

Fulton County Public Works Quarterly Newsletter

Connections

Fall 2021



Clean Water Week 2021

Public Works staff celebrates protection of our water resources with education and action



GIS Launches New Public Web Map Viewer



Fulton-Cobb Diversion Line Bridge Project



Public Works Featured in Sewer and Water Magazine



Fulton County Executive Airport Updates Master Plan



Big Creek Sewer Line Grouting Project

November is F.O.G Prevention Month



The term FROG is often used in Public Works and most staff know that it stands for Fats, Roots/Rags, Oils & Grease. When the Public Education and Outreach (PEO) team is interacting with the public, we usually find it best to split F(R)OG into two categories – FOG and DEBRIS. Debris is defined as things like soiled clothing/rags, diapers, personal hygiene items, medical waste, improperly ground food using a garbage disposal, root intrusion, tissues, etc.

So here we are again, greeting another November FOG Prevention Month and FROG is still one of the main causes of sanitary sewer overflows (SSOs) which result in untreated sewage entering nearby creeks and rivers. Public Works staff continue to do an outstanding job proactively addressing wastewater infrastructure repair, replacement and maintenance. They have implemented Infiltration and Inflow mitigation plans, are examining the new science of Sewer Sociology, employing Trenchless Technology and implementing manhole sealant projects. This list continues to grow in order to keep our wastewater infrastructure safe and durable through at least the 21st century.

We are once again asking for a little help from you to spread the word about the effects of F(R)OG. On Wednesday, November 17, 2021, from 6pm to 7pm, PEO is hosting a fun and enlightening Fighting FOG Virtual Workshop. Participants in this workshop will be eligible to receive FOG prevention kit mailed to your home.

You can register for the Fighting FOG Virtual Workshop by visiting <https://forms.gle/Xv8tWnAMTKyvjXL16>

For more information on this program, contact Kelli Edwards at kelli.edwards@fultoncountygga.gov or 404-612-8745.

Public Works By the Numbers July - September 2021

Water Resources	29.77 MGD	Total Potable Water Distributed (average day)
	8.9%	Non-Revenue Water (annualized)
	180	Small Meters Replaced
	45.34 MGD	Total Wastewater Treated (average day)
	137 Acres	Sewer Easement Cleared
	2.87 MG	Reuse Water Provided (JCEC)
	14.7 MG	Reuse Water Provided (Little River)
	483	Water and Sewer Service Applications Processed
	6 YTD: 13	Sewer Overflows >10,000 gallons (major spill)
	6 YTD: 24	Sewer Overflows <10,000 gallons (minor spill)
Airport Services	1,100	People Reached by PEO Staff
	45%	Increase in aircraft operations from 2020
FID Transportation Operations	61,821	Aircraft Operations YTD
	17	Drainage Structures Cleared
	64	Facility Signs Fabricated
	16 Tons	Litter Picked Up
Development Permits	4	Traffic Signals Maintained
	19	Utility Plans Approved
	116	Utility Projects Under Construction
	7	End of Maintenance Inspections Conducted



A Message from the Director

David E. Clark, P.E.

Recently we celebrated Clean Water Week. Whereas Clean Water Week is not as full of activities as Public Works Week is in May, our Public Education and Outreach staff does an incredible job of both engaging the public as well as engaging the staff. Personally, I enjoyed my time cleaning up the tributary creek that leads to Nancy Creek in the Riverview Park of Sandy Springs. Altogether the staff filled over 50 garbage bags full of trash and debris. According to my trash bag, Styrofoam drink containers (especially from Chick-Fil-A) find their way to our creeks more often than any other drink container!

During Clean Water Week, the Board of Commissioners traditionally acknowledges the work and awards that the Public Works Department has earned throughout the year. I was quite taken back at our accomplishments, which include: 1) the National Association of Counties (NACO) Achievement Award - County Resiliency Category for the Little River Facility; 2) the NACO Achievement Award - Civic Education and Public Information Category; 3) the Georgia Association of Water Professionals (GAWP) Platinum Award for the Tom Lowe Atlanta-Fulton County Water Treatment Plant and the Camp Creek, Johns Creek Environmental Campus, and Little River Reclamation Facilities; 4) GAWP Collection System Platinum Award; GAWP Comprehensive Education Program of Excellence in Water and Wastewater; 5) continued recognition as a WaterFirst Community in Georgia; and 6) the Public Works Wastewater Collection System was recognized nationally for its Inflow and Infiltration reduction program.

