



South Granville Water and Sewer Authority

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TO: SGWASA Board Members

FROM: Scott N. Schroyer, Executive Director *SNS*

TOPIC: Topics Update Report for March 2025

DATE: Report Issue Date 4/1/25

Please find below updates on the projects that appeared in the previous Topics Update Report. I will respond to any questions you may have following your review of the information contained below.

Section 1 – High Priority/High Impact Projects

1) PFAS Mitigation Strategies Program

a) **Background:** The term PFAS describes a class of compounds commonly referred to as “forever chemicals” as they do not break down and remain constant in the environment through the water and land. PFAS can be found in products and materials used regularly by most citizens, such as lotion, wax paper, water bottles, cleaning products, non-stick cookware, dental floss, and more. See the latest information about PFAS from the US EPA at <https://www.epa.gov/pfas>. Water utilities, such as SGWASA, are “passive receivers” of PFAS. SGWASA does not produce or manufacture PFAS. Instead, the PFAS chemicals are present in source waters that are treated to produce drinking water.

On April 10, 2024, the U.S. Environmental Protection Agency (EPA) announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS. The NPDWR establishes legally enforceable PFAS levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants with individual MCLs, and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index MCL to account for the combined and co-occurring levels of these PFAS in drinking water. The EPA also finalized health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these PFAS. These values are shown in the following table.

Section 1 – High Priority/High Impact Projects (cont.)

Compound	Final MCLG	Final MCL (enforceable levels)
PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index	1 (unitless) Hazard Index

The Final Rule Requires:

- Public water systems must monitor for these PFAS, and they have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must also provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have until April 26, 2029, to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed the MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.

Current PFAS Reduction Technologies

Current PFAS reduction technologies include Granulated Activated Carbon (GAC), Reverse Osmosis (RO), and Ion Exchange (IX). Costs associated with current PFAS reduction technologies range from \$2.00-\$4.00 per gallon of finished water from a water treatment plant. SGWASA's water plant is permitted to treat 7.5 Million Gallons per Day (MGD). The cost for treating 7.5 MGD of water for PFAS reduction to meet the EPA regulations equals an investment range of \$15M-\$30M depending on the type(s) of PFAS reduction technology used.

In the fall of 2022, the Department of Environmental Quality (DEQ) collected water samples at SGWASA's water treatment plant to analyze PFAS levels. The testing and analysis effort by the DEQ was part of a state-wide program to assess water utilities. For more information about this program, please visit the DEQ website: DEQ PFAS Sampling of Public Water Systems at <https://www.deq.nc.gov/news/key-issues/emerging-compounds/understanding-pfas/deq-pfas-sampling-public-water-systems>

Section 1 – High Priority/High Impact Projects (cont.)

In July 2023, SGWASA hired engineering consultant CDM-Smith to assist it with meeting the PFAS Rules. CDM-Smith was tasked with two items: 1.) creating a PFAS Pilot Testing Program, and 2.) submitting on SGWASA's behalf, two (2) NCDEQ State Revolving Fund (SRF) financing/grant applications. One NCDEQ SRF application was for the maximum grant amount of \$500,000 for the PFAS pilot testing, and the second NCDEQ grant was in the amount of \$22,000,000 for PFAS mitigation engineering design and construction. The two NCDEQ applications were submitted in early October 2023. The Pilot Testing project is associated to the SGWASA FY23-33 CIP ID# 101-07 at an estimated cost of \$500,000.

b) What are SGWASA's next steps in moving to compliance with the new NPDWR Rule?

