



GreenvilleWater

**MINUTES OF REGULAR MEETING  
COMMISSIONERS OF PUBLIC WORKS  
Field Operations Community Room  
517 W. Washington Street,  
Greenville, South Carolina  
December 7, 2021  
8:15 a.m.**

Commissioners of Public Works in attendance:

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

Greenville Water Senior Staff in attendance:

Chief Executive Officer David H. Bereskin, Chief Financial Officer Phil Robey, Chief Operations Officer Jeff Boss, Chief Administrative Officer Dr. Bob Schmidt, Director of Water Resources Jeff Phillips, Director of Strategic Initiatives Dr. Jane Arrington, Director of Engineering Mark Hattendorf, Director of Human Resources Richard Posey, Director of I.T. Billy Cooper, Controller Brian Bearfield, Manager of Field Operations Wayne Benson, Public Relations Manager Emerald Clark, Facility Maintenance Manager Allen White, Internal Auditor Jacob Polson, Water Resources Assistant Director Elizabeth Lee, and Attorney Adam Bach.

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The Regular Meeting of the Commissioners of Public Works was called to order at 8:20 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 Meeting November 9, 2021, the Water Resources Report, the Finance Update, New Development, and New Annexations. Commissioner Sofield moved, seconded by Commissioner Brasington, to approve the items of the consent agenda. The motion passed unanimously.

**4. LEGISLATIVE UPDATE**

Chairman Kilgore called on Legislative Liaison Bob Knight to provide a legislative update. Mr. Knight stated the American Rescue Plan Act (ARPA) of 2021 is still moving along. The water infrastructure funding plan negotiated by Chief Executive Officer David Bereskin has been shared with the House of Representatives and is being drafted as one of the options for distributing the water funds. The Senate is not as far along as the House of Representatives in coming up with a solution on how to spend the ARPA funds. Mr. Knight believes Water and Sewer will receive a substantial amount of funds, but the question is how the funds will be distributed.

Representative Bruce Bannister mentioned to Mr. Knight and Mr. Bereskin that he would like to try to get Greenville Water's bill regarding the state retirement issue passed next year.

## **5. BROWN & CALDWELL DAM/INTAKE PRESENTATION**

Chairman Kilgore introduced Wayne Iseman and Kelly Comstock from Brown and Caldwell and invited Mr. Comstock to present the North Saluda and Table Rock reservoir studies yield augmentation results. Questions addressed in the study were:

- How much additional safe yield could be realized if the dams at Table Rock and North Saluda were heightened?
- How much additional safe yield could be realized if the intakes at the two reservoirs were lowered?
- How much would this cost?

Mr. Comstock explained safe yield is the maximum rate at which water can be consistently removed from reservoir throughout a critical, low inflow period without depleting the reservoir's conservation storage. Current safe yield estimates are 22.4 mgd for Table Rock and 28.2 mgd for North Saluda.

Topographic data was used to estimate increased storage potential and bathymetric data was used to estimate additional storage below the intakes. After reviewing costs for raising reservoirs or lowering intakes, it was decided the best option would be to provide a floating barge system to access the lower dead pool areas. This solution is significantly less expensive and could access a combined 4.5 mgd of additional yield (1.4 at Table Rock and 3.1 at North Saluda).

## **6. APPROVAL OF CAPITAL IMPROVEMENT PROGRAM FOR 2022**

Chairman Kilgore welcomed Chief Financial Officer Phil Robey to present the Capital Improvement Program (CIP) for 2022 for approval. Mr. Robey offered the final proposed version with \$2.5 million added since the November preliminary presentation. The proposed program meets all financial targets established by the Commission.

Mr. Robey reviewed the changes made since the November presentation and asked the Commission to approve the 2022 capital budget. Chairman Kilgore asked if everything in the budget could be accomplished without a rate increase. Mr. Robey confirmed there is no proposed rate increase.

Commissioner Sofield moved, seconded by Vice-Chairman Bannister, to approve the Capital Improvement Program for 2022. The motion passed unanimously.

## **7. STRATEGIC PLAN UPDATE**

Chairman Kilgore invited Director of Strategic Initiatives Dr. Jane Arrington to present the 2021 Strategic Plan Success and the 2022 Strategic Opportunities. Dr. Arrington provided a bird's eye view of the considerable data covered in the presentation.