These awards signify how important achieving clean water is to all of us on a daily basis – not just one week of the year. So let me extend my sincere appreciation to all Public Works employees for the things we do for the residents and visitors to Fulton County each and every day – even if the vast majority of them do not know about the sacrifices we all make to achieve clean water.

Clean Water Week 2021



**Be a Water Hero
for
#CleanWaterWeek!**

Learn more about where
your drinking water
comes from and where
your wastewater goes.



Imagine a Day Without Water
October 21, 2021 | #ValueWater

Monday, October 18 – Friday, October 22nd, the Public Works Department celebrated Clean Water Week (CWW). The Federal Clean Water Act was signed into law on October 18, 1972 and the State of Georgia designates the 3rd week of October as Clean Water Week. This weeklong observance highlights Public Works commitment to providing safe and reliable collection and treatment of wastewater for discharge to improve our environment and communities, and to protecting our rivers, streams, and watersheds. The Department hosted several events and activities to engage our employees and the public. The week of activities kicked off on Monday, October 18th with our social media campaign, bringing attention to our Tuesday, Wednesday, and Thursday trivia challenges.

On Wednesday, October 20th the Department received a proclamation commemorating Clean Water Week at the Fulton County Board of Commissioners (BOC) meeting. PEO set up a display, which included the TopoBox, an augmented reality sandbox designed to educate the public on watershed dynamics based on topography. That same evening, PEO hosted our “Be a Water Hero” virtual workshop. Topics discussed included Green Cleaning, Home Winterization, Leak Detection, and Household Hazardous Waste Disposal. All participants who attended the free virtual workshop were mailed a Fulton County “Water Hero” Kit, which included helpful green cleaning recipes, leak detection dye tablets, and additional information on both water quality and conservation topics.

The Department rounded the week out with two successful stream cleanups – one at Nancy Creek in Sandy Springs, the other at Burdette Creek in the City of South Fulton. Public Works employees remain dedicated to protecting our watershed and all those who call it home. The PEO team would like to extend a special token of gratitude to the employees who participated in our stream cleanups. Together, we can keep Fulton County’s water resources safe and clean.





Public works is excited to announce the release of our new water and sewer web map viewer. Users can find this viewer along with others on the Fulton County Public Works web page under Water and Sewer Map Section.

<https://fultoncountyga.gov/inside-fulton-county/fulton-county-departments/public-works>

About the Web Map Viewer

The web map viewer serves as a public view into the large database of geographic information maintained by the Fulton County GIS (Geographic Information System) groups. This interactive map is a highly flexible tool for answering questions for which people ordinarily refer to paper maps. The great advantages of the web applications are:

- 1) Accessible over the internet by the general public
- 2) Can be customized by users to see only those features/area they are interested in
- 3) Users can see detailed information about many of the features
- 4) The search tools allow users to quickly find the information they are looking for

Fulton County Water Sewer Public Map Viewer

Is a tool for viewing maps and getting information on sanitary sewer and drinking water features in Fulton County. Use the search tool at the top left to find locations around the county for water and sewer features, tax parcels, and streets. Use the select tool on the top right to get more information on sewer and water feature attributes.



GlobalSearch_GIS helps to search for an address.



Print

The Print tool helps create a pdf map to print.



The Layer List tool provides a list of operational layers and their symbols, and allows users to turn individual layers on and off.



Legend

The Legend tool displays labels and symbols for layers in the map.



The Basemap Gallery widget presents a gallery of aerial and base maps that are available to select from.



Draw

The Draw tool allows the user to create graphics on the map. It can optionally add line distance or polygon area to the feature as text.



This shows more tools for the app.



Basic information regarding widgets used in this map.



Buffer

The Buffer tool creates buffer polygon around input features.

Fulton County Sewer Service Lookup

Sewer Service Lookup application allows the public to select a location and view whether the selected location is in the Fulton County sewer service area.

Fulton County Water Service Lookup

Water Service Lookup application allows the public to select a location and view whether the selected location is in the Fulton County water service area.

