



GreenvilleWater

**MINUTES OF REGULAR MEETING
COMMISSIONERS OF PUBLIC WORKS
Greenville Water
407 W. Broad Street, Level 2,
Greenville, South Carolina
January 9, 2024
8:15 a.m.**

Commissioners of Public Works in attendance:

Chairman Phillip A. Kilgore, Vice-Chairman James W. Bannister, Debra M. Sofield, Mayor Knox H. White, and Wil Brasington. A quorum was present.

Greenville Water Senior Staff in attendance:

Chief Executive Officer Jeff Boss, Chief Financial Officer Phil Robey, Chief Administrative Officer Dr. Bob Schmidt, Chief Operations Officer Jeff Phillips, Chief Technology Officer Kenneth Frazier, Director of Operational Technical Services Dr. Jane Arrington, Director of Field Operations and Facility Maintenance Mark Hattendorf, Director of Information Technology Brad Treas, Director of Business Services Steve Miller, Director of Communications Pamela Flasch, Assistant Director of Field Operations Wayne Benson, Manager of Facilities and Maintenance Allen White, Controller Brian Bearfield, Internal Auditor Jacob Polson, and Attorney Adam Bach.

The Regular Meeting of the Commissioners of Public Works of the City of Greenville, SC was called to order at 8:15 a.m. by Chairman Kilgore.

1. WELCOME

2. PUBLIC COMMENT

No comments were presented.

3. CONSENT AGENDA

Chairman Kilgore asked for questions pertaining to the consent agenda items. There being none, he called for approval of the items of the Consent Agenda which were the meeting minutes of the Regular Commission Meetings December 5, 2023, the Water Resources Report, the Finance Update, New Development, and New Annexations. Commissioner Brasington moved, seconded by Vice-Chairman Bannister, to approve the items of the consent agenda. The motion passed unanimously.

4. LEGISLATIVE UPDATE

Chairman Kilgore welcomed Legislative Liaison Bob Knight to provide a legislative update. Mr. Knight mentioned two bills of note. One dealt with impact fees introduced by Senator Davis which would allow for impact fees to be used for maintenance for the lines put in using impact fees. Currently impact fees can only be used for capital improvements. The other bill was by Representative Brandon Cox of Berkeley County which deals with benefits for first responders and expands the definition of first responders to include public utility workers responding to emergencies. It does not put onus of those expanded benefits on the agency, but on the State by allowing for expanded property tax relief, expanded workers

compensation benefits, et cetera. The bill is believed to be inspired due to the death of a first responder.

5. 2023 STRATEGIC PLAN SUCCESSES

Chairman Kilgore invited Chief Executive Officer Jeff Boss to introduce the 2023 Strategic Plan successes. Mr. Boss introduced the presentation then welcomed management staff to review success highlights. Director of Operational Technical Services Dr. Jane Arrington began with review of Greenville Water's strategic initiatives and strategic business plan. Chief Financial Officer Phil Robey then covered long-term viability for Greenville Water's finances, focusing on two financial targets of days cash on hand and debt service coverage. Mr. Robey announced that Greenville Water ended 2023 in excess of both targets.

Mr. Robey recognized Controller Brian Bearfield and Staff for receiving the Government Finance Officers Association's certificate of excellence award for the 2022 Annual Comprehensive Financial Report and completing implementation of a new financial information system, Sage Intacct. This new information system provides transparency, automation of workflows, and near-real time budget information.

Other notable achievements in 2023 include:

- 99.995% of bills were accurate, which is a standard for Greenville Water
- Customer generated service orders (i.e. move-in, move-out, leaks, high consumption, pressure issues, et cetera) were responded to within 24 hours. Most of these service orders were addressed by the close of business the same day.
- The nonrevenue water team, made up of business services team members as well as operations team members, worked with the City of Greenville to reduce their annual consumption by 51 million gallons. This was accomplished largely through leak detection based on high usage alerts that billing receives. In collaboration with the City of Greenville, 45 unused accounts were identified which were then permanently dismantled. Greenville Water's total losses and total lost cost rate have continued to go down the last two years.
- The Information Technology department created online self-service tools for customers, reducing unnecessary touchpoints and friction; partnered with GIS to automate water-off customer notifications; created new reconciliation capabilities to proactively address account anomalies before they can affect customers; and automated many GIS processes, ensuring data accuracy.
- The Engineering department completed the Adkins Raw Water Line Replacement project at around 11% under budget and also managed the replacement of 65,046 linear feet of galvanized mains within the last year.
- Field Operations reclassified work orders to benchmark the extent of emergency work and cross train team members. This aided in the repair of the 72-inch main that broke in November, which was repaired in 6 days. Crews were rotated to maximize training opportunities during the repair.
- The Human Resources department implemented a Safety Team, Take Twos and Departmental Safety Talks which resulted in an excellent Safety Maturity Index. The annual turnover rate decreased from 14% in 2022 down to 12% in 2023. Employee engagement increased through the monthly Birthday Lunch with the CEO, family picnic, holiday breakfast, et cetera.

