



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 February 2024
DATE: March 4, 2024

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

Section 1 – High Priority/High Impact Projects

1) PFAS Testing and 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, floss, and more. See the latest information about PFAS from the US EPA at <https://www.epa.gov/pfas>

On June 15, 2022, the U.S. Environmental Protection Agency (EPA) announced new Interim Health Advisory Levels (HAL’s) for PFOA and PFOS. Water utilities, such as SGWASA, are “passive receivers” of PFAS. SGWASA does not produce nor manufacture PFAS. Instead, these chemicals are present in source waters that are treated to produce drinking water.

Following the June 15, 2022 announcement by the US EPA regarding the HAL’s for PFOA and PFOS, SGWASA hired engineering consultant Hazen & Sawyer (“Hazen”) to assist SGWASA on its journey with PFAS/PFOS compliance, communications, testing, and mitigation strategies. At the September 13, 2022 Board of Directors meeting, representatives David Briley, PE and Alex Domrzalski, PE from Hazen provided a presentation entitled: PFAS, What is it? The presentation provided the Board members and the public the opportunity to learn more about PFAS. The presentation is available at the following link: <https://www.youtube.com/watch?v=PvAOCzimPIU>

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

PFAS reduction technologies include Granulated Activated Carbon (GAC), Reverse Osmosis (RO), and Ion Exchange (IX). One of these technologies, or a combination of technologies are used to reduce PFAS in the drinking water.

Cost estimates for the PFAS reduction program at SGWASA range from \$1.50-\$2.00 per Million Gallons Per Day (MGD) of finished water from a water plant. SGWASA's water plant is currently permitted to treat 7.5 MGD yet produces around 3 MGD. The cost for treating 7.5 MGD equals an investment range of \$11.25M-\$20M depending on the type(s) of 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 test water utilities.

In early March, 2023, SGWASA received the fall 2022 DEQ PFAS test results. At the 3/14/23 Board of Directors meeting, the Board of Directors approved a unit price contract with ECS Southeast, LLP., for the PFAS Sampling and Analysis Project, for the not-to-exceed amount of \$41,300.00. From April 2023 thru June 2023, ECS Southeast, LLP., performed PFAS water quality testing at Lake Holt (SGWASA's drinking water source) to determine the upstream sources of PFAS coming into Lake Holt. The results of the testing determined that no further testing was cost effective. The Technical Report of findings from this study are found on SGWASA's website at: <https://www.sgwasa.org/media/Reports/SGWASA%20PFAS%20Technical%20Memo%20from%20Hazen%20and%20Sawyer.pdf>

In July 2023, SGWASA hired engineering consultant CDM-Smith to assist SGWASA on its journey with PFAS/PFOS compliance. 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. It normally takes six (6) months for NCDEQ to review/approve applications. Therefore, at best, SGWASA will know the application status in April 2024. The Pilot Testing project is associated to the SGWASA FY23-33 CIP ID# 101-07 at an estimated cost of \$500,000 for design work.

- b) Status (In Progress/On Schedule): CDM-Smith completed the PFAS Pilot Testing Program Report in January 2024. The final technical report describes how we'll move forward with the PFAS Pilot Testing this calendar year.

SGWASA anticipates notification from NCDEQ in March/April 2024 regarding the status of the two (2) SRF PFAS funding applications that were submitted in October 2023.

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

2) I-85 Sanitary Sewer System Improvement Project

- a) Background: SGWASA serves the southern portions of Granville County North Carolina, including the growing towns of Creedmoor, Butner, and Stem. As development continues to expand north of the Raleigh- Durham area, SGWASA is continuing to receive significant developer interest in the area. Currently, the existing wastewater collection system is at its maximum capacity to reliably convey flow to the SGWASA Wastewater Treatment Plant (WWTP). SGWASA has initiated a moratorium on any additional development in the area surrounding Creedmoor and portions of Butner until additional collection system capacity is achieved.

In 2019 SGWASA received a comprehensive sanitary sewer system evaluation, commonly referred to as the I-85 Study. The I-85 Study evaluated the major sanitary sewer trunk lines and pump stations throughout the study area to determine the needed improvements to meet both short-term and long-term needs. The I-85 Study concluded by identifying 4 priority project areas, with an estimated design and construction cost of \$50+ million.

Beginning in 2000 SGWASA started working with professional engineering design consultant CDM-Smith on the I-85 Sanitary Sewer System Improvement Project. CDM-Smith is providing engineering design, financial application assistance, and bidding services for the I-85 Sanitary Sewer System Improvement Project. The current approved contract with CDM-Smith is \$5,896,600.

