



Brunswick-Glynn Joint Water and Sewer Commission
1703 Gloucester Street, Brunswick GA 31520
Wednesday, November 15, 2023, at 1:00 PM
Commission Meeting Room

FACILITIES COMMITTEE MEETING AGENDA

COMMITTEE MEMBERS:

Committee Chairman Ben Turnipseed
Commissioner Chuck Cook
Commissioner Tripp Stephens
Executive Director Andrew Burroughs

PUBLIC COMMENT PERIOD

Public Comments will be limited to 3 minutes per speaker. Comments are to be limited to relevant information regarding your position and should avoid being repetitious. Individuals should sign in stating your name, address and the subject matter on which you wish to speak. Your cooperation in this process will be greatly appreciated.

APPROVAL

1. **Minutes from October 18, 2023, Facilities Committee Meeting** (*subject to any necessary changes*) [Report](#)
2. **Contract Award – Dunbar Creek WPCF Construction Materials Testing Services** – A. Burroughs [Report](#)
3. **Change Order No. 3 – ARCO Water & Sewer Improvements** – T. Kline [Report](#)
4. **Digital Concrete Locate Agreement** – T. Kline [Report](#)

DISCUSSION

1. **30% Design Review – Exit 29 WPF and EST** – T. Kline [Report](#)
2. **Water Production Report** – A. Burroughs [Report](#)
3. **WPCF Plant Flows Report** – A. Burroughs [Report](#)
4. **Capital Project Report** – T. Kline / A. Burroughs [Report](#)
 - **Capital Project Report Photos**
 - **Capital Project Spreadsheet**
 - **Capital Project Gantt Chart**
 - **EVA Report**

MEETING ADJOURNED

All citizens are invited to attend.
There is a possibility of a quorum of a City or County Commissioners being present.



Brunswick-Glynn Joint Water & Sewer Commission
1703 Gloucester Street, Brunswick, GA 31520
Commission Meeting Room
Wednesday, November 15, 2023, at 1:00 PM

FACILITIES COMMITTEE MINUTES

PRESENT: Ben Turnipseed, Chairman
Charles Cook, Commissioner
Andrew Burroughs, Executive Director

ALSO PRESENT: Todd Kline, Director of Engineering
Charlie Dorminy, HBS Legal Counsel
LaDonnah Roberts, Deputy Executive Director
Pam Crosby, Director of Procurement
Janice Meridith, Executive Commission Admin.

ABSENT: Tripp Stephens, Commissioner

Chairman Turnipseed called the meeting to order at 1:00 PM.
Chairman Turnipseed provided the invocation.

PUBLIC COMMENT PERIOD

Chairman Turnipseed opened the Public Comment Period.
There being no citizens that wished to address the Committee, Chairman Turnipseed closed the Public Comment Period.

APPROVAL

1. Minutes from Facilities Committee Meeting October 18, 2023
Commissioner Cook made a motion seconded by Chairman Turnipseed to approve the minutes from the Facilities Committee Meeting held on October 18, 2023. Motion carried 2-0-1. (Commissioner Stephens was absent from the meeting.)

2. Contract Award – Dunbar Creek WPCF Construction Materials Testing Services –
A. Burroughs

Mr. Burroughs advised that the BGJWSC has an ongoing project to rehabilitate portions of the Dunbar Creek WPCF. As part of Change Order No. 3, the design-build contractor, BRW Construction, will be installing a third clarifier at the facility. BRW Construction currently subcontracts engineering services to Hussey Gay Bell for design services for the project. The design-build team is responsible for ensuring that constructed improvements meet the required performance specifications for the project. However, there are no clauses in the contract for special inspection services to be performed by a third party. Staff spoke with the design-build team concerning the need for third party inspection of the clarifier construction and installation. Proper construction is critical to the long-term success of the new clarifier. The design-build team reached out to Terracon Consultants, Inc. of Jacksonville to receive a quote for slab and soil testing services, concrete

testing services, and auger cast pile installation inspections. The quote is for a budget of \$34,190.00. This project is funded from the proceeds of the Series 2021 bond issuance.

Commissioner Cook made a motion seconded by Chairman Turnipseed that the Facilities Committee recommend that the full Commission enter into a contract with a not-to-exceed budget of \$34,109 with Terracon Consultants, Inc. for inspection and testing services for the clarifier construction at Dunbar Creek WPCF. Motion carried 2-0-1. (Commissioner Stephens was absent from the meeting.)

3. Change Order No. 3 – ARCO Water & Sewer Improvements – T. Kline

Mr. Kline provided that the JWSC Staff received and reviewed a Change Order No. 3 recommendation letter dated November 7, 2023, from Thomas & Hutton Engineering Co (EOR). The Contractor has requested that the remainder of the contract be paid on a monthly lump sum basis in accordance with the percentage of completion of the project. Additionally, the Contractor has requested an additional 150 days to complete the contract. The request for additional time has been made for “modifications and dealing with continued supply chain issues for additional materials.” The only changes to the project at this time are in the form of a request to place sewer lines South of 6th Street in alleyways instead of under paved roads, as originally contemplated. The EOR Recommendation states that this will result in less disturbance to roadways, less costs in placing the sewer lines, and reduced length of lateral service lines that customers will be required to install to connect to the unified system. Staff has reviewed the Change Order and finds it acceptable. The change to the lump sum basis of payment will not affect the total cost or scope of the project. To prevent further change orders, streamline the construction and ensure completion of this project as intended, Staff recommends approval of Change Order No. 3 to the Arco Area Water & Sewer Extension to UWS, INC to allow for the requested changes in sewer line installation, the change to lump sum basis, and the extension of the contract time by 150 days.

Commissioner Cook made a motion seconded by Chairman Turnipseed that the Facilities Committee forward to the full Brunswick-Glynn Joint Water and Sewer Commission Change Order No. 3 to Project #2016 ARCO Area Water & Sewer Extension to allow for the UWS, Inc. requested changes in sewer line installation, the change to lump sum payment basis, and the extension of the contract time by 150 days and recommend approval of the same. Motion carried 2-0-1. (Commissioner Stephens was absent for the vote.)

4. Digital Concrete Locate Agreement – T. Kline

Mr. Kline provided that LiveOak Fiber, LLC (Live Oak) is a private utility company that is currently engaged in a project to comprehensively install new fiberoptic utilities throughout all of Glynn County. LiveOak has currently installed approximately 1.5 million linear feet of conduit, with a balance of 1.5 million linear feet left to install by the second quarter of 2024. This aggressive schedule of construction in addition to the routine locate requirements for other projects has strained the capabilities of JWSC Locate staff. Efforts to utilize JWSC Operational staff to supplement the locate effort after hours has helped but another solution has proven to be necessary. LiveOak currently contracts with Digital Concrete Imaging, LLC (DCI) for utility locating services on their current Glynn County fiber installation project. LiveOak proposes to utilize DCI to supplement existing JWSC water and sewer locate efforts, at no cost to the JWSC. The JWSC would maintain primary responsibility for locate provision and would not relinquish ownership of response to the GA811 system. The JWSC would provide DCI with GIS mapping and documentation to aid in their locate efforts, while DCI would focus on keeping ahead on locates required for the LiveOak installation. Staff have met with DCI, reviewed their company’s abilities, and believe them to be capable of the provision of locate services. Staff believes that DCI may provide aid that could minimize damage to the water and sewer assets, as well as allow the JWSC Locate staff to better maintain the balance of other GA811 locate and GIS responsibilities.

Commissioner Cook made a motion seconded by Chairman Turnipseed that the Facilities Committee recommend the full Commission enter into a contract with Digital Concrete Imaging, LLC and LiveOak

Fiber, LLC to perform supplemental utility locating at no cost to JWSC. Motion carried 2-0-1. (Commissioner Stephens was absent from the meeting.)

DISCUSSION

1. 30% Design Review – Exit 29 WPF and EST - T. Kline

Mr. Kline presented Jacquelynn Smith with Thomas & Hutton to the Committee to discuss the SPLOST Exit 29 WPF and Elevated Storage Tank concept options. The existing BGJWSC Fire Protection Well located within the Southport Parkway Wastewater Treatment Facility site in Glynn County is proposed to be converted into a domestic use well. In order to convert the existing facility from a Fire Protection Well to a Domestic Use Well, upgrades must be made to the facility. Out of the options presented by Thomas & Hutton, the Committee preferred selection of Option #3.

2. Water Production Report – A. Burroughs

Mr. Burroughs presented the Water Production Report for the month of October 2023 to the Facilities Committee. This report provides the Committee with the monthly and daily water production in millions of gallons for each of the BGJWSC water production facilities (wells). The following are Brunswick District production facilities: Howard Coffin, Goodyear Park, Brunswick Villa, FLETC, I-95, Golden Isles I, Golden Isles II, Canal, and Ridgewood. The South Mainland District wells include Fancy Bluff, Exit 29, and Brookman. Mallery, Airport, Harrington, and Hampton South are the wells located in the St. Simons Island District. Chairman Turnipseed requested a map of the FLETC water and sewer system for November's Facilities Committee meeting.

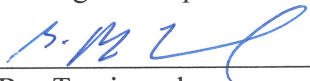
3. WPCF Plant Flows Report – A. Burroughs

Mr. Burroughs reviewed the October Monthly Wastewater Flow Report with the Commissioners. This report contains data regarding the influent and effluent flows, concentration of elements and chemicals, plant capacity, etc. October 2023 had a lower recorded rainfall at Academy Creek than the month of September. The influent flow at Academy Creek for October was 7.8 MGD as compared to September at 7.6. The effluent flow for October increased from September's 6.8 MGD to 7.0 MGD, with the plant operating at 52% of its capacity. The influent flow at Dunbar Creek for the month of October was 3.4 MGD, and the effluent flow was also at 3.4 MGD, with the plant operating at 85% capacity. The influent flow at South Port was at 0.442 and the effluent flow reported at 0.552, with the plant operating at 37% capacity. JWSC's wastewater treatment plants are operating very well.

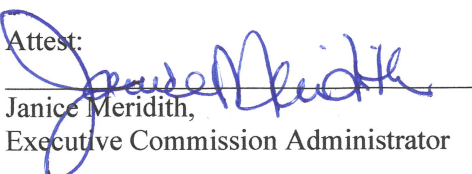
4. Capital Project Report – T. Kline / A. Burroughs

Mr. Kline and Mr. Burroughs presented an update on the monthly Project Report for Capital Projects currently in process including those in the engineering phase and those in construction. The Commissioners were provided with a packet containing: the Capital Project Photographs, Capital Project Report Spreadsheet, the Capital Project Gantt Chart of project timelines, and the Earned Value Analysis Report. Mr. Kline and Mr. Burroughs thoroughly presented the update by discussing each project along with excellent photographs and descriptive details.

Commissioner Cook made a motion to adjourn the meeting. Motion carried 2-0-1. (Commissioner Stephens was absent from the meeting.) Chairman Turnipseed adjourned the meeting at 2:40 p.m.



G. Ben Turnipseed,
Facilities Committee Chairman

Attest:


Janice Meridith,
Executive Commission Administrator



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Andrew Burroughs, Executive Director
Date: Wednesday, November 15, 2023
Re: Contract Award – Dunbar Creek Construction Materials Testing Services

Background:

BGJWSC has an ongoing project to rehabilitate portions of the Dunbar Creek WPCF. As part of Change Order No. 3, the design-build contractor, BRW Construction, will be installing a third clarifier at the facility. BRW Construction currently subcontracts engineering services to Hussey Gay Bell for design services for the project. The design-build team is responsible for ensuring that constructed improvements meet the required performance specifications for the project. However, there are no clauses in the contract for special inspection services to be performed by a third party.

Staff Report

Staff spoke with the design-build team concerning the need for third party inspection of the clarifier construction and installation. Proper construction is critical to the long-term success of the new clarifier. The design-build team reached out to Terracon Consultants, Inc. of Jacksonville to receive a quote for slab and soil testing services, concrete testing services, and auger cast pile installation inspections. The quote is for a budget of \$34,190.00.

This project is funded from the proceeds of the Series 2021 bond issuance.

Recommended Action

Staff recommends entering into a contract with a not-to-exceed budget of \$34,190 with Terracon Consultants, Inc. for inspection and testing services for the clarifier construction at Dunbar Creek WPCF.

Recommended Motion

“I move that the Facilities Committee recommend that the full Commission enter into a contract with a not-to-exceed budget of \$34,190 with Terracon Consultants, Inc. for inspection and testing services for the clarifier construction at Dunbar Creek WPCF.”

Enclosures

Terracon Quote



September 25, 2023

Hussey Gay Bell
329 Commercial Drive
Savannah, GA 31406

Attn: Jessica Hargrove
Telephone: (912) 354-4626
E-mail: jhargrove@husseygaybell.com

RE: Proposal for Construction Materials Testing Services
Dunbar Creek Water Pollution Control Facility Rehabilitation
1703 Gloucester Street
Brunswick, GA 31520
Terracon Proposal No. PEQ231178

Dear Ms. Hargrove,

Terracon Consultants, Inc. (**Terracon**) appreciates the opportunity to submit our proposal to conduct Construction Materials Testing Services at the above site. This proposal outlines our understanding of the project based on the information made available by you in an email dated September 5, 2023.

Terracon is an employee-owned firm of consulting engineers and scientists providing multiple, related service lines to clients at local, regional, and national levels. Our services are delivered on a timely basis with consistently high value and attention to our client's needs. Terracon has consistently achieved growth above the industry average. This is evidenced by a current ranking of 22 in Engineering's News-Record (ENR) 2020 listing of the Top 500 Design Firms, as compared to a ranking of 103 in 1995.

A. OUR COMMITMENT TO SAFETY

Safety is one of Terracon's core values and our commitment to an Incident and Injury-Free® philosophy is one of the pillars of our current Strategic Plan. Incident and Injury-Free (IIF) is about care and concern for our people. It is our personal and organizational commitment at all levels of the company to everyone going



Terracon Consultants, Inc.

8001 Baymeadows Way, Suite 1

Jacksonville, FL 32256

P [904] 900-6494 F [904] 268-5255 terracon.com

Geotechnical



Environmental



Construction Materials



Facilities

Proposal for Construction Materials Testing Services

Dunbar Creek Facility Rehabilitation ■ Jacksonville, FL

September 25, 2023 ■ Terracon Proposal No. PEQ231178



home safe to their family every day. It is where safety is held as a core value as well as an operational priority. Working safely is an inseparable part of working correctly, just as much as other operational priorities, in particular quality, profitability, and schedule. IIF is our commitment to our people, who we value for who they are and what they do. We strive to build health and safety into all aspects of our business and into the thinking of our employees.

As part of our IIF process, we will prepare a “Pre-Task Plan” (PTP) for this project where we will identify the potential site safety and job hazards associated with your site. Our Pre-Task Plan will identify and prepare our personnel to be able to handle conditions such as but not limited to traffic control, environmental contamination, site access issues, overhead and underground utilities, adverse weather conditions, and personal protection equipment and will continually be reviewed and reevaluated throughout the field work activities. We understand that each site is unique and may contain different safety conditions and as a company to protect our personnel as well as others, we look at each site individually to identify the potential concerns.

Terracon’s commitment to safety is demonstrated daily by Project Managers discussing and addressing site specific safety topics with our field representatives. As a supplement to Terracon’s safety culture, each employee receives safety training specific to the job function and/or project assigned through one-on-one instruction, continuing education classes or web-based training seminars.

B. PROJECT INFORMATION

After reviewing the project, we have determined that the scope of work includes rehabilitating the Dunbar Creek water pollution control facility, constructing a new water tank (Clarifier No.3).

ITEM	DESCRIPTION
Location	1703 Gloucester Street Brunswick, GA 31520
General	Hussey Gay Bell

C. SCOPE OF SERVICES

The proposed scope of services noted below is based on inspection types and frequencies noted in the project plans, where provided. A Project Schedule and Specifications were provided to Terracon prior to the issuance of this proposal. Should any of these items be incorrect or not applicable, please notify us and the proposal will be modified accordingly.

We recommend that the scope of work described in this proposal be provided to the person(s) who will be responsible for scheduling our services so that they are aware of the services that are proposed. Our services will be performed on an as-requested basis with scheduling by contractor or his designated personnel. **Terracon** will not be responsible for scheduling our services and will not be responsible for inspections that are not performed due to a failure to schedule our services

Proposal for Construction Materials Testing Services

Dunbar Creek Facility Rehabilitation ■ Jacksonville, FL

September 25, 2023 ■ Terracon Proposal No. PEQ231178



on the project or any resulting damage. If inspections made indicate non-compliance with the contract documents or referenced specifications, we will promptly notify the contractor personnel so corrective action can be taken and documented. The following is our proposed Scope of Services:

Slab, and Utility Soil Testing

- **Lab Compaction Testing:** Perform laboratory moisture-density relationship tests (Proctors) on any shallow foundation and slab on grade bearing soils for each visually different material type.
- **Soil Classification Testing:** Perform laboratory grain size analysis (-200 wash) on representative soils for classification per each visually different material type.
- **In-Place Density Testing:** Perform soil in-place field density tests. Perform one test for each 2,000 square feet of compacted subgrade and compacted fill. In place densities for pipelines every other lift. A minimum of one test between manholes.
- **Reporting Field and Lab Test Results:** Report test results. Failing tests will be reported within 24 hours of testing.

Concrete Testing Services

- **Slump:** Perform one test at the beginning of each placement, each set of compressive strength test cylinders, and for water adjustments or when a noticeable change in slump occurs.
- **Temperature:** Measure temperature of fresh concrete for each set of compressive strength test cylinders.
- **Test Specimens:** Mold one set of five (4" x 8") compressive strength test cylinders at a frequency of one set per 50 cubic yards or day's placement (assumed).
- **Cylinder Pick-Up:** Transport cast cylinders to our laboratory for curing and testing.
- **Lab Services for Concrete Specimens:** Perform laboratory curing and compressive strength testing of cylindrical concrete specimens. Tests will be performed: one at 7-days, three specimens at 28-days and one reserve cylinder.
- **Field and Lab Test Results:** Report compressive strength test results. Failing tests will be reported within 24 hours of testing.

Auger cast Pile Installation

- **Pile installation:** Records shall include at a minimum the following
 - Date of installation
 - Each pile identified by separate number
 - Angle of pile installation to nearest 0.5-degree, if not plumb. Pile shall be

Proposal for Construction Materials Testing Services

Dunbar Creek Facility Rehabilitation ■ Jacksonville, FL

September 25, 2023 ■ Terracon Proposal No. PEQ231178



within 2-degrees of vertical. Measure using a reliable method capable of the required precision.

- Any vertical or horizontal offset of pile top from plan location.
- Grout intake volume. Grout consumption will be monitored by documenting the number of strokes of the pump and the calibration factor determined prior to commencing work.
- Description of any unusual occurrences during pile construction.

- **Calibration:** Grout Pump System will be calibrated using a 55-gallon drum without deformation before work can commence. A grout factor will be determined using the completed set up on site and will be recalibrated when any changes in the system is made.

D. SCHEDULING

We request our services be scheduled a minimum of one working day in advance. We request a notice of two working days prior to the commencement of each category of activities. We will endeavor to schedule services on lesser notice but may not always be able to meet the desired project schedule. All requests for services should be submitted to our dispatch: **Office Phone (904) 900-6473; Email: MATDispatch-JAX@terracon.com** between 7:00am and 4:00pm, Monday through Friday. Messages left outside of these hours on weekdays or on Saturday, Sunday and Holidays may not be received until the next business day. Scheduling should not be coordinated through our field personnel.

Our services specifically exclude job site safety responsibility and our services do not relieve any contractor/subcontractor from complying with project specifications.

E. COMPENSATION

Based on the information provided we propose the estimated CMET budget of **\$34,190.00** as shown in the attached estimate. Terracon will provide the scope of services described herein on a time and materials basis as indicated in the attached Construction Materials Testing Estimate. The construction schedule, weather conditions, efficiency of scheduling by site personnel, construction workmanship, etc. will affect the actual cost of our services.

Please note that if additional scopes of work are requested or if additional site visits are requested beyond those anticipated we will discuss with you at that time and may need to increase the Project Budget. Also, labor and expense charges associated with re-inspections and contractor, or weather-related standby/delay time is not included and will be described as such in reports and/or invoicing for your information. We will contact you if these situations occur.

The billing for our services will be directed to your attention on a monthly basis. Actual fees for services provided will accrue in accordance with the attached budget estimate. Work performed

Proposal for Construction Materials Testing Services

Dunbar Creek Facility Rehabilitation ■ Jacksonville, FL

September 25, 2023 ■ Terracon Proposal No. PEQ231178



on holidays or outside of normal business hours (Monday-Friday, 7am to 5pm) may incur additional overtime charges.

This proposal may be accepted by executing the attached Agreement for Services (Agreement) and returning one executed copy along with this proposal to **Terracon**. You may authorize us by returning these documents via email (Shane.Whittier@terracon.com) or (Asmer.Dominguez@terracon.com) or fax (904-268-5255). This Agreement, including the limitations it contains, shall constitute the exclusive term, conditions, and services to be performed for this project.

Again, we greatly appreciate the opportunity to provide this proposal for our services during construction. We look forward to joining the construction team and if you have any questions, please do not hesitate to contact us.

Sincerely,

Terracon Consultants, Inc.

Asmer Dominguez
Assistant Project Manager

Shane Whittier, P.E.
Department Manager

Fee Estimate

Materials Services

Dunbar Creek Water Pollution Control Facility Rehabilitation

Terracon Proposal No. PEQ231178

TASK NUMBER	DESCRIPTION	RATE	QUANTITY	UNITS	TOTAL
1	Concrete Construction				
	Engineering technician	\$ 75.00	70.00	hours	\$5,250.00
	Reinforcement Steel Inspector	\$ 125.00	50.00	hours	\$6,250.00
	Compressive Strength of 4" x 8" Cylinder	\$ 18.00	75.00	tests	\$1,350.00
	Trips	\$ 110.00	18.00	trips	\$1,980.00
	Sub Total				\$14,830.00
2	Soils				
	Engineering technician	\$ 75.00	14.00	hours	\$1,050.00
	Modified Proctor	\$ 160.00	1.00	tests	\$160.00
	Sieve Analysis	\$ 70.00	1.00	tests	\$70.00
	Trips	\$ 110.00	2.00	trips	\$220.00
	Sub Total				\$1,500.00
3	Deep Foundations				
	Deep Foundations (Field Engineer)	\$ 140.00	90.00	hours	\$12,600.00
	Trips	\$ 110.00	9.00	trips	\$990.00
	Sub Total				\$13,590.00
4	Engineering Services				
	Project Manager	\$ 120.00	17.00	hours	\$2,040.00
	Project Engineer	\$ 175.00	10.00	hours	\$1,750.00
	Clerical	\$ 60.00	8.00	hours	\$480.00
	Sub Total				\$4,270.00
	Total				\$34,190.00



Brunswick-Glynn County

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: Wednesday, November 15, 2023
Re: APPROVAL - Change Order No. 3; Arco Water & Sewer Improvements – JWSC Project # 2016

Overview

- **Who:** Thomas & Hutton Engineering Co. (Engineer of Record) and UWS, Inc (Contractor)
- **What:** Request to change in payment method, placement of certain sewer infrastructure, and a time extension to the construction contract.
 - Request to change of payment method to a monthly lump sum payment based on percentage of completion.
 - Request for a time extension of 150 days.
 - Request to place certain sewer lines in existing alleyways instead of under paved roadways.
- **Why:** To alleviate the need for future change orders and alleviate the burden on the public roadways. Additionally, to provide an extension of time due to material delays and design changes.