A sample of the 2021 Successes include:

- Successfully secured a 319 Grant in support of instream improvements on the North Saluda River and Callahan Branch
- Implemented a Tri-party agreement to conduct controlled burns
- Automated performance evaluation and on-boarding in Ultipro
- Integration of CIS to Enterprise Asset Management (EAM)
- Greenville Water Cares volunteer program took root. Over 454 volunteer hours were dedicated to greater Greenville.
- Field Operations installed over 19,000 LF of new water mains and scored each project on budget and scheduling, providing the foundation for the 2022 construction bonus incentive program.
- Comprehensive risk matrix evaluation
- Cross Connection Control program updates
- Established key metrics to demonstrate operational effectiveness in Greenville Water's EAM program.
- Implemented EAM for hydrant flushing
- Created a webpage to display water quality trending data
- Surpassed Laboratory goals for data accuracy and turnaround time.
- Completed all Labor, Licensing and Regulation (LLR) training hours in-house
- Launch of daily billing, surpassing all timeliness and accuracy goals
- Launch of meter testing and replacement program for large commercial meters, industrial meters and the smaller residential meters.

2022 Strategic Goals will include:

- Work to establish a green Greenville Water Fleet
- Migration of the many Fleet assets into the EAM system
- Fleet internal audit in addition to a variety of other internal audits
- Make Greenville Water the Preferred Employer in the Upstate
- Improve customer technology interfaces via enhanced telecom and website portals
- Operation round-up good neighbor program will be one of many tactical goals to expand community outreach and engagement to all segments of the Greenville community.
- Field Operations will utilize new hydrant cap leak detection technology and artificial intelligence predictive algorithms to proactively monitor the distribution system to detect leaks before they surface.
- Accurately assess water capacity for long term development and system sustainability
- Implement construction project tracking for efficient resource allocation
- Undertake tactical approaches such as vibrational analysis and equipment performance monitoring to maintain optimal performance and increase the life expectancy of all Greenville Water assets.
- Proactively identify and plan for emergency scenarios and impending LCR regulations
- Select a new financial information system (FIS)
- Implement centralized purchasing

Chairman Kilgore said it was impressive how successful 2021 had been for everyone, not just in isolated areas but truly across the board and on behalf of the Commission applauded everyone's efforts.

## **8. CROSS CONNECTION CONTROL PRESENTATION**

Chairman Kilgore called on Director of Engineering Mark Hattendorf to present a proposed policy adoption for Cross Connection Control. Mr. Hattendorf reviewed cross-connections and what causes backflow incidents to occur. Common offenders can be garden hoses, boiler feeds, and firelines. These are typically rare events, but they do happen. Policies and procedures are in place to protect the water system. These procedures meet the requirements of the Department of Health and Environmental Control (DHEC) regulation: R.61-58.7 (F).

Mr. Hattendorf presented a recommendation that Greenville Water move to a system wide standardization for residential irrigation backflow devices to create an equal class of customers where everyone who has an irrigation meter does not have to pay to have the backflow device tested. Double check valves will be replaced by dual check setters, owned and maintained by Greenville Water. The dual check setters will undergo maintenance every 30 years as part of the meter replacement program. The CIS database has record of 14,000 residential irrigation double check valves in the system. The plan to move to system wide standardization includes the following steps:

- 700 per year replaced during inlet service line renewal by GW field Ops
- 500 per year replaced by cross connection staff
- 700 per year replaced by contractors (main replacements)

Mr. Hattendorf proposed no changes in relation to commercial customers. All commercial firelines and irrigation systems have double check valves which are the testable assemblies. Fireline backflow devices are tested annually, as well as commercial irrigation.

As part of the regulations, Greenville Water is required to have a program that manages and ensures compliance with DHEC requirements. The current program includes mailing customers notifications 45 days before the device test due date, and a second notice comes 15 days after the test due date. The customer then hires a certified tester. The tester emails the test form to Greenville Water where the test results are documented in CIS through an automated process. If a device is replaced, the new device information is recorded.

Commissioner Brasington asked what happens when a customer is non-compliant. Mr. Hattendorf detailed current enforcement and proposed enforcement changes. Commissioner Sofield requested the enforcement changes be discussed further. Commissioner Sofield moved, seconded by Commissioner Brasington, to table the Cross Connection Control policy update at this time and take it up at a later date. The motion passed unanimously.

Chairman Kilgore recommended in the meantime Staff consider enhancing the nature of the testing notifications. Regarding firelines, notify the Fire Marshal of non-compliance and consider enhanced fines for non-compliance.



