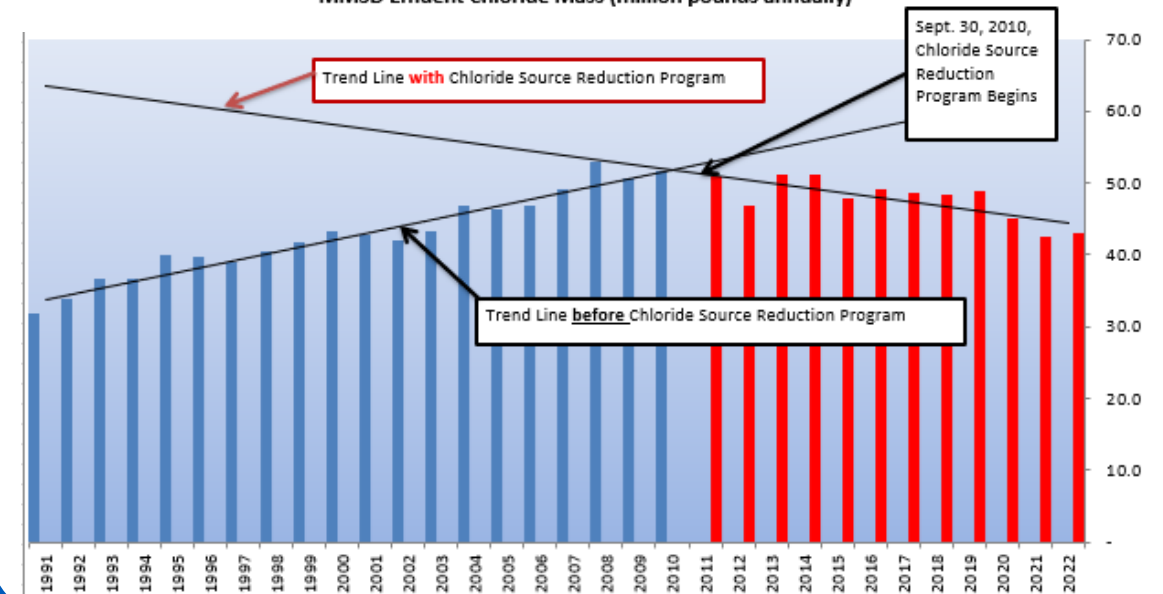
Wisconsin Salt Wise

Madison Metropolitan Sewerage District

2025 NEAA WINNER



MMSD Effluent Chloride Mass (million pounds annually)



# MILWAUKEE METROPOLITAN SEWERAGE DISTRICT FRESH COAST GREEN INFRASTRUCTURE PROGRAMMING

## OPERATIONS & ENVIRONMENTAL PERFORMANCE AWARD



- 25 years of building green infrastructure programming
- Unique approaches for urban, suburban, and rural communities



- Implementation of small-scale and residential GI
- Holistic solutions support triple bottom line outcomes
- Open space and agricultural land preservation



- Dedicated community outreach



- Data driven strategies

- Modeling
- Geographic Information Systems
- Integrated asset management
- Measurable project outcomes



**153 Million Gallons**  
of capture capacity in GI



Successful suite of **10 funding  
and implementation programs**



**6,000+** acres  
of land preserved



## Member Agency NEAA Awards | **Public Information & Education Award: E-Media**

### **Madison Metropolitan Sewerage District, WI**

Investing in Our Future

### **Metropolitan Wastewater Management Commission, OR**

Pollution Prevention Digital Advertising Campaign

### **Orange County Sanitation District, CA**

Connection Newsletter

### **South Essex Sewerage District, MA**

SESD Updated Website and Logo





We'll take it from here.

[madsewer.org/here](https://madsewer.org/here)



This 2024 ad campaign helped build support for investment in clean water infrastructure.

Ads appeared on social media, online, billboards, bus wraps, posters and more.

Ads were viewed an estimated 32.2 MILLION times.

Campaign will extend into video for 2025.

# THE START OF SOMETHING BEAUTIFUL.

It takes a lot of infrastructure to turn wastewater into clean water.

We'll take it from here.



Madison Metropolitan Sewerage District



National Environmental Achievement AWARDS

2025 WINNER



# METROPOLITAN WASTEWATER MANAGEMENT COMMISSION POLLUTION PREVENTION DIGITAL ADVERTISING CAMPAIGN

PUBLIC INFORMATION & EDUCATION AWARD

Digital Advertising Campaign took place between January 25 and April 22, 2024

Ads ran on streaming TV, streaming radio, social media, website banners, and local billboards

## Overall Results

- **3.1 million impressions** across digital channels
- **3.3 million impressions** via billboards



Metropolitan Wastewater  
MANAGEMENT COMMISSION



partners in wastewater management

## Ad Creative



Scan to view  
the campaign  
landing page



Scan to view  
the 30-second  
campaign TV ad



# OC SAN CONNECTION

COMMUNITY NEWSLETTER

The Orange County Sanitation District (OC San) is a public agency that provides wastewater collection, treatment, and recycling services for approximately 2.6 million people in central and northwest Orange County. OC San aims to keep the public informed about the services we provide, and our efforts to protect public health and the environment through various electronic pieces like our community newsletter.

OC San's community newsletter, "OC San Connection" is intended to be a standalone piece that provides a quick update of OC San's efforts and services to our community. As a special district with no direct billing to our customers, we don't have the opportunity to share information and articles of interest with our audience. Each quarterly e-newsletter is intended to bridge that gap and inform and educate our public on the essential service we provide by sharing news on construction projects, program we provide, tips, and fun facts.



**4,500**  
SUBSCRIBERS

**320%**  
SUBSCRIBER INCREASE  
(1,400 Initial Subscribers)



[ocsan.gov/newsletter](https://ocsan.gov/newsletter)

