



CONNECTIONS

Fulton County Public Works' Quarterly Newsletter



Pictured L to R: Douglas Russell, Gilbert Mitchell, Mike Loggins, Sherry Davis



Pictured L to R: Terry Johnson and Tracy Samples

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Customers Show Love for Public Works

By: Amy Warnock

This Valentine's Day, the Public Education and Outreach (PEO) team set up two pop-up card making stations, at the downtown Government Center and the Water Resources Operation Center in Alpharetta.

Each card maker was asked to include one reason why they loved water and to add some personal touches to their card with decorative materials.

Fulton County citizens who visited the tables were able to decorate their own

valentine cards to say thank you to the Public Works employees who work hard every day to provide our customers with water and wastewater services.

All the visitors were delighted to be able to send a thank you card to those they don't often have the opportunity to thank in person.

Residents who visited the tables were also provided with conservation materials and information. Some had their pictures taken with their valentine cards and posted on the Fulton County social media accounts.

After the pop-ups were over, PEO staff dropped off the cards along with some chocolates for employees at the Alpharetta operations center as well as the South Fulton operations center.

Thank you Public Works employees for everything that you do for our citizens!

Director's Corner

By: David Clark



Welcome to the new “normal” whatever that may be.

I think we all would agree that the last few months have been strange and unprecedented. I hope that everyone is remaining safe, healthy, and taking the necessary precautions both on the job and at home to minimize their exposure to COVID-19.

One thing that has remained steady is the commitment to the Fulton County community that Public Works employees have shown throughout this challenging time. As always, all Public Works staff responded to the expectation of continuing to provide the essential services to North and South Fulton County. This includes airport services at the Fulton County Executive Airport, planning and zoning functions as well as transportation and stormwater maintenance in the Fulton Industrial District, water distribution in North Fulton, and sewer collection and treatment in North and South Fulton.

I am grateful to the commitment that all divisions show to ensure essential services are provided without a hitch. The dedication of Public Works has also been noted by the Board of Commissioners and the Manager's Office.

No one is certain how much longer this specific event will last or when the next emergency will come. However one thing is for certain, Public Works and its dedicated team members will be ready when needed.

| Welcome New Employees! | |
|------------------------|------------------------------|
| Cody Tolleson | Maintenance Worker, Sr. |
| Jordan James | Maintenance Worker, Sr. |
| Michael Crawford | Maintenance Worker, Sr. |
| Adran Walker | Maintenance Worker, Sr. |
| Steven Jackson | Construction Project Manager |
| Brandon Scott | Staff Engineer |
| Promotions | |
| Chad Pendley | Heavy Equipment Operator |

| Public Works By the Numbers January-March 2020 | | |
|--|-------------|--|
| Water Resources | 22.07 MGD | Total Potable Water Distributed (average day) |
| | 7.73% | Non-Revenue Water (annualized) |
| | 123 | Small Meters Replaced |
| | 61.08 MGD | Total Wastewater Treated (average day) |
| | 29.14 Acres | Sewer Easement Cleared |
| | 2.78 MG | Reuse Water Provided (JCEC) |
| | 16.99 MG | Reuse Water Provided (Little River) |
| | 135 | Water and Sewer Service Applications Processed |
| | YTD: 11 | Sewer Overflows >10,000 gallons (major spill) |
| | YTD: 12 | Sewer Overflows <10,000 gallons (minor spill) |
| Airport Services | 4,800 | People Reached by PEO Staff |
| | 22.5% | Airport Revenue (end of March 2020) |
| FID Transportation Operations | 11,745 | Aircraft Operations YTD |
| | 32 | Utility Permits Processed |
| | 76 | Potholes Repaired |
| | 16 Tons | Litter Picked Up |
| Development Permits | 20 | Traffic Signals Maintained |
| | 37 | Utility Plans Approved |
| | 115 | Utility Projects Under Construction |
| | 5 | Utility Projects Completed/Accepted |

Water Reclamation: I & I Mitigation Strategy

By: Charles Nezianya

Input Provided By: Anton Denev, Sam Tamakloe, Clint Ghahramani, Roy Barnes

The Department of Public Works has implemented an infiltration and inflow (I&I) mitigation plan to address capacity based sanitary sewer overflows (SSOs). Heavy rain events often cause rainfall derived infiltration and inflow (RDII). The rain fills the empty spaces of the sewer lines, and then forces a mixture of rain water and untreated sewage out of manholes and into the environment. Our wastewater collection system consists of approximately 2,200 miles of gravity sewer pipelines and 63,000 manholes within North and South Fulton.