Staff Report:

JWSC Staff received and reviewed a Change Order No. 3 recommendation letter dated November 7, 2023, from Thomas & Hutton Engineering Co (EOR). The Contractor has requested that the remainder of the contract be paid on a monthly lump sum basis in accordance with the percentage of completion of the project. Additionally, the Contractor has requested an additional 150 days to complete the contract. The request for additional time has been made for “modifications and dealing with continued supply chain issues for additional materials.” The only changes to the project at this time are in the form of a request to place sewer lines South of 6th Street in alleyways instead of under paved roads, as originally contemplated. The EOR Recommendation states that this will result in less disturbance to roadways, less costs in placing the sewer lines, and reduced length of lateral service lines that customers will be required to install to connect to the unified system.

Staff has reviewed the Change Order and finds it acceptable. The change to the lump sum basis of payment will not affect the total cost or scope of the project. The contractor’s request to route sewer lines through alleyways instead of under roads will create less disturbance for the public and increase future accessibility to the main. The changes to the timeline are reasonable in the given circumstances. It is believed that this change will better enable the Contractor to utilize opportunities for construction efficiency discovered in the field and eliminate delays with formal engineering redesign. Accordingly, to prevent additional delays and ensure water service is extended to all residents as originally intended, Staff recommends approval of the Contractor’s request for change in the payment model and time extension to the construction in the amount of 150 days.

Recommended Action

To prevent further change orders, streamline the construction and ensure completion of this project as intended, Staff recommends approval of Change Order No. 3 to the Arco Area Water & Sewer Extension to UWS, INC to allow for the requested changes in sewer line installation, the change to lump sum basis, and the extension of the contract time by 150 days.

Recommended Motion

“I move that the Facilities Committee forward to the full Brunswick-Glynn Joint Water and Sewer Commission Change Order No. 3 to Project #2016 Arco Area Water & Sewer Extension to allow for the UWS, Inc. requested changes in sewer line installation, the change to lump sum payment basis, and the extension of the contract time by 150 days and recommend approval of the same.”

Enclosures

Thomas & Hutton Recommendation of Approval

Change Order No. 3 to the Arco Area Water & Sewer Extension to UWS, INC

ARCO WATER & SEWER IMPROVEMENTS
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION
(BRUNSWICK, GA)

CHANGE ORDER NO. 3
J-28492
JWSC #2016

PROJECT: Arco Water & Sewer Improvements

PROJECT NO.: JWSC Project #2016 DATE: November 8, 2023

OWNER: Brunswick-Glynn County Joint Water & Sewer Commission

CONTRACTOR: UWS, Inc.

The Contractor is hereby requested to comply with the following changes from the contract plans and specifications:

Item #	Description of Changes – Quantities, Unit Prices, Units, Etc.	Decrease In Contract Price	Increase In Contract Prices
	See attached		
	- Convert to lump sum basis		
	-		
	Total DECREASE		
	Total INCREASE		
	Difference Col. (1) and (2)		
	Net INCREASE Contract Price	0	0

The sum of \$ 0 is hereby added to the total contract price of \$3,864,923.38 and the total contract price to date is \$3,864,923.38.

The time provided for completion in the contract is unchanged/increased/decreased by 150 calendar days.

This document shall become an amendment to contract and all provisions of the contract will apply hereto.

REQUESTED BY: _____ DATE: _____
UWS, Inc.

RECOMMENDED BY: _____ DATE: _____
Thomas & Hutton

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
BGJWSC

To: Harry Patel, BGJWSC
FROM: Chris Stovall, P.E.
Project: JWSC Project No. #2016
Arco Water & Sewer Improvements
Change Order #3
Date: November 7, 2023

Harry,

Pursuant to a request from the contractor for Change Order #3, the following is provided concerning justifications and recommendations for the request.

To ensure no additional change orders for the project, the contractor has offered to complete the work under a lump sum contract in lieu of the line item contract currently in place. The contractor will provide sewer service to all existing homes and lots as well as water services to the lots/homes on the latest version of plans last updated 8/2/2023.

To ensure no additional change orders, the contractor has requested some leeway in altering the routing of several sewer lines south of 6th Street to be installed within existing alleyways in lieu of installing under pavement as was originally proposed. They have proposed adding additional days to the project so that the final project completion is by April 30, 2024.

After reviewing the proposal, we recommend this approach. It will likely lead to less disturbance of existing roadways and the costs involved in the removal and replacement of pavement within the project area. This in turn will reduce the length of service laterals for those residents within the area, so will reduce their cost to connect to the new sewer system in the future and possibly allowing those customers to connect sooner to utilize the system.

Recommendation and costs:

We recommend converting the contract to a lump sum. No increase in budget is required. Construction costs will now be paid each month base on a total percentage complete. The contractor will continue providing information on individual line items (i.e. length of pipe installed, area of paving) so that justification of percent complete can be determined.

Due to the modifications and dealing with continued supply chain issues for additional materials, the Contractor has requested 150 additional construction days for completion.



P.O. Box 516 - Trion, GA 30753
Phone: 706-734-0577 Fax: 706-734-0805
www.uwsinc.net

Mr. Todd Kline
JWSC

The following is a proposal to convert the current unit price contract into a Lump Sum not to exceed Agreement for the Arco Project.

It was discussed in a previous site meeting the possibility of converting the current unit price contract into a not to exceed lump sum contract. UWS recognizes the commission's task of trying to complete this project and keep it within its current budget while at the same time fulfilling the requirements of providing sewer services to those within the target area. It is this reason UWS proposes to try and complete said project on a lump sum and or not to exceed basis.

During the construction of the project there have been constant challenges and unforeseen obstacles that have slowed progress as seen by both the contractor and the owner. Our intent is to speed this progress up by allowing UWS to perform in the field changes and simple redesigns at time of discovery instead of going through the standard RFI procedures. With this ability UWS believes it can complete this project at a faster pace and without added cost to the owner.

Our goal is the following:

- Complete said project in a timely manner
- Complete said project with guidelines of servicing all of the targeted service area
- Provide field established design build services in conjunction with Thomas and Hutton to better route sewer service around current obstacles at no cost increase to the owner.
- Complete construction without the need of further change orders by either adding and or diminishing work within the field at the cost of the contractor.
- Complete said project within the remaining current contract amount of \$2,359,079.15

In order for this to work we have suggested a few redesigns by moving sewer mains out of the roads and into back alleys designated as county ROW's. If these redesigns work we will also greatly reduce the cost placed on the customer for service hook ups. This would as we hope be an incentive for more homeowners to switch over to city provided sanitary services.

Andrew Weaver, President and CEO



P.O. Box 516 - Trion, GA 30753
Phone: 706-734-0577 Fax: 706-734-0805
www.uwsinc.net



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: Wednesday, November 15, 2023
Re: Agreement for Supplemental Utility Locating Services

Background

Georgia State law through the Georgia Utility Facility Protection Act (aka. GA Dig Law) requires anyone using mechanized equipment to excavate, demolish or perform work within ten feet of overhead power lines to properly apply for the location (marking) of existing utilities. This takes place through the Georgia 811 "Call Before You Dig" system. As a registered utility owner, the Brunswick-Glynn Joint Water & Sewer Commission (JWSC) must provide locate and marking of its facilities. The JWSC self-performs utility locates of the public water and sewer assets. JWSC locates are currently conducted by two full time Locate/GIS staff members. By law, utility owners registered through GA811 must respond to all locate tickets within two business days.

Staff Report

LiveOak Fiber, LLC (Live Oak) is a private utility company that is currently engaged in a project to comprehensively install new fiberoptic utilities throughout all of Glynn County. LiveOak has currently installed approximately 1.5 million linear feet of conduit, with a balance of 1.5 million linear feet left to install by the second quarter of 2024. This aggressive schedule of construction in addition to the routine locate requirements for other projects has strained the capabilities of JWSC Locate staff. Efforts to utilize JWSC Operational staff to supplement the locate effort after hours has helped but another solution has proven to be necessary.

LiveOak currently contracts with Digital Concrete Imaging, LLC (DCI) for utility locating services on their current Glynn County fiber installation project. LiveOak proposes to utilize DCI to supplement existing JWSC water and sewer locate efforts, at no cost to the JWSC. The JWSC would maintain primary responsibility for locate provision and would not relinquish ownership of response to the GA811 system. The JWSC would provide DCI with GIS mapping and documentation to aid in their locate efforts, while DCI would focus on keeping ahead on locates required for the LiveOak installation.

Staff have met with DCI, reviewed their company's abilities, and believe them to be capable of the provision of locate services. Staff believes that DCI may provide aid that could minimize damage to the water and sewer assets, as well as allow the JWSC Locate staff to better maintain the balance of other GA811 locate and GIS responsibilities.

Recommended Action

JWSC Legal has reviewed the attached contract and approves the content. Staff recommends the JWSC enter into contract with Digital Concrete Imaging, LLC and LiveOak Fiber, LLC to supplement the JWSC utility locating efforts.

Recommended Motion

"I move that the Facilities Committee recommend the full Commission enter into contract with Digital Concrete Imaging, LLC and LiveOak Fiber, LLC to perform supplemental utility locating at no cost to the JWSC."

Enclosures

1. LiveOak Fiber, LLC Utility Locate Contract.

**STATE OF GEORGIA
COUNTY OF GLYNN**

UTILITY LOCATE CONTRACT

This Agreement, made as of the _____ day of _____, 2023 by and between **DIGITAL CONCRETE IMAGING, INC., a corporation organized under the laws of Florida**, (also referred to herein as "Digital Concrete" or "Contractor"), **LIVEOAK FIBER, LLC, a company organized under the laws of Delaware**, (also referred to herein as "LiveOak") and **BRUNSWICK-GLYNN COUNTY WATER AND SEWER COMMISSION, a body corporate and politic, acting by and through its Board of Commissioners** (hereinafter referred to as "JWSC" or "Utility") (both JWSC and County may be hereinafter collectively referred to as the "Parties"),

W I T N E S S E T H

WHEREAS, LiveOak Fiber, LLC is engaged in the installation of fiber-optic cables to provide high speed internet in Glynn County ("the Project"); and,

WHEREAS, the JWSC possesses underground water and sewer infrastructure located in Glynn County; and,

WHEREAS, Digital Concrete possess specialized equipment and labor necessary to perform services for the location and identifying of its water and sewer assets ("Utility Location Services"); and,

WHEREAS, the JWSC believes Digital Concrete possesses the manpower, skill, equipment, and ability to perform Utility Location Services to the standard necessary to protect JWSC assets; and,

WHEREAS, the JWSC benefits from providing utility location services in cooperation with other utility entities to ensure the protection of Glynn County's water and sewer infrastructure from damage; and,

WHEREAS, LiveOak, agrees to fund the Digital Concrete's performance of utility location services under this agreement; and,

NOW THEREFORE, The JWSC, by and through its Board of Commissioners, does hereby agree to enter this Utility Locate Contract ("Agreement") with LiveOak Fiber, LLC and Digital Concrete Imaging, Inc., subject to the following provisions.

NOW THEREFORE, for and in consideration of the mutual covenants and promises set forth herein, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, LiveOak, Digital Concrete, and the JWSC agree as follows:

1. Term

(a) The Term of this Agreement shall commence as of the execution of this Agreement by all parties, and shall terminate upon the completion of the Project and any outstanding work being performed pursuant to this Agreement. The parties agree to make any necessary changes in the structure of the Term to comply with the same and any other provisions of Georgia law, as amended from time to time.

2. Scope of Work

Digital Concrete shall be responsible for the receipt and performance of Utility Location Requests ("Requests") submitted pursuant to O.C.G.A. § 25-9-1 *et seq.* by LiveOak.

Upon receipt of Requests, the JWSC shall make a determination as to whether it desires Digital Concrete to complete a respective Request. The JWSC shall forward Requests for Digital Concrete's performance in accordance with O.C.G.A. § 25-9-1 *et seq.* and any other applicable

laws. The method of transmitting the tickets shall be done in any manner that is mutually agreeable to the Parties.

Digital Concrete recognizes that the JWSC is responsible for performing Requests with the specificity timeliness as required by O.C.G.A. § 25-9-1 *et seq.* and any other applicable laws. Digital Concrete shall respond to the requests in accordance with the applicable law, including but not limited to requirements related to timing of responses, method of identifying utilities, and location accuracy.

Digital Concrete shall make a prompt determination as to whether it has the capabilities to handle Utility Location Requests. If Digital Concrete determines it is unable to perform a request for any reason, it shall immediately notify the JWSC of that determination.

Notwithstanding any other provision herein, Digital Concrete shall perform the Services as an independent contractor and as such it has the right to exercise control and supervision of the work and full control over the employment, direction, compensation, and discharge of all persons assisting in performing the Services; that it will be solely responsible for the payment of its employees and for the payment of all federal, state, county, and municipal taxes and contributions pertaining thereto; and that it will be responsible for its own acts.

3. Confidentiality.

- a. Disclosure. Each Party acknowledges that it may disclose Confidential Information to the other in connection with this Agreement. The Party receiving the Confidential Information shall:
 - (i) use all Confidential Information received by it solely to carry out the purposes of this Agreement and for no other purpose whatsoever;
 - (ii) limit access to any Confidential Information received only to its employees and/or

- contractors who have a need to know and only for use in connection with this Agreement;
- (iii) advise those employees and/or contractors having access to the Confidential Information of the proprietary nature thereof and of the obligations set forth in this Agreement;
- (iv) take appropriate action by agreement with those employees and/or contractors having access to the Confidential Information to fulfill its obligations under this Agreement;
- (v) safeguard all Confidential Information received by using a reasonable degree of care, but not less than the degree of care used by it in safeguarding its own similar information or material; and
- (vi) upon request return or destroy and acknowledge destruction of all copies, notes, packages, diagrams, computer memory media and all other materials containing any portion of the Confidential Information to the disclosing party upon its request. “Confidential Information” means all proprietary, secret or confidential information relating to either party and its operations, employees, products or services, any information relating to any Affiliate, customer or potential customer and all personal data, including all Personal Information. “Personal Information” means personally identifiable information relating to employees of the JWSC or JWSC’s customers. Furthermore, Digital Concrete understands and acknowledges the sensitivity and confidentiality of Personal Information which may be contained in Confidential Information received from the JWSC and that such information may be obtained from customers who are subject to applicable privacy laws,

regulations and guidelines (“Privacy Laws”). In addition to its other obligations under this Section, Digital Concrete acknowledges the protections afforded by Privacy Laws to Personal Information and agrees to comply with all legal and contractual requirements relating to the privacy and confidentiality of Personal Information applicable to it in the performance of its obligations under this Agreement. Digital Concrete will notify the JWSC immediately upon discovery of any lost or altered Confidential Information, any breaches of its information security systems or attempts to penetrate such systems and will bear the cost of reproduction or any other remedial steps necessary or advisable to address the security breach. Digital Concrete’s information security procedures and tools will always meet or exceed applicable information security standards, including those established by applicable U.S. and/or foreign governmental regulatory agencies and the standards required by the JWSC’s Information Security Group from time to time.

- b. Exceptions. Information shall not be considered Confidential Information to the extent, but only to the extent, that such information:
- (i) is already known to the receiving party free of any restriction at the time it is obtained from the other party;
 - (ii) is subsequently learned from an independent third party free of any restriction and without breach of this Agreement;
 - (iii) becomes publicly available through no wrongful act of either party;
 - (iv) is independently developed by one party without reference to any Confidential Information of the other; or

(v) is required to be disclosed by law, regulation, court order or subpoena, provided that the disclosing party will exercise reasonable efforts to notify the other party prior to disclosure.

c. Breach. The parties acknowledge that monetary damages may not be a sufficient remedy for unauthorized disclosure of Confidential Information and agree that the non-breaching party shall be entitled, without waiving any other rights or remedies, to such injunctive or equitable relief as may be deemed proper by a court of competent jurisdiction.

d. Transfer of Employees. In addition to any rights or remedies which either party may have under this Agreement or any Services Agreement, if the JWSC demonstrates that an employee of the Digital Concrete has, in violation of this Agreement, disclosed the JWSC's Confidential Information to a third party, or to an employee of Digital Concrete who does not have a need to know such information in connection with the performance of his or her duties under this Agreement and the Services Agreements, the JWSC may request Digital Concrete to transfer the disclosing employee to responsibilities which do not involve this Agreement.

4. Personal Information Incident Requirements.

a. Procedures. Digital Concrete will maintain procedures reasonably designed to detect and respond to Personal Information Incidents, including procedures for corrective action. As used in this Agreement, "Personal Information Incident" shall mean an event that leads to or may lead to unauthorized acquisition, loss or distribution of paper or computerized data that compromises the security, confidentiality, or integrity of Personal Information.

- b. Notification and Timing. Notwithstanding any other obligations Digital Concrete may have under applicable law, Digital Concrete agrees to notify the JWSC within four (4) hours by a phone call to the primary and backup contacts for interaction with Digital Concrete as described in this Agreement and at the telephone numbers described herein (or such other phone number as is designated by the JWSC), upon Digital Concrete' discovery and validation (which validation typically will not require more than twenty-four (24) hours) of a potential or actual Personal Information Incident. Digital Concrete will also provide feedback as described below to the JWSC about any impact such potential or actual Personal Information Incident may or will have on the JWSC, its affiliates and/or the individual users of the JWSC's services (e.g., consumers, customers or employees). Digital Concrete will provide the following information during such notification phone call:
- (i) problem statement;
 - (ii) expected resolution time (if known); provided, however, that if the resolution path is unknown at the time of the phone call, Digital Concrete will advise JWSC that the path is unknown; and
 - (iii) the name and phone number of the Digital Concrete representative(s) the JWSC can contact to obtain incident updates.
- c. Security Resources. During the Agreement Term, the JWSC will make available resources from its security group to assist with a Personal Information Incident.
- d. Notification. Digital Concrete understands that JWSC or its affiliates may be required to report Personal Information Incidents to affected individuals and/or any governmental authority or agency having supervisory or oversight authority over the JWSC and that

the JWSC may provide such reports.

- e. Notification Assistance. In addition to any other obligations Digital Concrete may have under this Agreement, and subject to the JWSC's continuing obligations as a data owner/controller, Digital Concrete shall, and in response to the JWSC's reasonable instructions, if any, which will be based on the JWSC's assessment of the Personal Information Incident and the harm reasonably anticipated to result there from:

- (i) assist in the identification of affected persons and relevant jurisdictions;
- (ii) allocate call center resources and training to manage inquiries;
- (iii) provide affected persons with such assistance (credit monitoring, etc.) as the JWSC deems reasonable;
- (iv) assist with the delivery of electronic, hard copy and/or telephonic notifications to affected individuals, as provided to Digital Concrete by the JWSC; and
- (v) undertake a procedural review/audit to determine any appropriate corrective measures to avoid a similar situation recurring, and report to the JWSC the corrective measures undertaken.

If the Personal Information Incident results from Digital Concrete's acts or omissions that are not otherwise excused pursuant to this Agreement, Digital Concrete will provide the notification assistance described above at no cost to the JWSC.

5. Access to Records

Digital Concrete may request records from the JWSC if Digital Concrete determines that those records are necessary for the performance of the services contemplated herein.

Data Retention and Destruction.

- a. Under this Agreement, Digital Concrete shall only retain Confidential Information or Personal Identifiable Information (PII) belonging to JWSC, for a period of time required for providing the services that the JWSC has agreed to in this Agreement or as defined in the table below.
- b. Digital Concrete's procedure for recording destruction/disposal of Confidential Information or PII received, transferred or stored on physical or electronic media. This procedure will be used to provide certification of the method that reduces the risk the recovery or reconstruction of PII. Methods used for destroying/disposing of PII are outlined in the following table:

Medium	Practice
Computerized Data/ Hard Disk Drives	Methods of permanent destruction / disposal should destroy data permanently and irreversibly. Methods may include overwriting data with a series of characters (0 and 1) or reformatting the disk (destroying everything on it). Total data destruction has occurred when back-up tapes have been overwritten (if required).
Computer Data/ Magnetic Media	Methods may include overwriting data with a series of characters (0 and 1) or reformatting the tape (destroying everything on it). Total data destruction has occurred when back-up tapes have been overwritten (if

required). Magnetic degaussing will leave the sectors in random patterns with no preference to orientation, rendering previous data unrecoverable.

PII Labeled Devices,	Reasonable steps have been taken to destroy or de-identify any PII
Containers,	information prior to disposal of this medium. Removing labels or
Equipment, Etc.	incineration of the medium.
Paper Records	Paper records that contain PII are destroyed/disposed of in a manner
	for
	destroying/disposing of these paper records, which includes: burning,
	shredding, pulping, and pulverizing.

6. Compensation

The JWSC shall pay both LiveOak and Digital Concrete \$10.00 as consideration for the services contemplated under this Agreement. Both LiveOak and Digital Concrete recognize the foregoing consideration is good and valuable.

LiveOak shall bear all responsibility for any expenses incurred in procuring the services of Digital Concrete pursuant to this Agreement. Digital Concrete and LiveOak recognize that they are not entitled to any payment or remuneration of any kind under this Agreement, except as specifically set forth in this Paragraph. This Agreement shall not limit the consideration, obligations, rights, or other terms of any other agreement, including any agreements between LiveOak and Digital Concrete.