The Bridge to Completion

Before



After



The Fulton-Cobb Diversion Line & Pump Station (PS) project has finally been completed. A part of this significant project was to install a 24-in and 30-in sanitary sewer force main along the National Park Service (NPS) easement to tie into the Cobb County sewer system.

As a condition to issuing a special use permit by the NPS, the County was required to install two bridges spanning two of several creeks within the park. At a certain stage, the Fulton-Cobb Diversion Line & PS had reached a point where failure to obtain the National Park Service special use permit would likely impact the total cost and anticipated completion date of the project.

Many thanks to the Fulton County Board of Commissioners, the County Manager's office and Public Works staff for recognizing the need and the quick approval process. The bridges were designed and built in the shortest possible time through a turnkey method of delivery. Today, the bridges serve as access for operations and maintenance vehicles for various entities like Fulton County, Cobb County, Colonial Pipeline, and the National Park Service. It will also provide benefits to other future end users.

Public Works Featured in Municipal Water and Sewer Magazine

The Municipal Sewer and Water Magazine recently highlighted the innovative sewer rehabilitation work being done by the Wastewater Division staff. Deputy Director Roy Barnes was interviewed about the use of new materials in the field to upgrade the sewer systems without having to replace and raise entire manholes that regularly get inundated with water during storm events and often result in a capacity-caused sanitary sewer overflow (SSO) due to river or creek flooding. The change in materials has resulted in 100% SSO reduction in areas that previously were guaranteed to overflow during a storm event. Our staff were able to record these results only months after installing the new manhole covers along Azalea Drive in Roswell.



To read the full article in Municipal Sewer and Water Magazine, and learn more about how these new technologies are changing the way that Fulton County is leading innovation for public utilities across the country, visit <https://www.mswmag.com/editorial/2021/10/shutting-down-inflow>

Airport Master Plan Near Completion

We're happy to report that after several months of work the Airport Master Plan (AMP) is entering into its final phases. The planning process commenced in May 2020 and is projected to go before the Fulton County Board of Commissioners in December and have final approval by the Federal Aviation Administration (FAA) in April 2022. The plan is important as it projects the traffic at the airport over the next 20 years and then establishes a development program and budget to fit its needs during this time. Fulton County, the Georgia Department of Transportation (GDOT), and the FAA will all review the plan, comment, and be in agreement with the final plan so that we are all working from the same document. In addition to these entities, public outreach meetings were held and a Technical Advisory Committee established to share information, comments, and ideas while the plan was under development.

The main elements of an AMP are the airport inventory, aviation demand forecasts, facility requirements, development alternatives, recommended development concept, and capital improvement program. Shown in the table to the right, are the critical aircraft that utilize the Fulton County Executive Airport. Based on FAA guidelines, these aircraft will be used to determine the development parameters over this planning period.

We look forward to completing this Master Planning Document and continuing our work with the GDOT and FAA to make the Fulton County Executive Airport the best in the region.

Table 4-6: Demanding Aircraft Types Operating at FTY

Item	Old ALP				Current/Future		
	Bombardier 5500, 6500, 7500 and 8000				Gulfstream G600, G650		Embraer Lineage 1000
Critical Aircraft							
Aircraft Type	Two jet engine business aircraft				Two jet engine business aircraft		Two jet engine business aircraft
Aircraft Approach Category (AAC)	B				D		C
Airplane Design Group (ADG)	III				III		III
Aircraft Model	5500	6500	7500	8000	600	650	Lineage 1000
Wingspan	94'		104'		95'	99' 5"	94' 3"
Tail Height	25' 6"		27' 1"		25' 2"	25' 67"	39' 8"
Length	96' 10"	99' 5"	111'	102' 02"	96' 08"	99' 75'	118' 11"
Approach Speed (V _{REF})	108 Kts		111 Kts		145 Kts		124 Kts
Max Takeoff Weight (MTOW) in lb.	92,500	99,500	106,250	104,800	91,600	99,600	120,152

Sources: FAA AC 150/5300-13A, Airport Design, FAA Aircraft Database, and Michael Baker International, Inc., 2021.
Note: Bombardier 5000, 6000, 7000, 8000 specs were used.



