Fulton County Public Works Quarterly Newsletter

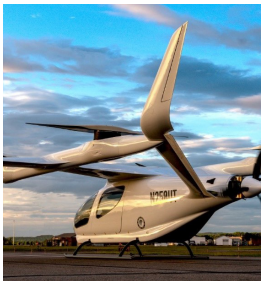
Connections

Summer 2022

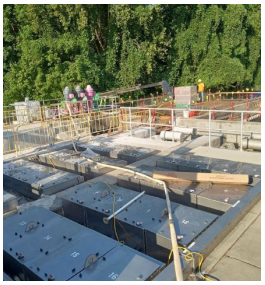
FULTON COUNTY

Public Works Week 2022

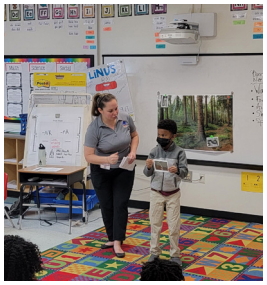
Public Works employees come together to connect, celebrate and serve the community.



Airport Staff Attends FAA Southern Region Workshop

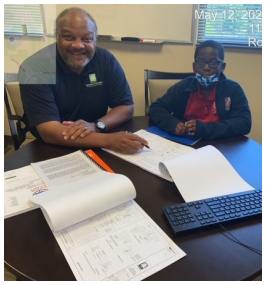


Camp Creek WRF UV System Upgrade



PEO: Back in the Classroom

Atlanta Newnan Pump Station Project



Inspiring the Next Generation of Water Professionals

A Message from the Director

David E. Clark, P.E.

On Tuesday, June 28th, Public Works celebrated the completion of the first major milestone associated with the Big Creek treatment facility expansion. The Dewatering Building is now fully operational and under the joint control of Fulton County and Veolia Water. For those that are not completely familiar with wastewater treatment, dewatering occurs near the end of the process when as much water as possible is removed from the digested sewer sludge. The dewatered sludge is then trucked off for disposal at a landfill or is mixed with other organics for soil conditioning and fertilizer purposes.

Our new Dewatering Building houses two of the largest screw presses manufactured in the world in addition to several of the smaller screw presses relocated from the former dewatering structure. Now that the new Dewatering Building is operational, the Joint Venture team can remove the old structure and finish constructing the headworks portion of the new plant. As Chairman Pitts often says, this is just another example of why "Fulton County is a Big Deal."

Like all milestones, Public Works did not get to this point on the back of a single person. Whereas the Director and Deputies may often be the face of the Department during ribbon cutting events, none of the accolades could be possible without our dedicated staff doing more things behind the scenes than the public will ever understand or recognize. This cannot be any more true than for the Dewatering Building. From the very beginning of the project, a committed team from the Technical Services and Wastewater divisions, supplemented by Gresham Smith headed by Randy Viar, have worked seamlessly together to get us to this point. Walt Rekuc, OP Shukla, and Brandon Ward have worked tirelessly and without fanfare. The project could not have reached this milestone without their constant work and dedication. So thank you to each of them (and the others too numerous to mention) for getting us to this point.

While we still have a long way to go over the next two years to bring this project to fruition, with the team we have in place along with the support they are getting from all of Public Works, I am confident that we will deliver the world class facility that everyone is expecting from Fulton County.

Welcome New Employees!	
Marcus Sampson - Utility Locate Tech	Sharlene Armstrong - Administrative Coordinator II
Jeffery Martin - Maintenance Worker, Senior	Gary D. Williams - Heavy Equipment Operator
Jeffery Johnson - Maintenance Worker, Senior	Jamiya Smith - Administrative Specialist
Anthony Hughes - Contruction Project Manager	Ross Williams - Staff Engineer
William Bradley - Water Quality Supervisor	Ronnie Keith - Records and Documents Coordinator
Maria James-Abdulghani - Development Site Inspector, Supervisor	
Promotions	
Khalid Ahmad - Material Management Manager	Michael Crawford - Water System Tech
Congratulations Retirees!	
Cherylyn Griffin	Nicholas Blythe
James Gallaway	Michelle "Shelley" Lange

Airport Staff Attends FAA Southern Region Workshop

On June 28th and 29th, Airport Administrative Staff attended an FAA Southern Region Workshop that covered a wide variety of important topics. Some of the topics included the Bipartisan Infrastructure Law (BIL), Airport Safety and Certification Inspections, Construction Safety on Airports, Airport Compliance Program, Airport Crisis Response Reporting, and Aircraft Rescue and Firefighting.