7. Insurance

During the term of this Agreement, Digital Concrete shall, at its own cost and expense, obtain and maintain in full force and effect, a minimum of the following insurance coverage:

- a. workers' compensation and disability insurance in statutory amounts;
- b. employer's liability insurance with a minimum limit of \$500,000;
- c. automobile liability insurance (including owned, non-owned and hired vehicles) with a combined single minimum limit of \$1,000,000 each accident for bodily injury and property damage;
- d. commercial general liability insurance or suitable umbrella insurance with minimum single limit coverage of \$5,000,000 each occurrence covering liability arising from premises, operations, independent contractors, products/completed operations, personal injury and advertising injury, and liability assumed under an insured contract; and
- e. professional liability insurance with minimum coverage of \$5,000,000 each claim covering liability arising from negligent delivery of professional services. Digital Concrete shall name the JWSC as an additional insured to Digital Concrete's commercial general liability policy.

Digital Concrete shall furnish to the JWSC either a certificate showing compliance with these insurance requirements or certified copies of all insurance policies within ten (10) days of the JWSC's written request. The certificate will provide that the JWSC will receive 30 days' prior written notice from the insurer of any termination or reduction in the amount or scope of coverage. Digital Concrete's furnishing of certificates of insurance or purchase of insurance shall not release Digital Concrete of its obligations or liabilities under this Agreement.

8. No Assignment

No assignments of any kind, including assignments of rights and obligations, shall be made without a signed writing executed by all Parties hereto.

9. Indemnification

Digital Concrete shall indemnify, defend, and hold the JWSC, its officers, agents, and employees harmless from any and all claims arising out of the performance of services or the failure to perform services by Digital Concrete pursuant to this Agreement. Digital Concrete shall pay and judgement arising out of any and all claims contemplated in this section.

10. Compliance With Law

The parties shall, in all respects related to the funds transferred pursuant to this agreement, comply with and observe all federal, state, and local laws, ordinances, and regulations that in any manner affect the use of the funds.

Accordingly, Digital Concrete agrees, before execution of this Agreement, that it has completed and submitted to the JWSC an affidavit compliant with O.C.G.A. § 13-10-91(b). Digital Concrete shall be responsible for complying with all additional provisions of O.C.G.A. § 13-10-91, as applicable.

11. Termination

Any party hereto shall be entitled to unilaterally terminate this Agreement without cause at any time with seven (7) days' notice. Termination may be effected by delivery of a signed written notice.

If, at any time, the JWSC, in its good-faith judgment, believes that the services contemplated in this Agreement are being performed unsafely or not in accordance with applicable law, the JWSC shall be entitled to terminate this Agreement immediately. Further, upon terminating this Agreement pursuant to this Paragraph, the JWSC shall have authority to direct the immediate ceasing of any services being provided under this Agreement.

In the event of termination, the Parties shall act in good-faith to protect the Parties' relevant assets and the ability of the JWSC to continue the provision of Utility Location Services that are compliant with law.

Notwithstanding any other provision herein, this Agreement shall automatically terminate upon the completion of LiveOak's Project or three (3) years after the execution of this Agreement, whichever occurs first.

12. Notices

All notices hereunder shall be in writing, signed by the party making the same, and shall be delivered personally or sent via certified or registered United States mail, return receipt requested, postage prepaid, addressed as follows:

To the JWSC: Brunswick-Glynn County Joint Water and Sewer Commission
Attn: Executive Director
1703 Gloucester Street
Brunswick, Georgia 31520

To LiveOak: LiveOak Fiber, LLC
808 Gloucester Street
Brunswick, GA 31525

To Digital Concrete: Digital Concrete Imaging, Inc. dba Breakpoint Surveying and Underground
202 Lake Miriam Drive, Suite E1
Lakeland, FL 33813
Bryan @breakpointsurvey.com

The date of mailing or the date of personal delivery, as the case may be, shall be the date of such notice.

13. Entire Agreement

This Agreement contains the entire agreement of the parties and no representations, inducements, promises or agreements, oral or otherwise, between the parties not embodied herein

shall be of any force or effect. No failure to exercise any power given to the parties hereunder, or any failure to insist upon strict compliance of any obligation hereunder, and no custom or practice of the parties at variance with the terms hereof shall constitute a waiver of any right to demand exact compliance with the terms hereof. No modification, alteration or amendment to this agreement shall be binding unless the same is contained in a written agreement executed between the parties, executed with the same formality as this Agreement.

14. Binding Effect of Agreement

This Agreement and all of its covenants, conditions and terms shall extend to and be binding on any subcontractors, to the extent required by law.

15. Severability

If any clause or provision of this Agreement is or becomes illegal, invalid, or unenforceable because of present or future laws or any rule or regulation of any governmental body or entity, effective during its term, the intention of the parties hereto is that the remaining parts of this Agreement shall not be affected thereby.

16. Captions

The captions used in this Agreement are for convenience only and do not in any way limit or amplify the terms and provisions hereof.

17. Governing Law

The laws of the State of Georgia shall govern the interpretation, validity, performance and enforcement of this Agreement. Further, Georgia law shall govern any dispute, claim, or other matter arising out of or in connection with the Agreement, and any such matter shall be litigated in the Superior Court of Glynn County.

18. Not Construed Against the Drafter

This Agreement has been negotiated and prepared by the Parties and their respective counsel. Should any provision of this Agreement require judicial interpretation, the court interpreting or construing the provision shall not apply the rule of construction that a document is to be construed more strictly against one party.

19. Counterparts

This Agreement may be executed in several counterparts, each of which shall constitute an original and all of which together shall constitute one and the same instrument.

20. Time Of Essence

With respect to all the terms and conditions of this Agreement, time is of the essence.

21. No Third-Party Beneficiaries

This Agreement is intended for the benefit of the Parties hereto and, unless explicitly stated, nothing herein shall confer any rights or obligations upon any other person or entity.

22. Publicity

Neither party shall use the name, logo, trademarks, tradenames, or any facsimile thereof of the other party in publicity releases, advertising, or promotional material, or other business-generating efforts without first securing the written consent of such other party.

[SIGNATURES ON NEXT PAGE]

In Witness Whereof, the parties have hereunto executed this instrument under seal and delivered these presents in duplicate originals as of the day and year first-above written.

Agreed to by the Glynn County Board of Commissioners on the ____ day of _____, 2023.

By: _____

Chairman, Brunswick-Glynn County Water and Sewer Commission

Attest: _____

Clerk, Brunswick-Glynn County Water and Sewer Commission

Agreed to by Digital Concrete Imaging, Inc. on the ____ day of _____, 2023.

By: _____

Title: _____

Attest: _____

Agreed to by LiveOak Fiber, LLC on the ____ day of _____, 2023.

By: _____

Title: _____

Attest: _____

TO: Todd Kline, P.E., Director of Engineering
Brunswick-Glynn Joint Water & Sewer Commission

FROM: Chris Stovall, PE, Project Manager, T & H
Jacquelynn Smith, Designer, T & H

DATE: November 10, 2023

SUBJECT: SPLOST Exit 29 WPF & Elevated Storage Tank – Concept Options

JOB NO.: 30998.0000 – JWSC Project #2318

INTRODUCTION

The existing Brunswick Glynn Joint Water and Sewer Commission (BGJWSC) Fire Protection Well located within the Southport Parkway Wastewater Treatment Facility Site (WWTF) in Glynn County is proposed to be converted into a domestic use well. The address of the well is 391 Southport Parkway, Brunswick, Georgia in the northwest corner of the property. This site is located outside of the 100-year FEMA Flood Zone, per Panel No. 13127C0214H effective 01/05/2018.



In order to convert the existing facility from a Fire Protection Well to a Domestic Use Well, upgrades must be made to the facility. The existing fenced WWTF site includes a well, a hydro-pneumatic tank, site piping, and other miscellaneous facilities to be demolished/ removed. **Figure 1** provides a photo of the existing conditions of the site.

Figure 1

PRELIMINARY ENGINEERING OPTION EVALUATION

Per the JWSC initial plan for the site, the following upgrades are needed to convert the existing fire protection well to a Domestic Use Facility.

- Plans will include temporarily pulling the pump for inspection.
- The existing well is to remain.
- A new facility building will be constructed to include a distribution pump room, chlorine room, phosphate room, system controls room, and a storage room. The facility shall also include a non-freeze combination safety shower/eyewash station and other appurtenances as referenced in the RFP. The building will be based on the recently designed Canal Road Water Production Facility (WPF).
- The existing hydro-pneumatic tank, valve vault concrete structures, concrete risers, slabs, supports, and various miscellaneous materials and equipment no longer in service are to be removed from the site.
- The existing chemical feed system and associated appurtenances are to be removed from the site.
- A ground water storage tank should be constructed with a minimum storage capacity of 54,000 gallons for sufficient chlorine contact time (CT). The storage tank is required to meet a minimum of 30-minute chlorine contact time prior to discharge from the facility.
- A 500,000-gallon composite elevated tank will be constructed to provide additional storage in the JWSC system.
- New piping and fittings will be required to connect the existing onsite well to the storage tanks and pump/control building.
- The entrance shall be rehabbed for roadway longevity. On site paving and grading will be required to allow for positive drainage and ease of access to the site.

Thomas and Hutton will provide a minimum of three design options for placement and sizing of the proposed improvements. Enclosed are 4 concept options for the upgrades to the existing site based upon multiple well building and tank sizes, as well as a no action alternative. As discussed in the proposal, two options were previously provided which would call for installing the improvements immediately adjacent to the existing well north of the WWTF entrance road. The JWSC also requested to review a location off-site for the elevated storage tank- south of the WWTF. Please see the included Option Exhibits and location map in **Attachment 1** and Cost Estimates found in **Attachment 2** for each Option. The options describe and show a 500,000-gallon composite tank, a 200,000-gallon ground storage tank, and a 1,200-sf treatment building at four different orientations. The tank sizes were selected based upon JWSC input, available land, cost considerations, and the evaluation of tank height vs. tank diameter. The ground storage tank overflow elevation should be less than approximately 30' above grade for cost effectiveness. The elevated tank overflow elevation will match the elevations of the existing Old Brookman Road Tank. The building size was based on the required rooms for the water treatment facility, as well as BGJWSC preferences. See the included **Attachment 3** – Crom Tank Capacities and Dimensions for Circular Tanks for reference and **Attachment 4** – FEMA Panel No. 13127C0214H.

Approximately 150' x 300' has been proposed for the WPF improvements which should provide room for the improvements as well as an additional 20% for future expansion and construction staging. Each Option site layout has been configured to provide a setback of 50' from all existing

property lines, based on requirements of the wastewater treatment facility site drawings. Additionally, it shall be noted that based on conversations with EPD - a minimum of 100' separation shall be retained from the nearest structure of the wastewater treatment system to the well per The Minimum Water Standards (5.2.4(m)). This shall be considered in the case of any expansion of the WWTF. Also, maintaining a 100' distance from surface waters or other potential pollution sources shall be considered. To maintain compliance with Georgia's Minimum Standards for Public Water Systems (10.1(c)), a distance of 50' from proposed water storage to the existing solids holding tank was also implemented. **Attachment 1** includes the limitations and buffers required by various standards.

The existing well is located approximately 35' from the WWTF northern property line. Adjacent residential construction has recently begun that will encroach within the 100' outer management control zone as defined by GA EPD. While this does not exclude the well from further use, additional steps will be required to ensure adjacent property owners do not store chemicals (ie. fertilizers, pesticides, fuel) in significant quantities or without proper protection (covered areas on slab, i.e. garages) and should be discussed with the affected future homeowners or developer of the property.

In addition to the 100' well delineation, we recommend a tank-height distance buffer of the elevated tank from residential structures. This may be 144' to 148' depending on the final location of the tank. In Attachment 1, 150' was used as the buffer distance for consistency and clarity. This buffer is considered for both aesthetic reasons such as shading, as well as providing a fall zone. All buffers considered can be seen in **Attachment 1**.

The size of each tank option has been evaluated for the adequate CT value, and each meets the required volume. The minimum storage volume required to meet 30 minutes of chlorine contact time is 54,000 gallons to the first connection (this can include piping). Coated concrete block interior baffle walls are to be included to reduce short-circuiting. Additionally, the storage tank will include a residual chlorine analyzer for additional chlorine to be added prior to discharge to ensure GaEPD guidelines are met. The chlorine will be injected at the discharge side of the well pump when the pump turns on. There will also be an injection point to the tank itself, controlled by a chlorine residual analyzer, to keep the chlorine residual at the optimum level and prevent bacteria growth. Water stagnation will be prevented by having sufficient chlorine residual and can be augmented by mixing in the elevated storage tank. A 200,000-gallon ground storage tank was selected for an optimal turnover rate in Brunswick-Glynn and to support the proposed aerator that has a 17'-4" diameter. Additionally, the proposed 0.5-million-gallon elevated storage tank will supply a large quantity of readily available water, lessening the need for a higher volume GST.

To prevent Hydrogen Sulfide odors in the water supply, an expanded cascade tray aeration system is proposed for the ground storage tank that will provide additional aeration/stripping. An option for additional aeration is to install a blower and coarse bubble system within the ground storage tank. The analysis comparing these options can be found in the subsequent pages.

The proposed WPF improvements will be proposed on BGJWSC-owned property. No additional property or easement acquisitions are required for this work. In addition to the WPF improvements, there are two proposed water main loop connections planned that will require either County right-

of-way approval or easements from residents between Bartram Trail/Cinder Hill Drive and within Planting Hammock.

Upon approval of the selected option by BGJWSC, a site plan will be submitted to the Glynn County Airport Commission for an FAA Obstruction Evaluation and Airport Aerospace Analysis. Additionally, geotechnical engineering will then be completed by the Engineer's consultant. Within the geotechnical report presented by the consultant, any recommendations or issues will be addressed. A Phase I Environmental Assessment will also be completed at the time of the geotechnical work for the project extents of the selected site. During design, the Engineer will evaluate the capacity and state of the existing generator and determine whether it may remain active or not. A preliminary review of the WWTF site showed no surface contaminants, drums, or other hazardous materials, though there is a fuel storage tank presumed to be used for the existing generator adjacent to the area. The existing site characteristics of the WWTP have been carefully avoided in design. For example, there are previously used drying beds on site that will be 50' from any proposed water treatment or storage. Based on previous review, there are no Wetlands present on the primary site. A preliminary site review for the south site showed a potential dump site of biosolids, a storm pond, marsh, and wetlands on the periphery of the property. The proposed construction on the south site is over 100' away from the dump site and storm pond. A topographic survey of the primary site (Options 1 and 2) has been completed for the site by Thomas and Hutton. If Option 3 or 4 is selected, a supplemental topographic survey shall be performed.

The following concepts provide various building and tank sizes with pros and cons for each option reviewed. At the end of the memorandum, a summary table is included which provides costs for all options.

Table 1: Option Descriptions

Option 1	Option 2	Option 3	Option 4
<ul style="list-style-type: none"> On site of WWTF Ground storage tank to be on West side with Elevated tank on the East of the proposed pump building. Provides additional storage to the site. Pump facility, ~1,200 SF: pump room, control room, chlorine room, chemical room, phosphate room, a storage room 200,000-gallon ground storage tank 	<ul style="list-style-type: none"> On site of WWTF Ground storage tank to be on East side with Elevated tank on the West of the proposed pump building. Provides additional storage to the site. Pump facility, ~1,200 SF: pump room, control room, chlorine room, chemical room, phosphate room, a storage room 200,000-gallon ground storage tank 	<ul style="list-style-type: none"> Well, WPF, and ground storage tank on site of the WWTF. Elevated storage tank on separate property south of WWTF. Ground storage tank to be on West side of the proposed pump building. Provides additional storage to the site. Pump facility, ~1,200 SF: pump room, control room, chlorine room, chemical room, phosphate room 	<ul style="list-style-type: none"> Well on site of the WWTF. Water production facility, elevated tank, and ground storage tank on separate property south of WWTF. Ground storage tank to be on West side of the proposed pump building. Provides additional storage to the site. Pump facility, ~1,200 SF: pump room, control room, chlorine room, chemical room

Option 1	Option 2	Option 3	Option 4
<ul style="list-style-type: none"> • 500,000-gallon composite elevated tank • No impact to wetlands • Utilize existing well on WWTF property. • BGJWSC has ingress/egress easement to property. • Existing well outer management control zone is compromised by adjacent construction. 	<ul style="list-style-type: none"> • 500,000-gallon composite elevated tank • No impact to wetlands • Utilize existing well on WWTF property. • BGJWSC has ingress/egress easement to property. • Existing well outer management control zone is compromised by adjacent construction. 	<ul style="list-style-type: none"> room, a storage room • 200,000-gallon ground storage tank • 500,000-gallon composite elevated tank • South site is closer to wetlands and marsh • For North site: BGJWSC has ingress/egress easement to property. • For South site: entirety of site is owned by BGJWSC. Clearing, grading, site preparation will be required for access to site. • Elevated tank site is approximately 1,200' from the existing road and 2,000' from existing well. Additional potable water main extensions will be required. • Some piping will be within 500-year flood plain. • Fencing around the South site will be required. • Additional permitting required. • Existing well outer management control zone is compromised by adjacent construction. 	<ul style="list-style-type: none"> room, phosphate room, a storage room • 200,000-gallon ground storage tank • 500,000-gallon composite elevated tank • South site is closer to wetlands and marsh • For North site: BGJWSC has ingress/egress easement to property. • For South site: entirety of site is owned by BGJWSC. Clearing, grading, site preparation will be required for access to site. • Elevated tank site is approximately 1,200' from the existing road and 2,000' from existing well. Additional raw and potable water main extensions will be required. • Some piping will be within 500-year flood plain. • Fencing around the South site will be required. • Longer run of piping from well to treatment building required. • Additional permitting required.

Option 1	Option 2	Option 3	Option 4
			<ul style="list-style-type: none"> Existing well outer management control zone is compromised by adjacent construction.

A fifth option – the No Action Alternative, was also considered. With an increasing need for multiple sources of water supply and storage, this option was not considered feasible for meeting long-term goals of the JWSC.

WATER MAIN LOOPS

The proposed water main loops can be seen in **Attachment 1**. The intention of installing these loops is to reduce the number of dead-end mains in the BGJWSC. The loops will allow for additional areas of isolation in instances of line breaks and allow for higher flushing velocities to prevent the settling of sediment in these areas.

For each water loop connection, installation may occur via horizontal directional drill (HDD) or open cut. HDD is preferred for the Bartram Trail and Cinder Hill Drive water main extension to potentially avoid easement acquisition and avoid utility conflicts. Alternatively, Southport Parkway is a County Road. The connection between Southport Parkway and Callie Circle is proposed to take place along Planting Hammock Blvd. At this location, open-cut installation is recommended. Any and all easements required for open-cut installation will be obtained by the Owner, with assistance from Thomas & Hutton, prior to construction.

HYDROGEN SULFIDE ODOR SOLUTION FOR GROUND STORAGE TANK

Hydrogen-sulfide is a corrosive and noxious gas that can develop in a warm environment where sulfur bacteria can live. Stagnant water can promote this growth. Levels in the groundwater are at nuisance levels with a characteristic rotten-egg smell. Choosing to do nothing could create potential health issues for those who must maintain the tank and people who come in contact with the water stored here. End-users must contend with the odors. Providing nothing in this instance is not a feasible solution.

To prevent hydrogen sulfide odor, three options were considered:

1. Install a blower and coarse bubble system.
2. Provide an upsized cascade tray aerator.
3. Provide nothing to mitigate Hydrogen Sulfide.

Regarding a blower and coarse bubble system, an additional storage unit would need to be installed to house the equipment. This would increase the footprint of the site and make navigation of the site more difficult. Power costs for blowers will be higher than a fixed aerator system.

A tray aerator is proposed for the tank regardless, as this is an efficient mixing system. The footprint and dimensions of the best-fitted aerator and the up-sized aerator that would provide

enough circulation to mitigate the production of hydrogen-sulfide gas are the same. The ground storage tank manufacturer would be responsible for ensuring the tank could support the proposed aerator.

To maximize the site area and to resolve multiple issues with one piece of equipment that requires no power and little maintenance, an up-sized cascade tray aerator in combination with chlorination was selected for design.

ESTIMATED CONSTRUCTION COSTS OVERVIEW

Table 2 shows the expected cost of the proposed water loops.

Water Main Loops	Total Cost
Bartram Trail/Cinder Hill Drive Connection	\$150,000
Callie Circle/Southport Parkway Connection	\$120,000

Table 2

The following table provides a summary of the costs associated with the various tank options as well as the total cost associated with completing the respective alternative and the water main loop work.

SPLOST Exit 29 WPF	WPF Cost	Total Cost of WPF & Water Main Loops
Option 1	\$13,157,040.00	\$13,427,040.00
Option 2	\$13,157,040.00	\$13,427,040.00
Option 3	\$14,119,248.00	\$14,389,248.00
Option 4	\$13,991,520.00	\$14,261,520.00
Option 5	\$0.00	\$0.00

Table 3

A more detailed cost estimate for all proposed work can be found in **Attachment 2**.

ENGINEER'S RECOMMENDATION

The proposed upgrades to the existing fire protection well system require extensive updates, as discussed in this report. There is no distinct difference between Option 1 and Option 2. Primarily, this would be a choice for aesthetics only. Option 3 would put additional distance between some of the proposed water storage and existing wastewater treatment. It is more likely that wetlands will be encountered on site for Option 3 which will require Army Corps of Engineers permitting. Additionally, due to a greater land disturbance, GSWCC permitting will be required.

Options 3 & 4 will require a greater run of onsite piping as well as additional site clearing and grading.

After extensive review and consideration, **Option 1 is recommended.** At the time of report, this option is estimated to have a cost of \$13,157,040.00. With the work of installing both water main loops, the total cost is \$13,427,040.00. This option meets all of the requirements for upgrading the system to a domestic well while also providing BJGWSC additional building requests without requiring an extensive and more expensive building size. The primary difference between Options 1 and 2 is the elevated tank location. **Figure 2** shows Option 1. Option 1 situates the tank further to the East. This location not only makes the tank more visible to I-95 for a logo but is also further from neighboring residential structures which will impose less on lines of sight for residents. Furthermore, this location allows for more possibilities regarding future expansion, due to the greater limitations at the Northwestern corner of the site.

The most effective scenario would be for BGJWSC to purchase the property that falls within the 100' well buffer to ensure no violations occur. Logistics would have to be solidified between the current property owner and the JWSC. We recommend the JWSC contact the adjacent developer to discuss concerns of the affected properties within the well management control zone.

In addition to the 100' well delineation, we recommend a tank-height distance buffer of the elevated tank from residential structures. This buffer is considered for both aesthetic reasons such as shading, as well as providing a fall zone.