Follow us on social media @OCSanDistrict



Public Information & Education: E-Media



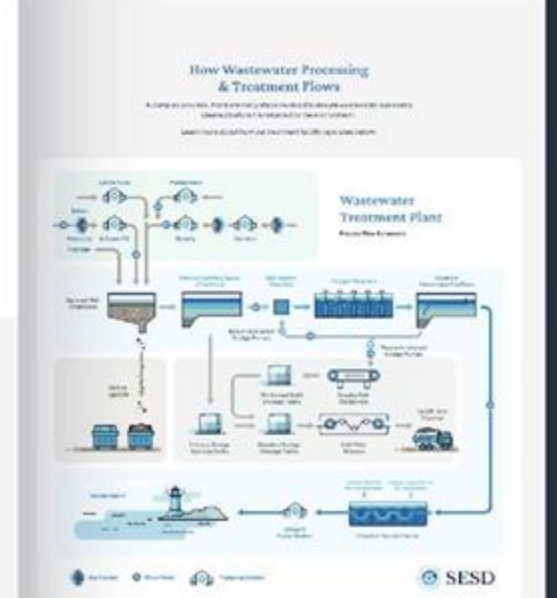
# SOUTH ESSEX SEWERAGE DISTRICT UPDATED LOGO & WEBSITE: SESD.COM

PUBLIC INFORMATION & EDUCATION AWARD



# SESD

Wastewater Treatment  
For a Cleaner Environment



Designed & Developed by **MAYO** BRAND | MARKETING | WEB



## Member Agency NEAA Awards | **Public Information & Education: Educational Program**

**City of Los Angeles –  
LA Sanitation and Environment, CA**  
Sewer Service Charge Rate Adjustment  
Outreach

**Fairfax County Wastewater  
Management Program, VA**  
Outreach Program

**Hampton Roads Sanitation District, VA**  
Boater Education and Pump-Out  
Internship Program

**Prince William Water, VA**  
Water Academy

**Stafford County Utilities, VA**  
Public Outreach with Superhero  
“Captain Clog”

**Western Virginia Water Authority, VA**  
Mural Art Contest



# LA SANITATION AND ENVIRONMENT SEWER SERVICE CHARGE RATE ADJUSTMENT

## PUBLIC INFORMATION & EDUCATION AWARD



### Goals & Objectives

- Inform millions of Angelenos about the proposed Sewer Service Charge (SSC) rate adjustment through a comprehensive and large-scale outreach and engagement effort
- Communicate the necessity of the proposed adjustment with clear, consistent messaging
- Provide community partners such as Council Offices, CBO's, and civic & faith - based organizations with materials and opportunities to help spread the message in their communities
- Educate the community about resources available to those experiencing financial hardship
- Gain the community's trust by conducting multi-pronged outreach to meet them where they live
- Build consensus for the proposed SSC adjustment and, ultimately, get the adjustment approved

### Results

In total, LASAN's outreach touched approximately **2 million Angelenos**, with countless others receiving information through distribution by community partners!

The Los Angeles City Council approved the new Sewer Service Charge rates on **September 10, 2024**, making way for LASAN to dedicate **3 billion dollars over the next five years** to crucial capital improvement projects to ensure the reliability of the City's wastewater infrastructure



# FAIRFAX COUNTY WASTEWATER MANAGEMENT OUTREACH PROGRAM

PUBLIC INFORMATION AND EDUCATION AWARD



## Fairfax County Wastewater Management Outreach Team



Expose students to the science of protecting water resources through various lab activities



Create original educational videos that correspond to each provided activity



Change behaviors by promoting environmental stewardship concomitantly with community engagement



Students learn to care for the environment, identify sources of pollution, and how they can minimize the risk of issues in their own home

### Micros are Everywhere (Grades 3 – 6) | Program length: 45 minutes



The Micros are Everywhere activity introduces students to the microscope and the importance of microorganisms in our environment. Students will learn how microorganisms help clean wastewater. Microscopes CAN be provided; however, they are limited in number and students will need to share. Slides and worksheets will be provided. Standards are:

#### Science Standards aligned:

- Grade 3: 3.1b, 3.5ab
- Grade 4: 4.1b, 4.3ab, 4.8b
- Grade 5: 5.1ab, 5.9ab
- Grade 6: 6.1b, 6.9d, 6.9abc

#### Math Standards aligned:

- Grade 3: 3.4abc
- Grade 4: 4.4ad
- Grade 5: 5.4
- Grade 6: 6.5b

WATCH "MICROS ARE EVERYWHERE" VIDEO

Create resources that are structured around Virginia's Standard of Learning objectives that can be utilized among different grade levels

# HRSD BOATER EDUCATION AND PUMP-OUT INTERNSHIP PROGRAM

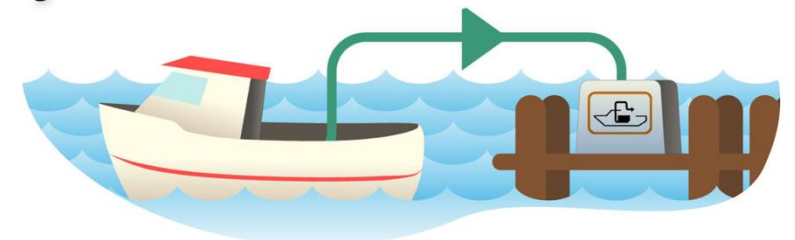
PUBLIC INFORMATION & EDUCATION AWARD

Our mission is to promote the proper disposal of sewage from boat holding tanks in order to protect public health and the waterways of Hampton Roads.



## Use Pump Out and Dump Out Stations Because...

- Raw sewage can spread diseases like hepatitis, norovirus, typhoid, and cholera, which can be transmitted by the shellfish we eat.
- It keeps our waterways and aquatic life healthy and protects public health
- It is illegal to discharge untreated sewage from vessels into all water bodies of the Commonwealth.



# PRINCE WILLIAM WATER WATER ACADEMY

PUBLIC INFORMATION & EDUCATION AWARD



**THE WATER  
ACADEMY**

Is your community eager to learn what it takes to get water from its source to the tap and back again and what it means to be an environmental steward?

Since 2017, the Water Academy has provided Prince William County residents the opportunity to engage with their water utility, tour a water reclamation facility, and learn about the water and wastewater industry.

The program has more than 200 graduates, including teachers, government officials, homeowners' association leaders and environmental enthusiasts.



“ The Water Academy opened my eyes to the complexity of the water and wastewater business and the important role Prince William Water has as an essential service in public health.

“ I feel confident our water system is maintained well by professionals who care about their work and the customers' wellbeing.



Stafford County's Superhero, "Captain Clog".  
A vehicle to communicate various awareness and outreach topics.

***STORE IT, DON'T POUR IT***



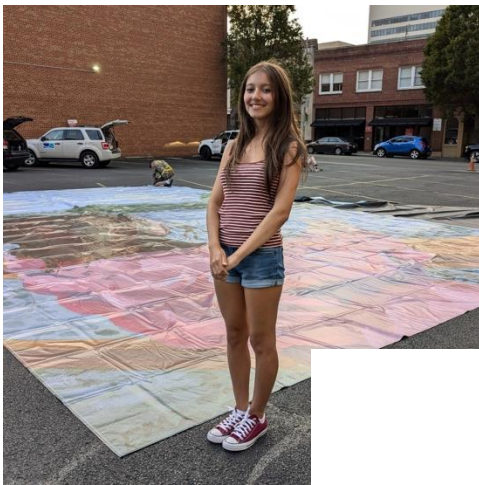
***CLOGS ARE A PAIN,  
DON'T PUT GREASE  
DOWN YOUR DRAIN!***



BROUGHT TO YOU BY:

UTILITIES  
**STAFFORD**  
*Virginia*

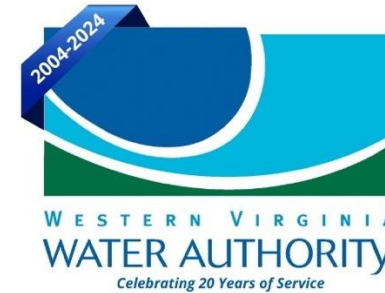
[www.staffordcountyva.gov/FOG](http://www.staffordcountyva.gov/FOG)



# Western Virginia Water Authority 20th Anniversary Mural Art Contest

High school students submitted entries to reflect on the importance of protecting our valley's water resources.