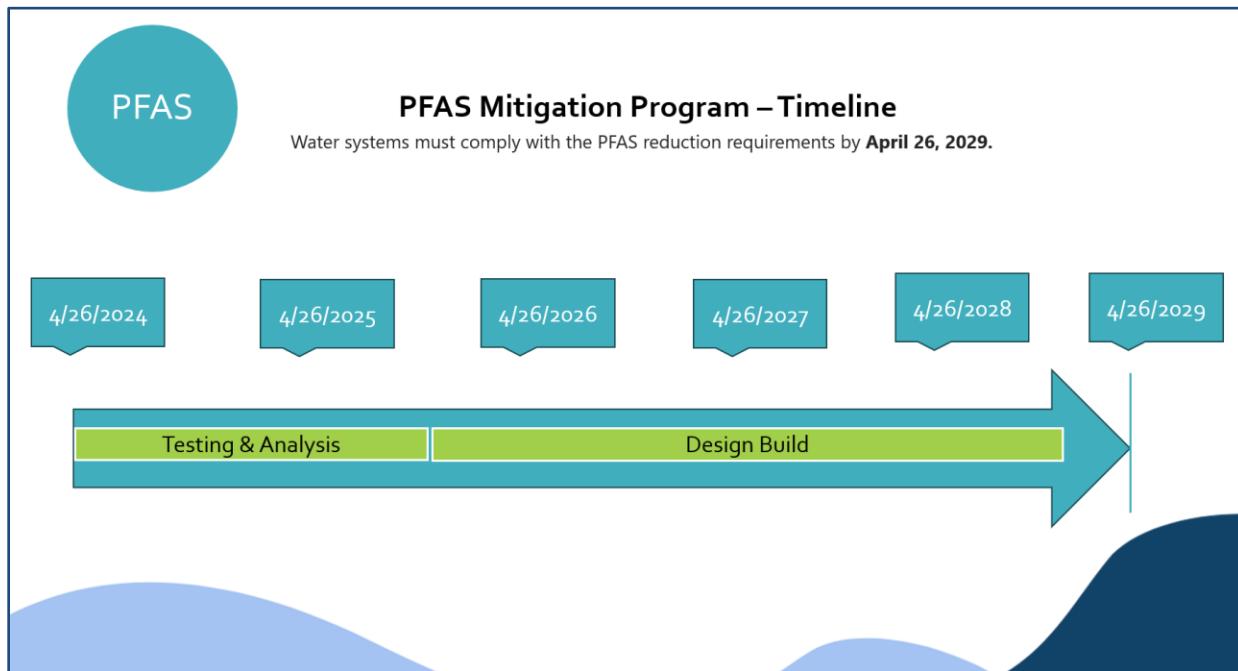
SGWASA has prepared the following approach to meet the April 26, 2029, deadline, as shown in the following steps:

Item #	Item	Status	Comments	Cost
1	Design a PFAS Pilot Testing Program to determine the most cost-effective PFAS removal techniques for SGWASA's water system.	The Pilot Testing design was initiated and completed in late 2023.	None.	SGWASA spent \$45,485 on this task.
2	In 2023 SGWASA applied for NCDEQ State Revolving Fund (SRF) financing/grant for the maximum grant amount of \$500,000 for the PFAS pilot testing, and \$22,000,000 for PFAS mitigation engineering design and construction.	SGWASA received a \$500,000 grant from the NCDEQ to perform the PFAS Pilot Testing program. SGWASA was not awarded funding for the design and construction.	SGWASA will continue to apply for NCDEQ grant funding for the \$26M design and construction for PFAS removal.	SGWASA spent \$15,985 on this task.
3	In 2023, SGWASA received a \$5M grant from the state budget for water/sewer.	In January 2025, SGWASA and CDM Smith submitted to	SGWASA received information from the NCDEQ in March 2025 regarding a Notice of Intent to Fund the work	SGWASA will pay \$75,000 for 1.5% grant administration fee.

Item #	Item	Status	Comments	Cost
	NCDEQ 1.5% grant administration fee = \$4.925 M to spend.	the NCDEQ a Request for Funding for the engineering design, bidding services, and construction for the PFAS removal project.	associated to the PFAS removal project.	
4	Conduct PFAS Pilot Testing October 2024 to August 2025.	In progress.	The results of the PFAS Pilot Testing program will be used to provide the criteria for engineering design and construction.	SGWASA received a \$500,000 grant from the NCDEQ to perform the PFAS Pilot Testing program.
5	Once NCDEQ provides official/final approval regarding the use of the \$5M grant, SGWASA will seek authorization from the Board of Directors to enter a contract with CDM Smith for the engineering design of the PFAS removal at the SGWASA water plant.	In March 2025, SGWASA received a Letter of Intent to Fund the PFAS reduction project. Staff is completing the required forms needed to secure the funding for the project.	SGWASA is evaluating a design-build process to shorten the construction time to meet the April 2029 compliance date.	
6	Seek additional grant funding/SRF loan funding for estimated cost of PFAS removal construction of \$26M.	Ongoing.	If grant(s) cannot be obtained, then SGWASA will determine what financing sources will be used to fund the project.	TBD
7	Construct the PFAS removal	Planned.	Goal to complete the PFAS removal project: 1/1/2029.	TBD

Item #	Item	Status	Comments	Cost
	process equipment.			
8	Place the new PFAS removal process equipment into operation prior to 4/26/29.	Planned.	Additional annual operating costs will be associated with the new operation. These costs will be factored into the annual operating budgets.	TBD

c) **Status** (In Progress/On Schedule): CDM-Smith is currently performing the PFAS Pilot Testing Program. The PFAS Pilot Testing Program is scheduled to be completed by October 2025. The project timeline is shown below.