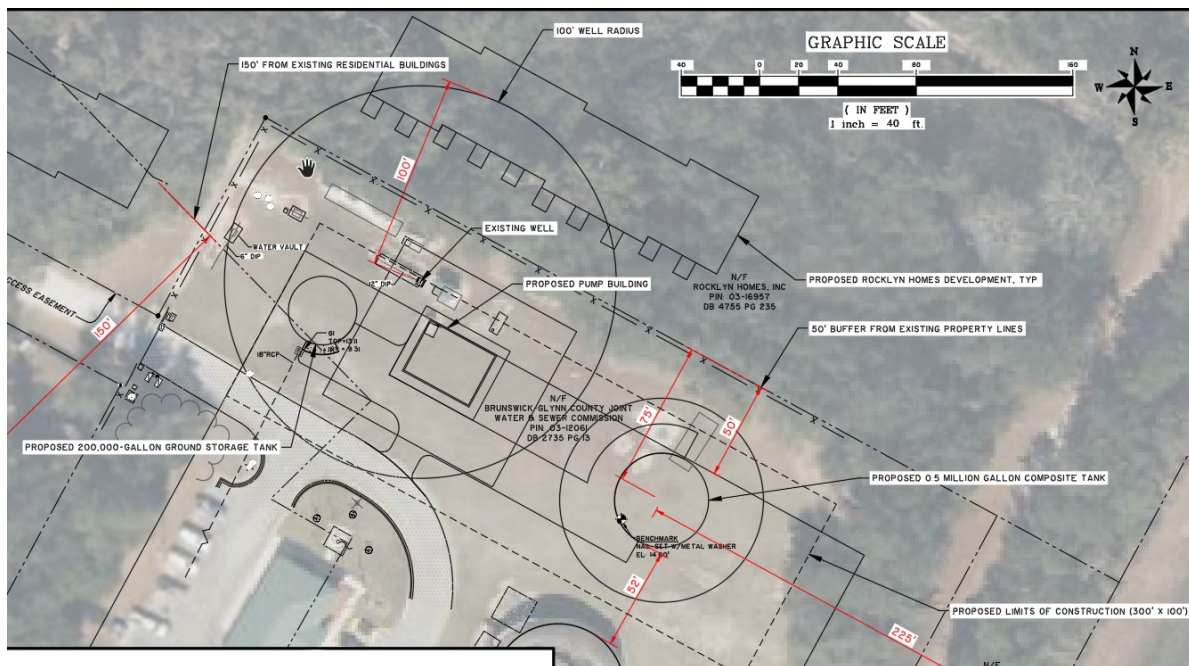
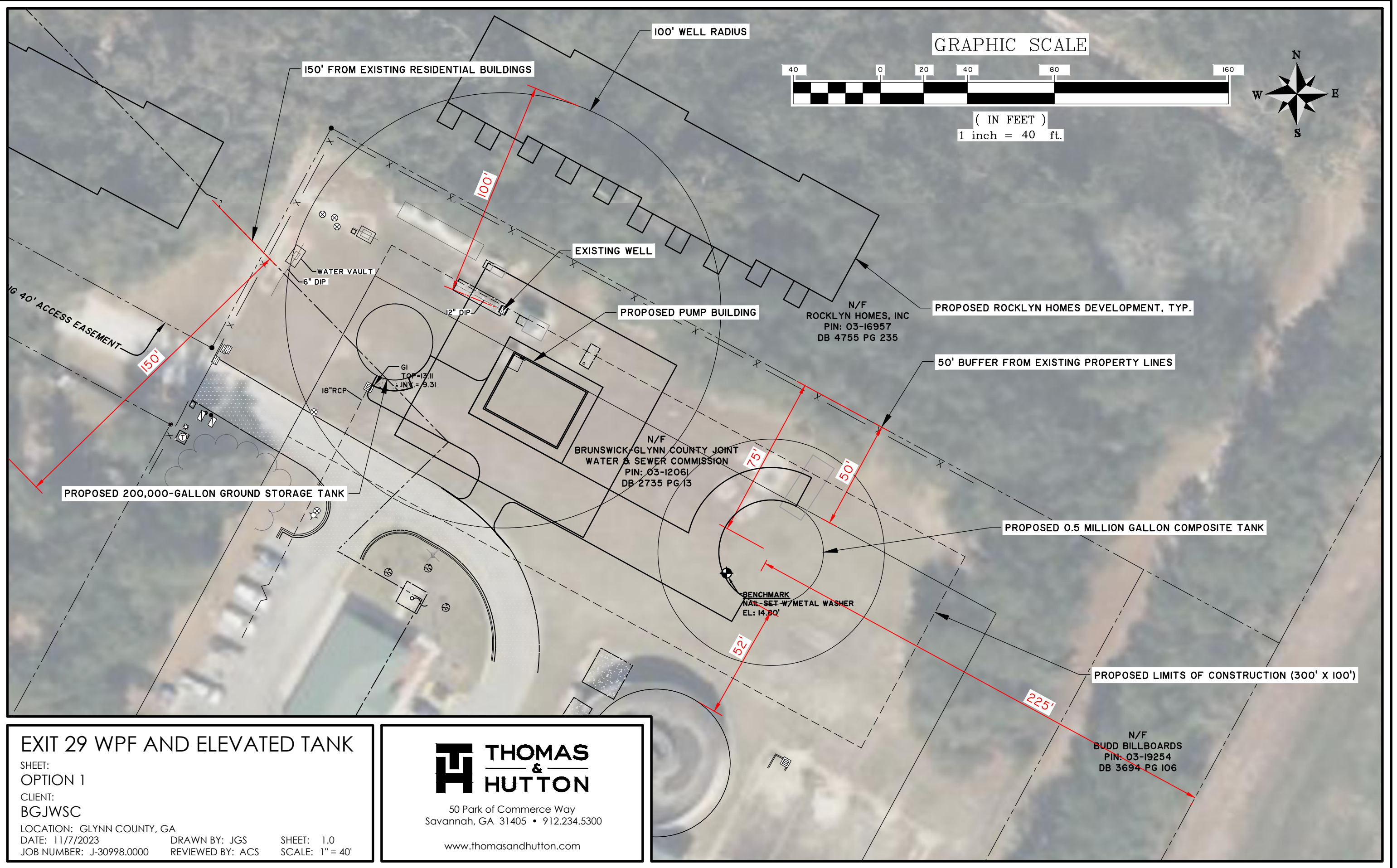


Figure 2

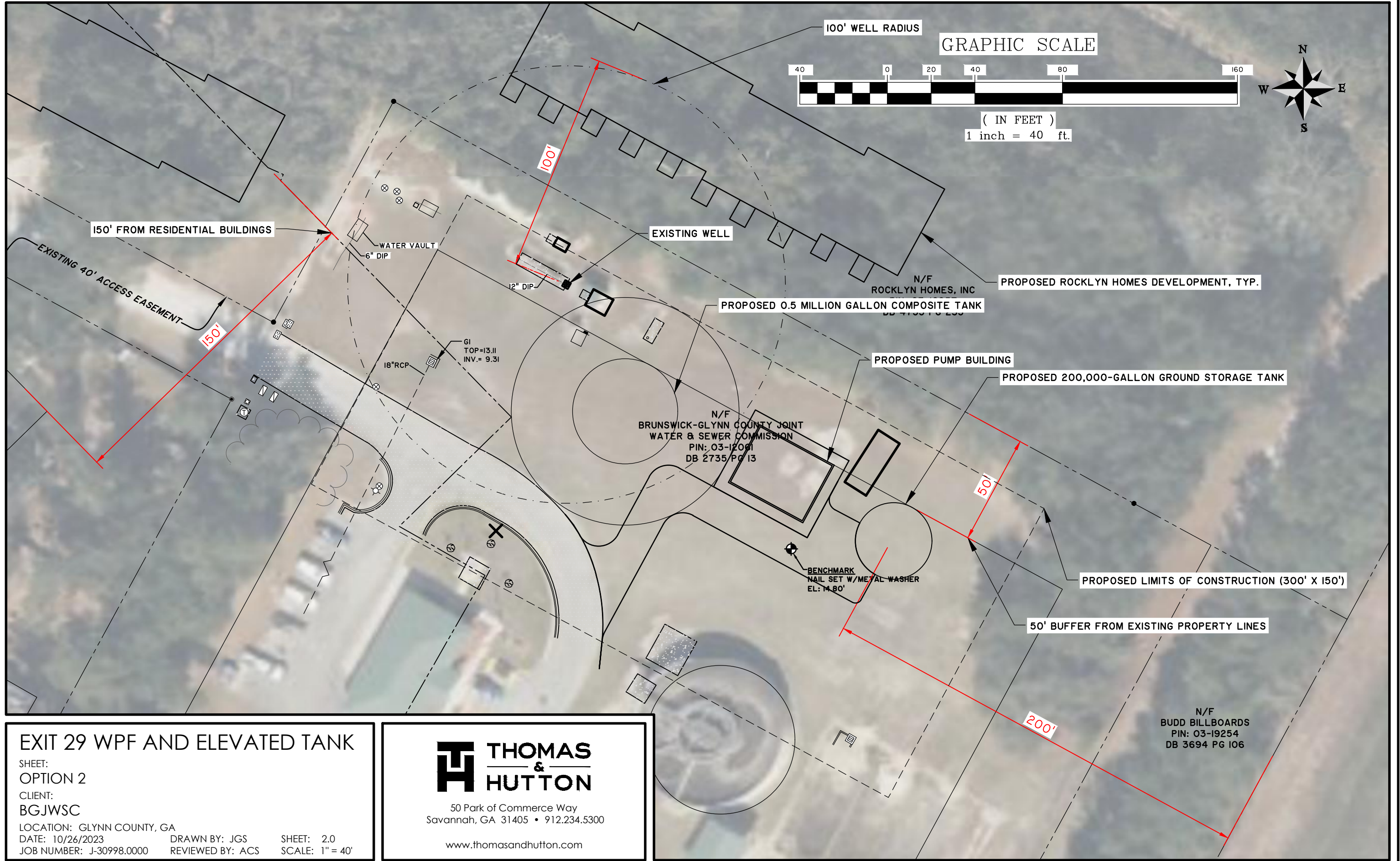
ATTACHMENT 1
LOCATION/PARCEL MAP
EXHIBIT OPTIONS 1-4



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EXIT 29 WPF AND ELEVATED TANK

SHEET:
OPTION 2
CLIENT:
BGJWSC

LOCATION: GLYNN COUNTY, GA
DATE: 10/26/2023
JOB NUMBER: J-30998.0000

DRAWN BY: JGS
REVIEWED BY: ACS

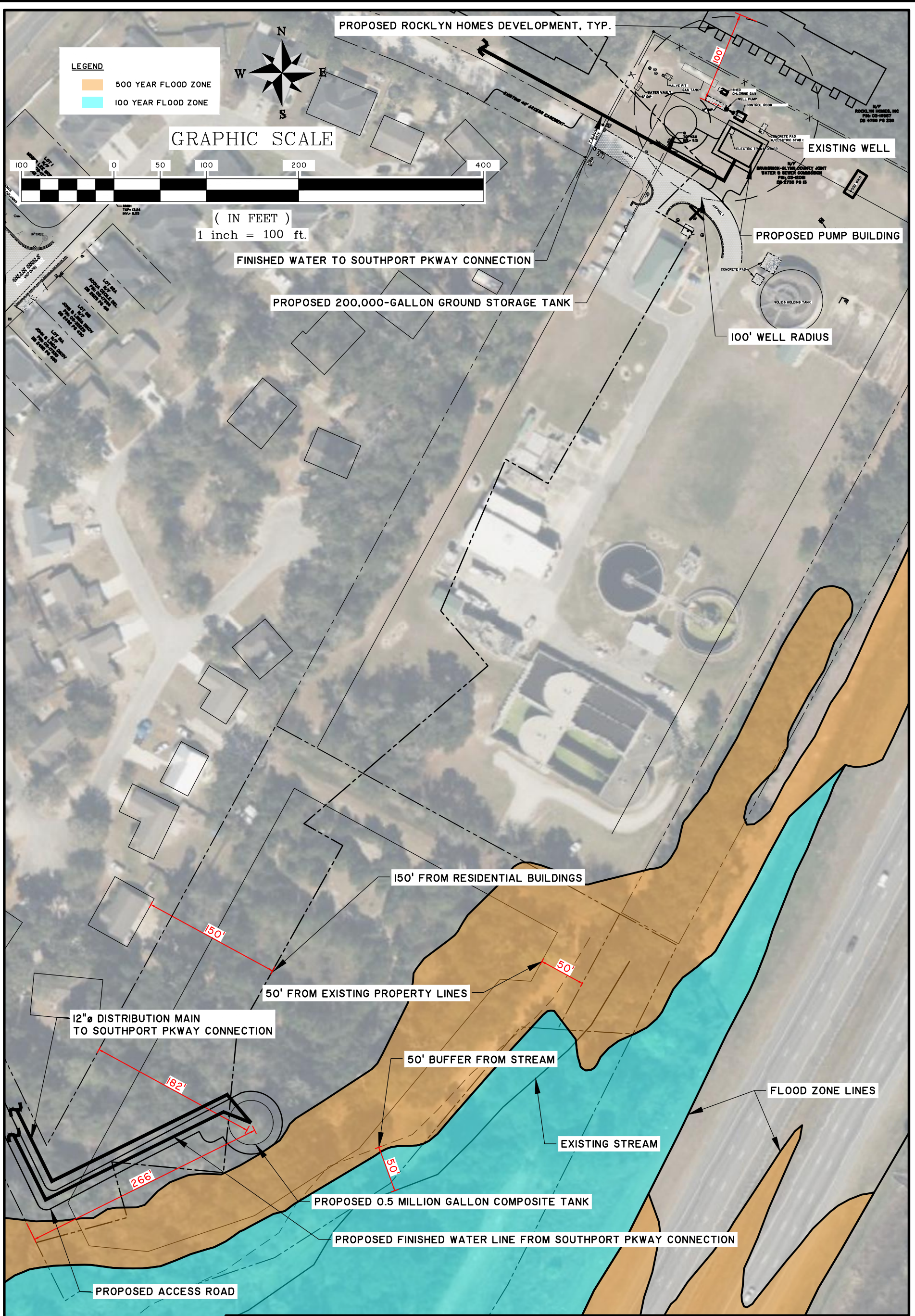
SHEET: 2.0
SCALE: 1" = 40'



50 Park of Commerce Way
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EXIT 29 WPF AND ELEVATED TANK

SHEET
OPTION 3

CLIENT:
BGJWSC

LOCATION: GLYNN COUNTY, GA

DATE: 10/26/2023

DRAWN BY: JGS

REVIEWED BY: ACS

SHEET: 3.0

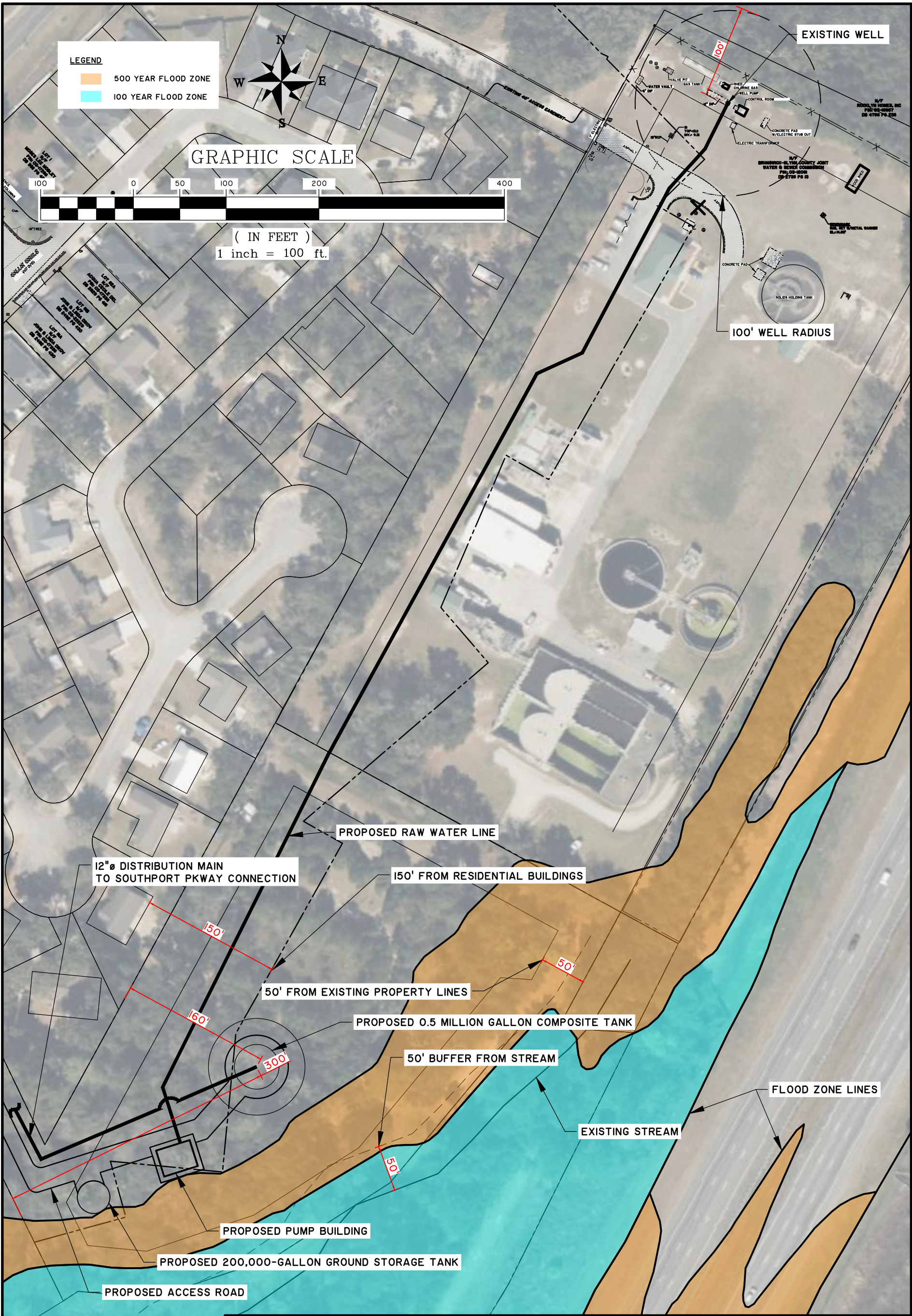
SCALE: 1" = 100'

 **THOMAS
&
HUTTON**

50 Park of Commerce Way
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EXIT 29 WPF AND ELEVATED TANK

SHEET
OPTION 4

CLIENT:
BGJWSC

LOCATION: GLYNN COUNTY, GA

DATE: 11/8/2023

JOB NUMBER: J-30998.0000

DRAWN BY: JGS

REVIEWED BY: ACS

SHEET: 4.0

SCALE: 1" = 100'



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ATTACHMENT 2

COST ESTIMATE



SPLOST Exit 29 WPF & Elevated Storage Tank – PER
BGJWSC



SPLOST Exit 29 WPF & Elevated Storage Tank – **Option 1**
BGJWSC
Thomas & Hutton
Preliminary Opinion of Probable Construction Cost

Job: J-30998.0000
Date: 10/27/23
Revised:
By: JGS

OPINION OF PROBABLE CONSTRUCTION COST

Any opinions of probable project cost or probable construction cost provided by the ENGINEER are made on the basis of information available to the ENGINEER and on the basis of the ENGINEER's experience and qualifications and represents its judgement as an experienced and qualified professional engineer. However, since the ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or contractor(s) methods of determining prices, or over competitive bidding or market conditions, the ENGINEER does not guarantee that proposals, bids, or actual project or construction cost will not vary from opinions of probable cost the ENGINEER prepares.

SECTION 1: CLEARING, EROSION CONTROL, SITE WORK					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 10,000.00	\$ 10,000.00
2	Site Clearing and Grubbing	1	LS	\$ 23,000.00	\$ 23,000.00
3	General Demolition	1	LS	\$ 130,000.00	\$ 130,000.00
4	Erosion Control	1	LS	\$ 32,000.00	\$ 32,000.00
5	Grassing	1	LS	\$ 6,500.00	\$ 6,500.00
6	Grading and Site Improvements - Complete	1	LS	\$ 330,000.00	\$ 330,000.00
7	Rip-Rap	1	LS	\$ 2,000.00	\$ 2,000.00
8	Paving	690	SY	\$ 120.00	\$ 82,800.00
9	Site Piping and Appurtenances	1	LS	\$ 300,000.00	\$ 300,000.00
10	Dewatering	1	LS	\$ 175,000.00	\$ 175,000.00
11	Stone Bedding*	200	CY	\$ 130.00	\$ 26,000.00
12	Sand Backfill*	200	CY	\$ 90.00	\$ 18,000.00
13	Unsuitable Material*	200	CY	\$ 52.00	\$ 10,400.00
14	Borrow*	200	CY	\$ 60.00	\$ 12,000.00
Sub-Total, CLEARING, EROSION CONTROL, SITE WORK					\$ 1,157,700.00
SECTION 2: WELL TREATMENT & PUMP/CONTROL BUILDING					
Item	Description	Quantity	Units	Unit Price	Total
15	Well Pipe Blasting and Painting Rehab	1	LS	\$ 13,500.00	\$ 13,500.00
16	Well Valve Removal and Replacements	1	LS	\$ 30,000.00	\$ 30,000.00
17	Well Inspection	1	LS	\$ 40,000.00	\$ 40,000.00
18	1,200 SF Well Treatment & Pump/Control Building Structure - Complete	1	LS	\$ 710,000.00	\$ 710,000.00
19	Chemical Feed Equipment - Complete	1	LS	\$ 130,000.00	\$ 130,000.00
20	Pumps and Piping - Complete	1	LS	\$ 600,000.00	\$ 600,000.00
21	Generator - Complete	1	LS	\$ 389,000.00	\$ 389,000.00
22	Building Electrical Work - Complete	1	LS	\$ 362,000.00	\$ 362,000.00
23	Building SCADA - Complete	1	LS	\$ 355,000.00	\$ 355,000.00
24	Mechanical - Complete	1	LS	\$ 42,000.00	\$ 42,000.00
Sub-Total, WELL TREATMENT & PUMP/CONTROL BUILDING					\$ 2,671,500.00
200,000 GALLON GROUND STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
25	200,000 Gallon Ground Storage Water Tank	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
26	Concrete Piling for Ground Storage Tank**	1	LS	\$ 360,000.00	\$ 360,000.00
27	Fiberglass Aerator	1	LS	\$ 100,000.00	\$ 100,000.00
28	Tank Electrical Work - Complete	1	LS	\$ 75,000.00	\$ 75,000.00
Sub-Total, 200,000 GALLON GROUND STORAGE TANK					\$ 1,535,000.00
500,000 GALLON ELEVATED STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
29	500,000 Gallon Elevated Water Tank - Complete	1	LS	\$ 4,000,000.00	\$ 4,000,000.00
30	Coating System for Elevated Tank - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
31	Tank Piping and Appurtenances	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
32	Tank Electrical Work - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
Sub-Total, 500,000 GALLON ELEVATED STORAGE TANK					\$ 5,600,000.00
20% CONTINGENCY					\$ 2,192,840.00
OPTION 1 OVERALL TOTAL:					\$ 13,157,040.00

*These items are of an indeterminate quantity and are presented only to establish a unit price. These items may or may not be utilized in the construction of the project. No payment will be made for these items without written authorization from Owner of Engineer

**This item is only required upon geotechnical engineer determination. The price is listed based upon other similar local projects.