- The Public Relations department redesigned the Consumer Confidence Report (CCR) distributed every year. The redesign received many positive comments for being more legible. New events in 2023 included the Greenville Water/The Nature Conservancy 30-year Conservation Easement Anniversary celebration and the holiday float.
- Watershed and Water Quality Management staff accomplished the following:
 - Prescribed burned 175 acres
 - Treated 1,100 endangered hemlock trees
 - Mapped boundaries, road, entry and exit points

In completing the review of the Watershed and Water Quality Management achievements, Dr. Schmidt thanked the Commission for their support of Greenville Water's initiatives. The achievements would not have been accomplished without this support.

Internal Auditor Jacob Polson informed the Commission that administration of the 2024 Strategic Goals would be handled by Internal Audit going forward, that is the auditing of progress, and the reporting will be done by department heads and directors. The goals will still be focused on effective utility management attributes. A change will be made to targeting, where targets will be American Water Works Association benchmarks. This will allow Greenville Water to compare goals and metrics to other utilities. Also, the goals will be designed to encourage team member investment.

Chairman Kilgore congratulated staff on a successful year.

6. SATELLITE LEAK DETECTION REGIONAL COLLABORATION

Chairman Kilgore welcomed Dr. Arrington to present on satellite leak detection. Dr. Arrington quoted Greenville Water's goal to be utility leaders in South Carolina, throughout the Southeast and the Nation. Mr. Boss asked Dr. Arrington to investigate satellite leak detection with regional partners. Dr. Arrington spoke to eight other utilities and five of those eight decided to join Greenville Water in a collaborative satellite leak detection initiative. Laurens County Water and Sewer, SJWD Water District, Blue Ridge Rural Water District, Powdersville Water and Greer CPW are the participating utilities.

Acoustic leak detection is the traditional means by which leaks are detected. Reactively observing a leak is obviously not the best detection method. Proactively, utilities can scan the distribution system using acoustic leak detection with a "boots on the ground" approach. Recently, Greenville Water began using artificial intelligence (VODA), to identify pipes most likely to fail in addition to hydrant caps with acoustic leak detection monitors attached directly to the hydrants. With a system the size of Greenville Water, even these proactive methods tend to be less efficient than satellite leak detection.

Satellite leak detection covers a very wide area. The satellite image covers up to 1400 square miles and is a physical method for the detection of water. Due to area covered, collaboration with utility partners is a great benefit to bringing the price down. Dr. Arrington provided a mileage breakdown among the different utilities. The scan will be detecting 6,517 total miles. An account representative will analyze the data and help the utilities find areas of interest that may each include a dozen pipe segments. The leak detection crew will then check the

area of interest for leaks. Dr. Arrington shared an example of a dashboard from another utility detailing the points of interest (POI) mapping where leaks were suspected and where leaks were found. The Discover platform will also provide insights into the leak type, leaks per POI and results by date.

Mayor White asked how the data is collected. Dr. Arrington explained the satellite moving over the earth has a synthetic aperture radar (L band) that penetrates down to 10 feet under the surface of the ground looking for a signature characteristic of water. This information from the scan is then analyzed algorithmically for actionable intelligence. Mr. Boss shared that he and Chairman Kilgore observed a demonstration of the technology at the 2023 American Water Works Association Annual Conference & Expo.

Dr. Arrington explained that the algorithmic analysis has matured to 80% accuracy in the last two years, where leaks are found for 80% of the predicted POIs. Once data is received and the leak detection crew confirms the results, staff anticipates being able to cover the entire system within about one year versus a 50-year horizon if we were to systematically attempt to move throughout the distributions system by grids, representing a considerable time savings. The collaboration allows for a lower cost for each participating utility, as well as obtaining two scans instead of just one. A scan will be made in early 2024, then leak detection crews will be deployed and another scan will be completed later in the year. A return on investment with the results will be shared with the Commission once it is available. Mr. Boss added it is hard to inspect 3,000 miles of pipe and this will give a quick snapshot telling Field Operations where to look.

7. COMMUNITY ROOM CONTRACT AND OUTREACH UPDATES

Chairman Kilgore called on Director of Communications Pam Flasch to review Greenville Water's Community Room contract and outreach updates. The changes were proposed to bring appreciation for the resources and build efficiency within the processes.

Ms. Flasch reviewed the current process for reserving the community room, the handwash stations, the quench buggy, and the water buffalo. There has been a huge spike in requests for all these items. Staff is constantly receiving inquiries regarding these outreach resources. Greenville Water has staff dedicated to ensuring the water station items are delivered, specific cleaning instructions are carried out, and set up is done properly. All of which carry liability risk. Going forward fees will be assigned for use of any water station based on labor, distance, and duration.