In the fall of 2021, the State of North Carolina granted \$35 million in American Rescue and Recovery Act (ARPA) funds to the South Granville Water and Sewer Authority for water and wastewater infrastructure improvements. In early 2022, the SGWASA Board of Directors agreed to dedicate the money toward the I-85 Sanitary Sewer System Improvement Project.

In 2022, the Board of Directors authorized the Executive Director to apply for a \$35 million low-interest loan with the United States Department of Agriculture (USDA). Since 2022, CDM-Smith and SGWASA staff have been providing all of the necessary forms and supporting documents to the USDA for the loan application. The loan application requires extensive information and studies.

- b) Status of Engineering Design Work: (■ In Progress/On Schedule): CDM-Smith continues to make great progress on this project. CDM-Smith and SGWASA staff completed a comprehensive review of the 90% design plans in January 2024. CDM-Smith is now working to complete the design plans in preparation for bidding in 2024. The estimated cost of the project is \$70 million.

In preparation for the project bidding in 2024, CDM-Smith will be pre-qualifying construction contractors in the first half of CY 2024. Presently, the pre-qualification documents are under legal review. More information will be provided in future updates

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

related to a refined bidding/award/construction start date. As noted previously, CDM-Smith & SGWASA will be holding public information meetings in mid-2024 to allow the public an opportunity to review the project. More information to follow on this topic as it becomes available.

Lastly, CDM-Smith will provide the SGWASA Board of Directors with a project update at the March 12, 2024 Board meeting. The presentation will provide the Board of Directors and the public with an opportunity to learn more about this complex sanitary sewer improvement project.

- c) Status of USDA Loan Application: (■ Completed): Julia Johnson, Water/Environmental Programs Specialist with the Rural Development United States Department of Agriculture (USDA) attended the 2/13/24 SGWASA Board of Directors Regular Monthly meeting to present the Letter of Conditions and to have the package of executed obligation documents approved/signed so that the funds could be obligated to SGWASA for the I-85 Sanitary Sewer System Improvement Project.

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 16th, 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](#)

During the next 5 years, federal funding will be dedicated to identifying/replacing lead service lines. By the compliance date of January 16th, 2024, all water systems must submit an inventory of service lines to their state review agency. All water systems with inventory that includes lead service lines, and galvanized lines that are or ever were downstream of a lead service line, or lead status unknown service lines, must also provide a lead service line replacement plan.

- b) Status (■ In Progress/On Schedule): Following the issuance in 2022 of a Request for Qualifications (RFQ) for professional engineering services for the lead & copper program management, SGWASA selected Hazen & Sawyer as the firm best qualified to assist SGWASA in the management of the Lead & Copper Program. Hazen & Sawyer was awarded a contract in the amount of \$336,133.00 for the program management to meet the compliance requirements.

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

Staff continues to meet bi-monthly with the Hazen & Sawyer project team to ensure the project remains on schedule. Most recently, Hazen provided SGWASA team members with some field investigations to perform as related to identifying water service lines. These field investigations are just a small part of the analysis that is occurring as related to this project. The data uncovered from the field investigations will help Hazen to refine a larger random sample of service lines identifications throughout the service area. The service line identification portion of the program will be occurring in the spring of 2024.

Overall, Hazen and SGWASA are making great progress toward completing this important program by the compliance deadline of 10/16/2024.

4) City of Creedmoor Service Area - Water Distribution System Improvements: Lake Rogers Booster Pump Improvements

- a) Background: During 2022, the SGWASA/City of Creedmoor service area was analyzed in the newly created water distribution system hydraulic model. At the conclusion of the hydraulic analysis performed on the SGWASA-City of Creedmoor service area several tasks were identified to improve water quality issues. One of the primary tasks identified included further analysis and the possible rehabilitation/replacement of critical infrastructure within the Lake Rogers booster pump station (see image below). In summary, the Lake Rogers booster pump station is also an injection point for chemicals, such as chlorine. The chlorine injection equipment is not working properly and a new system is being designed to replace the old equipment.



- b) Status (■ In Progress/On Schedule): At the February 13, 2024 Board of Directors regular meeting, the Board members approved a contract with H.G. Reynolds Company, Inc., for the Lake Road Booster Pump Station Improvements Project for the not-to-exceed amount of \$261,650 and gave staff the authority to review and approve change orders relating to unexpected conditions in an amount not to exceed \$13,083 without further board approval. McGill Associates, SGWASA's on-call engineering firm is managing this project to completion. The construction project will begin in March.