SPLOST Exit 29 WPF & Elevated Storage Tank – **Option 2**
BGJWSC
Thomas & Hutton
Preliminary Opinion of Probable Construction Cost

Job: J-30998.0000
Date: 10/27/23
Revised:
By: JGS

OPINION OF PROBABLE CONSTRUCTION COST

Any opinions of probable project cost or probable construction cost provided by the ENGINEER are made on the basis of information available to the ENGINEER and on the basis of the ENGINEER's experience and qualifications and represents its judgement as an experienced and qualified professional engineer. However, since the ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or contractor(s) methods of determining prices, or over competitive bidding or market conditions, the ENGINEER does not guarantee that proposals, bids, or actual project or construction cost will not vary from opinions of probable cost the ENGINEER prepares.

SECTION 1: CLEARING, EROSION CONTROL, SITE WORK					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 10,000.00	\$ 10,000.00
2	Site Clearing and Grubbing	1	LS	\$ 23,000.00	\$ 23,000.00
3	General Demolition	1	LS	\$ 130,000.00	\$ 130,000.00
4	Erosion Control	1	LS	\$ 32,000.00	\$ 32,000.00
5	Grassing	1	LS	\$ 6,500.00	\$ 6,500.00
6	Grading and Site Improvements - Complete	1	LS	\$ 330,000.00	\$ 330,000.00
7	Rip-Rap	1	LS	\$ 2,000.00	\$ 2,000.00
8	Paving	690	SY	\$ 120.00	\$ 82,800.00
9	Site Piping and Appurtenances	1	LS	\$ 300,000.00	\$ 300,000.00
10	Dewatering	1	LS	\$ 175,000.00	\$ 175,000.00
11	Stone Bedding*	200	CY	\$ 130.00	\$ 26,000.00
12	Sand Backfill*	200	CY	\$ 90.00	\$ 18,000.00
13	Unsuitable Material*	200	CY	\$ 52.00	\$ 10,400.00
14	Borrow*	200	CY	\$ 60.00	\$ 12,000.00
Sub-Total, CLEARING, EROSION CONTROL, SITE WORK					\$ 1,157,700.00
SECTION 2: WELL TREATMENT & PUMP/CONTROL BUILDING					
Item	Description	Quantity	Units	Unit Price	Total
15	Well Pipe Blasting and Painting Rehab	1	LS	\$ 13,500.00	\$ 13,500.00
16	Well Valve Removal and Replacements	1	LS	\$ 30,000.00	\$ 30,000.00
17	Well Inspection	1	LS	\$ 40,000.00	\$ 40,000.00
18	1,200 SF Well Treatment & Pump/Control Building Structure - Complete	1	LS	\$ 710,000.00	\$ 710,000.00
19	Chemical Feed Equipment - Complete	1	LS	\$ 130,000.00	\$ 130,000.00
20	Pumps and Piping - Complete	1	LS	\$ 600,000.00	\$ 600,000.00
21	Generator - Complete	1	LS	\$ 389,000.00	\$ 389,000.00
22	Building Electrical Work - Complete	1	LS	\$ 362,000.00	\$ 362,000.00
23	Building SCADA - Complete	1	LS	\$ 355,000.00	\$ 355,000.00
24	Mechanical - Complete	1	LS	\$ 42,000.00	\$ 42,000.00
Sub-Total, WELL TREATMENT & PUMP/CONTROL BUILDING					\$ 2,671,500.00
200,000 GALLON GROUND STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
25	200,000 Gallon Ground Storage Water Tank	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
26	Concrete Piling for Ground Storage Tank**	1	LS	\$ 360,000.00	\$ 360,000.00
27	Fiberglass Aerator	1	LS	\$ 100,000.00	\$ 100,000.00
28	Tank Electrical Work - Complete	1	LS	\$ 75,000.00	\$ 75,000.00
Sub-Total, 200,000 GALLON GROUND STORAGE TANK					\$ 1,535,000.00
500,000 GALLON ELEVATED STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
29	500,000 Gallon Elevated Water Tank - Complete	1	LS	\$ 4,000,000.00	\$ 4,000,000.00
30	Coating System for Elevated Tank - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
31	Tank Piping and Appurtenances	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
32	Tank Electrical Work - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
Sub-Total, 500,000 GALLON ELEVATED STORAGE TANK					\$ 5,600,000.00
20% CONTINGENCY					\$ 2,192,840.00
OPTION 2 OVERALL TOTAL:					\$ 13,157,040.00

*These items are of an indeterminate quantity and are presented only to establish a unit price. These items may or may not be utilized in the construction of the project. No payment will be made for these items without written authorization from Owner of Engineer

**This item is only required upon geotechnical engineer determination. The price is listed based upon other similar local projects.



SPLOST Exit 29 WPF & Elevated Storage Tank – **Option 3**
BGJWSC
Thomas & Hutton
Preliminary Opinion of Probable Construction Cost

Job: J-30998.0000
Date: 10/27/23
Revised:
By: JGS

OPINION OF PROBABLE CONSTRUCTION COST

Any opinions of probable project cost or probable construction cost provided by the ENGINEER are made on the basis of information available to the ENGINEER and on the basis of the ENGINEER's experience and qualifications and represents its judgement as an experienced and qualified professional engineer. However, since the ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or contractor(s) methods of determining prices, or over competitive bidding or market conditions, the ENGINEER does not guarantee that proposals, bids, or actual project or construction cost will not vary from opinions of probable cost the ENGINEER prepares.

SECTION 1: CLEARING, EROSION CONTROL, SITE WORK					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 50,000.00	\$ 50,000.00
2	Site Clearing and Grubbing	1	LS	\$ 75,000.00	\$ 75,000.00
3	General Demolition	1	LS	\$ 130,000.00	\$ 130,000.00
4	Erosion Control	1	LS	\$ 75,000.00	\$ 75,000.00
5	Grassing	1	LS	\$ 50,000.00	\$ 50,000.00
6	Grading and Site Improvements - Complete	1	LS	\$ 400,000.00	\$ 400,000.00
7	Rip-Rap	1	LS	\$ 8,000.00	\$ 8,000.00
8	Paving	222	SY	\$ 120.00	\$ 26,640.00
9	6" Gravel Access Road	2,300	SY	\$ 45.00	\$ 103,500.00
10	Site Piping and Appurtenances	1	LS	\$ 300,000.00	\$ 300,000.00
11	Fencing and Gates	1	LS	\$ 100,000.00	\$ 100,000.00
12	Dewatering	1	LS	\$ 175,000.00	\$ 175,000.00
13	Stone Bedding*	200	CY	\$ 130.00	\$ 26,000.00
14	Sand Backfill*	200	CY	\$ 90.00	\$ 18,000.00
15	Unsuitable Material*	200	CY	\$ 52.00	\$ 10,400.00
16	Borrow*	200	CY	\$ 60.00	\$ 12,000.00
17	Finished Water Extension	2,400	LF	\$ 250.00	\$ 600,000.00
Sub-Total, CLEARING, EROSION CONTROL, SITE WORK					\$ 2,159,540.00
SECTION 2: WELL TREATMENT & PUMP/CONTROL BUILDING					
Item	Description	Quantity	Units	Unit Price	Total
18	Well Pipe Blasting and Painting Rehab	1	LS	\$ 13,500.00	\$ 13,500.00
19	Well Valve Removal and Replacements	1	LS	\$ 30,000.00	\$ 30,000.00
20	Well Inspection	1	LS	\$ 40,000.00	\$ 40,000.00
21	1,200 SF Well Treatment & Pump/Control Building Structure - Complete	1	LS	\$ 710,000.00	\$ 710,000.00
22	Chemical Feed Equipment - Complete	1	LS	\$ 130,000.00	\$ 130,000.00
23	Pumps and Piping - Complete	1	LS	\$ 600,000.00	\$ 600,000.00
24	Generator - Complete	1	LS	\$ 389,000.00	\$ 389,000.00
25	Building Electrical Work - Complete	1	LS	\$ 362,000.00	\$ 362,000.00
26	Building SCADA - Complete	1	LS	\$ 355,000.00	\$ 355,000.00
27	Mechanical - Complete	1	LS	\$ 42,000.00	\$ 42,000.00
Sub-Total, WELL TREATMENT & PUMP/CONTROL BUILDING					\$ 2,671,500.00
200,000 GALLON GROUND STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
28	200,000 Gallon Ground Storage Water Tank	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
29	Concrete Piling for Ground Storage Tank**	1	LS	\$ 360,000.00	\$ 360,000.00
30	Fiberglass Aerator	1	LS	\$ 100,000.00	\$ 100,000.00
31	Tank Electrical Work - Complete	1	LS	\$ 75,000.00	\$ 75,000.00
Sub-Total, 200,000 GALLON GROUND STORAGE TANK					\$ 1,535,000.00
500,000 GALLON ELEVATED STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
32	500,000 Gallon Elevated Water Tank - Complete	1	LS	\$ 4,200,000.00	\$ 4,200,000.00
33	Coating System for Elevated Tank - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
34	Tank Piping and Appurtenances	1	LS	\$ 700,000.00	\$ 700,000.00
35	Tank Electrical Work - Complete	1	LS	\$ 200,000.00	\$ 200,000.00
Sub-Total, 500,000 GALLON ELEVATED STORAGE TANK					\$ 5,400,000.00
20% CONTINGENCY					\$ 2,353,208.00
OPTION 3 OVERALL TOTAL:					\$ 14,119,248.00

*These items are of an indeterminate quantity and are presented only to establish a unit price. These items may or may not be utilized in the construction of the project. No payment will be made for these items without written authorization from Owner of Engineer

**This item is only required upon geotechnical engineer determination. The price is listed based upon other similar local projects.



SPLOST Exit 29 WPF & Elevated Storage Tank – **Option 4**
BGJWSC
Thomas & Hutton
Preliminary Opinion of Probable Construction Cost

Job: J-30998.0000
Date: 10/27/23
Revised:
By: JGS

OPINION OF PROBABLE CONSTRUCTION COST

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SECTION 1: CLEARING, EROSION CONTROL, SITE WORK					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 50,000.00	\$ 50,000.00
2	Site Clearing and Grubbing	1	LS	\$ 75,000.00	\$ 75,000.00
3	General Demolition	1	LS	\$ 130,000.00	\$ 130,000.00
4	Erosion Control	1	LS	\$ 75,000.00	\$ 75,000.00
5	Grassing	1	LS	\$ 50,000.00	\$ 50,000.00
6	Grading and Site Improvements - Complete	1	LS	\$ 400,000.00	\$ 400,000.00
7	Rip-Rap	1	LS	\$ 8,000.00	\$ 8,000.00
8	6" Gravel Access Road	2,860	SY	\$ 45.00	\$ 128,700.00
9	Site Piping and Appurtenances	1	LS	\$ 300,000.00	\$ 300,000.00
10	Fencing and Gates	1	LS	\$ 200,000.00	\$ 200,000.00
11	Dewatering	1	LS	\$ 30,000.00	\$ 30,000.00
12	Stone Bedding*	200	CY	\$ 130.00	\$ 26,000.00
13	Sand Backfill*	200	CY	\$ 90.00	\$ 18,000.00
14	Unsuitable Material*	200	CY	\$ 52.00	\$ 10,400.00
15	Borrow*	200	CY	\$ 60.00	\$ 12,000.00
16	Raw Water Extension	1,200	LF	\$ 200.00	\$ 240,000.00
17	Finished Water Extension	1,200	LF	\$ 250.00	\$ 300,000.00
Sub-Total, CLEARING, EROSION CONTROL, SITE WORK					\$ 2,053,100.00
SECTION 2: WELL TREATMENT & PUMP/CONTROL BUILDING					
Item	Description	Quantity	Units	Unit Price	Total
18	Well Pipe Blasting and Painting Rehab	1	LS	\$ 13,500.00	\$ 13,500.00
19	Well Valve Removal and Replacements	1	LS	\$ 30,000.00	\$ 30,000.00
20	Well Inspection	1	LS	\$ 40,000.00	\$ 40,000.00
21	1,200 SF Well Treatment & Pump/Control Building Structure - Complete	1	LS	\$ 710,000.00	\$ 710,000.00
22	Chemical Feed Equipment - Complete	1	LS	\$ 130,000.00	\$ 130,000.00
23	Pumps and Piping - Complete	1	LS	\$ 600,000.00	\$ 600,000.00
24	Generator - Complete	1	LS	\$ 389,000.00	\$ 389,000.00
25	Building Electrical Work - Complete	1	LS	\$ 362,000.00	\$ 362,000.00
26	Building SCADA - Complete	1	LS	\$ 355,000.00	\$ 355,000.00
27	Mechanical - Complete	1	LS	\$ 42,000.00	\$ 42,000.00
Sub-Total, WELL TREATMENT & PUMP/CONTROL BUILDING					\$ 2,671,500.00
200,000 GALLON GROUND STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
28	200,000 Gallon Ground Storage Water Tank	1	LS	\$ 1,000,000.00	\$ 1,000,000.00
29	Concrete Piling for Ground Storage Tank**	1	LS	\$ 360,000.00	\$ 360,000.00
30	Fiberglass Aerator	1	LS	\$ 100,000.00	\$ 100,000.00
31	Tank Electrical Work - Complete	1	LS	\$ 75,000.00	\$ 75,000.00
Sub-Total, 200,000 GALLON GROUND STORAGE TANK					\$ 1,535,000.00
500,000 GALLON ELEVATED STORAGE TANK					
Item	Description	Quantity	Units	Unit Price	Total
32	500,000 Gallon Elevated Water Tank - Complete	1	LS	\$ 4,200,000.00	\$ 4,200,000.00
33	Coating System for Elevated Tank - Complete	1	LS	\$ 300,000.00	\$ 300,000.00
34	Tank Piping and Appurtenances	1	LS	\$ 700,000.00	\$ 700,000.00
35	Tank Electrical Work - Complete	1	LS	\$ 200,000.00	\$ 200,000.00
Sub-Total, 500,000 GALLON ELEVATED STORAGE TANK					\$ 5,400,000.00
20% CONTINGENCY					\$ 2,331,920.00
OPTION 4 OVERALL TOTAL:					\$ 13,991,520.00

*These items are of an indeterminate quantity and are presented only to establish a unit price. These items may or may not be utilized in the construction of the project. No payment will be made for these items without written authorization from Owner of Engineer

**This item is only required upon geotechnical engineer determination. The price is listed based upon other similar local projects.



SPLOST Exit 29 WPF & Elevated Storage Tank – **Water Loops**
BGJWSC
Thomas & Hutton
Preliminary Opinion of Probable Construction Cost

Job: J-30998.0000
Date: 10/27/23
Revised:
By: JGS

OPINION OF PROBABLE CONSTRUCTION COST

Any opinions of probable project cost or probable construction cost provided by the ENGINEER are made on the basis of information available to the ENGINEER and on the basis of the ENGINEER's experience and qualifications and represents its judgement as an experienced and qualified professional engineer. However, since the ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or contractor(s) methods of determining prices, or over competitive bidding or market conditions, the ENGINEER does not guarantee that proposals, bids, or actual project or construction cost will not vary from opinions of probable cost the ENGINEER prepares.

Bartram Trail/Cinder Hill Drive Connection					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 5,000.00	\$ 5,000.00
2	Erosion Control	1	LS	\$ 5,000.00	\$ 5,000.00
3	Proposed Watermain via HDD	200	LF	\$ 400.00	\$ 80,000.00
4	Valves	2	EA	\$ 15,000.00	\$ 30,000.00
5	Site Restoration	1	LS	\$ 5,000.00	\$ 5,000.00
Sub-Total					\$ 125,000.00
20% CONTINGENCY					\$ 25,000.00
BARTRAM TRAIL/CINDER HILL DRIVE CONNECTION OVERALL TOTAL:					\$ 150,000.00
Callie Circle/Southport Parkway Connection					
Item	Description	Quantity	Units	Unit Price	Total
1	Traffic Control	1	LS	\$ 10,000.00	\$ 10,000.00
2	Erosion Control	1	LS	\$ 10,000.00	\$ 10,000.00
3	Proposed Watermain via Open Cut	200	LF	\$ 120.00	\$ 24,000.00
4	Valves	2	EA	\$ 15,000.00	\$ 30,000.00
5	Site Restoration	1	LS	\$ 10,000.00	\$ 10,000.00
6	Paving	200	SY	\$ 80.00	\$ 16,000.00
Sub-Total					\$ 100,000.00
20% CONTINGENCY					\$ 20,000.00
CALLIE CIRCLE/SOUTHPORT PARKWAY CONNECTION TOTAL:					\$ 120,000.00

ATTACHMENT 3

CROM TANK –

CAPACITIES AND DIMENSIONS FOR CIRCULAR TANKS

CAPACITIES AND DIMENSIONS FOR CIRCULAR TANKS

[illegible]

ATTACHMENT 4

FEMA PANEL NO. 13127C0214H



SPLOST Exit 29 WPF & Elevated Storage Tank – PER
BGJWSC

National Flood Hazard Layer FIRMette



81°35'12"W 31°7'57"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/26/2023 at 8:24 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