Although all the topics were informational, the most interesting was the Advanced Air Mobility. This is a new air transportation system flown by Electric Vertical Takeoff and Landing (eVTOL). These aircraft will soon start flying small commutes and delivering packages into and out of cities across the US. The aircraft are being manufactured and flown at this time and the FAA is finalizing an Air Traffic Control System to manage their flight paths. The first flights will be piloted while phasing into the pilotless aircraft. Expect to see these operating in ATL in the not-too-distant future.

Public Works By the Numbers

April - June 2022

Water Resources	31.21 MGD	Total Potable Water Distributed (average day)
	10.07%	Non-Revenue Water (annualized)
	29	Small Meters Replaced
	48.33 MGD	Total Wastewater Treated (average day)
	6.24 Acres	Sewer Easement Cleared
	53.17 MG	Reuse Water Provided (JCEC)
	15.3 MG	Reuse Water Provided (Little River)
	509	Water and Sewer Service Applications Processed
	1	Sewer Overflows >10,000 gallons (major spill)
	10	Sewer Overflows <10,000 gallons (minor spill)
	3,800	People Reached by PEO Staff
Airport Services	54%	Increase in aircraft operations from 2021
	256	Average Daily Flights
FID Transportation Operations	136	Facility Signs Fabricated
	5 Tons	Litter Picked Up
Development Permits	29	Utility Plans Approved
	106	Utility Projects Under Construction
	5	Utility Projects Completed/Accepted

Public Works Week 2022: Ready and Resilient

May 2022 brought a revival for National Public Works Week celebrations that felt familiar to many of us. Planning meetings had an in-person option again and a more social element returned to our events. Committees were able to host the public for tours, a proclamation by the Board of Commissioners, and an exhibit with 12 shining displays of the specialized jobs and accolades accomplished in spite of the lingering effects of a pandemic. This year's theme, Ready and Resilient, came to life as we returned to what we do best, bringing new skills learned since 2020.

The week kicked off with an employee video contest, highlighting 10 specific job responsibilities that are often behind the scenes of what our customers see on a daily basis. Employees explained how Public Works staff provide regulatory oversight, preventative maintenance, safety trainings, engineering services, project management, permit processing, laboratory analysis, and more on a daily basis. You can view these videos on the website at https://www.fultoncountyga.gov/inside-fulton-county/fulton-county-departments/public-works/public-education-and-outreach/employee-video-contest

Tuesday was all about tours that put a whole new perspective on the ways water is used in Fulton County. Visitors to the Tom Lowe Atlanta Fulton County Water Treatment Plant learned how water goes from the Chattahoochee River to become the clean, safe water coming out of our taps. Visitors to the Johns Creek Environmental Campus and Camp Creek Water Reclamation Facility learned how our facilities treat the water used by people daily before returning the clean water to the Chattahoochee River and everyone living downstream.

A family tours the Camp Creek WRF

The return of the department-wide exhibit event brought out a competitive camaraderie between divisions of Public Works as displays were constructed and equipment was chosen for demonstration. Employees showed pride in their work by illustrating for visitors the essential jobs related to providing for the health and safety of Fulton County citizens. Exhibit judges spoke with representatives from 12 divisions and following the event, accolades were sent to commend the employees on their drive and passion for the jobs they do day in and day out.

Equipment operators compete in the Public Works Week rodeo

Thursday's equipment rodeo and employee appreciation event gave staff an opportunity to spend some time with team-building challenges. Bragging rights were sought after by heavy equipment operators demonstrating skills of patience and accuracy surrounded by spectators. Team building exercises brought together staff with a variety of skills and backgrounds to collaborate on challenge after challenge to achieve the goal for the day. Each challenge completed by teams won them a bicycle part. The bicycles were assembled and presented to National Guard members to be delivered to children of military personnel who have served in an active-duty role.

National Guard members pose with bikes assembled by Public Works staff

...continued on p. 5

Camp Creek UV System Upgrade

The Camp Creek Ultraviolet (UV) system is currently being upgraded to improve the disinfection process during reclamation to clean the wastewater before being discharged to Camp Creek and the Chattahoochee River. The UV system is the disinfection process used to remove the enhanced concentration of bacteria from the aeration process. The previous UV system needed to be upgraded to meet the current and future flow demands. This improved system will be incorporated into the future plant expansion to increase the treatment capacity of the plant without any further improvements to the UV system.

The UV disinfection system is an effective way to remove microbial contamination in wastewater. The UV system exposes the harmful microorganisms contained within the wastewater to high intensity UV light that destroys the DNA of the bacteria. The UV system is being installed as a contact UV disinfection system where the UV lights are submerged into the wastewater flow. A UV system has lower capital and operating costs when compared to other methods of disinfection. Maintenance of the system is also simpler. The UV system currently being installed will allow for effective treatment of the wastewater due to the lower contact time required to disinfect the wastewater. This new UV system will allow an increase flow of wastewater to pass through the same area as the previous UV system. The newer system has a higher power demand which required the construction of a new electrical building.