2) I-85 Sanitary Sewer System Improvement Project

a) **Background:** SGWASA serves the southern portions of Granville County North Carolina, including the City of Creedmoor, and the Towns of Butner, and Stem. Currently, portions of the existing wastewater collection system is at its maximum capacity to reliably convey the flow to the SGWASA Wastewater Treatment Plant (WWTP). Due to this issue, in 2018, SGWASA instituted a moratorium on additional development in the area surrounding the City of Creedmoor and portions of the Town of Butner, until additional collection system capacity is provided.

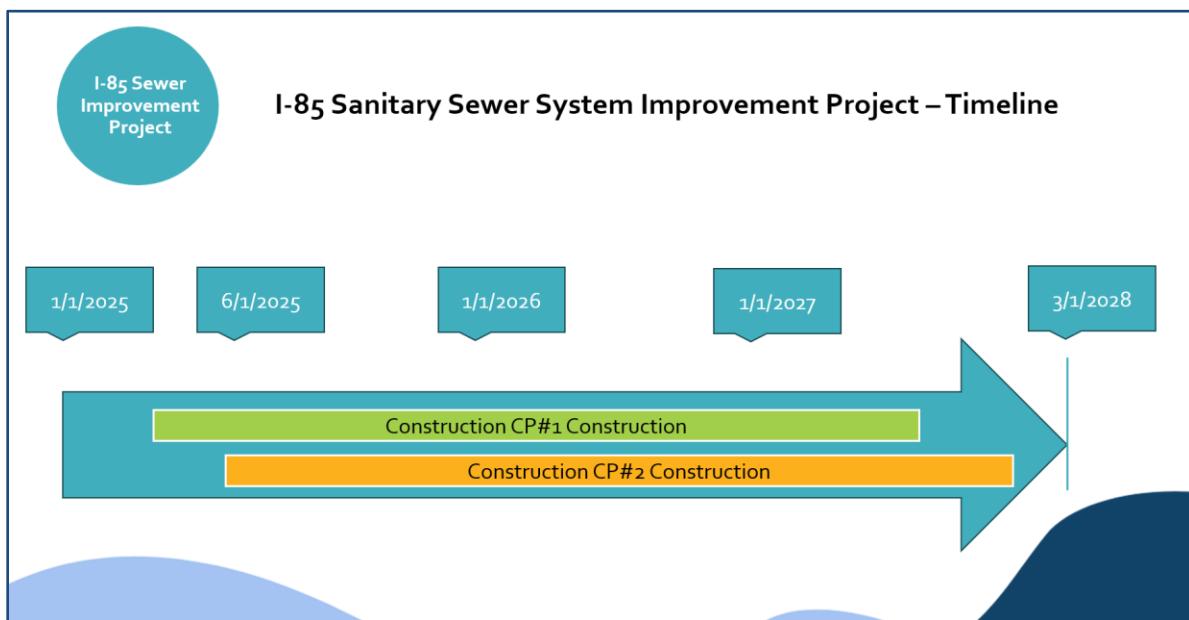
Between 2019 and 2025, SGWASA worked with many partners to design and fund a solution to resolve the problems identified in earlier studies regarding sanitary sewer capacity problems throughout certain SGWASA service areas.

Section 1 – High Priority/High Impact Projects (cont.)

To date, CDM-Smith has completed the engineering design plans for the project and divided the project into two separate construction packages to better align with the various construction activities and funding packages associated with the project. The two construction packages are identified as Construction Package #1 (CP#1) and Construction Package #2 (CP#2). The total estimated cost of the project is \$75,036,000.

CP#1 was publicly bid in late July 2024, and the bids were opened in October 2024. At the December 10, 2024, Board of Directors meeting, the Board of Directors approved a construction contract with Haren Construction for \$34,823.000. CP#2 is scheduled for public bidding in the first half of 2025, with a tentative construction start date in the summer of 2025.

Status: (Green In Progress/On Schedule): CP#1: Heron Construction will start construction on 4/1/25. CP#2: SGWASA/CDM-Smith are awaiting final approval from the USDA prior to bidding CP#2. The approval from the USDA is expected by May 1, 2025. Following approval by the USDA, the project will be publicly bid and then a contract will be awarded. Construction will commence late summer/early fall 2025. The entire project is scheduled for completion by March 1, 2028. The project timeline is shown below.