- The winning art was reproduced as a 24'x36' vinyl building mural.
  - Over 30 students submitted entries.
  - Traveling art show at local libraries
- Increased awareness of the Authority's mission for the past 20 years.



Serving the Cities of Roanoke, the Counties of Roanoke, Franklin & Botetourt and the Towns of Boones Mill & Vinton, VA

[www.westernvawater.org](http://www.westernvawater.org)



**MURAL ART CONTEST GALLERY**

"Our Valley's Clean Water Future"

Welcome! As an extension of the Western Virginia Water Authority's education and community outreach efforts, this unique contest offered a creative outlet for high school students to express appreciation for the valley's natural water resources and to consider their impact on the community's water future.

More than 30 students from six different Roanoke Valley schools entered the contest, and the winner's artwork is now displayed as a mural on the west side of the Authority's Administrative Building at 801 S. Jefferson Street.

Thank you to each of the artists and the teachers who supported them in their endeavors!

Please enjoy this gallery of their work.

**ARTWORK ON DISPLAY**  
Main Library Downtown Roanoke July 13 - July 26  
Multiple Roanoke County Libraries Aug 12 - Sept 6

**Participants**

**Northside High School**  
Elena Morales  
Alyyah Williams  
Mylii Stokes  
Karon Dean  
Sierra Francisco  
Carlos Guzman Ruiz  
Lila Hill

**Hidden Valley High School**  
Ashlynn Shabana  
Ella James  
Kenneth Gilkes-Smith  
Lyndsey Devlin  
Caitlin Musser  
Abby Wanek  
Jenna Babcock  
Fiona Novick  
Dahlia Berning

**Burton Center for Arts & Technology**  
Jack Barbour  
Kendall Lucas  
Talmage Descenzo

**Glenvar High School**  
Kairi Remington

**Homeschool**  
Yasael Dalton  
Genevieve Dalton

**William Byrd High School**  
Sandy Scott  
Addison Collins  
Ella Agee

**Teachers**  
Heather Rivers  
Gabrielle Frohock  
Denise Sartell  
Natalie Strum  
Jason Fizer

**Thank You**

Thank you to the artists and teachers who participated in this contest. We would also like to express sincere gratitude to our partners at Roanoke City Libraries for hosting this gallery for our community to enjoy the amazing talent. We would also like to thank Roanoke County Libraries for continuing to display these pieces from August 12 - Sept 6 at the libraries closest to the students' schools.



WESTERN VIRGINIA WATER AUTHORITY

20TH ANNIVERSARY MURAL ART CONTEST

"Our Valley's Clean Water Future"

YOUR ART COULD BECOME A MURAL IN DOWNTOWN ROANOKE!

\$250 CASH PRIZE FOR SELECTED ARTIST AND A \$250 GIFT CARD RAFFLE FOR TEACHERS!

SUBMISSIONS DUE MAY 1

Scan for rules, guidelines, and official entry form



Member Agency NEAA Awards | **Public Information & Education: Printed Publication**

**AlexRenew, VA**

Tunnel Boring Machine (TBM) Brochure

**Mount Pleasant Waterworks, SC**

Plant Tour Guide



# ALEXRENEW TUNNEL BORING MACHINE (TBM) BROCHURE

PUBLIC INFORMATION & EDUCATION AWARD

## Hazel: A Visual Timeline

### Our Subterranean Star: A Visual Timeline

Hazel's legacy will live on long after the RiverRenew tunnel system becomes operational. The tunnel Hazel constructed will prevent millions of gallons of combined sewage from polluting the Potomac River each year, setting the foundation for a brighter future for generations to come.

Scan here to learn more about Hazel's journey!

- Investigations & Preliminary Design** (Sep. 2018 – Oct. 2019): RiverRenew engineers and crews drilled 97 borings to characterize the ground along Hazel's tunnel alignment. This data was used to specify the type of TBM needed for Alexandria's geologic conditions.
- Final Design** (Dec. 2020 – May 2021): RiverRenew engineers designed Hazel specifically for Alexandria's geologic conditions, ensuring she could dig through clay and aluminum soil layers at depths of 120 feet below the ground surface.
- Fabrication** (Jan. 2021 – Apr. 2022): World-renowned TBM manufacturer, Herrenknecht, fabricated Hazel from scratch at their factory in Schwanau, Germany.
- Factory Testing** (Apr. 2022): RiverRenew engineers traveled to Germany to perform rigorous, multi-day tests of all TBM systems and components to ensure Hazel would perform effectively during her dig.
- Shipping** (May 2022): All 380 tons of Hazel were disassembled before making their way to Alexandria, starting with a barge trip across the Mingo River.
- Welcome Ceremony** (Jul. 2022): The Alexandria community chose Hazel Johnson, mother of the environmental justice movement, as our TBM's namesake. We held a meditation for Hazel the TBM and began preparing for her big dig!
- TBM Lowering** (Aug. 2022): A 225-ton crane lowered Hazel into a 140-foot-deep shaft at AlexRenew. Hazel's front link, and tail shafts, were then fit together.
- TBM Launch** (Nov. 2022): Hazel began rolling by breaking through the shaft's wall. As she dug, RiverRenew crews added all 163 parts of her trailing gear, one piece at a time.
- Stop at Royal Street** (Jun. 2023): Hazel reached the intermediate shaft, receiving routine maintenance and inspection before resuming her dig. Crews installed a conveyor belt booster and ventilation system to prepare for the rest of her journey.
- Completed Tunnel** (Mar. 2024): Hazel reached the finish line, safely burrowing through the walls of the Potomac Street shaft and completing the Waterfront Tunnel.

**Hazel**  
A visual timeline and detailed description of the tunnel boring machine (TBM) that helped AlexRenew complete a once-in-a-generation environmental project.

To capitalize on the public's fascination with the technology behind its RiverRenew Program, AlexRenew created a foldout brochure to highlight Hazel, the tunnel boring machine (TBM), utilized to create a waterfront tunnel along the Potomac River.

