

WWTP Construction Update

Construction is continuing on the Town's Wastewater Treatment Facility. Much of the earthwork has been completed as of this newsletter with progress being made on pouring concrete for the aeration basin. The contractor has had to deal with the removal of significant quantities of rock during the excavation process, for as we know here in Chapin, rock is not uncommon when digging even the

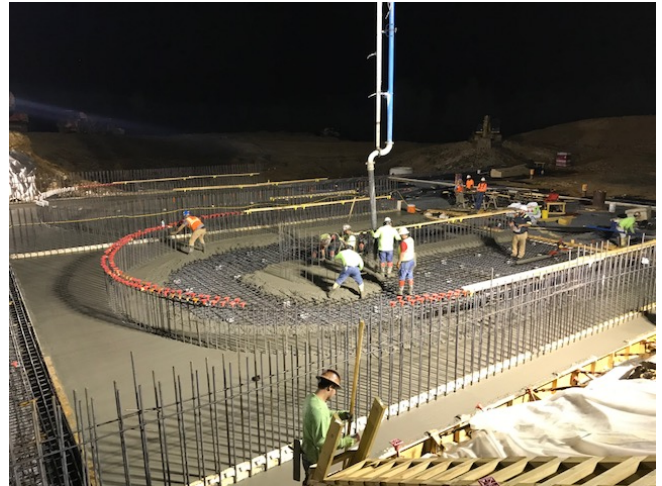


shallowest of holes. The contractor is taking every opportunity to mitigate costs as he is planning to pulverize the excavated rock and use as backfill material where possible.

As of this newsletter, over 1,500 cubic yards of concrete and reinforcing steel have been placed for the aeration basin. Concrete placement has also begun on the secondary clarifiers. Upon completion of the project, over 5,000 cubic yards of reinforced concrete will have been placed to construct the various basins.

During the heat of the summer, most of the reinforced concrete is being poured at night. Not only is this more comfortable for the workers, but if the concrete is poured during the heat of the day, it can dry out too quickly and form cracks that will

compromise the structural integrity of the concrete. In cases of extreme heat, ice is sometimes substituted for water in the concrete mix. The concrete itself gives off extreme amounts of heat as it cures.



Construction is proceeding with the project remaining on time and within budget. Including additional time incurred in initial project mobilization, the current completion date is on or before September 5, 2019. During the course of construction so far, the contractor has had no lost time due to accident. This translates to over 15,000 man-hours without a lost time accident, including M. B. Kahn and each of his sub-contractors.



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The above photograph gives an aerial view of the entire construction site, including the existing lagoon in the top right of the picture. The bottom left near the tree line shows a temporary water quality basin, which detains rain water runoff and prevents sediment from being dumped on to adjacent properties. Once construction is completed and the finished grades have been established, the site will be seeded to provide permanent stabilization to prevent erosion of the soil.

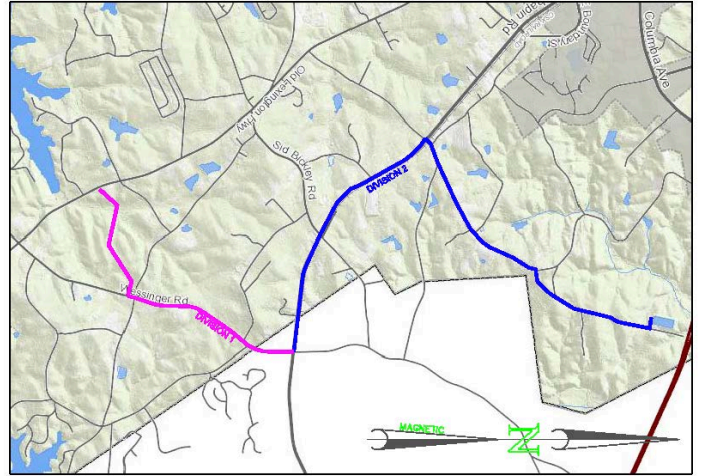
Capital Improvements Projects on the Horizon

The Town of Chapin is currently in the design phase for the East Chapin Force Main Project. Division 1 is currently being designed and will be constructed by Essex Homes on behalf of the Town. Division 1 consists of approximately 12,000 lf of 12-inch force main from the new pump station being constructed for Creekside at Chapin Place to the intersection of Wessinger Road and U. S. Highway 76.