Section 1 – High Priority/High Impact Projects (cont.)

3) USEPA Lead & Copper Program Update Creates Mandatory Compliance Activities for All Water Service Providers.

a) **Background:** The U.S. Environmental Protection Agency's (EPA's) Lead and Copper [Rule Revisions](#) went into effect December 16, 2021. The EPA's new Lead and Copper Rule better protects children and communities from the risks of lead exposure by better protecting children at schools and childcare facilities, getting the lead out of our nation's drinking water, and empowering communities through information. Please read more about this program below by clicking on the Fact Sheet.

[EPA Lead & Copper Program Fact Sheet](#)

Status ( In Progress/On Schedule): Since 2022, SGWASA has been working with Hazen & Sawyer on the management of the program.

Note: On 10/8/24, Hazen & Sawyer provided the SGWASA Board of Directors with a Lead and Copper Program status update presentation. The presentation begins around the 7-minute mark in the meeting video. The YouTube video link is found below.

<https://www.youtube.com/watch?v=F1aXlKAAebQ>

4) SGWASA - City of Creedmoor Service Area Water Meter Replacement Program

a) **Background:** SGWASA has approximately 6,600 water meters throughout its service area. During the past several years, SGWASA has replaced old water meters with new water meters throughout its service areas, including portions of the City of Creedmoor.

The SGWASA/City of Creedmoor service area contains 2,200 water meters. Due to the age of the existing water meters, most of the water meters in the SGWASA/City of Creedmoor service area need to be replaced with new water meters. Based on the total number of water meters to be upgraded, SGWASA determined the most cost-effective way to upgrade the water meters was to hire a contractor who specializes in water meter replacement/upgrades. This project is identified in the SGWASA CIP as PID# 102-05 at a cost of \$1,000,000.

b) **Status** ( In Progress/On Schedule): At the November 12, 2024, Board of Directors meeting, the Board of Directors approved three legislative items to advance this project to completion. The three legislative items approved by the Board of Directors included: an award of contract with Vanguard Utility Services for the installation of the new water meters; approval to purchase new water meters from the Core & Main Company; and approval to purchase new water meter hardware from the Miller Supply Company. All new water meters and associated water meter hardware are in stock at SGWASA and ready for installation.

Section 1 – High Priority/High Impact Projects (cont.)

Since December 2025, SGWASA staff has held several discussions with Vanguard Utility Services staff to refine the schedule for the installation of the new water meters. Due to the financial software upgrade project scheduled for spring of 2025, SGWASA staff scheduled the water meter replacement program to begin following the software upgrade. Doing so allows SGWASA staff to avoid splitting the meter upgrade database between two software programs. As such the water meter replacement project is scheduled to start following 7/1/25.

5) SGWASA – Financial Software Upgrade

- a) **Background:** SGWASA has been using Harris Computer's ICS ("Harris ICS") brand software as its primary financial, billing, and customer service technology system since 2006. Although SGWASA has applied upgrades and enhancements to the Harris ICS software throughout the years, it was determined in 2022 that the Harris ICS platform did not meet SGWASA's current/future needs. Subsequently, SGWASA's executive management team decided to solicit proposals for new financial software.

In August 2023, SGWASA staff issued a Request for Proposals (RFP) for new financial software and implementation services. At the January 9, 2024, Board of Directors meeting, the Board of Directors approved a contract with Tyler Technologies for the new financial software and implementation services.

- b) **Status (■ In Progress/On Schedule):** The new financial software implementation process is scheduled to take up to 18 months to complete. The scheduled completion date is 6/30/25. SGWASA's staff and Tyler Technologies started the financial software implementation in February 2024.

Following months of implementation activities, SGWASA's finance team and Tyler Technologies are scheduled to initiate several modules of the new utility billing software, beginning in mid-April 2025. This means that customers will receive their final old-utility billing system utility bill from SGWASA in April, then their new SGWASA/Tyler Technology utility bill in May. Additionally, many new customer service features will be available to SGWASA utility customers once the new software is implemented.

SGWASA's team members have created special mailings and marketing information that will be available in early April. Additionally, information will be available on SGWASA's website to assist customers.

New Utility Billing Software Q&A

Q: When will the new SGWASA utility billing system be available?

A: The new utility system will be available with your next bill in April of 2025, which will be processed through our new service provider, Tyler Technology.