### What's Inside Our Tunnel Boring Machine?

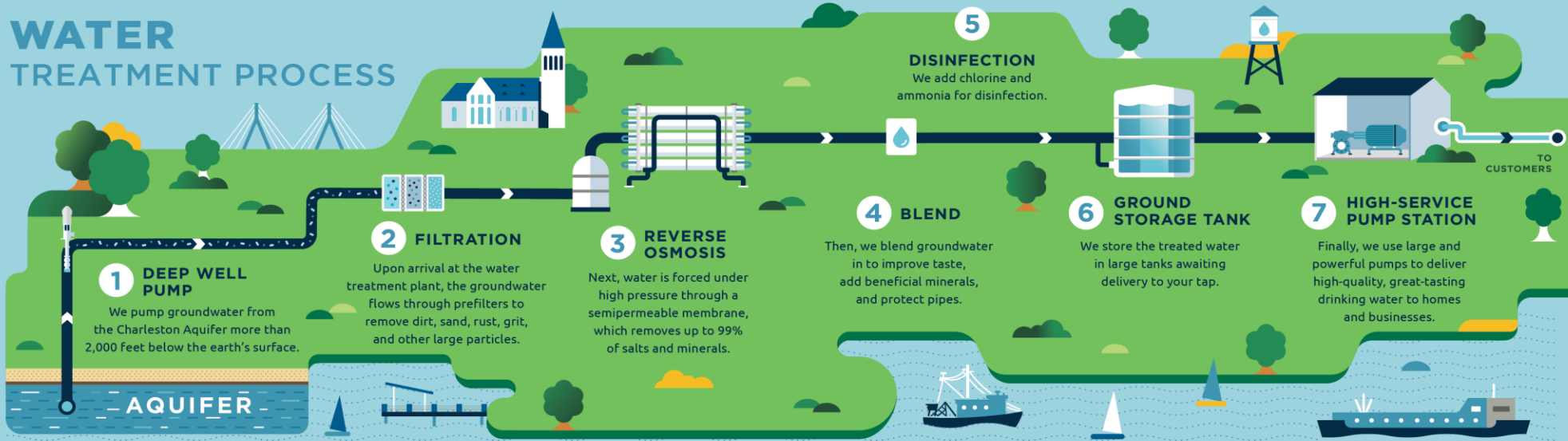
It takes all hands to keep Alexandria's waterways clean, but only 10 people at a time to manage all the mechanisms inside this high-tech, 460-foot-long underground factory.

- Thrust Rams**: 12 thrust rams propel the TBM forward as their hydraulic cylinders push against the permanent tunnel lining.
- Airlock**: Due to the high pressure inside the excavator chamber, workers need to be brought up to pressure in the airlock when they enter and returned to atmospheric pressure when they leave.
- Main Drive**: The main drive uses its 6 T10 kilowatt electric motors to turn the cutterhead.
- Cutterhead**: As the cutterhead spins, strong tools called cutters and scrapers break up soil ahead of the TBM before it enters the excavation chamber.
- Screw Conveyor**: The screw conveyor withdraws material from inside the excavation chamber and deposits it on the conveyor belt for transportation out of the tunnel.
- Control Cabin**: In the control cabin, the TBM operator controls the machine, manages all her onboard systems, and communicates with engineers and mechanics.
- Segment Feeder & Erector**: The segment feeder brings tunnel segments to the remote-controlled segment erector, which lifts and places them using a vacuum plate. Workers then bolt the segments in place.
- Shield**: A thick steel shield houses the TBM's critical components, seals off the tunnel from the surrounding ground, and provides a safe space to erect segments.
- Segment Crane**: The segment crane picks up individual concrete tunnel segments delivered from the surface and places them onto the segment feeder.
- Grout Tank & Pumps**: These tanks store a quick-setting cement mixture called grout, which pumps into the gap between the permanent tunnel lining and existing soil as the TBM advances.
- Tunnel Lining**: 8-inch-thick, precast concrete segments make up the permanent tunnel lining. 6 curved segments form one "ring" of tunnel, 4.5 feet long and 12 feet in diameter.
- Conveyor Belt**: The conveyor belt runs the full length of the TBM, transporting excavated soil (or muck) out of the tunnel.
- Electrical Equipment**: Switches and panels safely distribute 5 megawatts of electricity to the TBM's various motors and components.
- Cooling Unit**: The motors and gearboxes on the TBM can get HOT! An onboard cooling system prevents this critical equipment from overheating.
- Bentonite Tank**: As the TBM digs, crews must condition the soil around her to make it easier to mine and travel out of the tunnel on the conveyor belt.
- Lavatory**: Nature calls in tunnels, too!
- High-Voltage Cable Box**: The TBM's high-voltage power cable needs enough slack to allow the machine to advance forward, so crews attach it to the tunnel wall as she travels.

# MOUNT PLEASANT WATERWORKS CUSTOM DESIGN & BRAND PLANT TOUR GUIDE

PUBLIC INFORMATION & EDUCATION AWARD

## WATER TREATMENT PROCESS



## WASTEWATER TREATMENT PROCESS



## Member Agency NEAA Awards | **Public Information & Education Award: Video**

**Great Lakes Water Authority, MI**  
Freshwater to Drinking Water

**Sacramento Area Sewer District, CA**  
Stop the Clog Campaign

**King County Wastewater  
Treatment Division, WA**  
Operator-in-Training Program

**Western Lake Superior Sanitary District, MN**  
Field Green® Biosolids: A Resource Recovery Story

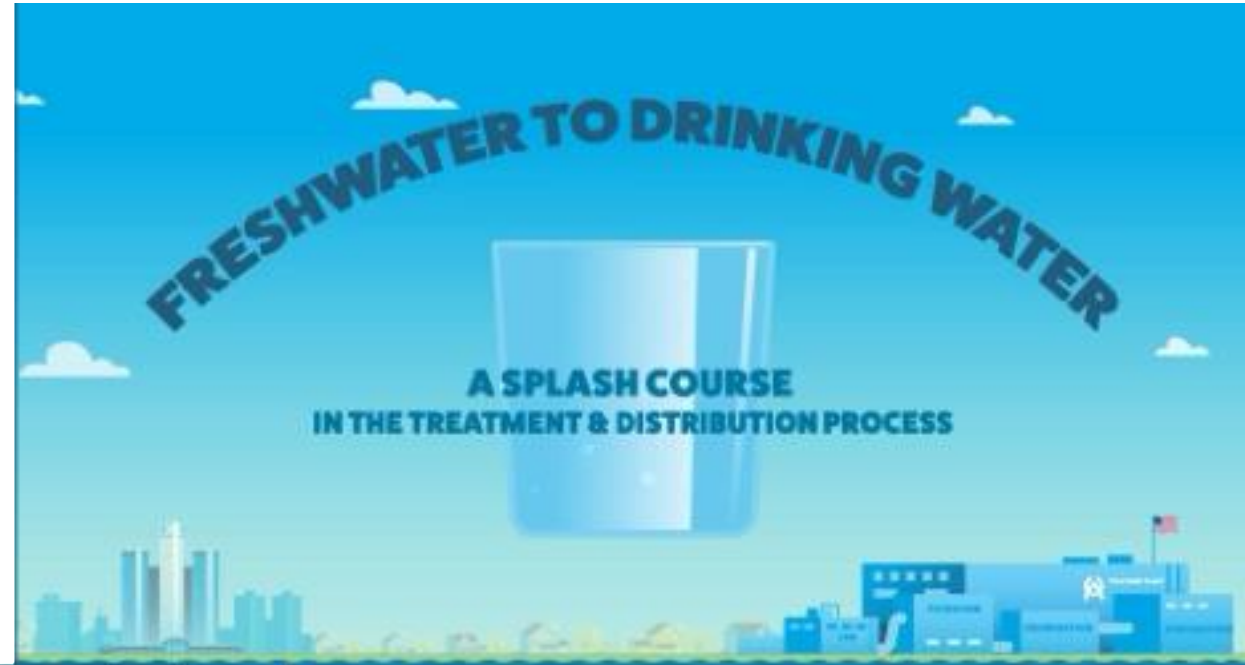
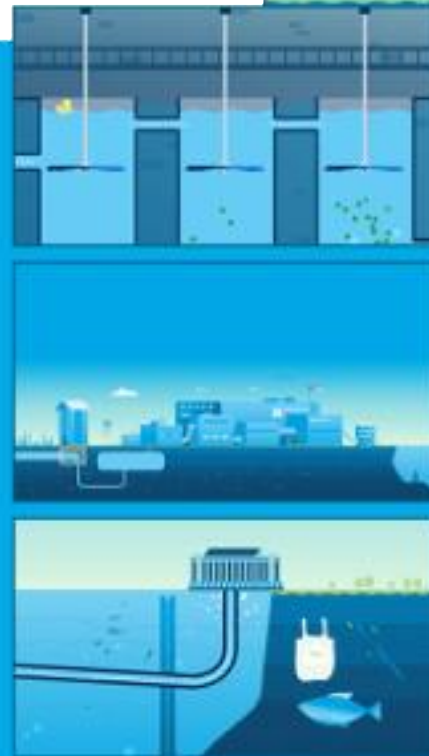
**NEW Water, WI**  
Critical Assets: Protecting Your Health, Every Day