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

- 5) System Development Fee (SDF)/Allocation Policy review and update based on changes in the State law.
 - a) Background: SGWASA's Allocation Policy was updated in September 2016. The Allocation Policy was created to manage the distribution of scarce water and wastewater resources for the benefit of the entire Southern Granville County region. The Allocation Policy describes certain timetables for requesting parties to pay for the System Development Fees (SDF's) associated with the allocations.
 - b) Status (■ Completed): At the February 13, 2024 Board of Directors regular meeting, the Board members approved the SDF Policy.

- 6) System Development Fees Calculation Review
 - a) Background: North Carolina law requires the local governmental unit to update the System Development Fee (SDF) analysis at least every five years. SGWASA last completed the SDF evaluation in 2018, thus, a review was required in 2023. Upon completion of the detailed SDF analysis, SGWASA will know how to proceed with the SDF's. McGill Associates (professional engineering firm) has been assigned this project at a cost of \$19,700.00
 - b) Status (■ In Progress/ On Schedule): McGill Associates is 95% finished with this project and a draft final report was provided in late February. SGWASA staff is meeting with McGill Associates in early March to seek further clarification on certain items contained within the report. Once a final report is provided, the document will be provided to the Board of Directors for their review and consideration.

- 7) Wastewater Treatment Plant – Chemical Storage System Replacement
 - a) Background: The SGWASA Wastewater Treatment Plant ("Plant") utilizes chemicals for the treatment process to meet North Carolina Department of Environmental Quality (NCDEQ) discharge requirements. The Plant currently has five alum and four caustic bulk chemical storage tanks. The existing tanks are made of fiberglass and have been in use for over twenty years. Over time, due to a combination of factors, all the tanks have deteriorated such that none are operating entirely as designed. Based on the current age and condition of the tanks and their associated components (plumbing, electrical, SCADA), SGWASA staff has determined the best course of action is to replace the chemical storage tanks with new tanks of modern materials and design.

In 2022, SGWASA's on-call engineering consultant, McGill Associates was authorized to provide the necessary analysis, design, bidding and construction administration for the chemical storage tank replacement project. The proposed cost for these services is \$146,500. This project is identified in the SGWASA FY23-33 CIP as PID# 107-02 at an estimated cost of \$800,000. McGill Associates completed the design work for the project and advertised the project for public bidding in November and opened bids on December 7, 2023. A total of four (4) bids were received for the project.

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

- b) Status (■ In Progress/On Schedule): At the February 13, 2024 Board of Directors regular meeting, the Board members approved a contract with WGK Construction, LLC, for the Wastewater Treatment Chemical System Improvement Project for the not-to-exceed amount of \$865,000 and gave staff authority to review and approve change orders relating to unexpected conditions in an amount not to exceed \$43,250 without further board approval. McGill Associates, SGWASA's on-call engineering firm is managing this project to completion. The construction project will begin in March.

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

- a) Background: SGWASA has approximately 6,600 water meters in its service area. The water meters are comprised of varying makes, models, ages, and read types (manual and automatic). The conglomeration of non-standardized water meters across the SGWASA service area places SGWASA in a demanding situation when it comes to reading meters, updating meters, replacing meters, etc. SGWASA has fallen short in reaching its goal (established in 2009) of replacing/upgrading all the water meters on a 10-year cycle.

During the past 24 months, SGWASA removed 500+ manual read water meters and replaced them with new SGWASA standard (dual AMR/AMI capable) water meter in various areas throughout the SGWASA service area – including Creedmoor. The meters were installed by SGWASA crews. The upgraded meters provide SGWASA with the ability to collect the meter information via a radio receiver versus a manual reading. This upgrade has provided SGWASA with a more accurate and efficient way of reading water meters. This project cost SGWASA \$222,453.00 for the meters.

To further modernize SGWASA's system-wide water meters, a water meter upgrade program is needed in the SGWASA/City of Creedmoor Service Area. The SGWASA/City of Creedmoor Service Area contains 2,200+ water meters. To date, only a few hundred water meters have been updated by SGWASA staff. With the remaining water meter change out count to be around 2,000 meters, staff is preparing a Request for Proposals (RFP) to collect proposals for water meter removal and installation. This project is identified in the SGWASA FY23-33 CIP as PID# 102-05 at an estimated cost of \$1,000,000.