Fulton Residents Learn About Sustainable Gardening

This August, Public Works partnered with the Fulton County UGA Extension education team to offer two Sustainable Gardening Workshops to Fulton County residents. The workshops were two-part events, consisting of a virtual Zoom presentation and a drive-through pickup of materials. Citizens joined educators from Extension and Public Works on Zoom to learn about composting, integrated pest management, and rainwater harvesting through rain barrels. Each resident also registered for one of two barrel pick-ups, in Alpharetta or South Fulton. Through these workshops, forty-nine residents received rain barrels, installation kits and instructions, pollinator plant seeds, and other conservation materials to help them get started on their water-wise gardens. Public Works will resume the rain barrel workshops in the spring of 2022 but we have other great workshop topics coming up in the meantime, including Winterizing Your Home Plumbing System in early December. If you'd like to join our mailing list to be notified of upcoming workshops, please fill out our mailing list form here: <https://forms.gle/Dy6yhHPAvrJvkjp7>. For more information about water conservation and sustainable gardening, contact Amy Warnock at 404.612.8006 or amy.warnock@fultoncountyga.gov

COVID Challenges Bring New Life to an Old Relationship

For over 10 years the Public Education Outreach (PEO) Division and the Fulton County Library System have enjoyed a productive partnership. PEO's charge is to raise awareness of water issues and encourage good water stewardship, and the Library's mission is to provide public access to the "knowledge network" to improve, enhance, and empower lives in our community, region, and world. These entities have worked together to serve all the citizens of Fulton County, each within its own individual parameters. However, like many agencies that serve the public face-to-face, Covid-19 upended the business-as-usual routine for both agencies, who were left scrambling to find the best way to continue providing services while protecting the health of employees and the public. It soon became less about numbers and more about our relationships.

Under normal conditions, the PEO team facilitates 3 - 5 in-person water education programs each week, consisting of both school, community and library programs. In response to the pandemic, PEO had to adapt to new educational outreach methods, composed of mostly virtual programming. PEO created videos for homeowners, including tutorials on testing toilets for leaks and safe disposal of pharmaceuticals, as well as video lessons for students and families on water conservation and pollution prevention. The videos were posted on the Fulton County website and shared on Facebook, Twitter, and Flipgrid to increase exposure.

When PEO and the Library System reconnected, we discovered that we were both experiencing some of the same service challenges and were simultaneously using many of the same methods to bridge the new "customer service gap" created by the pandemic. Through our partnership with the Library, the videos found new exposure on the Library System's main website and its numerous social media platforms as well, while allowing the Library System to add to their extensive listing of innovative offerings. PEO has also gotten involved with the Library's "Grab & Go" environmental craft activities, which they initiated early on in the pandemic. Library patrons sign up for the educational craft and the librarians bring a kit with directions and educational information, out to the car with a reserved book. To date, these videos have a combined total of more than 1,800 views.

We are excited about our continuing and evolving partnership with the Fulton County Library System, and are on the lookout for any other old "internal" friends that we can "re-partner" with. *Fulton County is a Big Deal* and *Because We Care, We Serve*. Often we can serve together to achieve even better outcomes than we could independently.

To view some of PEO's new educational videos, visit our website at: <https://www.fultoncountyga.gov/services/water-services/public-education-and-outreach/educational-videos>

By the way, all Fulton County libraries are open now, including our Central Library, and PEO can't wait to get back to face-to-face programming with our librarians.



Big Creek Sewer Line Grouting

The Big Creek Basin, the largest in the county has historically been one of the main sources of inflow and infiltration (I&I) into our collection system.

This project is part of the manhole / pipe rehabilitation and I&I reduction within Big Creek Basin. The scope of work consists of chemical grouting of approximately 7,200 linear feet of 60", 48" and 30" diameter RCP (reinforced concrete pipes) running alongside Big and Foe Killer Creeks and located within sub-basins BC19 and BC32. Those specific lines were selected based on multiple defects found during CCTV survey.

The method used for the rehabilitation is called injection grouting and is executed using a grout truck, inflatable mainline packer and Avanti's AV-100® Chemical Grout. CCTV is used inside the pipe to locate a joint/defect and to position the packer in place. Once in place, an air pressure test is performed. If the joint fails the pressure test Avanti's AV-100® Chemical Grout is forced under pressure through the joint/ crack into the surrounding soil where it gels to form a waterproof mass that cannot be pushed back into the sewer system. Once the joint is documented the packer is moved to the next joint to repeat the process until every single joint in that section has been tested and sealed if defective.