The Great Lakes Water Authority's (GLWA) **"Freshwater to Drinking Water: A Splash Course in the Treatment and Distribution Process!"** video was created to break down the complexity of water treatment and distribution into a fun, easy-to-understand format that engages viewers of all ages.

The primary goal of this project was to educate the public on GLWA's extensive and advanced water treatment process, while also fostering a deeper understanding and appreciation for the vital resource that is clean water.

By using approachable animations, subject-matter experts, and relatable language, the video offers a comprehensive guide on the intricate processes that ensure safe drinking water.



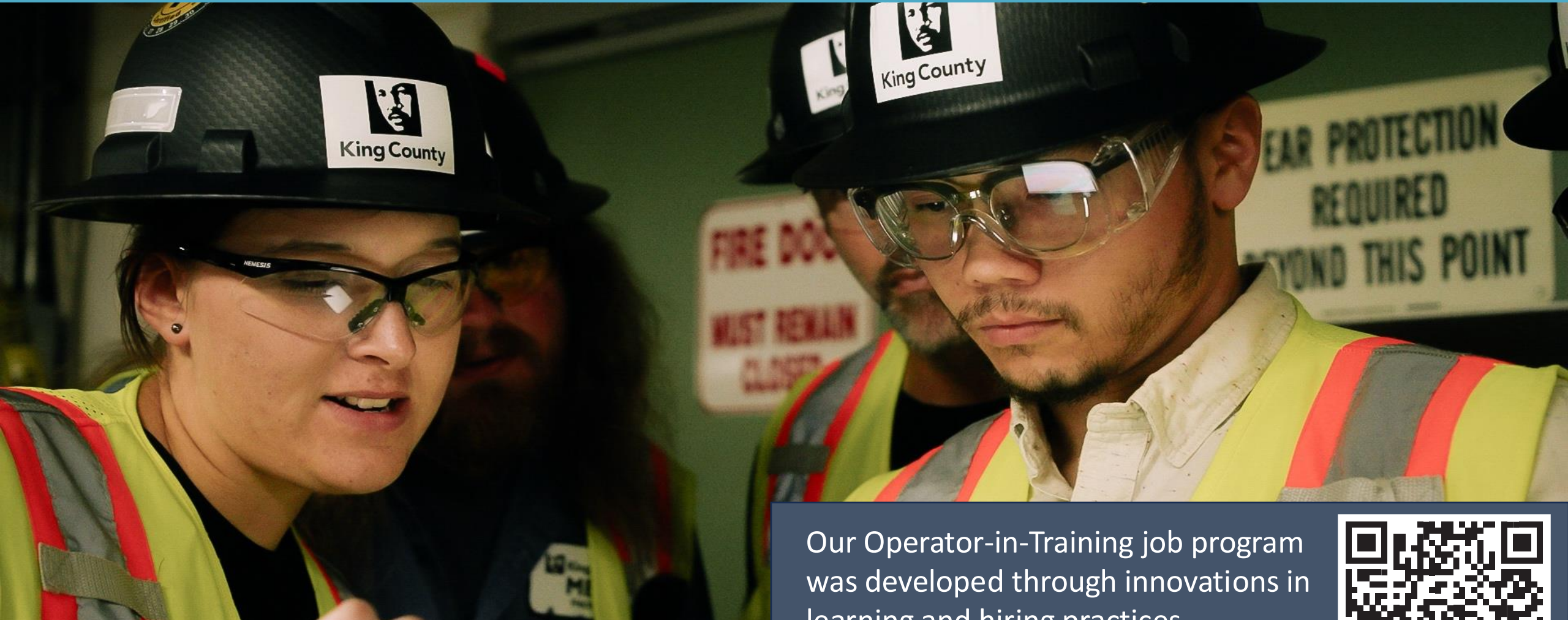
After its release, "Freshwater to Drinking Water" was shared widely across Southeast Michigan through GLWA's social media platforms, community public access stations, and member partner communities.

The video has achieved its goal of simplifying complex water treatment concepts while engaging and educating the public on the importance of preserving clean water.



# KING COUNTY WASTEWATER TREATMENT DIVISION OPERATOR-IN-TRAINING VIDEO

PUBLIC INFORMATION & EDUCATION AWARD



Our Operator-in-Training job program was developed through innovations in learning and hiring practices.

[Watch here](#)



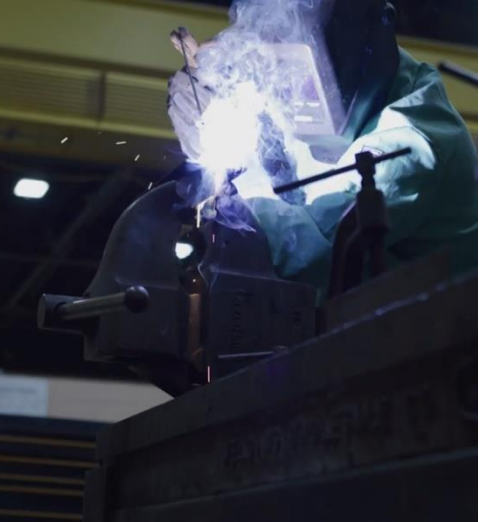


# CRITICAL ASSETS: PROTECTING YOUR HEALTH, EVERY DAY

PUBLIC INFORMATION & EDUCATION AWARD



**PROTECTING  
OUR MOST VALUABLE  
RESOURCE,**



**WATER!**



**NEW Water**  
The brand of the Green Bay  
Metropolitan Sewerage District

# SACRAMENTO AREA SEWER DISTRICT STOP THE CLOG CAMPAIGN

PUBLIC INFORMATION & EDUCATION AWARD

## STOP THE CLOG CAMPAIGN

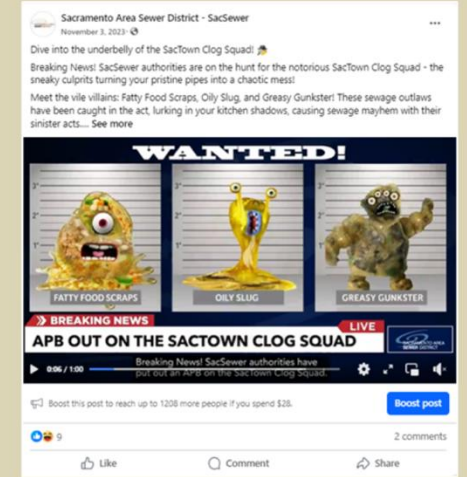
- Campaign included a video series with a 60-second mashup of the SacTown Unflushables and the Clog Squad
- Each character has a short feature that includes proper disposal practices
- Leveraged on social media with over 240,000 impressions, as well as through print resources such as bill inserts
- Learn more at [sacsewer.com](http://sacsewer.com)