The I&I mitigation plan consists of a sanitary sewer evaluation study (SSES), using closed circuit television (CCTV) to visually inspect pipelines and manholes to identify defects for repair. Since most RDII caused SSOs occur within 5 main sewer basins, the primary focus is to inspect pipelines 24 inches or greater as well as manholes within Big Creek, Little River, Morning Creek, Camp Creek and Wilson Creek basins. Some smaller diameter pipes are also inspected and identified for repair based on analysis using flow monitors installed at strategic locations within the collection system.

The reports from these inspections are reviewed to identify defects that need to be repaired, as well as the rehabilitation technique that will be most effective in preventing future RDII caused SSOs for the defect type and location. Each rehabilitation technique is evaluated to determine the most efficient and cost effective method needed for each repair. The types of rehabilitation methodology that are evaluated and recommended includes but are not limited to: slip lining, spiral winding lining, cured-in-place-pipe (CIPP), point repair, pipe bursting, pipe replacement, grouting, manhole lining, fiberglass manhole insert, and raising and/or replacement of manhole.

I&I mitigation projects started last year but projects have been delayed due to rainfall events. When projects are completed, flow monitors and rainfall data will be used to compare improvements.



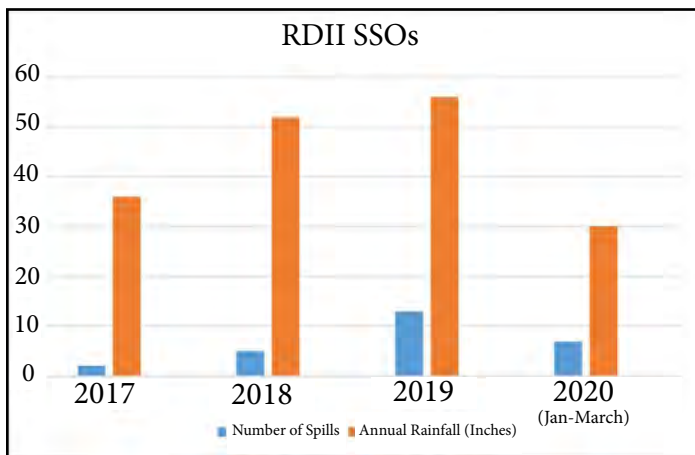
Spiral Winding Lining



Fiberglass Manhole Insert Installed



Raised Manhole



This graph depicts rainfall derived infiltration and inflow (RDII) spills comparison from 2017 – 2020 (Jan – March). The spills were driven by rainfall events and will reduce significantly once I&I mitigation projects are completed.

Completed or Ongoing I&I Mitigation Projects

| | |
|---------------|--|
| Big Creek | Spiral lining of 1,100 linear feet (LF) of 60 inch pipe is completed and 500 LF of 42 inch pipe is ongoing on Azalea/Riverside road. Approximately 48 manholes have been identified for rehabilitation and approximately 153 manholes have been raised and lined within the Big Creek basin. |
| Little River | Approximately 3,000 LF of pipes and 45 manholes with I&I defects and low lying manholes along lakes and creeks have been identified for rehabilitation. 110 LF of pipe has been replaced to address sag within the line. |
| Morning Creek | Approximately 100 manholes with I&I defects have been identified for rehabilitation, work is currently ongoing. 3 manholes have been rehabilitated with fiberglass insert and rehabilitation work using insert is ongoing. |
| Camp Creek | Rehabilitate 1,500 LF of pipe projected to start this spring. 10 manholes have been rehabilitated with fiberglass inserts. Rehabilitation of manholes located within swampy areas will continue and expected to be completed this year. |
| Wilson Creek | CCTV and manhole inspections are ongoing and expected to be completed in June. |

Earth Day 2020: Litter Prevention Campaign

By: Kelli Edwards

On Wednesday, April 22, 2020, the world celebrated the 50th anniversary of World Earth Day. As we commemorate 50 years of ground breaking environmental stewardship, the Public Education and Outreach (PEO) team would like to shine a light on one of our most challenging environmental issues: Littering.

Littering is one of the most challenging and unattractive problems to take on in Fulton County, the most populated county in the state of Georgia. In fact, in 2019 the FID Transportation Operations team collected 146.7 tons of trash from Fulton Industrial District (FID) roadways - the equivalent to the weight of about 8 empty semi-trucks. Unfortunately, litter is not only an eye sore, but an environmental concern. Litter and pollutants picked up by stormwater runoff goes directly into surface water sources, including rivers, lakes, and streams.