The total production of aluminum has been reduced by 20%within the United States due to the closure of an older Alcoa aluminum plant. The plant, which used natural gas during the production process, experienced a three-fold increase in energy costs and was unable to produce aluminum at a competitive price. This reduction in the aluminum supply has increased the cost of materials and is leading to a longer production time for the materials. The contractor is researching the use of alternate materials to replace the aluminum original planned to be used in the system. The overall disruption in the supply chain has resulted in a longer time for the delivery of the materials required for the construction of the new UV system and electrical building.

Construction of the future expansion of the Camp Creek WRF is planned to begin in 2027. The next expansion of the plant will increase the treatment capacity from 24 MGD to 32 MGD. A total of three expansions are currently proposed with a total planned increase of 48 MGD.

Public Works Week (*continued from p. 4*)

Rounding out the week's events, Friday was spent giving back to the Chattahoochee River watershed as staff members worked to clean up large amounts of dumped trash from Wolf Creek in South Fulton. Staff coordinated the removal of trash that was washing downstream towards the river.

Storm drain marking and clearing was also conducted to better improve roadway drainage and to provide education to residents about the drainage of curb inlets directly to Wolf Creek. It was a day of teamwork, hard work, and a satisfaction found in leaving a place better than we found it.

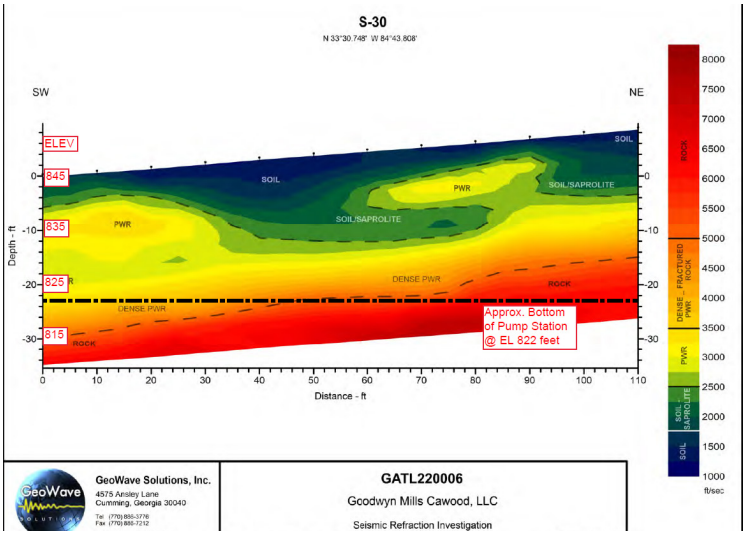
Special thanks to the planning committee members for dedicating your time and energy and going above and beyond to make this week a success, and helping to showcase how Fulton County Public Works has remained Ready and Resilient through the years!

Service project volunteers remove trash from Wolf Creek and the surrounding area

Flowing into the "Decade of South Fulton" with the Atlanta Newnan Pump Station Project

Our Director will share with anyone, in the immediate area willing to listen, that "the next decade is that of South Fulton". As we embark on this trip, there are several changes occurring that appear to go along with that motif. Highlighting the numerous projects we have to start this journey is the Atlanta Newnan Pump Station project. It is expected that this proposed project will be presented to the Board of Commissioners for approval during one of the August meeting dates.

The South Fulton Capacity Study, which was approved by the Board of Commissioners in February of 2021, is the sewer master plan for the southern portion of Fulton County. This roadmap was created in conjunction with our eight municipal partners and identifies the sewer infrastructure required to support the anticipated growth in demand as we approach the 2050 decade. An important part of this master plan, the Atlanta Newnan Pump Station is a milestone project in this decade of South Fulton development in several ways that include our utilization of technology and different delivery vehicles.



Rock and soil composition were determined by a seismic refraction investigation

The Atlanta Newnan Project is an essential project which will provide sanitary sewer services to select areas which are currently unsewered within the City of Chattahoochee Hills and the City of South Fulton. The project entails two pump stations (~6MGD pumping capacity) and approximately 6 miles of force main using HDPE (high density polyethylene) as the material. In order to design and construct this project the County decided to use a progressive design build model which included a Guaranteed Maximum Price (GMP), utilizing contracts with the Joint Venture of Goodwyn Mills Cawood & Reeves Young. Working with the joint venture, Fulton County identified critical path items that were susceptible to the global supply chain issues being experienced across the construction industry. The design team was able to navigate these concerns by working with the Fulton County Purchasing Department to garner approval and release of a material GMP which would allow the early purchase of the pipe material and associated appurtenances. By the time this article is published, pipe materials will have been delivered.