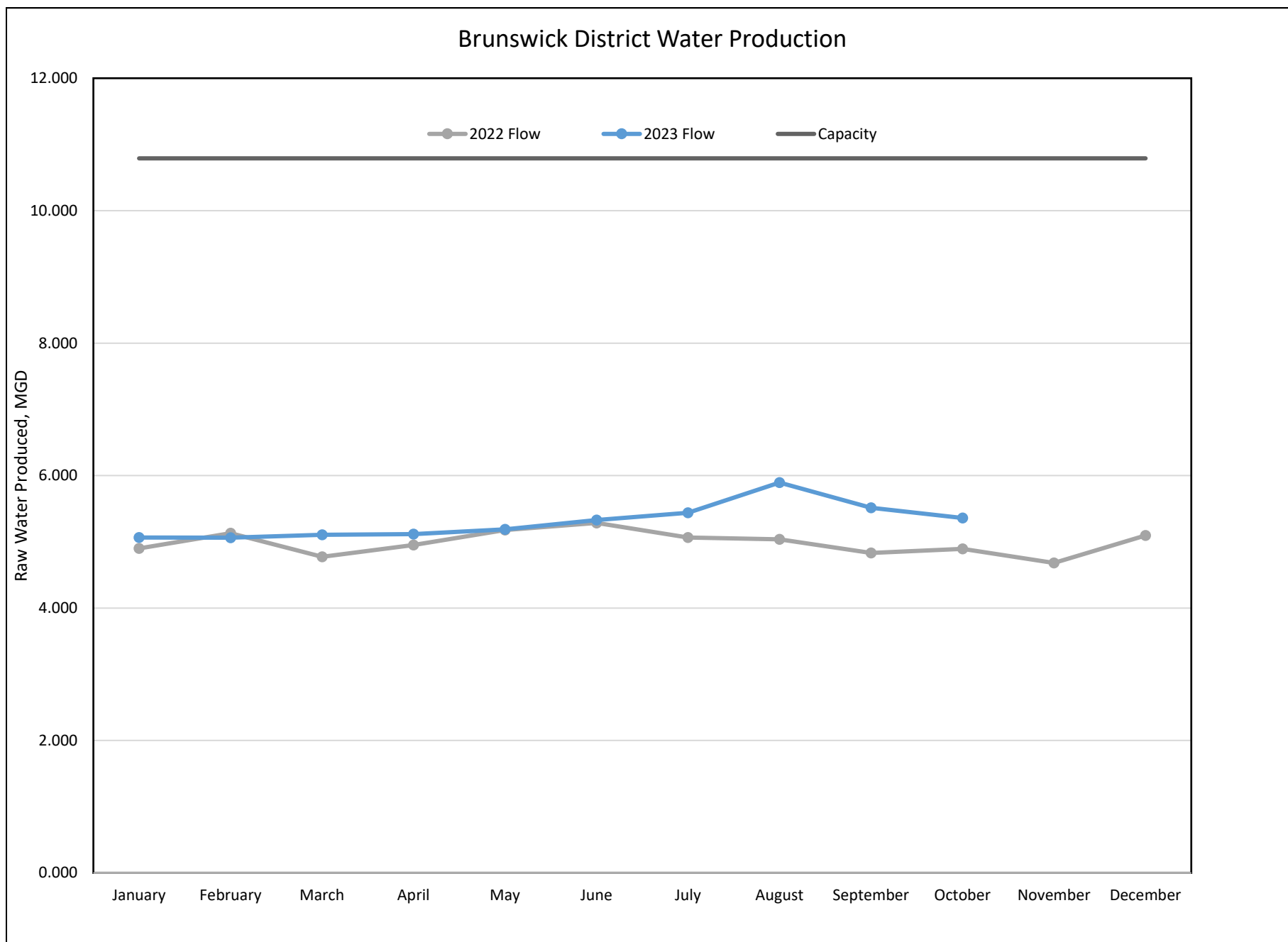
0 250 500 1,000 1,500 2,000 Feet

1:6,000

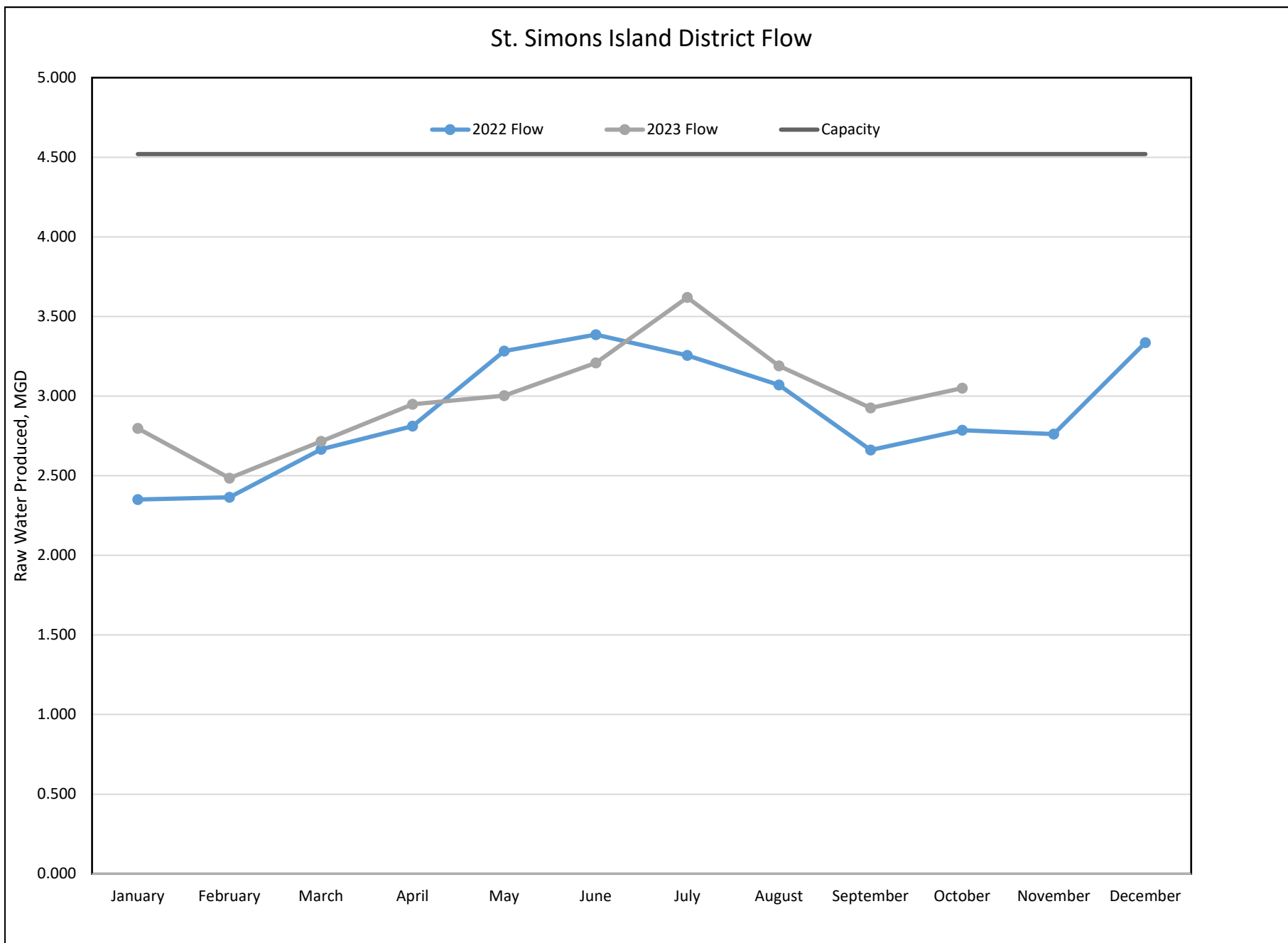
81°34'34"W 31°7'27"N

Basemap Imagery Source: USGS National Map 2023

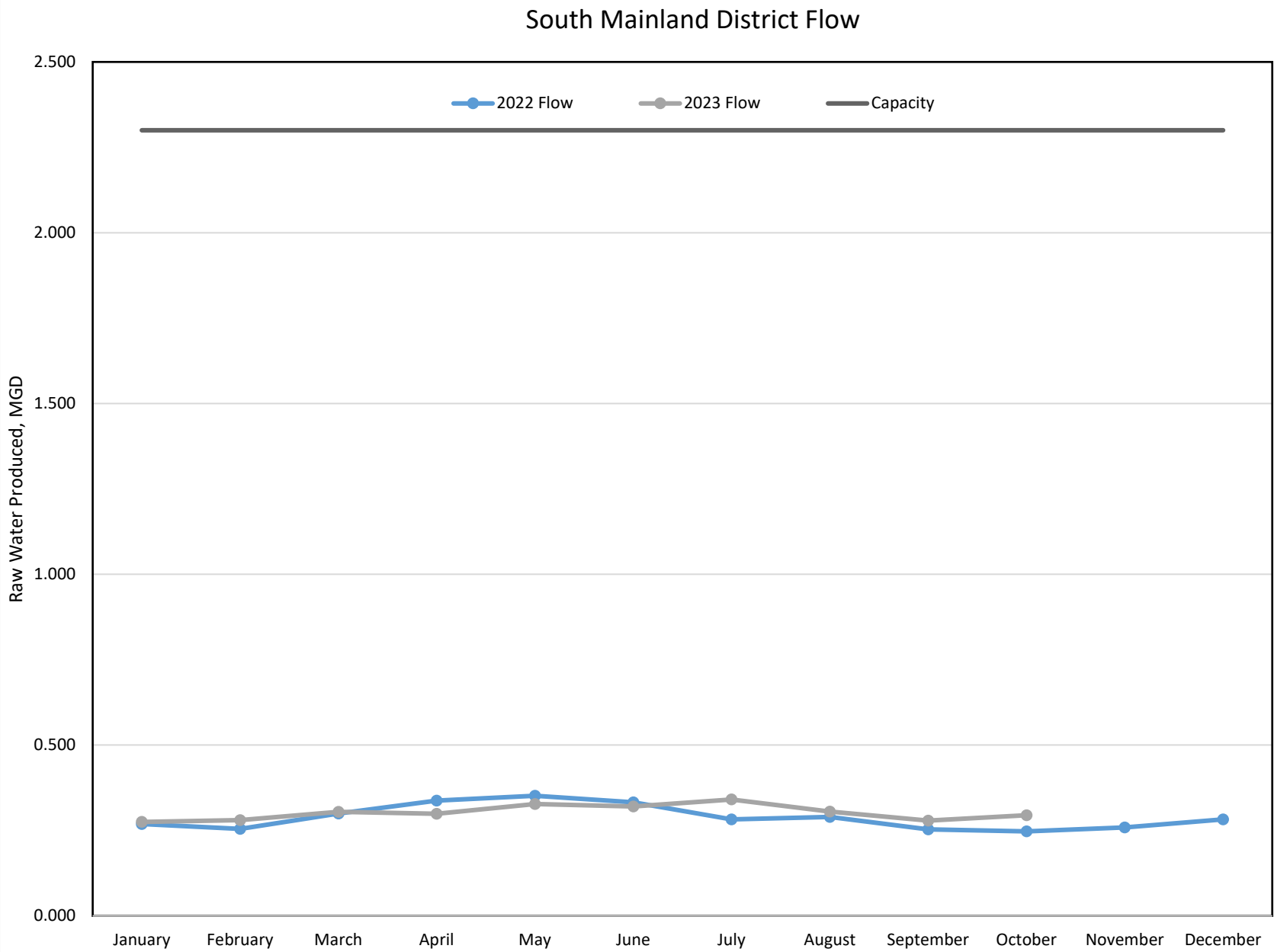
Brunswick District	TOTAL WATER PRODUCED (MG)									DAILY AVERAGE (MGD)									Total Produced	Daily Average	Taste/Odor Complaints
	Month	Howard Coffin	Goodyear Park	Brunswick Villa	FLETC	I-95	Golden Isles I	Golden Isles II	Canal	Ridgewood	Howard Coffin	Goodyear Park	Brunswick Villa	FLETC	I-95	Golden Isles I	Golden Isles II	Canal			
January 2022	26.666	18.938	26.839	5.987	36.428	5.105	9.155	0.010	22.740	0.860	0.611	0.866	0.193	1.175	0.165	0.295	0.000	0.734	151.868	4.899	
February 2022	27.876	20.840	20.738	7.133	32.000	7.512	13.585	0.005	13.918	0.996	0.744	0.741	0.255	1.143	0.268	0.485	0.000	0.497	143.607	5.129	
March 2022	23.605	17.843	24.557	6.760	34.791	8.264	12.521	0.010	19.646	0.761	0.576	0.792	0.218	1.122	0.267	0.404	0.000	0.634	147.997	4.774	
April 2022	35.604	8.423	21.713	6.697	33.938	7.124	13.629	0.010	21.420	1.187	0.281	0.724	0.223	1.131	0.237	0.454	0.000	0.714	148.558	4.952	
May 2022	42.308	2.447	25.379	9.374	35.227	9.778	15.746	0.005	20.224	1.365	0.079	0.819	0.302	1.136	0.315	0.508	0.000	0.652	160.488	5.177	
June 2022	43.234	4.125	21.022	4.012	38.636	10.706	15.186	0.005	21.623	1.441	0.138	0.701	0.134	1.288	0.357	0.506	0.000	0.721	158.549	5.285	1
July 2022	44.313	0.018	20.876	3.620	40.568	10.790	15.091	0.006	21.719	1.429	0.001	0.673	0.117	1.309	0.348	0.487	0.000	0.701	157.001	5.065	2
August 2022	36.429	7.003	22.185	2.757	40.867	9.643	13.911	0.005	23.404	1.175	0.226	0.716	0.089	1.318	0.311	0.449	0.000	0.755	156.204	5.039	3
September 2022	8.771	21.825	29.960	1.542	39.484	9.771	14.045	0.010	19.587	0.292	0.728	0.999	0.051	1.316	0.326	0.468	0.000	0.653	144.995	4.833	2
October 2022	5.849	16.038	42.688	2.022	38.169	10.498	15.011	0.005	21.412	0.189	0.517	1.377	0.065	1.231	0.339	0.484	0.000	0.691	151.692	4.893	3
November 2022	2.721	26.755	28.652	2.735	33.414	9.290	11.301	0.000	25.557	0.091	0.892	0.955	0.091	1.114	0.310	0.377	0.000	0.852	140.425	4.681	0
December 2022	20.629	22.135	30.754	2.071	33.594	9.660	15.998	0.105	23.021	0.665	0.714	0.992	0.067	1.084	0.312	0.516	0.003	0.743	157.967	5.096	1
January 2023	11.492	25.238	39.457	0.392	29.264	12.994	18.202	0.005	19.971	0.371	0.814	1.273	0.013	0.944	0.419	0.587	0.000	0.644	157.015	5.065	0
February 2023	12.938	27.363	26.109	0.000	30.811	9.423	15.644	0.005	19.451	0.462	0.977	0.932	0.000	1.100	0.337	0.559	0.000	0.695	141.744	5.062	1
March 2023	12.617	32.261	24.216	2.216	34.170	13.158	18.025	0.005	21.602	0.407	1.041	0.781	0.071	1.102	0.424	0.581	0.000	0.697	158.270	5.105	1
April 2023	13.076	26.855	25.886	3.550	33.938	11.660	16.787	0.005	21.689	0.436	0.895	0.863	0.118	1.131	0.389	0.560	0.000	0.723	153.446	5.115	2
May 2023	21.042	25.245	20.300	4.935	35.650	13.055	18.202	0.005	22.446	0.679	0.814	0.655	0.159	1.150	0.421	0.587	0.000	0.724	160.880	5.190	3
June 2023	14.251	27.441	24.273	7.151	36.682	10.000	14.603	0.005	25.498	0.475	0.915	0.809	0.238	1.223	0.333	0.487	0.000	0.850	159.904	5.330	0
July 2023	27.680	32.154	11.173	8.910	37.902	10.596	16.385	0.005	23.760	0.893	1.037	0.360	0.287	1.223	0.342	0.529	0.000	0.766	168.565	5.438	1
August 2023	27.962	29.920	24.009	8.358	36.989	13.259	17.443	0.005	24.775	0.902	0.965	0.774	0.270	1.193	0.428	0.563	0.000	0.799	182.720	5.894	0
September 2023	23.939	24.545	26.524	2.337	37.731	13.858	15.356	0.005	21.095	0.798	0.818	0.884	0.078	1.258	0.462	0.512	0.000	0.703	165.390	5.513	2
October 2023	27.412	22.647	23.544	3.088	36.827	13.095	19.710	0.005	19.768	0.884	0.731	0.759	0.100	1.188	0.422	0.636	0.000	0.638	166.096	5.358	0
November 2023																					
December 2023																					
Average	27.680	20.003	25.493	4.348	35.776	10.420	15.252	0.010	21.560	0.762	0.660	0.838	0.143	1.176	0.342	0.502	0.000	0.708	156.063	5.131	1
Max	44.313	32.261	42.688	9.374	40.867	13.858	19.710	0.105	25.557	1.441	1.041	1.377	0.302	1.318	0.462	0.636	0.003	0.852	182.720	5.894	3
Min	2.721	0.018	11.173	0.000	29.264	5.105	9.155	0.000	13.918	0.091	0.001	0.360	0.000	0.944	0.165	0.295	0.000	0.497	140.425	4.681	0



St. Simons Island District	TOTAL WATER PRODUCED (MG)				DAILY AVERAGE (MGD)				Total Produced	Daily Average	Taste/Odor Complaints
Month	Mallery	Airport	Harrington	Hampton South	Mallery	Airport	Harrington	Hampton South			
January 2022	26.108	28.950	10.592	7.219	0.842	0.934	0.342	0.233	72.869	2.351	
February 2022	31.226	17.923	11.261	5.780	1.115	0.640	0.402	0.206	66.190	2.364	
March 2022	36.673	26.321	11.218	8.419	1.183	0.849	0.362	0.272	82.631	2.666	
April 2022	32.193	27.860	16.504	7.779	1.073	0.929	0.550	0.259	84.336	2.811	
May 2022	40.346	28.566	20.997	11.864	1.301	0.921	0.677	0.383	101.773	3.283	
June 2022	43.067	28.522	21.631	8.367	1.436	0.951	0.721	0.279	101.587	3.386	1
July 2022	38.259	32.075	22.279	8.297	1.234	1.035	0.719	0.268	100.910	3.255	0
August 2022	34.063	31.033	21.086	8.976	1.099	1.001	0.680	0.290	95.158	3.070	2
September 2022	28.520	28.832	17.540	4.959	0.951	0.961	0.585	0.165	79.851	2.662	1
October 2022	41.948	26.802	12.997	4.593	1.353	0.865	0.419	0.148	86.340	2.785	5
November 2022	41.401	27.036	12.560	1.857	1.380	0.901	0.419	0.062	82.854	2.762	0
December 2022	38.956	26.929	26.517	10.985	1.257	0.869	0.855	0.354	103.387	3.335	3
January 2023	24.972	27.550	27.259	6.915	0.806	0.889	0.879	0.223	86.696	2.797	1
February 2023	20.030	22.930	21.717	4.905	0.715	0.819	0.776	0.175	69.582	2.485	0
March 2023	34.455	20.693	22.886	6.155	1.111	0.668	0.738	0.199	84.189	2.716	2
April 2023	26.169	26.692	22.882	12.715	0.872	0.890	0.763	0.424	88.458	2.949	0
May 2023	29.422	26.096	25.571	11.978	0.949	0.842	0.825	0.386	93.067	3.002	2
June 2023	34.864	25.494	25.145	10.747	1.162	0.850	0.838	0.358	96.250	3.208	1
July 2023	37.245	44.361	30.002	0.589	1.201	1.431	0.968	0.019	112.197	3.619	0
August 2023	39.127	23.427	22.195	14.140	1.262	0.756	0.716	0.456	98.889	3.190	1
September 2023	31.783	25.414	19.612	10.965	1.059	0.847	0.654	0.366	87.774	2.926	1
October 2023	39.380	26.363	17.335	11.485	1.270	0.850	0.559	0.370	94.563	3.050	0
November 2023											
December 2023											
Average	34.100	27.267	19.990	8.168	1.120	0.895	0.657	0.268	89.525	2.940	1
Max	43.067	44.361	30.002	14.140	1.436	1.431	0.968	0.456	112.197	3.619	5
Min	20.030	17.923	10.592	0.589	0.715	0.640	0.342	0.019	66.190	2.351	0

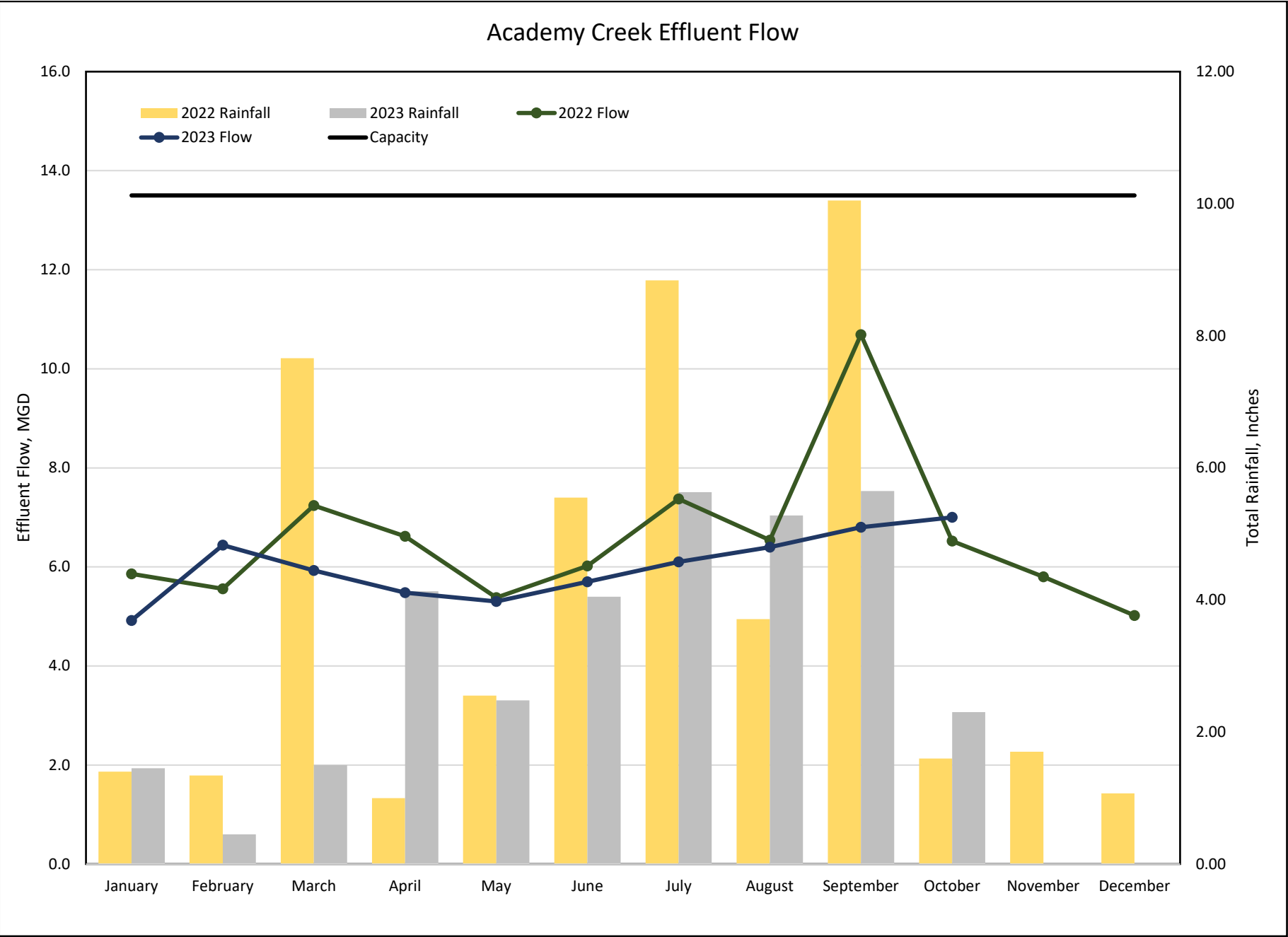


South Mainland District	TOTAL WATER PRODUCED (MG)			DAILY AVERAGE (MGD)			Total Produced	Daily Average	Taste/Odor Complaints
Month	Fancy Bluff	Exit 29	Brookman	Fancy Bluff	Exit 29	Brookman			
January 2022	2.937	0.003	5.387	0.095	0.000	0.174	8.327	0.269	
February 2022	3.895	0.010	3.226	0.139	0.000	0.115	7.131	0.255	
March 2022	4.616	0.000	4.673	0.149	0.000	0.151	9.289	0.300	
April 2022	5.022	0.005	5.102	0.167	0.000	0.170	10.129	0.338	
May 2022	5.262	0.002	5.638	0.170	0.000	0.182	10.902	0.352	
June 2022	4.824	0.005	5.136	0.161	0.000	0.171	9.965	0.332	0
July 2022	4.807	0.005	3.943	0.155	0.000	0.127	8.755	0.282	0
August 2022	4.527	0.000	4.454	0.146	0.000	0.144	8.981	0.290	0
September 2022	3.001	0.010	4.585	0.100	0.000	0.153	7.596	0.253	0
October 2022	1.537	0.005	6.129	0.050	0.000	0.198	7.671	0.247	1
November 2022	3.470	0.000	4.289	0.116	0.000	0.143	7.759	0.259	0
December 2022	4.416	0.000	4.341	0.142	0.000	0.140	8.757	0.282	0
January 2023	4.677	0.005	3.844	0.151	0.000	0.124	8.526	0.275	0
February 2023	4.108	0.005	3.746	0.147	0.000	0.134	7.859	0.281	0
March 2023	4.733	0.015	4.701	0.153	0.000	0.152	9.449	0.305	0
April 2023	4.762	0.005	4.204	0.159	0.000	0.140	8.971	0.299	0
May 2023	5.735	0.005	4.413	0.185	0.000	0.142	10.153	0.328	0
June 2023	4.313	0.005	5.291	0.144	0.000	0.176	9.609	0.320	0
July 2023	5.461	0.005	5.097	0.176	0.000	0.164	10.563	0.341	0
August 2023	4.710	0.005	4.748	0.152	0.000	0.153	9.463	0.305	0
September 2023	4.486	0.005	3.881	0.150	0.000	0.129	8.372	0.279	0
October 2023	3.049	0.005	6.087	0.098	0.000	0.196	9.141	0.295	0
November 2023									
December 2023									
Average	4.289	0.005	4.678	0.141	0.000	0.154	8.971	0.295	0
Max	5.735	0.015	6.129	0.185	0.000	0.198	10.902	0.352	1
Min	1.537	0.000	3.226	0.050	0.000	0.115	7.131	0.247	0