Division 2 of the East Chapin Force Main Project will connect with the 12-inch line at the intersection of Wessinger Road and U. S. Highway 76 (Chapin Road) and continue to its discharge point at the Town of Chapin Wastewater Treatment Facility. The proposed Division 2 force main is approximately 19,200 lf of 16-inch diameter pipe. It is anticipated that this project will include two crossings of the CSX Railroad that parallels Chapin Road.

The need for the East Chapin Force Main Project has been demonstrated and intensified recently by the

potential near catastrophes that were averted during storm activity. Over the weekend of August 5, a significant amount of rainfall occurred, causing a significant infiltration and inflow event to the system that resulted in all lift stations in the Town's system running simultaneously, and competing for capacity. The resulting pressure spikes in the system, along with the age of some system components, two separate failures occurred on the parallel 12-inch force mains that convey the entirety of the Town's wastewater to the treatment facility.



Water and Wastewater Facts and Trivia

- Water is the only substance that is found naturally on earth in three forms: liquid, gas, solid.
- Frozen water is 9% lighter than liquid water, which is why ice floats on water.
- The overall amount of water on our planet has remained constant since Earth was formed, or for about two billion years.
- Over 90% of the Earth's supply of fresh water is located in Antarctica.
- In a 100 year period, a water molecule spends 98 years in the ocean, 20 months as ice, 2 weeks in lakes and rivers, and less than a week in the atmosphere.
- The human body is approximately 60% water.
- The first wastewater treatment plant opened in 1886 in Coney Island, NY to protect the beaches.
- The average Chapin residential water customer uses approximately 6,000 gallons of water per month.
- The average Chapin residential sewer customer discharges up to 300 gallons per day into the waste stream.
- The Town of Chapin owns, operates and maintains 74 sewer pumping stations and over 125 miles of sewer pipeline.

Wastewater System Master Plan

The Town is preparing to issue a Request for Qualifications to prospective consultants for the preparation of a Master Plan for Wastewater Facilities for the Town of Chapin service area. This long range planning document will assist the Utilities Department in addressing potential growth in the service area with respect to wastewater infrastructure requirements.

Water System Odor

In the past couple of weeks the Town of Chapin was made aware of complaints of isolated incidences of odor in the water system. The Town staff immediately began an investigation and initiated a routine flushing program in the neighborhood of the complaint. Water samples were collected, tested and determined to be within acceptable limits.

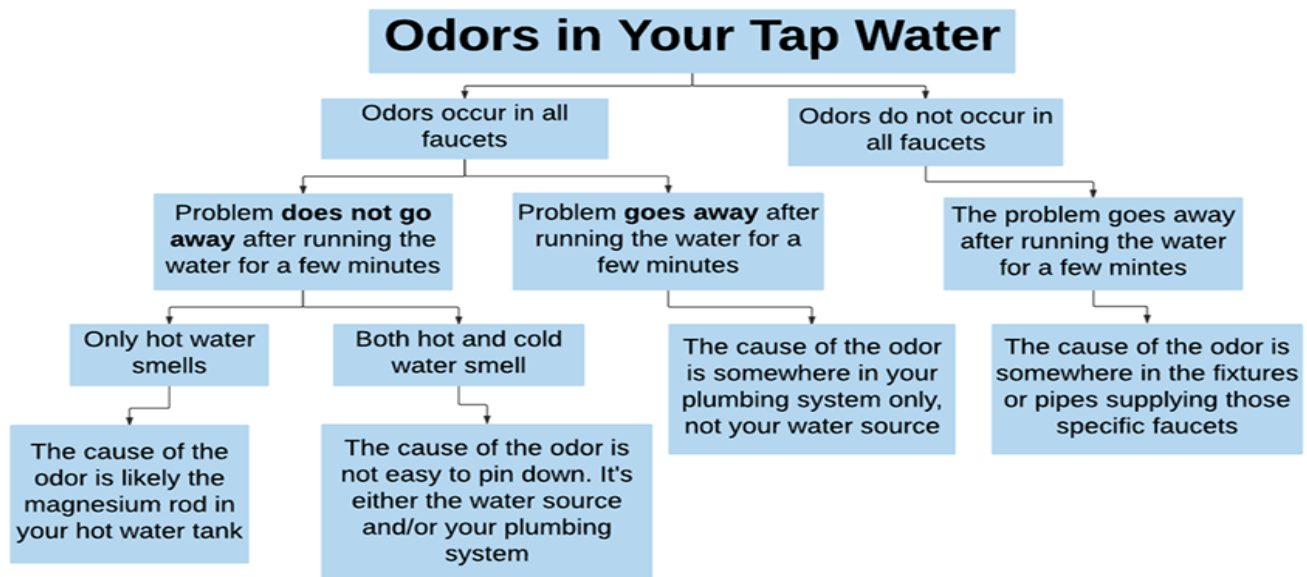
Water odors can be caused by many different things. Some of the main causes are the growth of iron and/or sulfur bacteria in water heaters and plumbing (swampy smell), the presence of hydrogen sulfide in the source water (rotten egg smell), low levels of residual chlorine in the source water or high levels of chlorine residual (swimming pool smell). The Town purchases water from the City of Columbia for distribution to its customers in the Chapin area. In response to the odor complaint, the Town solicited assistance from the City of Columbia Water Department to aid the investigation. The City tested the water in both their system and the Town's distribution