This project also allowed the team to implement new techniques utilizing technology to reduce the overall risk profile. GeoWave Solutions were brought onboard to conduct subsurface investigations through seismic refractions. Seismic refraction is a fancy way of describing a non-invasive technique of using sound arrays to explore subsurface conditions. The results of this testing allowed the stakeholders to identify soil or rock, up to a depth of 35 feet along the entire length of the project, that could potentially be problematic during construction. Early detection of challenges before soil is moved reduced the risk to County and therefore led to upfront cost savings.

As these projects continue to progress, we move forward into the "Decade of South Fulton" with great expectations and undoubtedly great success.

Inspiring the Next Generation of Water Professionals

Kweku Akrofi, a 10-year-old student attending Fulton Science Academy in Alpharetta, recently had the opportunity to attend, along with his class, the Children's Water Festival at the Johns Creek Environmental Campus. The festival is held each year during the first week of May to celebrate Drinking Water Week. At the festival, students rotate through several activities to learn about watersheds, pollution prevention, and the importance of clean water in all of our lives.

Fulton Science Academy students visit the Children's Water Festival

Though Kweku's aspiration was to be a paleontologist and a race car driver, because of his love for dinosaurs and fast cars, he was fascinated by what he learned at the Children's Water Festival and told his mother how important it was to keep our rivers free from pollutants and how the treatment plants help clean the water.

Kweku Akrofi meets Deputy Director Roy Barnes at the Fulton County Public Works offices

Kweku's mother suggested that he call his uncle, Sam Tamakloe, who is an Engineer II with Fulton County Public Works. Kweku called his uncle to arrange to visit his office after school and learn more about how the Department works.

During his office visit, Kweku met Deputy Director Mr. Roy Barnes, who volunteered to show Kweku what the department's role was as far as cleaning water before discharging it safely into the river. Kweku left the department excited about water and is now considering a more aquatic career of becoming a future marine biologist.

PEO: Back in the Classroom

As Fulton County students and teachers get ready to head back into the classroom during the first two weeks of August, the Public Education and Outreach (PEO) team is preparing to do the same. After a year and a half without face-to-face student programming, the PEO team was able to reach over 700 students with classroom programs during the spring semester of 2022. We look forward to continuing to build those numbers in the 2022-2023 school year.

In preparation, the team has reviewed teacher surveys and comments, updated program offerings, and created an online program request for teachers to use. These materials will be finalized in the coming weeks and will be available on the Fulton County website at https://fultoncountyga.gov/services/water-services/public-education-and-outreach/school-outreach-programs.

Findley Oaks Elementary 5th graders learn about microorganisms by participating in the Disease Detectives program

Upcoming Events:

FULTON COUNTY PUBLIC WORKS

Rain Barrel Workshops

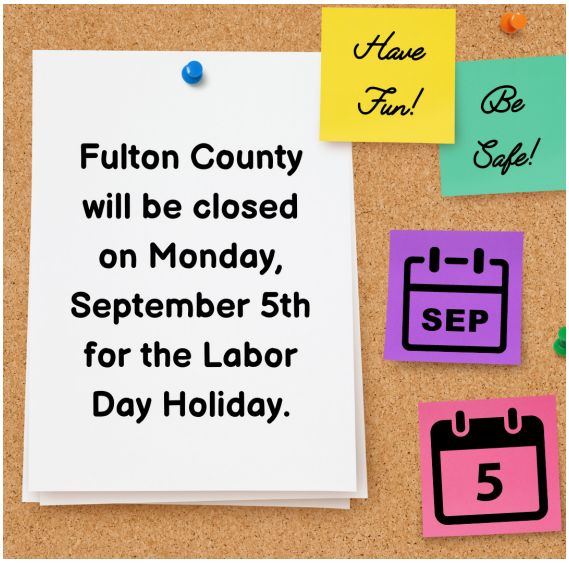
Saturday, August 13th 10am-11am

South Fulton Maintenance and Operations Center
7472 Cochran Rd, Atlanta, GA 30349

Saturday, August 27th 10am-11am

Milton Branch Library
855 Mayfield Rd, Milton, GA 30009

Pre-registration is required



Georgia Adopt-A-Stream Chemical and Bacterial Workshop

Saturday, August 20th
Outdoor Activity Center
1442 Richland Rd SW, Atlanta, GA 30310
Pre-registration is required

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