## **9. CHEMICAL BUDGET UPDATE**

Chairman Kilgore called on Mr. Robey to present a chemical budget update. Mr. Robey explained every year Greenville Water requests bids for water treatment chemical supply needs. The process has been completed for 2022 chemical needs. The idea of the process is to establish a fixed price for the upcoming year for all chemicals. Bids have been collected for 2022 and some spectacular increases have been received. Bids have not been awarded yet. Staff is inquiring of sister utilities and chemical vendors to make sure Greenville Water understands the best course of action going forward in structuring of pricing for the chemicals.

To be prepared for the worst case, Staff asked the Commission to amend the 2022-2023 budgets by \$700,000 to cover the chemical bids received. Commissioner Sofield moved, seconded by Commissioner Brasington, to approve the budget amendment. The motion passed unanimously.

## **10. METER SUPPLY RESPONSE PLAN**

Chairman Kilgore welcomed Chief Operations Officer Jeff Boss to present the Meter Supply Response Plan. Mr. Boss announced, unfortunately, Greenville Water is not immune to supply chain issues. Water meters are a combination of parts from two suppliers: 1. Badger Meter supplies the metering device, register and cable 2. Itron provides the encoder receiver transmitter. Badger Meter is having an issue with raw material shortages, manufacturer labor disruptions and panic buying.

The magnitude of Greenville Water's exposure is a need of 8,800 meters per year. Mr. Boss reviewed the plan developed by Staff to overcome this issue. Residential customers will be prioritized to receive any meters in stock. Builders and Developers will be instructed to install a direct connection and agree to estimated billing. The estimated billing will be as follows:

- Builder/Customer signs an agreement specifying the estimated charges.
- Estimated billing will not be eligible for adjustment.
- Construction/Irrigation Accounts will be assessed monthly base fee:
  - Consumption 1,000/3,000
  - City: \$4.52 County: \$6.78
- Move in billed all fees (base/vol/sewer)
- Estimated consumption for single family residences, 4,500 gallons

When supply chain issues are resolved the following is the order for installation:

- Estimated billed accounts take priority.
- New residents
- Meter replacements from failure
- New construction
- Meter replacement program

Chairman Kilgore asked staff to be prepared with an analysis to demonstrate the average charge is related to actual experience.

#### **11. CHIEF EXECUTIVE REPORT**

The Raw Water Line at Adkins went out for bid, with 9 bids received. The original bid included ductile iron pipe with an alternate to use steel pipe. If the steel alternate is accepted, it could reduce the low bid by \$3 million. Commissioner Sofield asked for the difference in life expectancy between ductile iron and steel. Mr. Boss stated the steel pipe would have a life expectancy of over 100 years. Chairman Kilgore asked if there is any performance difference between ductile and steel. Mr. Bereskin explained there is not in performance, but in life of product Greenville Water embraces ductile iron. For the change in circumstances now, on the advice of consultants, the steel will perform adequately. Commissioner Sofield asked if staff is imagining using steel going forward, for other projects. Mr. Bereskin said it will be an alternate on bids going out, but it will depend on the pricing structure. The preference is ductile iron. Chairman Kilgore clarified Mr. Bereskin was only asking for weigh-in by the Commission on the Raw Water Line at the Adkins Water Treatment Plant (WTP). Greenville Water Staff's recommendation was to go with the steel pipe for this project. Commissioner Brasington questioned the only trade-off is the preference between ductile iron and steel, with both having a life expectancy of over 100 years. Mr. Iseman with Brown and Caldwell responded yes. The raw water line operates at a lower pressure than finished water lines. Commissioner Sofield moved, seconded by Commissioner Brasington, to approve acceptance of the alternate bid for steel pipe for the Adkins WTP Raw Water Line project. The motion passed unanimously.

Mr. Robey was able to negotiate the last cyberattack insurance claim under the Insurance Reserve Fund for net payment of \$25,000.

Renewable Water Resources Chief Executive Office Graham Rich will be retiring in April 2022. Mr. Bereskin stated Mr. Graham had been a great partner.

#### **11. COMMISSION COMMENTS**

No comments were presented at this time.

#### **12. ADJOURNMENT**

There being no further business, the meeting was adjourned 9:50 a.m.

  
Phillip A. Kilgore, Chairman

  
Kimberly Haulter, Executive Assistant