In an effort to combat this problem, the PEO team is spreading the word about best ways to eliminate street litter and prevent storm water pollution. We have partnered with the Transportation Operations team to bring light to major areas of concern, including hot spots along Fulton Industrial Blvd. Additionally, Public Works vehicles have added magnetic vehicle signage that educate our constituents about the adverse impacts of litter in our environment.

You can get in on the fun too! Keep an eye out for our volunteer clean-ups and green cleaning workshops. On this Earth Day, we ask that you spread the word about litter prevention. Together, we can move forward in celebrating our Earth for the next 50 years.



For more information about our ongoing cleanups and antilitter prevention programs, contact Kelli L. Edwards at Kelli.Edwards@fultoncountyga.gov or 404-612-8745.

Little River Update

By: Tim Mullen

Nobody could have predicted the extent of the impact of COVID-19. Nonetheless, Public Works has risen to the challenge, adapting to a new normal to keep water and wastewater services intact and ensure our workers' safety.

Construction of the expansion of the Little River Wastewater Reclamation Facility is still underway. The project is behind schedule primarily due to the extremely wet winter. The excessive rain resulted in delays in transferring flow from the north basin to the south basin.



Currently the contractor is completing preparation work for the installation of the membrane system. The membranes, provided by Suez, are scheduled to be installed in mid-May. They are installing a system similar to the system used at Johns Creek Environmental Campus but using the latest technology. When the membranes are installed and tested, the facility will be able to process the higher flow rates that we are experiencing at this time.

The contractor is also working on completion of construction of the south bio-basin. Due to the addition of the rain delay days and the COVID-19 crisis, the contractor is scheduled to complete the construction of the project in late June.

Wipes in Pipes Cause Pain in Drain

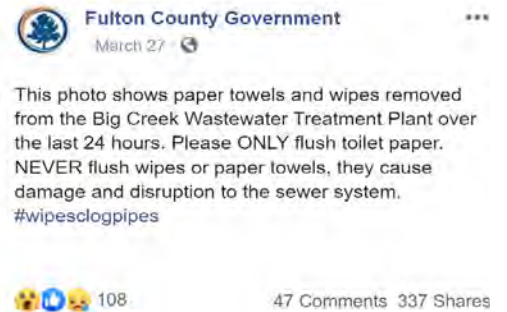
By: Shelley Lange

It appears that most people are following the recommendations of public health officials to clean and sterilize countertops, doorknobs, faucets and other frequently touched surfaces in their homes. Disposable wipes have become a hot commodity during this COVID-19 pandemic. As soon as they come in, they quickly disappear from store shelves. The problem? Now, those wipes are getting flushed down toilets, where they clog the sewer system. Paper towels, napkins and facial tissues are just as damaging to your sewer pipes.

Yes, wipes may be labeled flushable but they are not degradable, which means they don't break down, like toilet paper is engineered to do. Flushing them is like flushing a handkerchief or other items made of cloth. Like most urban cities, Fulton County has a centralized sewage collection system that depends on gravity and enough water flow to move along human waste and biodegradable toilet paper, and are not designed to handle wipes. They gum up the system, clog pipes and pumps, and cost taxpayers and residents lots of money in additional maintenance costs.



This image shows what it looks like when we get wipes and other "toilet paper alternatives" at the plant. When posted on the Fulton County Government Facebook page, it was shared more than 300 times and estimated to have reached more than 35,000 people.



Wastewater treatment facilities across the state have reported an uptick in the amount of clogged main sewer lines and spills associated with wipes and paper towels. Our Fulton County sewer workers screen about 5 tons of debris (rags, wipes, etc.) and grease daily, averaging about 160 TONS a month from our Big Creek, Johns Creek Environmental Campus, Little River and Camp Creek Water Reclamation Facilities. That's nothing to sneeze at (and by the way, please put that tissue in the trash...!)

If you must use wipes, put them in the trash, not the toilet! At first it may be a little inconvenient, but if you "can it" for just one week you may find that your "new normal" is not so scary and well worth the small effort to help the environment. Think of it as "social distancing" for your pipes – just keep the wipes, paper towels, napkins and facial tissues at a safe distance from your pipes! The PEO group is here to answer your questions and to provide you information and tools to help you protect our water resources.