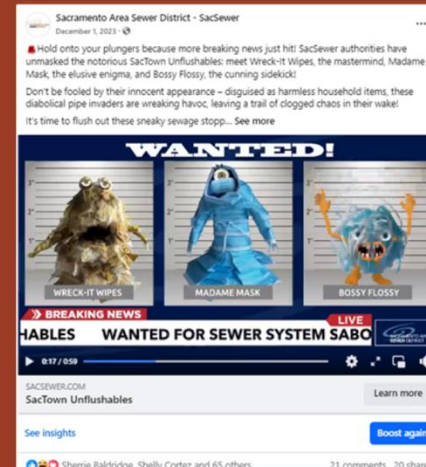
Scan the QR code to view our Stop the Clog videos and learn more about our program.



## Be on the lookout for the Clog Squad!



## Watch out for the Unflushables!



# Field Green Biosolids: A Resource Recovery Story

Western Lake Superior Sanitary District



## GOALS: Build trust and support for land application of biosolids by:

- Sharing about resource recovery through biosolids
- Hearing directly from farmers about the benefits

Watch the Videos Here:



Member Agency NEAA Awards | **Research & Technology Award**

**Western Virginia Water Authority, VA**

BioGas to Renewable Natural Gas Project





# Biogas to Renewable Natural Gas Project



**Digester Gas**  
Biogas, a mixture of 63% methane and 37% carbon dioxide is produced as a by-product of the anaerobic digestion process in the solids treatment process.



**Scrubbers**  
The raw or brown gas is processed through scrubbers where hydrogen sulfide, moisture, siloxanes and VOCs are removed.



**Membrane Filtration**  
The biogas is filtered through a three phased Unison membrane system.



**Temperature Adjustment**  
Biogas flows through a heat exchanger at 190 degrees Fahrenheit to remove oil and impurities. The gas then goes through a chiller to reduce the temperature to 50-60 degrees Fahrenheit.



**Pipeline Injection**  
Once all standards are met, nitrogen is used to boost the pressure to 175 psi, and an odorant is added as a safety precaution so leaks can be easily detected by consumers.

**The first of its kind in the Commonwealth.**  
The Western Virginia Water Authority partnered with Roanoke Gas Company to create the Biogas to Renewable Natural Gas (RNG) project to better utilize the raw digester gas, improve the environment, utilize the best technology and, most importantly, serve the community.  
The digester gas conditioning system has the ability to create pipeline quality RNG at a design flow of 550,000 cubic feet per day (cfd), providing enough clean natural gas to heat 500 homes in the Roanoke Valley.



Serving customers in the City of Roanoke, the Counties of Roanoke, Franklin and Botetourt, and the Towns of Boones Mill and Vinton, Virginia

The Roanoke Regional Water Pollution Control Plant provides daily tertiary treatment for 32-million gallons (mgd) of sanitary sewer a day from all jurisdictions in the Roanoke Valley. Permitted capacity at the plant is 62-mgd.

Member Agency NEAA Awards | **Watershed Collaboration Award**

**Hampton Roads Sanitation District, VA**

Eastern Shore Transmission Sewer Force Main & Pump Stations

**LOTT Clean Water Alliance, WA**

CleanWater Community Connections



# HAMPTON ROADS SANITATION DISTRICT EASTERN SHORE TRANSMISSION SEWER FORCE MAIN & PUMP STATIONS WATERSHED COLLABORATION AWARD



“...HRSD staff have worked alongside County officials and staff in a positive spirit of collaboration...”  
Mike Mason – County Administrator

# LOTT CLEAN WATER ALLIANCE CLEAN WATER COMMUNITY CONNECTIONS

NEAA25 WATERSHED COLLABORATION AWARD

LOTT's Clean Water Community Connections program unites its partners and community members to protect and improve water quality in Budd Inlet and watersheds.



Incentivizing septic tank conversions



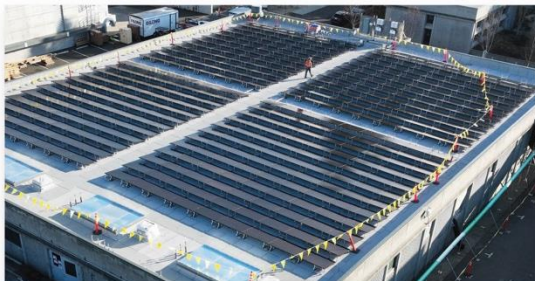
Providing hygiene facilities for encampments



Supporting affordable housing development



Collaborating on water quality projects



Collaborating on climate action



Partnering for sea level rise adaptation



Contributing to Deschutes Estuary restoration

Scan the QR code to learn more about this program.





## Member Agency NEAA Awards | **Workforce Development Award**

### **AlexRenew, VA**

AlexRenew Apprenticeship Program

### **City of Los Angeles -**

### **LA Sanitation and Environment, CA**

Workforce Equity Demonstration Program

### **El Paso Water, TX**

Skills for Sustainability Training Program

### **Hampton Roads Sanitation District, VA**

LIFE Conference

### **Johnson County Wastewater, KS**

Progression Program

### **Louisville & Jefferson County**

### **Metropolitan Sewer District, KY**

Louisville MSD Apprenticeship Program

### **Orange County Sanitation District, CA**

Employee Development Program

### **Stafford County Utilities, VA**

Internship Program Between Utilities Department and Public Schools

### **Western Virginia Water Authority, VA**

Registered High School Apprenticeship and PE Pipeline Program



# ALEXRENEW APPRENTICESHIP PROGRAM

WORKFORCE DEVELOPMENT AWARD

The **AlexRenew Apprenticeship Program** develops skilled workers with proficiency in operating, maintaining, and repairing critical wastewater infrastructure.



## Paid-to-Learn Training Provides...

- A practical learning environment, combining academic and hands-on instruction.
- Guidance from experienced mentors in wastewater collection systems, treatment processes, operations, and maintenance.
- A viable pathway for employment and potential for promotion to supervisory roles.
- A supportive environment for trainees to earn licenses and certifications.




The **Apprenticeship Program** helps AlexRenew fulfill its mission by actively recruiting and retaining the next generation of wastewater professionals. Encouraging apprentices to apply theoretical concepts to real-world challenges fosters a deeper understanding of the wastewater treatment process while developing a sense of responsibility through public service.







