



## Water/Sewer Update

February was a busy month with water/sewer. We had a lot of sewer backups and issues. We have some sewer projects that are starting up. We had some washouts from the big rain that had to be attended to. We made an 8inch tap for GE scrap. We also added 2 new employees. Michael "Third" Henderson and Roy "Trey" Cornelison. (see picture left, Roy on the left and Michael on the right) We hope to expand our crews to be able to accomplish more.

It is shaping up to be an extremely busy year for us. Everyday, we see more opportunities to become safer and more efficient with a sewer-combo truck. We will be having our third demo later this week.

## Natural Gas Update

Cathodic Protection – Natural Gas Steel Lines

All steel pipe installed after 1971 must be protected from external corrosion. Regardless of size - Regardless of Length

The technique of providing cathodic protection to steel preserves the metal by providing a highly active metal that can act as an anode and provide free electrons. By introducing these free electrons, the active metal sacrifices its ions and keeps the less active steel from corroding.

See pic above left for Installed new Anode Bed and Pole Mounted Rectifier on Birchwood Drive.



## ELECTRIFIED UPDATE

Another busy month for the electric crew. We started off with another broken pole on Thompson Blvd. It was a crazy rash of pole strikes that hopefully has ended. We assisted the gas crew as they bored holes for ground beds.

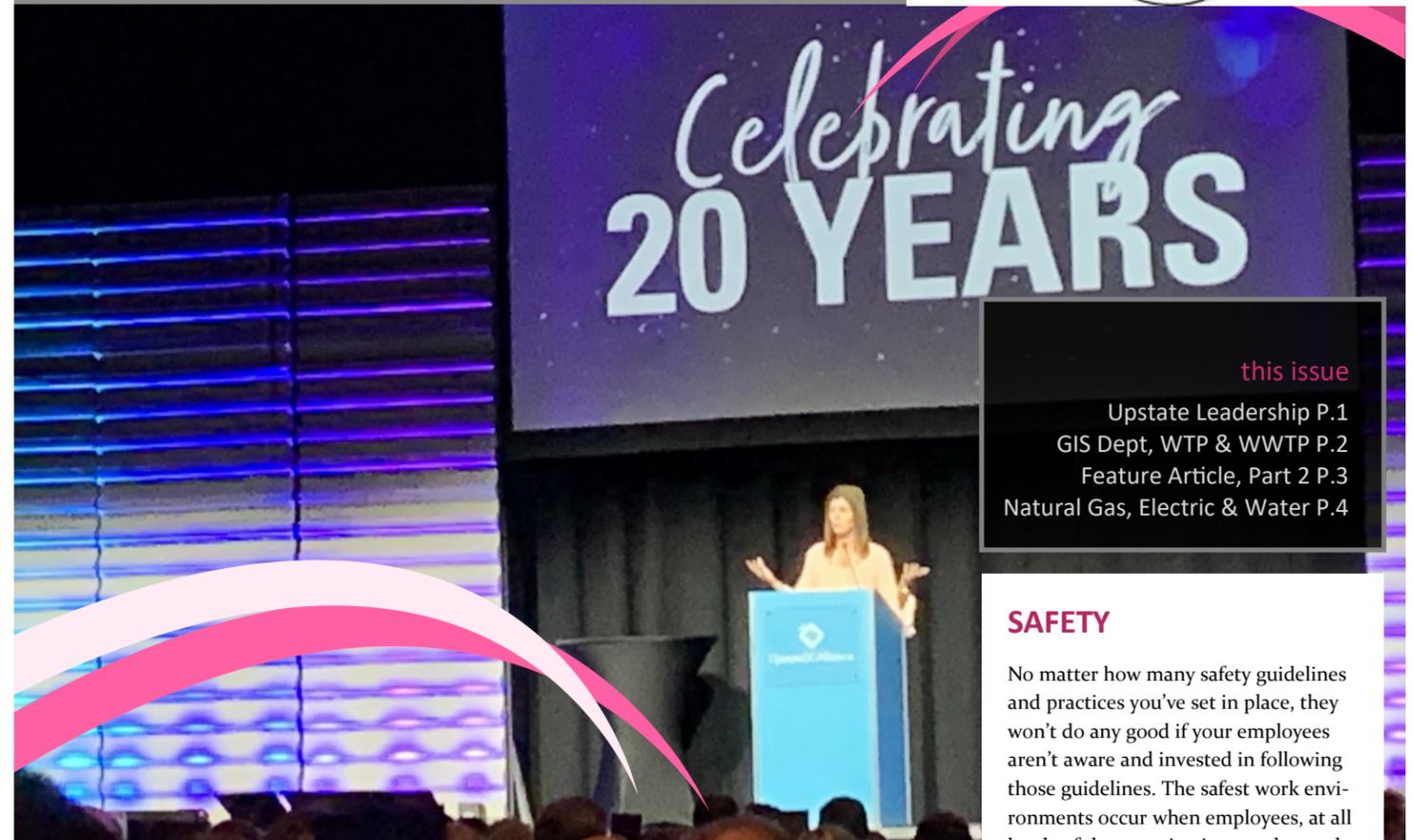
We pulled tons of CAT-5 cable at City Hall for communications and installed many new efficient lights.