Airport Projects Continue During COVID-19 Outbreak

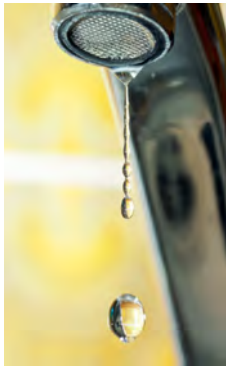
By: Tim Beggerly

Several projects have been pushing forward despite the recent COVID-19 outbreak, all the while adhering to CDC safety guidelines. This is possible as the three projects are all outdoor projects and thus allow workers to safely distance themselves from others.

The three projects able to operate under these guidelines are: taxiway construction for the North Terminal Area, sanitary sewer installation, and obstruction removal from the runway approach lighting system. Additionally, we are set to open bids next week on a large landscaping project which will beautify areas around the airport such as Aviation Circle, Fulton Industrial Blvd, and Martin Luther King Drive.



As the airport remains open 24/7/365, airport staff has been on-site to not only supervise the on-going projects, but to keep the airport operating safely during this critical time.



Fix a Leak Week 2020

By: Amy Warnock

Each year, Fulton County Public Works joins the U.S. Environmental Protection Agency’s WaterSense program in celebrating national Fix a Leak Week, a campaign to encourage homeowners to find and fix common household leaks in order to conserve water and lower utility bills. In order to accomplish this goal, homeowners are asked to “Check, Twist, and Replace.”



- Check for leaks by monitoring the consumption report on your water bill, learning to read your home’s water meter, and dye-testing your toilets to locate silent leaks.
- Twist on new, WaterSense labeled high-efficiency faucet aerators and tighten up loose connections.
- Replace old fixtures, such as leaky faucets, showerheads, and toilets, with high-efficiency WaterSense labeled models. WaterSense labeled products are third-party tested for efficiency and for performance.

On Thursday, March 12th, Public Works staff hosted a lunch and learn program for Fulton County employees, with a brief presentation about how to check for common household leaks. Each attendee also received conservation materials to help them save water at home.

While the majority of this year’s Fix a Leak Week events were canceled due to the COVID-19 response efforts, the Department of Public Works provides a number of year-round resources to help our customers check, twist, and replace their way to savings:

- Residents can download a leak detection checklist and home water assessment from our website at: <https://fultoncountyga.gov/services/water-services/water-conservation>
- We offer leak detection dye tablets and WaterSense labeled shower heads to customers upon request.
- Customers that replace old toilets with WaterSense models may be eligible for a rebate credit on their water bill.

For more information about conservation resources or the toilet rebate program, please contact Amy Warnock at (404) 612-8006 or amy.warnock@fultoncountyga.gov

Development Permitting: Connecting with Our Customers

By: Adriana Bustillos Lefkovits

Most municipalities around the world have been struggling to navigate the impact Covid-19 is having on their operations. Throughout this unexpected pandemic, Fulton County Public Works has reaffirmed its commitment to serve customers. This is clearly evident with the Development Permitting Unit (DPU). The DPU has made some adjustments to continue providing permitting and inspection services while protecting the health and safety of our employees and citizens.

Some of the implemented changes include switching from in-person submissions of plans, payments, permits, and plat approvals to electronic submissions. Pre-design meetings between engineers/developers and Fulton County staff are handled via Zoom. Public Works has been operating with a full-time staff which has been achieved by encouraging employees to telework as much as possible and were allowed to take home office desktops to achieve this. Inspection team members were also authorized to take home vehicles in order to minimize the interaction of personnel in offices.

It is important to emphasize that not only have we maintained operations and continued providing customer service, but DPU has also observed an increase in the permits applications received since this COVID-19 crisis. By accepting electronic submittals and payments, we have facilitated the permitting process to our customers, which can be translated into both cost and time savings for them. The details of the Department’s response has demonstrated our ability to be flexible in the midst of an unexpected crisis.

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| <p>Fulton County Board of Commissioners General Number 404-612-8200</p> |
| <p>Chairman-Robb Pitts (District 7) (404-612-8200)</p> |
| <p>Vice-Chair Marvin S. Arrington Jr. (District 5) (404-613-0202)</p> |
| <p>Commissioner Liz Housmann (District 1) (404-612-8213)</p> |
| <p>Commissioner Bob Ellis (District 2) (404-612-8216)</p> |
| <p>Commissioner Lee Morris (District 3) (404-612-9800)</p> |
| <p>Commissioner Natalie Hall (District 4) (404-612-8226)</p> |
| <p>Commissioner Joe Carn (District 6) (404-612-8222)</p> |