# WORKFORCE EQUITY DEMONSTRATION PROGRAM

A pathway to full time City employment for residents of underserved communities

## GOALS & OBJECTIVES:

-  Offer a pathway to full time City employment for residents through a partnership with the Los Angeles Black Worker Center (LABWC).
-  Provide work readiness resources to provide underserved and low-income communities including those who have experienced or are currently experiencing homelessness and providing opportunities for re-entry.
-  Entry-level pathway for the graduates to attain full-time civil service status as Maintenance Laborers targeting the skilled, promotional positions of Refuse Collection Truck Operator, Wastewater Conveyance Operator, and Assistant Environmental Compliance Inspector.

## OUTCOMES:

-  Four #ReadytoWork Bootcamp cohorts since 2023.
-  Hired 38 graduates as Vocational Workers providing critical support to our clean water, solid resources collections, and livability programs.
-  Demonstrated LASAN's commitment to utilize partnerships to address recruitment for critical positions while providing equitable access to City careers.
-  LASAN is proud to be a leading partner and employer of the City of Los Angeles' civil service career pathway programs such as WED, Clean LA, Targeted Local Hire, and Bridge to Jobs.

# 2025 National Environmental Achievement Awards

## Workforce Development Award

### El Paso Water Workforce Development

#### Challenge

Water and wastewater plants were facing critical workforce shortage and anticipating significant retirements in coming years.

#### Solution

Partnership to provide free 6-week training leading to paid plant trainee position. Trainees had opportunity to earn D license and be hired.

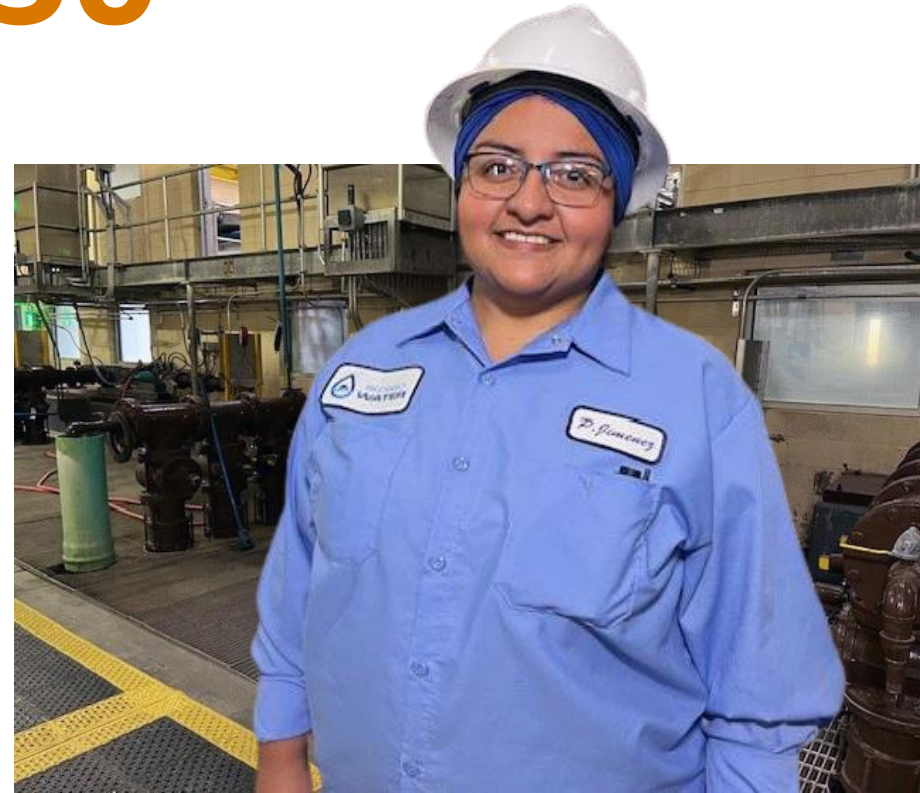
#### Partners



Scan QR code to watch video.



The Skills for Sustainability Program helped EPWater successfully hire over **50** new employees.



# HAMPTON ROADS SANITATION DISTRICT HRSD LIFE CONFERENCE

WORKFORCE DEVELOPMENT AWARD

## HRSD LIFE Conference

LEARNING,  
INNOVATING, &  
FOSTERING  
EXCELLENCE

*building the workforce of the future*

- LIFE is an organization-wide, employee-developed internal conference that fosters specialized knowledge and celebrates employee achievements.
- LIFE is an effective, sustainable workforce development initiative that grows specialized expertise from within, fosters a culture of unity and teamwork, and addresses the challenge of developing a geographically-dispersed workforce.



# Johnson County Wastewater Progression Program



More than 20% of the collections group has progressed since inception.

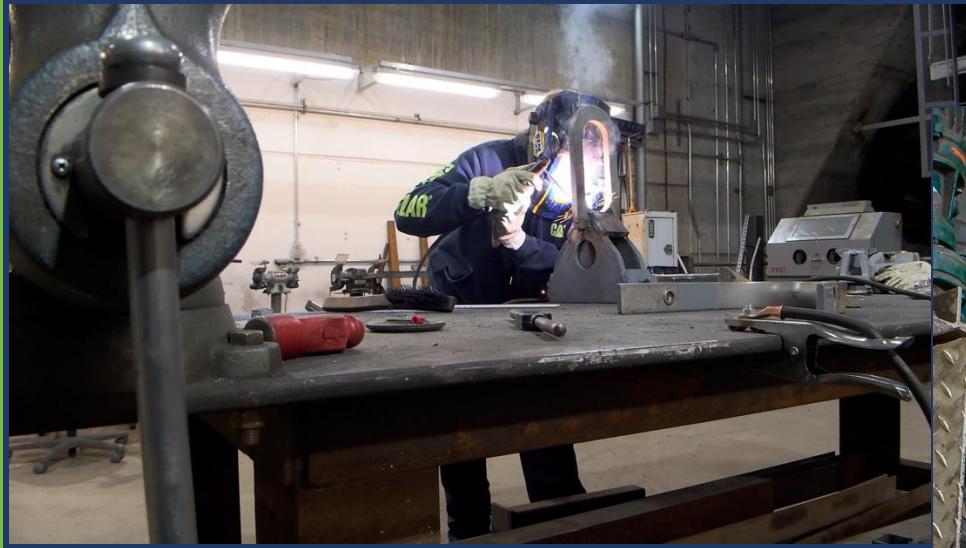
100% retention rate for program participants.

Reduced vacancy rate to 2%.

Employees are inspired through self-motivation & self-growth.



# LOUISVILLE MSD APPRENTICESHIP PROGRAM WORKFORCE DEVELOPMENT AWARD



## The Value Of Apprenticeships At MSD

On the heels of National Apprenticeship Week last week MSD is getting ahead of its staffing needs with a new maintenance electricians apprenticeship program. The demand for maintenance electricians is increasing but the number of people going into the field has dropped while long-serving electricians are retiring.

The five-year program combines on the job training at MSD with academic work at Jefferson Community and Technical College. "Their tuition is going to be paid for and they're going to get paid training with a guaranteed job at the end of it," said Organizational Development and Training Manager **Tony Gloré**.