The Community Room has seen growing needs for the space in the community but also growing needs by Greenville Water. Staff recommended increasing the rates for the Community Room to cut down on cancellations to ensure the space is reserved responsibly. The current reservation process is antiquated and time consuming. Future reservations will be made using Planyo which is a reservation management platform with flexible scheduling, multiple payment options, foreign translation capability and more.

Commissioner Sofield drew attention to the fact that as these items are used by the community, damage occurs to the equipment. Chairman Kilgore recommended fees be raised to cover Greenville Water's costs for offering the benefit of the resource.

Commissioner Sofield added with all Greenville Water is giving out, and are happy to do so, that the fees need to be adequate to cover upkeep, repairs, and replacement. Commissioner Sofield also thanked staff for conversions that made the room more easily accessible. Mr. Boss pointed to Facilities and Maintenance Manager Allen White for making that happen.

Chairman Kilgore thanked Ms. Flasch for the update.

8. MCKELVEY ROAD BRIDGE REPLACEMENT

Chairman Kilgore welcomed Director of Field Operations and Facility Maintenance Mark Hattendorf to present on the McKelvey Road bridge replacement project. The presentation started with the basis of how the project came to be, explaining the South Carolina Department of Transportation (SCDOT) will be replacing the bridge. Greenville Water has a water main that hangs from the bridge. SCDOT gave Greenville Water years of advance notice that the water main will have to be moved. The two entities worked together to develop a solution that helps each other.

In years past, utilities had to pay 100% of the relocation costs for any SCDOT activity that occurred within the road right-of-way. Senate Bill 401 introduced into law in May 2019 allowed large utilities to get up to a 4% reimbursement of SCDOT project costs for relocations. Unfortunately, as a large utility, Greenville Water shares the road with many small utilities that absorb the majority of the funds before larger utilities can benefit from any savings. Mr. Hattendorf provided a list of Senate bill eligible projects and details of each.

The McKelvey Road bridge was built in 1958. Greenville Water hung a 12-inch main from the road deck in 1987. Notification of the replacement plan was received in June 2021. The 12-inch main is a single critical feed to Fork Shoals Elementary School. Staff asked SCDOT for permission to rehang the water main from the new bridge. Due to the single feed a temporary bypass would be needed to rehang from the new bridge which cause additional expense. The request was ultimately denied by SC DOT.

Greenville Water started design work for the project in 2022, hiring Michael Baker International to obtain the required US Army Corp of Engineers permit required to cross Huff Creek. Construction bids were received in October 2023. The low bid came in at \$840,000. Value engineering lowered the cost to \$701,000. Through possible funding available through Senate Bill 401, Greenville Water's exposure dropped to \$523,000, which was still unacceptable for a water main that was already in place with several decades of service life left and would not bring in any new customers.

While trying to come up with a possible solution, Mr. Hattendorf was reminded of a previous project where Greenville Water had to get water around the Middle Saluda River when the twin 30-inch mains were washed out a few years back. McConnell Grading was contacted to install piles and reconnect new pipe encased in a steel liner to the existing main on either side of the creek. Expenses to date after reimbursement from SC DOT will total \$14,000. Mr. Hattendorf detailed the steps and provided pictures.

Next steps will be to install a 16-inch main on Hwy 418 which aligns with long term plans. The investment will open up new customer potential and provide resiliency.

9. CHIEF EXECUTIVE REPORT

Greenville Water team members hit the 500,000 hours mark without a lost time accident. There is a safety incentive bonus that every employee partakes in. On January 31, 2024 all team members will receive a \$200 check. The next major goal is 1,000,000 hours without a lost time accident.

The U.S. Marine Corps Reserve recognized Greenville Water with the Commander's Award for outstanding support of the Detachment 1, Supply Co Marine Toys for Tots Program. Greenville Water team members collected five Toys for Tots collection boxes full of new, unwrapped toys.

Mr. Boss presented the Best Float plaque awarded to Greenville Water in the City of Greenville's Poinsettia Christmas parade. Commissioner Sofield and Mayor White thanked staff for making it happen.

Greenville Water submitted paperwork to complete a grant to install electric vehicle (EV) chargers. There will be four EV charging stations installed on Greenville Water property in the near future. An application has also been submitted to the American Water Works Association for the Source Water Protection Award. This award is given to recognize drinking water systems who have developed and are implementing exemplary source water protection programs. Mr. Boss explained Greenville Water is one of three utilities in the US that have a source water protection program.


Mr. Boss introduced Greenville Water's new Chief Technology Officer Kenneth Frazier. Mr. Frazier provided a brief history and shared his excitement about being a part of Greenville's sustainable future.

10. COMMISSION COMMENTS

Chairman Kilgore congratulated team members on a successful 2023.

11. ADJOURNMENT

There being no further business, the meeting was adjourned 9:45 a.m.


Phillip A. Kilgore, Chairman


Kimberly Haulter, Executive Assistant