ACADEMY CREEK WWTP	FLOW (MGD)				Influent Concentrations						Effluent Concentrations									Removal Efficiency		Rainfall		Water Meter Monthly	Sludge Tons to Landfill
	INF	PINOVA	EFF	% Cap.	pH s.u.	Alkalinity mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	Alkalinity mg/L	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	TRC mg/L	Entero. #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	MGal	
January 2022	5.9	0.8	5.9	43%	7.3	184.0	239	287	19.6	8.5	6.5	105.3	6.8	8	11	5.4	0.01	1	3.4	96.65%	96.17%	1.30	1.40	10.609	140.30
February 2022	5.8	0.7	5.6	41%	7.3	190.8	247	281	20.5	17.4	6.6	119.7	6.6	15	16	10.9	0.03	1	8.9	93.93%	94.31%	0.44	1.34	5.836	113.35
March 2022	7.6	0.8	7.2	54%	7.5	176.6	206	247	19.5	12.7	6.5	99.2	7.2	7	6	7.2	0.10	1	4.6	96.60%	97.57%	1.72	7.66	8.525	132.23
April 2022	6.8	0.8	6.6	49%	7.4	181.2	214	231	21.2	8.5	6.4	87.5	6.6	4	3	2.7	0.01	1	8.5	98.13%	98.70%	0.40	1.00	6.407	79.59
May 2022	4.9	0.8	5.4	40%	7.4	210.0	214	204	19.4	6.3	6.5	95.1	6.5	5	3	2.2	0.05	1	1.9	97.66%	98.53%	0.85	2.55	5.885	78.08
June 2022	5.1	1.0	6.0	45%	7.4	180.6	171	163	19.8	4.2	6.5	78.1	6.1	5	2	2.0	0.04	1	2.4	97.08%	98.77%	2.30	5.55	6.800	80.34
July 2022	6.3	0.9	7.4	55%	7.5	190.8	143	141	13.5	9.9	6.5	97.7	6.4	5	3	2.6	0.04	1	3.6	96.50%	97.87%	2.09	8.84	6.400	75.67
August 2022	5.7	0.9	6.5	48%	7.4	183.2	180	177	18.4	10.9	6.5	104.6	6.1	5	3	3.7	0.05	1	6.4	97.22%	98.31%	1.35	3.71	5.607	55.44
September 2022	10.4	0.9	10.7	79%	7.1	171.2	143	153	10.9	5.3	6.5	71.6	7.0	9	8	4.2	0.13	1	3.5	93.71%	94.77%	2.83	10.05	6.628	47.52
October 2022	6.1	0.8	6.5	48%	7.5	144.2	204	170	16.7	5.9	6.6	69.1	6.6	6	6	2.7	0.04	1	2.6	97.06%	96.47%	1.30	1.60	5.598	62.62
November 2022	5.6	0.8	5.8	43%	7.5	192.4	193	159	20.5	7.8	6.4	78.0	6.5	5	6	2.5	0.07	1	4.1	97.41%	96.23%	1.50	1.70	6.142	63.39
December 2022	6.1	0.6	5.0	37%	7.7	182.8	215	193	21.1	6.8	6.4	95.1	6.9	4	2	2.1	0.12	1	7.8	98.14%	98.96%	0.35	1.07	6.816	42.96
January 2023	6.7	0.4	4.9	36%	7.4	185.2	199	182	20.0	12.0	6.4	82.0	6.9	4	3	3.8	0.08	6	7.4	97.99%	98.35%	0.85	1.45	7.155	62.02
February 2023	7.5	0.8	6.4	48%	7.4	178.2	207	191	19.9	9.6	6.4	93.8	6.7	4	3	4.2	0.02	9	5.9	98.00%	98.48%	0.40	0.45	5.873	72.53
March 2023	6.9	0.8	5.9	44%	7.5	191.2	231	236	21.2	16.1	6.1	108.0	5.0	7	4	5.7	0.06	9	9.4	96.97%	98.31%	0.80	1.50	6.816	42.96
April 2023	5.4	0.6	5.5	41%	7.2	222.8	220	192	28.4	25.7	6.5	129.9	6.5	7	3	9.4	0.05	12	9.9	96.82%	98.44%	2.80	4.13	9.181	62.49
May 2023	6.2	0.2	5.3	39%	7.4	205.2	232	229	22.5	17.1	6.3	80.3	6.5	5	3	3.5	0.04	14	8.1	97.84%	98.69%	0.50	2.48	10.135	84.82
June 2023	6.3	0.3	5.7	42%	7.2	197.4	200	173	24.3	10.3	6.3	80.8	7.1	4	2	0.8	0.02	9	4.3	98.00%	98.84%	1.37	4.05	6.969	38.37
July 2023	6.8	0.2	6.1	45%	7.2	176.0	151	148	17.3	8.0	6.3	67.8	7.1	5	2	0.3	0.03	18	3.6	96.69%	98.65%	1.75	5.63	9.609	62.62
August 2023	6.9	0.2	6.4	47%	7.1	187.8	123	128	19.5	11.1	6.3	61.7	6.6	3	3	0.7	0.04	28	3.9	97.56%	97.66%	2.25	5.28	9.676	74.41
September 2023	7.6	0.1	6.8	50%	7.5	166.4	126	119	16.6	6.1	6.5	93.5	6.9	4	4	5.1	0.04	13	4.7	96.83%	96.64%	3.60	5.65	9.993	42.59
October 2023	7.8	0.1	7.0	52%	7.4	172.0	130	142	17.3	6.9	6.5	89.4	6.8	3	3	4.7	0.04	13	4.7	97.69%	97.89%	2.25	2.30	10.819	44.46
November 2023																									
December 2023																									
Average	6.6	0.6	6.3	47%	7.4	185.0	190	188	19.5	10.3	6.4	90.4	6.6	5.6	4.5	3.9	0.05	6	5.4	97.02%	97.66%	1.50	3.61	7.613	70.85
Max	10.4	1.0	10.7	79%	7.7	222.8	247	287	28.4	25.7	6.6	129.9	7.2	15.0	16.0	10.9	0.13	28	9.9	98.14%	98.96%	3.60	10.05	10.819	140.30
Min	4.9	0.1	4.9	36%	7.1	144.2	123	119	10.9	4.2	6.1	61.7	5.0	3.0	2.0	0.3	0.01	1	1.9	93.71%	94.31%	0.35	0.45	5.598	38.37
Permit Limits	N/A	N/A	13.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	N/A	>2.0	<20.0	<30.0	<1.0**	<0.14	<35	Report	>85.00%	>85.00%				

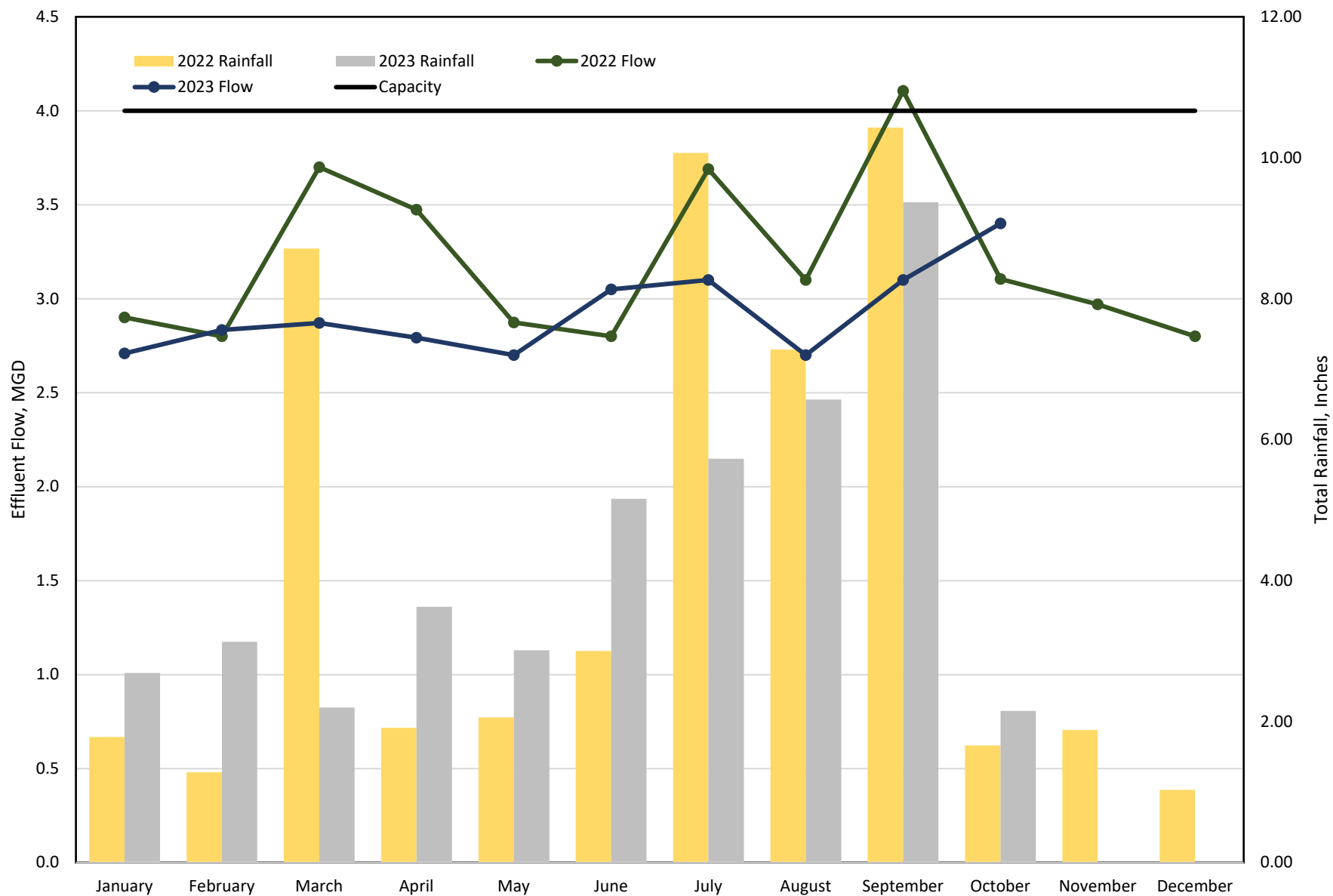
BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia (Limit Changed June 2023)
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Entero. - Enterococci Bacteria



DUNBAR CREEK WWTP	FLOW (MGD)			Influent Concentrations						Effluent Concentrations								Removal Efficiency		Rainfall		Water Meter Monthly	Sludge Tons to Landfill
	INF	EFF	% Cap.	pH s.u.	Alkalinity mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	Alkalinity mg/L	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Entero. #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	M/Gal	
January 2022	2.5	2.9	73%	7.0	211.0	175	205	26.3	3.65	7.2	57.1	8.2	3.0	3.0	1.0	1	1.2	98.29%	98.54%	0.95	1.78	1.190	28.32
February 2022	2.4	2.8	70%	7.2	253.0	198	228	33.5	3.85	7.1	63.0	8.2	3.3	2.5	0.8	1	1.2	98.36%	98.90%	0.34	1.28	0.047	34.41
March 2022	3.2	3.7	93%	7.2	215.6	185	188	21.5	3.05	7.1	53.1	7.8	3.0	2.0	0.9	7	1.0	98.38%	98.94%	2.81	8.71	0.061	35.13
April 2022	3.0	3.5	87%	7.2	209.0	181	221	19.3	3.45	7.1	60.1	7.6	3.0	3.0	0.5	1	1.6	98.34%	98.64%	1.13	1.91	0.047	25.74
May 2022	2.9	2.9	72%	7.0	250.0	204	217	25.7	4.55	7.0	73.0	7.5	3.0	2.0	0.9	6	2.5	98.53%	99.08%	0.78	2.06	0.051	24.80
June 2022	2.8	2.8	70%	7.2	258.0	218	232	27.9	4.85	7.2	103.0	7.4	4.0	2.0	3.5	2	2.2	98.17%	99.14%	1.13	3.00	0.043	33.39
July 2022	3.6	3.7	92%	7.3	227.0	164	174	28.3	3.85	7.3	71.9	7.3	3.0	2.0	0.7	9	1.2	98.17%	98.85%	2.49	10.07	0.040	22.81
August 2022	3.1	3.1	78%	7.5	216.0	155	170	25.1	3.35	7.8	57.9	7.3	3.0	3.0	0.5	1	1.6	98.06%	98.24%	2.46	7.28	0.072	26.30
September 2022	4.2	4.1	103%	7.3	176.6	110	140	15.9	3.00	7.5	54.2	7.6	3.0	3.0	0.7	2	1.2	97.27%	97.86%	4.09	10.43	0.299	12.14
October 2022	3.2	3.1	78%	7.7	212.0	164	194	14.7	3.00	7.5	51.2	8.0	3.0	3.0	0.8	1	2.3	98.17%	98.45%	1.41	1.66	0.412	9.25
November 2022	3.0	3.0	74%	7.1	209.0	173	184	20.9	3.00	7.2	56.0	8.2	3.0	3.0	1.0	23	2.5	98.27%	98.37%	1.39	1.88	1.989	38.08
December 2022	2.8	2.8	70%	7.1	234.0	190	210	21.4	3.70	7.6	55.6	7.8	3.0	3.0	0.4	13	1.9	98.42%	98.57%	0.39	1.03	2.025	24.15
January 2023	2.9	2.7	68%	6.9	230.0	186	194	21.5	4.20	7.5	58.7	8.5	3.0	3.0	0.5	13	1.9	98.39%	98.45%	1.09	2.69	2.154	41.91
February 2023	4.0	2.8	71%	6.9	228.0	354	602	25.0	4.35	6.9	56.7	8.0	3.9	6.9	0.9	6	1.7	98.89%	98.86%	2.42	3.13	1.730	22.10
March 2023	N/A	2.9	72%	6.9	252.0	182	205	14.2	3.50	6.9	60.8	7.6	3.0	4.0	0.6	8	1.8	98.35%	98.05%	0.59	2.20	2.042	22.44
April 2023	2.5	2.8	70%	7.0	251.8	189	195	24.1	4.00	7.0	58.7	7.0	4.0	3.0	0.3	10	1.8	97.88%	98.46%	2.43	3.63	2.120	25.74
May 2023	2.8	2.7	68%	7.0	244.0	174	209	24.6	4.01	6.7	64.6	7.5	3.0	3.0	0.9	4	2.0	98.28%	98.56%	0.58	3.01	2.478	31.79
June 2023	3.1	3.0	76%	6.9	257.0	187	203	30.3	4.05	6.9	68.3	7.7	3.0	4.0	1.9	14	2.1	98.40%	98.03%	1.25	5.16	2.532	29.84
July 2023	3.0	3.1	78%	6.9	245.0	178	160	30.4	2.30	6.6	81.2	7.6	4.0	4.0	1.6	6	2.3	97.75%	97.50%	1.23	5.73	2.781	32.23
August 2023	2.9	2.7	68%	7.0	223.4	161	161	23.0	3.55	7.0	57.9	7.2	3.0	3.0	0.8	9	2.8	98.14%	98.14%	2.23	6.57	3.207	28.10
September 2023	3.2	3.1	78%	7.0	164.0	152	166	18.7	3.55	7.2	40.0	7.9	6.0	9.0	0.4	25	3.6	96.05%	94.58%	6.14	9.37	0.253	5.25
October 2023	3.4	3.4	85%	6.9	204.0	137	157	16.1	4.20	7.1	55.5	8.2	3.0	4.0	0.4	18	2.7	97.81%	97.45%	1.87	2.15	0.433	9.41
November 2023																							
December 2023																							
Average	3.1	3.1	77%	7.1	225.9	182.6	209.8	23.1	3.68	7.2	61.8	7.7	3.3	3.4	0.9	8	1.9	98.11%	98.26%	1.8	4.3	1.182	25.61
Max	4.2	4.1	103%	7.7	258.0	353.9	602.1	33.5	4.85	7.8	103.0	8.5	6.0	9.0	3.5	25	3.6	98.89%	99.14%	6.1	10.4	3.207	41.91
Min	2.4	2.7	68%	6.9	164.0	110.0	140.0	14.2	2.30	6.6	40.0	7.0	3.0	2.0	0.3	1	1.0	96.05%	94.58%	0.3	1.0	0.040	5.25
Permit Limits	N/A	4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	N/A	>6.0	<5.0	<20.0	<2.0	<35	Report	85.00%	85.00%				

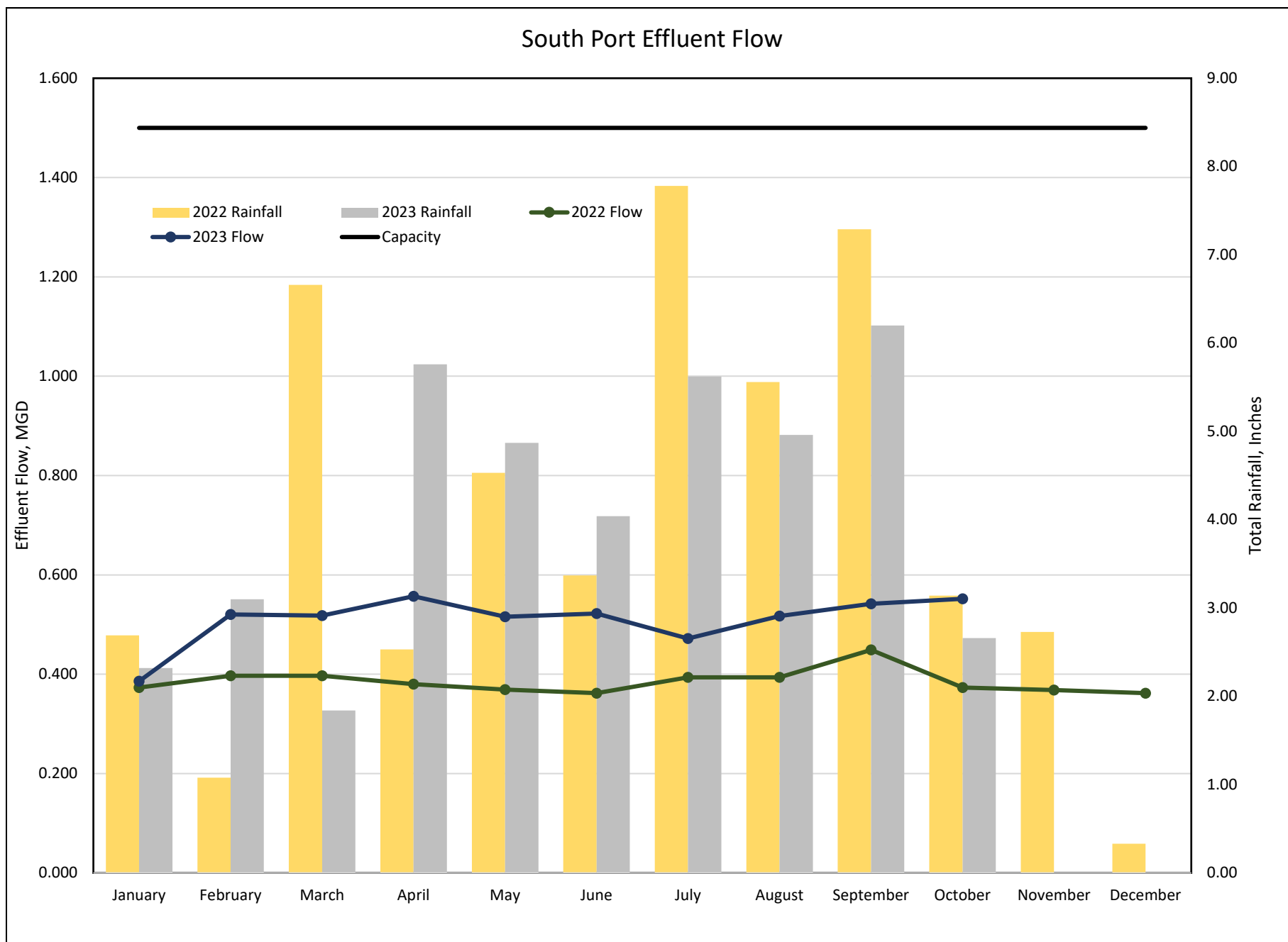
BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Entero. - Enterococci Bacteria