system and determined that the water was within limits as established by SC DHEC. In an effort to eliminate future complaints, the City staff has increased their chlorine feed rate as part of the treatment process. Also the City and Town staff have instituted a rigorous flushing program to move the higher chlorinated water to remote parts of their distribution systems. This action should greatly reduce the likelihood of any odor issues in the future.

The Town of Chapin Utility Department is committed to provide quality service to its water and sewer customers. If a situation ever arises that has the potential to compromise the quality of water, immediate corrective action will be taken and a notification will be provided to all effected customers.

Murray Lindler Rd. / Old Lexington Hwy. Roundabout

Due to the design and planned construction of a roundabout at Old Lexington Highway and Murray Lindler Road, the Town of Chapin has been required by SCDOT to relocate its sewer lines that are in the construction zone. The utilities affected are two parallel 12-inch force mains that transport the entirety of the Town's wastewater to the wastewater treatment plant. Construction on the force main relocations has begun but has been delayed due to coordination issues with the City of Columbia regarding their water lines in the area. The Town's contractor has just resumed work, however, and provided no further conflicts are encountered, the relocations should be completed by the end of September. At that point, construction will follow on the roadway improvements and the roundabout itself.



Utilities Department Contacts

Main Office (803) 345-0416

Emergency Response (803) 605-9711
(After Hours and Weekends)

Andy Metts - Director
 Susan Wright – Utilities Coordinator
 Theresa Hiott - Billing
 Dan Lambert, PE – Town Engineer
 Rey Angoluan – Inspections
 Richard Young – Water System Maintenance
 Selina Sexton – Utility Locates
 Russell Wright – Operations Supervisor
 Eddie Gable – Lead Operator
 Matt Cameron – Maintenance Supervisor
 Jeff Smith - Maintenance
 Anthony Andrade – Public Works
 John Walston – Public Works

UPCOMING DATES TO REMEMBER



Sat., Sept. 1 – Chapin Downtown Farmers Market - @ Chapin High School Field House



Sat., Sept. 1 – Justin Pepper 5K Walk Run Ruck @ Chapin High School. Race begins 8AM



Sun., Sept. 2 – Blues on Beaufort Street (7PM – 11PM)



Mon., Sept. 3 – Labor Day Parade, Classic Car Show 9:30AM (Town Hall Closed)

Town of Chapin Utilities Department
 157 NW Columbia Ave.
 PO Box 418
 Chapin, SC 29036



KNOW WHAT'S BELOW!!!!
 CALL BEFORE YOU DIG!!!!

REMINDER!!

- + The Town of Chapin prioritizes the protection of the environment from pollution, including overflows in the sanitary sewer system. If you see what you suspect may be a sewer overflow occurrence, please notify the Chapin Utilities Department in as timely a manner as possible, so our staff can investigate and minimize environmental consequences. YOU play a vital part in helping us keep our system operating smoothly!
- + Please remember to refrain from pouring oil and/or grease from cooking or automotive maintenance down sewers. Our wastewater facility can not accommodate the discharge of significant quantities of oils or grease.

More Upcoming Dates to Remember

Tues., Sept. 3 – Town Council Meets 7PM @ Town Hall

Tues., Oct. 2 – Town Council Meets 7PM @ Town Hall



Wed., Oct. 31 - Halloween

Tues., Nov. 6 – Town Council Meets 7PM @ Town Hall



Mon., Nov. 12 – Veterans Day
 (Town Hall Closed)