Section 1 – High Priority/High Impact Projects (cont.)

The new customer portal will be accessible from the “Pay My Bill” link within SGWASA’s header on the official www.sgwasa.org website. Additionally, there will be a new QR code on your bill that will allow you to use the Quickpay feature.

The Quickpay feature allows you to make a payment on your account without creating a registered online SGWASA customer account.

Q: Will my account number remain the same?

A: No, your existing SGWASA account number will change. You will be assigned a new account number when your utility bill is issued on/around April 20, 2025.

Q: Will I need to create a new customer portal account and log-in?

A: While a customer portal account is not required, customers are encouraged to create a portal login. The portal can be very informative and useful. Among some of the features available are:

- Viewing usage, billing, and payment information
- Paying bills and managing autopay options
- Scheduling recurring payments
- Updating email addresses
- Selecting Ebilling
- Managing automated email notifications such as when you have a new bill available, past due balance, autopay notifications
- Managing notification settings and updating phone numbers for notifications

Q: Can I track my usage from within the app once I create a customer portal account?

A: Yes, you can! Our new app includes a tool that allows you to track and monitor your monthly water usage, giving you greater insight into your consumption patterns.

Q: Will I Continue to incur fees when paying my utility bill with a debit or credit card? Y

A: es. When the new software payment process begins around April 14, 2025 all credit and debit card payments whether in office or online will be charged a fee by the 3rd party credit card payment provider. These fees are not assessed by or collected by SGWASA.

Q: Can I receive Ebills (email bills)?

A: Yes. Our new software provider has the capability of sending your bills via email. You are encouraged to elect the Ebill option.

Q: What if I cannot remember to pay my bill?

A: E-bill and payment reminders are available for customers after a new online account is created. Account holders can select which alerts they wish to receive. Customers can set up autopay to avoid late fees, nonpayment fees, and disconnection.

Section 1 – High Priority/High Impact Projects (cont.)

6) Water Treatment Plant Filter Analysis: Filter Media Replacement Needed

a) **Background:** According to the National Centers for Environmental Information (NCEI), During 2024, North Carolina experienced the 2nd warmest year on record, just behind the warmest year in 2019. Notably, all twelve months in 2024 were warmer than the historical average statewide. The warm weather temperatures throughout 2024 caused higher demand for water usage throughout the SGWASA service area. During the year, most markedly between the months of May through September, SGWASA experienced some water production problems related to the water filtering process. In summary, the five water filters could not keep up with their normal production for water processing. In summary, this meant that the filters struggled to keep up with demand.

To better understand what was occurring with the water filter system, SGWASA contracted with Hazen, one of SGWASA's on-call professional engineering companies, to perform a detailed investigation of the water filter system. Hazen started their work in mid-July 2024 and concluded their work and final technical memo in December 2024.

Based on the observations and data analyses performed during the filter investigation, the following items were recommended for the improvement and optimization of filter operations at the SGWASA Water Treatment Plant (WTP):

- **Filter media replacement:** The existing filter media is 22 years old, which exceeds the industry standard for media life of 10-15 years and should be replaced immediately.
- **Rehabilitation of SGWASA Filters:** The underdrain nozzles in the filter vessels should be further inspected and any failed or broken nozzles should be replaced.
- **Consider Replacing Backwash Supply Pump:** The existing backwash pump is not capable of achieving the needed filter media expansion of 30% to provide proper removal of solids
- **Monitor Media Depths.** Plant Operations should plan to monitor media depths annually to track media loss.
- **Source Water Algae Monitoring Program.** Since algae enumerations indicated the presence of known filter clogging species, a routine algal monitoring program beginning in 2025 is recommended.
- **Modify the backwash procedure.** To combat solids retention, it is recommended that the backwash procedure be modified to increase the duration of the high-rate portion of the water backwash.

Section 1 – High Priority/High Impact Projects (cont.)

Based on the recommendations contained in the technical report, in December 2024, SGWASA staff asked Hazen to draft a scope of work (including fees) for further analysis, design, bidding, and construction project management for the water filter media replacement. In January 2025, SGWASA received the draft scope of work. The scope of work was estimated to take 6 months at a cost of \$318,900. This cost did not include the actual cost for the filter replacement, which could range between \$500,000-\$750,000.

Based on the draft scope of work, primarily focusing on the amount of time to complete the work and the cost of the professional services, less the actual construction cost, SGWASA staff decided to seek cost estimates from several filter media replacement vendors to evaluate the total estimated cost for the entire project. Following this evaluation in February, SGWASA determined that scope modifications were needed, and returned to working with Hazen to modify their scope of work.