Our two new employees attended their first week of Lineman school.

See picture left for tree problem we encountered Friday. There were complications but I am proud of our crew's efforts.

# UNION UTILITIES

Monthly Journal of Progress, Innovations and Achievements  
ISSUE 4 March 2020



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## SAFETY

No matter how many safety guidelines and practices you've set in place, they won't do any good if your employees aren't aware and invested in following those guidelines. The safest work environments occur when employees, at all levels of the organization, work together to communicate and adhere to the safety standards set in place. A successful safety program is one that encourages employees to report unsafe situations and behaviors, and encourages safe practices throughout each and every work day.

## IMPORTANT DATES

Celebrating Birthdays this Month : Scotty Silvers, Brett Adams and Will Youngblood

Celebrating Work Anniversaries this Month :

Joey Gregory 6 years

Jason Smith 3 years

## Leadership

I was so fortunate to be able to attend the 20th Anniversary Celebration of the Upstate Alliance in Greenville a few weeks ago. Just hearing the progress that our region has forged since joining together 20 years ago was amazing. One more example of team work working! The Lieutenant Governor, Pamela Evette spoke and discussed our progress from her vantage point over the years. Originally from Ohio, she now resides in Travelers Rest and is a mom and a business woman.

The meeting had over 600 attendees for lunch and it was a who's who of the Upstate. It is not hard to see why so much progress has been made over the years. I always say that I think the team with the most smart folks at the table wins and I think we are winning here in the Upstate!

Leadership reflects back on us all. We are all leaders in some aspect. Our organization functions best when all of the brains are connected and active. Every project, every work site, every challenge gives us all opportunities to contribute to every phase of our operation. All we have to do is make sure our brains are connected and functioning!

# Quality water... for life.

## WATER PLANT Update

In February, we changed the last of the radio cards at the river and reservoir for updating our signal to SCADA system. We are also having a leak repaired on number two bulk sodium hypochlorite tank.

We are also getting ready to repaint Aqua Lane tank. We had new Noreva check valve installed at reservoir.

We completed our yearly ERA testing for our lab certification.

We have finalized the contract for the relining of our Flocculation and Sedimentation Basins which are set to begin Monday March 16, 2020.

See picture below for a BEFORE picture of our basins. It won't be long before we will have a new shiny smooth surface!



Left—Basins at water plant.

## Waste Water TREATMENT PLANT

The City of Union Tosches Creek Wastewater Plant events that took place the Month of January. Over the course of the month we treated 51.66 million gallons of wastewater. We also registered 8.4" of rain for the month. We treated about 21 million gallons of rain water. The operators worked hard at keeping wastewater plant in compliance with the permit issued by SCDHEC. They also checked our 15 sewage pumping stations regularly to make sure they were pumping all they were designed to pump. We were called out several times during the month for power and high water alarms. This is an ongoing battle with inflow and infiltration with our deteriorating sewer collection lines. We also received leachate water from the landfill and septic trucks brought water from those who have septic tanks from our county.