Apprentices work during the day at MSD with a subject expert, or someone who already knows the skills, and then go to classes at JCTC on Tuesday and Thursday nights. Gloré works with the subject experts to determine what competencies the apprentices must master and demonstrate during their apprenticeship and at what stage. The apprentices must also attend class and earn an A or B grade to pass.

Maintenance electricians maintain equipment at MSD's sixteen flood pumping stations, and the treatment plants. "There's so much electricity that is used in all the components at a treatment plant," Gloré said. "Every step of the process involves mechanical and electrical."

Recruiting for apprenticeship candidates is underway



Maintenance Mechanic Apprentice **Felicia Ferrell** poses for a photo at Cedar Creek WJTC.

ahead of a spring start of the program. There are five spots available. Anyone may apply, as previous skills are not required. "It's a great way for us to diversify our workforce and provide opportunities to people."

A similar program for maintenance mechanics was launched a couple of years ago. **Felicia Ferrell** started with MSD as a laborer in July 2021 and was quickly approached about taking part in that four-year apprenticeship. "I was reluctant at first because I didn't have a mechanical background," Ferrell said.

"I thought about it, and I felt that it was a better opportunity for me to gain a skill." She joined the first cohort of the maintenance mechanic program and has not only gained new skills, but also confidence in her career. The second cohort started in April 2023.

## Louisville MSD Apprenticeship Program Highlights:

- Partnership Developed with Local University and Trade Schools and Provides Employees the Opportunity to Learn While Working.
- Five-year Program
- Cohorts of Mechanical and Electrical Trades have been Developed and Implemented
- Allows MSD to Create a Pipeline for Employee Growth, while Creating a Sustainable Workforce.



# OC SAN'S EMPLOYEE DEVELOPMENT PROGRAM

The Orange County Sanitation District (OC San) is a public agency that provides wastewater collection, treatment, and recycling for approximately 2.6 million people in central and northwest Orange County. Our mission is to protect public health and the environment by providing effective wastewater collection, treatment, and recycling. In order to do so, we are committed to creating the best possible workforce in terms of safety, productivity, customer service, and training.

OC San recognizes the natural attrition of knowledge and experience as well as the challenge for retention in a tight labor market. OC San has and will continue to evaluate development programs and initiatives that target identified gaps. Each of the workforce development components described below focuses on developing resources that benefit the future and sustainability of the agency.

OC San's significant investment in employee training and development is a pathway to a highly skilled workforce equipped to meet the evolving needs of the organization and the community we serve. Through a culture of learning, OC San provides opportunities for skills enhancement and career preparation which in turn support the organization's retention and succession planning efforts.



## Mentoring

OC San's Mentoring Program is built on a collaborative, voluntary relationship between a mentor and a mentee. Throughout the defined mentorship period, mentors provide guidance, support, and advice to help mentees pursue their established goals.

## Partnerships

OC San has hosted numerous training sessions in the past on industry specific topics, and continues to do so, benefiting not only its employees but also sister agencies and local cities. OC San partners with professional associations, such as the California Water Environment Association, to organize certification training events onsite that are open to other agencies.

## Centralized Training in Human Resources

OC San's Centralized Training Program encompasses all aspects of training to ensure greater consistency, transparency, and accessibility for all employees. It is designed to be responsive to OC San's needs and aligns with the agency's goals. Human Resources has built and maintains training profiles—which encompass regulatory, agency-required, and skill building enhancement training—based on roles, classifications, and work groups as part of its Centralized Training Program.

## Education and Certification

OC San maintains Certification and Tuition Reimbursement Programs designed to encourage employees to broaden and further develop their job skills. The certification program is designed to encourage employees to participate in certification programs, whether required or preferred by OC San, for the purpose of increasing capabilities in their present positions within the agency or updating professional and/or technical capabilities that are pertinent and beneficial to OC San.

## Internships

Vocational students from the water utilities science programs at Santiago Canyon College and Los Angeles Trade Technical College are selected through a competitive process to work 28 hours a week and rotate through five technical trades for 52 weeks in our Operations and Maintenance Department. OC San has experienced success through this paid Vocational Internship program with 23 of the participants selected through competitive recruitments for full-time employment since program inception, providing a talent pipeline. Additionally, OC San offers a paid Student Internship Program that allows undergraduate and graduate students from local universities an opportunity to work with professionals in their field of study.

Follow us on social media @OCSanDistrict



Workforce  
Development





# Stafford County's internship program creates many opportunities for the Utilities Department!

## Our internship positions:

- Water Treatment Plant Intern
- Wastewater Treatment Plant Intern
- Environmental Intern
- GIS Intern
- Engineering Intern





www.westernvawater.org

# Western Virginia Water Authority Registered High School Apprenticeship Program & PE Pipeline

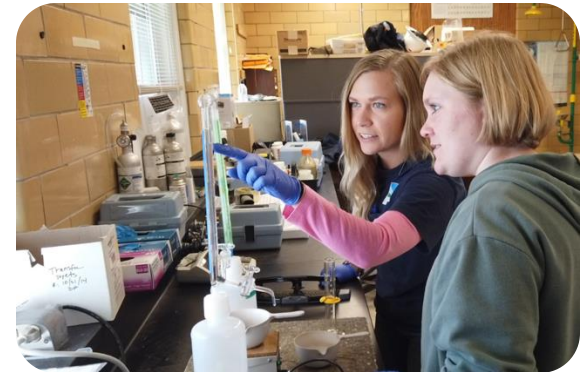
The Authority works with area high schools to hire and train Juniors & Seniors for careers in the Water & Wastewater industry.



Students earn high school credit will getting paid to receive training at the Authority in water, wastewater, metering & infrastructure construction.



The PE Pipeline engineering internship streamlines the process for students to go from intern to PE within 5-6 years.



## Since 2017

**36**

Apprentice students started the program

**39%**

Students still active in the program

**19%**

Completed program & hired as employee





# National Environmental Achievement

AWARDS

NACWA Congratulates  
This Year's NEAA Honorees!



## Thank You to the Awards Committee

**Susan Pekarek**, Chair  
General Manager  
Johnson County Wastewater, KS

**Kristen Atha**  
Director of Public Utilities  
City of Columbus Department of Public Utilities, OH

**Jean Block**  
Chief Executive Officer  
Little Rock Water Reclamation Authority, AR

**David Denard**  
Director, Environmental Services  
Jefferson County Commission, AL

**Calvin Farr, Jr.**  
General Manager/CEO  
Prince William Water, VA

**Elizabeth Fazio Hale**  
General Manager/CEO  
Gulf Coast Authority, TX

**Laurie Horridge**  
Executive Director,  
Narragansett Bay Commission, RI

**Brian Johnson**  
Executive Director  
Greater Peoria Sanitary District, IL

**Jeremiah Johnson**  
General Manager  
Beckley Sanitary Board, WV

**Sandeep Karkal**  
General Manager - Chief Engineer  
Novato Sanitary District, CA





CONGRATULATIONS TO THE 2025

# **National Environmental Achievement**

## **AWARD WINNERS**

Visit the NACWA App for the full list of winners