On March 11, 2025, SGWASA staff requested the Board of Directors review/approve the scope of work provided by Hazen for the project, at a total cost of \$222,800. Furthermore, SGWASA staff requested a 10% contingency for the work, bringing the total project cost to \$245,080. The Board of Directors approved the scope of work and the contingency.

b) **Status** (In Progress): During the week of March 21, 2025, SGWASA staff provided Hazen with a notice to proceed on the work. The project schedule is as follows:

Submittal	Due Date
90% Design Submittal (drawings, specifications, and cost opinion.)	3 months from Notice to Proceed – by July 1, 2025.
Bid-Ready Submittal	2 weeks following resolution of all permitting/submittal comments – By August 1, 2025.
Bid Project	TBD
Bid Award by Board of Directors	TBD
Construct Project	TBD

Section 2 –Board Meetings Topics Update - Past 90 days

Board Meeting Month/Year	Topic	Status
January 2025	Task Order with CDM Smith for Updating SGWASA's Water and Sewer Standard Details and Specifications.	Approved by the Board of Directors.
January 2025	I-85 Sanitary Sewer Improvement Project: Escrow Agreement for Stormwater Construction Performance Security	Approved by the Board of Directors.
January 2025	Emergency Spending Authorization-Lake Road Water Booster Pump Station Water Leak.	Approved by the Board of Directors.
January 2025	Check and Purchase Order Countersigning Authority Resolution– Revision	Approved by the Board of Directors.
January 2025	Fiscal Year 2024-2025 Budget Amendment #10 & #11	Approved by the Board of Directors.
February 2025	Annual Meeting – Election of SGWASA Officers	The Board elected: Jimmy Gooch, Granville County Board Member as the SGWASA Board Chair; Georgana Kicinski, City of Creedmoor Commissioner as SGWASA Vice Chair
February 2025	FY24-25 2nd Quarter Financial Review – Presentation	No Board Action Required.
February 2025	Fiscal Year 2024-2025 Budget Amendment # 12	Approved by the Board of Directors.
March 2025	Water Treatment Plant Filter Media Replacement Project: Requesting approval for the Engineering Scope of Services Proposal from Hazen and Sawyer	Approved by the Board of Directors.
March 2025	Wastewater Collection System Upgrades: Capital Project Ordinance Amendment 2	Approved by the Board of Directors.
March 2025	Fiscal Year 2024-2025 Budget Amendments # 13 and #14	Approved by the Board of Directors.

Section 3 - Utility Operations Highlights During the Reporting Period

- a) **Water Distribution System Topics**
 - (1) None
- b) **Wastewater Collection System Topics**
 - i) **Sanitary Sewer Overflows (SSO's):**
 - (1) None.
 - ii) **Other Topics:**
 - (1) None.
- c) **Water Treatment Plant Topics**
 - i) No operating issues.
- d) **Wastewater Treatment Plant Topics**
 - i) No operating issues.
- e) **Utility Customer Service/Administration Topics**
 - i) No operating issues.

Section 4 - Staffing Updates

The FY24-25 Budget authorized 49 full-time employees. The current staffing level is at 96%. The following is a breakdown of the status of several vacancies.

- 1) **Vacant Positions**
 - a) Utility Engineer (1) – Vacant since 8/1/23.
 - i) Due to the lack of success in filling this position since August 2023, staff will recommend changes to this position in the FY25-26 Budget.
- 2) **Vacant Positions – Currently Advertising and/or Interviewing**
 - a) Wastewater Treatment Plant Operator (1)
 - b) Wastewater Pump Station Mechanic (2)
 - c) Utility Maintenance Mechanic (1)
- 3) **Vacant Positions – Final Candidate Selected/Pending Background Checks**
 - a) None.
- 4) **Recent New Hires**
 - a) None.
- 5) **Recent Internal Promotions**
 - a) None.

Section 5 - Executive Director – Activities Recently Completed

Activities Recently Completed

- 1) **Project-Related Meetings:** I attended the following project-related meetings during the reporting period to ensure forward progress and schedule adherence.
 - a) UNRBA meetings.
 - b) Various customer relations meetings with SGWASA member communities.
 - c) Lead and Copper Program.
 - d) PFAS Reduction Program.
 - e) I-85 Sanitary Sewer System Improvement Project.

Special Note(s) from the Executive Director

- 1) None.

Attachments

- 1) None.