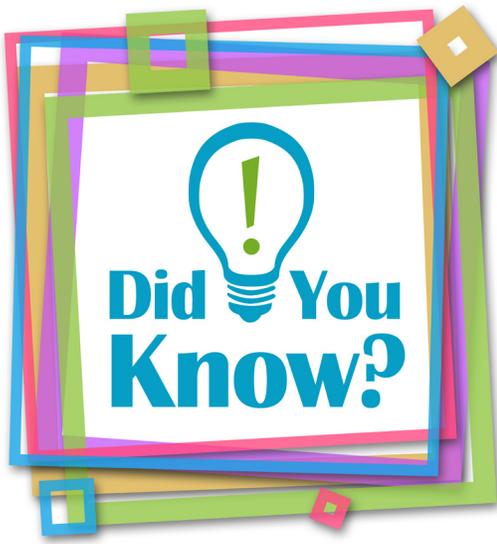


Fostering Environmental Stewards



In August 2021, the PEO group was contacted by the Arlington Girl Scouts, Troop 3802. As part of the Girl Scouts' environmental awareness initiative, the Troop reached out to Keep South Fulton Beautiful, with whom we have partnered many times. In February, our two groups collaborated to certify 10 new volunteers in our Adopt-A-Stream program, with City of South Fulton Councilman Corey Reeves. The troop was so impressed with the work we began at Burdette Creek, they have since asked to adopt the creek as their own! In order to assist them, the

PEO group worked to certify 12 Senior and Ambassador Girl Scouts. Upon completion of our two-part certification process, we anticipate having 12 girl scouts certified in biological (macroinvertebrate) monitoring. Furthermore, the group has decided to host quarterly cleanups in the area to tackle one of the hardest hit areas with stream and roadside litter. The PEO group works to raise awareness of water issues and encourage community stewardship through our educational programs. We remain enthusiastic about this and other partnerships with our youth and community constituents. If you are interested in creating a partnership like this within your Fulton County community, please contact Kelli Edwards at Kelli.Edwards@fultoncountyga.gov for more information.



We have a workshop mailing list that allows you to get the first word about upcoming trainings. You can join the notification list by filling out the form at <https://forms.gle/GyGc3A3g-CRXh1KEi6> and you will be among the first people to receive word through email that a new workshop is open for registration. This is a great way to secure a spot for our trainings that are specially catered to home-owners in Fulton County focusing on ways to improve water conservation and water quality in your watershed. Sign up today!

Welcome New Employees!

Keith Guthrie - Utility Locate Tech	Shawn Mitchell - Maintenance Worker, Sr.
Pulane Eglen - Environmental Water Tech	Cedric Davis - Maintenance Worker, Sr.
Gerald Pace - Deputy Director Administration	Forrest Robinson - Maintenance Worker, Sr.
Mahogany Elbert - Administrative Coordinator I	Douglas Allen - Commercial Pretreatment Inspector I
Denetra Truitt - Accountant II	Sidney Ward - Receiving & Inventory Specialist
Claude Cole - Development Site Inspector	Brianna Napper - Receiving & Inventory Specialist

Promotions

Marcus Shoemake - Sewer Detection Specialist
Rodney Walker - Sewer Detection Specialist
Alleen Morris - Commercial Pretreatment Inspector II
Matthew Freeman - General Supervisor Water/Sewer

Fulton County Board of Commissioners

Chairman Robb Pitts (At-Large) 404-612-8200
Vice-Chair Natalie Hall (District 4) 404-612-8226
Commissioner Liz Hausmann (District 1) 404-612-8213
Commissioner Bob Ellis (District 2) 404-612-8216
Commissioner Lee Morris (District 3) 404-612-9800
Commissioner Marvin S. Arrington Jr. (District 5) 404-613-0202
Commissioner Kadajah Abdur-Rahman (District 6) 404-612-8222



Wishing everyone a Happy Veterans Day this November 11th, with gratitude to all of those who have served.