We visited the City of Columbia Metro facility that uses sodium hypochlorite and sodium bi-sulfite for their chlorination and de-chlorination processes. We are moving forward with the preliminary engineering on the sodium hypochlorite project.

The City of Union and the Wastewater Community lost a friend when Bobby F. Vaughn passed away, recently. Although he had been retired from the City for many years, he still came by for a visit, now and then. He will be greatly missed, as he was an outstanding friend to everyone that knew him. The Catawba District recognized him for the Pioneer Award at their February meeting. Well deserved!

Right—Our friend, Bobby Vaughn



## GIS Department

On March the 3<sup>rd</sup>, Mark, Rebecca, and myself went to North Augusta for a live demonstration of the WorkForce software by Kevin Whaley and Ms. Donna. It was exciting to see how it brought the department together.

Ms. Donna's job is answering all phone calls for the utilities and street departments. When calls come in for services, she dispatches them using GIS. Once it is accepted by a crew member in the field, it is identified on the board. After it's complete the crew member will close it out. It sounds so simple, but is really a powerful process. Each workorder is getting real time attention and that's a positive for our customers.

Donna previous method for dispatching was much like our current one which can be a 3 person process. It works, but slows the pace for service to the customer and data collection. With WorkForce, service is quicker and data is preserved for future projects. The benefits of a centralized dispatch are limitless. Instantly we will know when valves are turned, hydrants flowed, or a missed trash pickup has occurred. These may seem trivial, but the data can be used for grant proposals, problem areas in our infrastructure, and help with designing a more effective route for garbage pickup.



## Water Plant History—Part Two

1935 to the Present

Probably the most significant federal aid was for a new municipal water plant when the Federal Emergency Relief Administration of the PWA paid 45 percent of the \$275,000 project. A new yellow brick filter plant was built on Calhoun Street, with three pumps having a total capacity of twenty eight hundred gallons per minute.

A complete chemical and bacteriological analysis was instituted on a daily basis. A twelve inch pipe was completed to Broad River in 1938, and the system was in place by August 1939. The new plant had "provisions for treatment with ammonia, chlorine, alum, lime, soda ash, and carbon." By 1939 all buildings in Union were on city water.

Union's municipal waterworks was the feeder system for most of the rural water districts. In 1970 Union's water, drawn from Broad River, was piped to town in a twelve inch line (1938) and a twenty inch line (1956). It was stored in a 40 million gallon reservoir and three elevated tanks holding a total of 1.4 million gallons. Some 8 million gallons per day could be run through the filter plant, but the average de-

mand was a mere 3.5 million gallons. The city served its own population, the South Hills development below town, the industrial park, and four different rural water districts.

In 1983 Union received a \$750,000 federal grant under the Emergency Jobs Act to run a new twenty four inch water line to Broad River to replace the unserviceable twelve inch line laid in 1938. It increased potential flow to over twelve million gallons per day, 1983's usage being five and one half million.

Today we currently have four distribution tanks, Sonoco, Oak Grove, Church St, and Aqua Lane. They are in designated areas of the city, for the city's water pressure. The water plant's current capacity is 10.4 MGD. We now have a total of six filters. A 400,000 gallon back-

If you missed Part One, grab one of last month's issues to get the WHOLE exciting story!

Who knew history could be so cool?

But it is and it is

wash tank is on site for filter backwash and can also be used for emergency potable water. In 1998 SCADA was introduced into water treatment technology. It was gradually introduced in stages to upgrade our ability to control the system process.

It is our challenge to continually maintain and upgrade our plant to respond to rule changes and demand changed over time. That includes daily preventative maintenance, on-going upgrade projects and continual education to keep our staff the best possible.

### Mark and the City of Union Utilities Team

Hello Mark,

Thank you so much for the assistance at the tennis courts on March 2. Your guys are always very professional and it continually makes me proud of our community!

Mark W. Haney  
Director of Maintenance  
Union County Schools