- b) Status (■ In Progress): Staff has prepared the Request for Proposals and it is being reviewed by SGWASA's attorney prior to issuance. It is anticipated that the RFP will be issued in March 2024. The installation of the new water meters will occur in FY24-25.

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

10) 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. Since 2006, SGWASA has applied upgrades and enhancements to the software. Presently, the Harris ICS platform does not meet SGWASA's current/future needs and it fails to provide important information to current utility customers. For example, inadequacies exist within the customer interface and payment portal, GPS capabilities, managed work order functionality, and reporting, just to name a few. Because of these issues, SGWASA's executive management team decided to solicit proposals for new financial software.

Staff issued a Request for Proposals (RFP) in August 2023. During November 2023, SGWASA staff performed an extensive 2-day evaluation of the selected vendor's software to ensure it meets SGWASA's requirements. The Board of Directors approved an award of contract to Tyler Technologies at the January 9, 2024 Board of Directors meeting.

- b) Status (■ In Progress/On Schedule): SGWASA's staff and attorney are finishing up the draft contract for this project. It is anticipated that the contract will be signed in March. Following, the project will commence.

Section 2 –Board Meetings Topic Highlights - Past 90 days

Board Meeting Month/Year	Topic	Status
December 2023	Reimbursement Resolution – I-85 Sanitary Sewer System Improvement Project USDA Funding	Approved by the Board. Document will be used for USDA loan processing.
January 2024	Draft SDF Policy – Updated policy.	30-day comment period 1/10/24 – 2/9/24. Will bring item back to Board of Directors in Feb/March.
January 2024	FY23-24 Financial Software – Award of Contract	Draft Contract being developed with Tyler Technology.
January 2024	Joe Peed Lift Station Pump Maintenance – Sole Source Vendor Repairs	Pump station repairs made and the pumps were placed back into service on 1/19/24.
February 2024	Annual Meeting – Election of SGWASA Officers	SGWASA Board members appointed Commissioner Jimmy Gooch – Chair; Mayor Pro-Tem Georgana Kicinski, Vice-Chair; Krystle Lee, Board Secretary; Richard Balmer, Board Treasurer
February 2024	United States Department of Agriculture (USDA) Letter of Commitment for a \$35M Loan for the I-85 Sanitary Sewer System Improvement Project.	Board approved the letter of commitment.
February 2024	Amended System Development Fee Policy	The Board adopted the new policy.
February 2024	FY23-24 Year-End Auditing Services – Award of Contract	The Board approved the auditing contract with Winston, Williams, Creech, Evans & Co, LLP, as the lowest responsive bidder.
February 2024	Lake Road Water Booster Station Improvement Project - Contract Award	The Board approved the construction contract with H.G. Reynolds, Inc.
February 2024	Wastewater Treatment Plant Chemical Storage System	The Board approved the construction contract with WGK Construction, Inc.

Section 3 - Utility Operations Highlights During the Reporting Period

- a) Water Distribution System Topics
 - i) None.
- b) Wastewater Collection System Topics
 - i) Sanitary Sewer Overflows (SSO's): None.
 - ii) Other Topics:
 - (1) None.
- c) Water Treatment Plant Topics
 - i) None.
- d) Wastewater Treatment Plant Topics
 - i) None.
- e) Utility Customer Service/Administration Topics
 - i) Worked through a customer service complaint regarding high meter reads and leak adjustments.

Section 4 - Staffing Updates

The FY23-24 Budget authorized 47 full-time employees. Current staffing levels are hovering around 90%.

Following is a breakdown of the status of several vacancies.

- 1) Vacant Positions
 - a) Engineering Director (1) – Vacant on 4/21/23. The position advertisement was taken offline in December and added back in late January with the strategy of refreshing the advertised position to appear at the top of job boards. Overall, the professional engineering job market is in high demand.
 - b) Utility Engineer (1) – Vacant on 8/1/23. This position will not be filled in FY23-24 due to using this full-time equivalent funded position for a new position (Project Manager) approved by the Board of Directors at the 10/10/23 Board meeting.
- 2) Vacant Positions – Currently Advertising and/or Interviewing
 - a) Water Treatment Operator (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) Lead and Copper Program.
 - b) PFAS Testing Program.
 - c) I-85 Sanitary Sewer System Improvement Project design.
 - d) FY24-25 Budget preparations.

Special Note(s) from the Executive Director

None.

Attachments

- 1) None.