Dunbar Creek Effluent Flow



SOUTH PORT WWTP	FLOW (MGD)			Influent Concentrations						Effluent Concentrations								Removal Efficiency		Rainfall		Water Meter Monthly	Sludge Tons to Landfill
	INF	EFF	% Cap.	pH s.u.	Alkalinity mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	Alkalinity mg/L	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Fecal #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	M/Gal	
January 2022	0.323	0.373	25%	7.1	213.0	163	164	33.8	4.45	7.3	36.1	9.7	6.0	4.0	0.8	6	2.4	96.32%	97.56%	1.52	2.69	0.180	4.26
February 2022	0.328	0.397	26%	7.3	224.0	156	162	35.8	2.85	7.4	41.1	9.9	6.0	4.0	0.6	2	1.5	96.15%	97.53%	0.28	1.08	0.027	0.00
March 2022	0.295	0.397	26%	7.3	232.8	151	139	29.0	4.05	7.8	58.4	9.6	6.0	3.0	1.1	5	1.9	96.03%	97.84%	2.36	6.66	0.028	5.75
April 2022	0.201	0.380	25%	6.8	216.0	139	136	25.4	4.00	7.0	66.3	7.1	4.0	2.0	0.4	3	2.0	97.12%	98.53%	1.58	2.53	0.130	6.32
May 2022	0.171	0.369	25%	6.8	249.4	158	170	32.6	5.70	7.4	101.0	8.3	6.0	2.0	0.6	2	3.1	96.20%	98.82%	1.82	4.53	0.139	3.48
June 2022	0.168	0.362	24%	6.8	220.0	134	153	29.8	4.95	7.7	81.6	8.4	4.0	3.0	0.4	2	2.9	97.01%	98.04%	1.01	3.37	0.033	6.98
July 2022	0.168	0.394	26%	6.8	193.5	148	208	28.7	3.95	7.7	45.6	8.3	5.0	7.0	0.5	4	2.6	96.62%	96.63%	2.76	7.78	0.013	1.39
August 2022	0.204	0.394	26%	6.8	181.0	213	174	30.6	3.90	7.6	46.5	8.4	6.0	4.0	0.4	3	2.4	97.18%	97.70%	1.52	5.56	0.028	1.41
September 2022	0.247	0.449	30%	7.0	163.1	131	191	25.3	3.55	7.6	41.8	8.6	8.0	4.0	0.4	2	1.3	93.89%	97.91%	1.82	7.29	0.018	2.82
October 2022	0.309	0.373	25%	6.9	206.0	129	156	21.3	4.25	7.5	30.8	9.2	4.0	3.0	0.6	4	1.6	96.90%	98.08%	2.92	3.14	0.018	1.13
November 2022	0.407	0.368	25%	6.8	215.0	141	180	23.5	4.55	7.5	38.5	9.2	4.0	4.0	1.4	3	2.0	97.16%	97.78%	2.02	2.73	0.025	3.46
December 2022	0.359	0.362	24%	6.9	259.6	169	183	25.4	4.60	8.3	42.0	8.9	6.0	4.0	0.7	3	2.4	96.45%	97.81%	0.22	0.33	0.037	4.00
January 2023	0.388	0.386	26%	7.1	242.0	169	194	25.3	3.90	7.4	104.9	8.6	6.0	3.0	4.0	2	2.3	96.45%	98.45%	1.07	2.32	0.019	3.63
February 2023	0.466	0.520	35%	7.2	234.0	180	206	27.8	4.15	7.5	58.1	8.3	4.4	1.8	0.5	1	2.6	97.55%	99.15%	1.50	3.10	0.012	4.98
March 2023	0.435	0.518	35%	7.2	225.0	182	212	13.8	5.30	7.6	50.9	7.1	4.0	2.0	3.6	2	3.1	97.80%	99.06%	0.68	1.84	0.013	3.33
April 2023	0.499	0.557	37%	7.3	229.8	160	192	23.9	5.40	7.4	51.1	7.7	4.0	3.0	0.4	1	3.4	97.50%	98.44%	3.38	5.76	0.008	1.87
May 2023	0.422	0.516	34%	7.2	222.4	160	199	28.9	3.42	7.7	91.5	6.1	5.0	3.0	3.6	2	2.5	96.88%	98.49%	1.56	4.87	0.029	4.62
June 2023	0.416	0.522	35%	7.2	219.0	162	181	30.8	3.70	7.8	75.8	8.4	6.0	4.0	5.7	1	2.7	96.30%	97.79%	0.94	4.04	0.024	6.09
July 2023	0.355	0.472	31%	7.0	204.0	157	150	31.3	3.90	7.5	45.2	6.9	4.0	4.0	0.2	2	3.4	97.45%	97.33%	0.60	5.62	0.004	0.00
August 2023	0.432	0.517	34%	7.1	194.4	149	138	20.9	4.20	7.7	42.7	6.2	4.0	3.0	0.4	1	2.6	97.32%	97.83%	1.54	4.96	0.004	4.04
September 2023	0.416	0.542	36%	7.3	166.0	155	175	22.9	4.20	7.8	41.0	6.9	5.0	3.0	0.6	1	2.3	96.77%	98.29%	2.67	6.20	0.001	1.92
October 2023	0.442	0.552	37%	7.3	221.0	159	195	22.7	4.10	8.0	66.4	6.9	4.0	3.0	0.4	1	1.6	97.48%	98.46%	1.85	2.66	0.007	0.00
November 2023																							
December 2023																							
Average	0.339	0.442	29%	7.0	215.0	157.5	175.4	26.8	4.23	7.6	57.2	8.1	5.1	3.4	1.2	2	2.4	96.75%	98.07%	1.6	4.0	0.036	3.25
Max	0.499	0.557	37%	7.3	259.6	212.7	212.0	35.8	5.70	8.3	104.9	9.9	8.0	7.0	5.7	6	3.4	97.80%	99.15%	3.4	7.8	0.180	6.98
Min	0.168	0.362	24%	6.8	163.1	129.0	136.0	13.8	2.85	7.0	30.8	6.1	4.0	1.8	0.2	1	1.3	93.89%	96.63%	0.2	0.3	0.001	0.00
Permit Limits	N/A	1.500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	N/A	<5.0	<30.0	<30.0	<13.0	<200	Report	85.00%	85.00%				

BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Fecal - Fecal Coliform Bacteria



Facility Construction Project Photos – November 2023

#2016 ARCO AREA WATER AND SEWER EXTENSION (49% - DECEMBER 2023)



1. UWS Crew Members are working on an 8-inch waterline installation near the intersection of Seventh and Norwich Street.
2. Top view of the construction activities of the 8-inch waterline installation of the 8-inch by 8-inch tee with an 8-inch gate valve in preparation for the proposed 8-inch WL along Norwich Street.
3. UWS Crew Members are performing roadway stabilization and dust control along 9th Street – Phase 1 final roadway paving pending Glynn County's review of the roadway compaction result.
4. Two waterline tie-ins are scheduled for 11/16/2023 at Cochran Ave/Townsend Street and 7th Street/Norwich Street.

Facility Construction Project Photos – November 2023

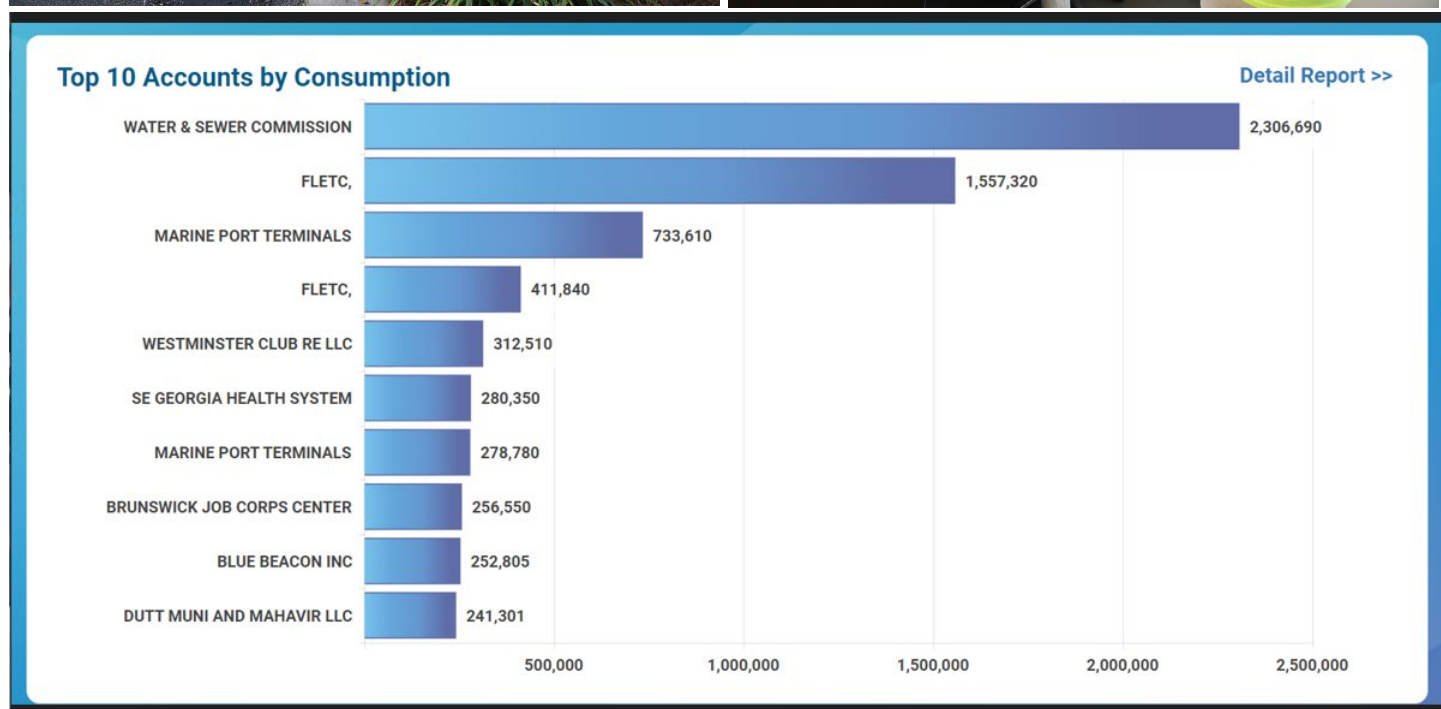
#2021 GALVANIZED REPLACEMENTS - SYSTEM-WIDE (SELF-PERFORMED) (IN PROGRESS-FISCAL YEAR)



1. CJ Williams (WDD Crew Member) showcasing a 2-inch galvanized line segment and fittings removed from the North Mainland District.
2. Various 1-inch to 2-inch galvanized line segments and fittings were removed throughout the JWSC Distribution system.

Facility Construction Project Photos – November 2023

#2028 METER REPLACEMENTS – YEARS 1 & 2 (IN PROGRESS-TBD)



1. Eric Maddox (M&E Project Manager) is conducting a GPS inventory of the water meters at the JWSC Headquarters at 1703 Gloucester Street in the City of Brunswick District.
2. Kalem Head (JWSC AMI/IT Services Manager) and Eric Maddox discuss the remaining construction activities in preparation for project closeout.
3. The Neptune 360-meter data management platform showcasing the top 10 accounts by consumption. The web-based dashboard also provides better visibility into customer water consumption, supports the JWSC's conservation efforts, and allows JWSC staff to detect potential leaks and unplanned water usage faster.

Facility Construction Project Photos – November 2023

#2103 NORTH MAINLAND WATER LOOPS (8%-SEPTEMBER 2024)



1. BJ Albert Mendez (Vallencourt Superintendent), Dan Vallencourt (Vallencourt Vice President), Chuck Flowers (Glynn County ROW Coordinator & Arborist), and Dwaine Falls (4Waters Engineer of Record) discussing ongoing construction activities and upcoming project coordination for Old Jesup Road.
2. View the construction activities near the intersection of Bailey Road and Old Jesup Road. The 12-inch watermain installation is nearly complete, with less than 40 feet of pipe left to be installed.
3. Drone Southbound overview of the Bailey Road construction activities – the 12-inch watermain installation is nearing completion, and final roadway paving is anticipated to be completed by the end of November 2023.

Facility Construction Project Photos – November 2023

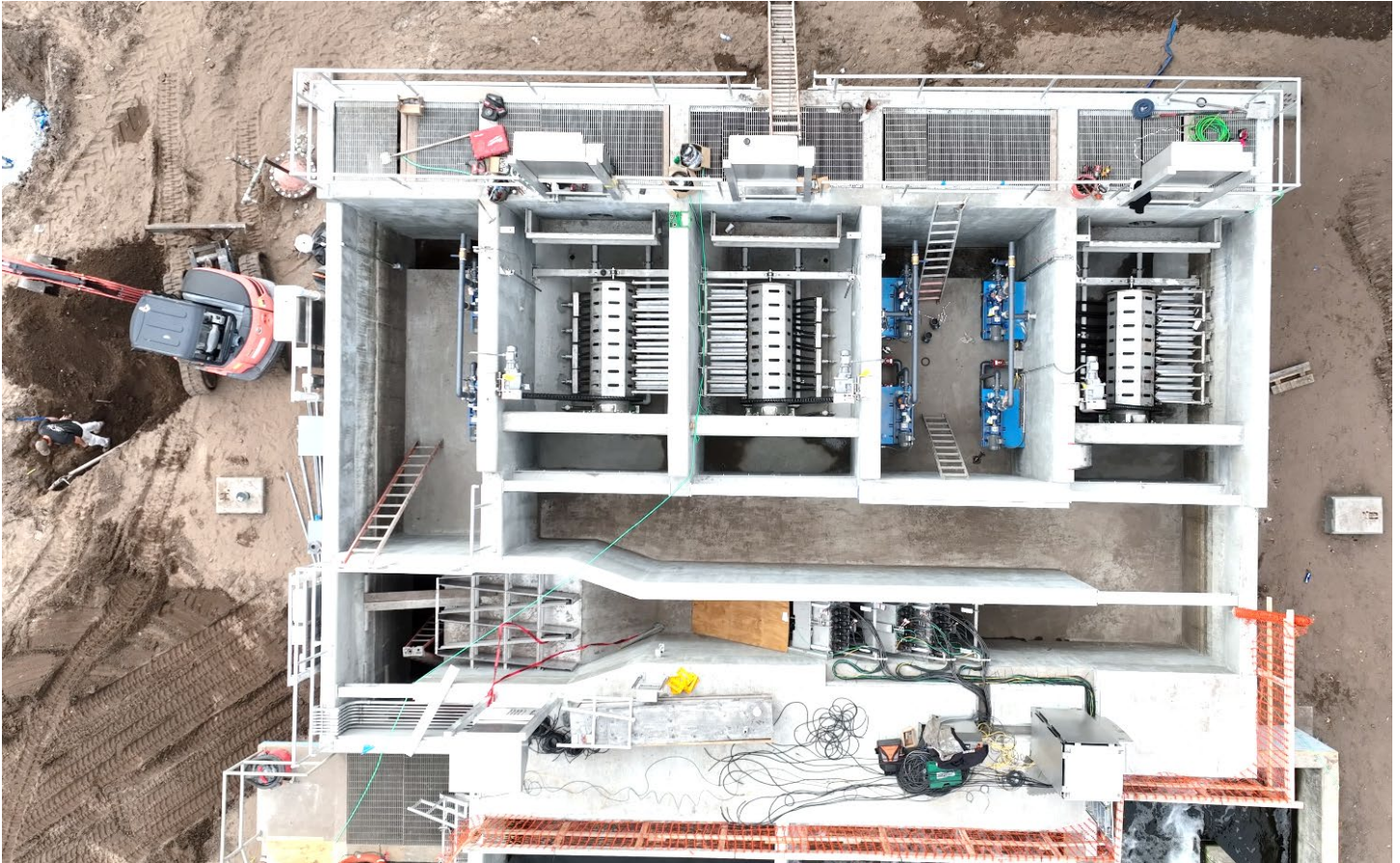
#2105 PUMPSTATION 4044 REHAB (1%-OCTOBER 2024)



1. Drone overview of the Pump Station 4044 construction activities – heavy construction equipment was mobilized to the site, and a 30-inch tree was removed for the wetwell installation.
2. Southbound view of the existing pump station to be demolished and construction of a new wastewater pump station and associated forcemain piping.
3. Existing control panels and associated accessories are to be removed. The Remote Terminal Unit (RTU) panel on the right will be relocated to the new pump station location.

Facility Construction Project Photos – November 2023

#2106 DUNBAR CREEK WPCF REHAB (IN PROGRESS-TBD)



1. Drone overview of the Post-Aeration Basin construction activities with electrical and mechanical installation underway. AquaDisk Cloth Media Filter control panels have been installed, and wiring installation is ongoing.
2. BRW Crew Member and JAM Electric Foreman are working to finalize the newly installed Gorman-Rupp Pumps that will drive the cloth media filter system.
4. BRW Crew Members preparing wooden forms for concrete placement at the newly positioned pressure booster expansion tank, pumps, and control panels.

Facility Construction Project Photos – November 2023

#2203 EST REHAB AT GLYNN PLACE MALL AND OGLETHORPE SITES (96% - NOVEMBER 2023)



1. Mall EST – View of the leaking expansion joint coupling to be replaced.
2. Oglethorpe EST – view of the AT&T communication conduit rack and tank penetration. Remobilizing the AT&T and Senet services on the tank is pending the TankPro project completion and demobilization.
3. A weekly construction progress meeting and schedule updates will be held until project completion.

Facility Construction Project Photos – November 2023

#2215B HWY 341 CRISPEN (99%-NOVEMBER 2023)



1. Drone overview of the project site – final paving was completed and approved by the GDOT inspector on 11/02/2023, and project completion is pending final thermoplastic pavement marking to be scheduled by the Contractor.
2. A southeast view of the final paving performed at the intersection of Highway 341 and Crispens Boulevard.

									BUDGET VS. EXPENDITURES													
									BOC APPROVED FUNDING & SOURCE				COMMITTED			EXPENDITURES				BALANCE	% Funds Committed	STATUS
Proj #	Project Name	Programmed Completion Date	Current/Actual Completion Date	Phase	Project Director/ Project Manager	Concept Design 30%	Detail Design 60-90-100%	Construction	R&R Reserve	CIF Reserve	SPLOST/ Other	Total Original Approved Budget	Purchase Orders Issued	BOC Approved Change Orders	Total PO+CO	Expenditures Paid to PO's	Remaining Encumbrances	Expenditures Misc.	Total Expenditures	Original Approved Budget Remaining (Original Approved Budget - Total Expenditures)		Status
801	FEMA Hazard Mitigation-Academy Creek	TBD	TBD	Const.	Burroughs	Chatham Engineering	Chatham Engineering	Y-Delta	\$3,188,000	\$0	\$0	\$3,188,000	\$2,295,516	\$0	\$2,295,516	\$352,839	\$1,945,977	\$163,747	\$2,462,563	\$725,437	77.24%	Submittals approved. Transfer switches associated with permanent generator installations have begun arriving.
906	Water Pollution Rehab-Academy & Dunbar	TBD	Jun 2023	Const.	Burroughs	JWSC	EMC	Ruby-Collins	\$0	\$0	\$6,853,990	\$6,853,990	\$11,671,433	\$578,172	\$12,249,605	\$1,285,950	\$65,718	\$50,107	\$1,401,775	\$5,452,215	20.45%	Awaiting record drawing revisions. Rework of sludge offloading and plant hydraulics awaiting contractor availability.
2001	PS4105-4107 Basin Expansion/FM Reroute & 4036 CIPP*	Jul 2022	TBD	Master	Kline	JWSC	Roberts Civil Engineering/ JWSC	(multiple)	\$2,250,000	\$485,000	\$0	\$2,735,000	\$1,013,347	\$9,000	\$1,022,347	\$1,022,347	\$0	\$9,700	\$1,032,047	\$1,702,953	37.73%	Design Funds appropriated and divided into two sub-projects and Project 4036 CIPP is construction completed.
	PS4105-4107 Basin Expansion/FM Reroute	Jul 2022	TBD	Design	Kline/Patel	JWSC	Robers Civil Engineering	TBD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		Plans redlined to reflect FM installation work only. EPD approval received. CSX RR permit agreement excuted. NS permit agreement pending execution. Bid Form updated.
2009	Sea Palms East Water Line Rehab	TBD	TBD	On Hold	Simmons	JWSC	JWSC	JWSC	\$0	\$0	\$178,595	\$178,595	\$36,548	\$0	\$36,548	\$36,548	\$0	\$1,156	\$37,704	\$140,891	21.11%	Project on hold pending Frederica Rd open-cut installation sections to coordinate with adjacent planned private development. JWSC is working w/ Glynn County regarding ROW permitting & sourcing materials for construction.
2015	Bay Street Water Improvements	Jun 2022	TBD	Const.	Kline	JWSC	Tidewater Engr.	West Const.	\$400,000	\$0	\$0	\$400,000	\$36,267	\$0	\$36,267	\$36,267		\$542	\$36,809	\$363,191	9.20%	Next section of improvements in planning.
2016	Arco Area Water and Sewer Extensions	Jan 2023	Jan 2023	Complete	Patel	JWSC	Thomas & Hutton	N/A	\$0	\$300,000	\$0	\$300,000	\$300,000	\$0	\$300,000	\$300,281	\$0	\$ 843.00	\$301,124	-\$1,123.82	100.37%	Engineering Complete. Tied to Proj 2101.
2017	PS 2023 Rehab	TBD	TBD	On Hold	Young	JWSC	TBD	TBD	\$275,000	\$0	\$0	\$275,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$275,000.00	0.00%	Project on hold pending additional survey investigation.
2020	Community Rd Sewer Expansion	Jan 2023	Jul 2024	Design	Patel	Hussey Gay Bell	JWSC	TBD	\$0	\$250,000	\$0	\$250,000	\$280,916	\$76,650	\$357,566	\$265,921	\$91,645	\$0	\$357,566	-\$107,566.00	143.03%	GDOT permitting approved. Construction easement acquisition underway. EOR finalizing bid-ready package including an alternate route. EOPC \$2.6M
2021	Annual Galvanized Replacements Program	Jul 2023	Jul 2023	Const.	Simmons	JWSC	JWSC	JWSC	\$750,000	\$0	\$0	\$750,000	\$418,728	\$0	\$418,728	\$331,936	\$135,310	\$394	\$467,640	\$282,360	62.35%	Awaiting paving in St. Clair. Work ongoing on Adams Drive and El Dorado neighborhood. Contract for Mary Ross Park realignment for Commission consideration in October.
2023	SSI PRV	TBD	TBD	On Hold	Kline	JWSC	TBD	TBD	\$150,000	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	0.00%	Project on hold pending Glynn County Sea Island-Federica Road Traffic Circle Design.
2024	Master Plan Update	Mar 2021	Sep 2023	Complete	Burroughs	JWSC	Four Waters Engineering, Inc.	N/A	\$247,500	\$0	\$0	\$247,500	\$247,500	\$0	\$247,500	\$244,670	\$0	\$0	\$244,670	\$2,830	98.86%	Complete.
2025	NM Water PRV	TBD	TBD	On Hold	Kline	JWSC	TBD	TBD	\$100,000	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	0.00%	Project is on hold pending system evaluation after the NM Water Loops project is completed.
2028	Meter Replacements - Years 1 and 2	Jun 2022	Dec 2023	Const.	Roberts/Head	JWSC	JWSC	Delta Muncpal Supply/Neptun e Technology Group	\$0	\$0	\$18,200,000	\$18,200,000	\$12,503,513	\$6,743,583	\$19,247,096	\$15,836,619	\$2,035,846	\$20,600	\$17,893,065	\$306,935	98.31%	Approximately 28,100 meters have been replaced to date. Overall meter replacement project is approximately 94% complete.
2101	Arco Water & Sewer Expansion	Oct 2022	Feb 2023	Const.	Kline/Patel	JWSC	Thomas & Hutton	UWS Inc	\$0	\$0	\$3,500,000	\$3,500,000	\$3,744,090	\$209,174	\$3,953,264	\$1,730,664	\$2,222,599	\$0	\$3,953,263	-\$453,263	112.95%	Sewer Installation along Ninth St, Dudley Av, Hill St, Knight St, Tenth St, completed and tested. Sewer installation along Franklin St complete, Paving anticipated to start by the end of November 2023. Sewer Re-route design received, and installation verification in progress. Contract Revision to Lump Sum under review for approval.
2102	Canal Road Water Production Facility	Aug 2023	Nov 2024	Design	Kline/Vo	Thomas & Hutton	Thomas & Hutton	Reeves Young LLC	\$1,850,000	\$0	\$0	\$1,850,000	\$227,800	\$0	\$227,800	\$120,680	\$107,120	\$0	\$227,800	\$1,622,200	12.31%	BOC provided approval on 10/19/2023. Routing contract for final signatures and scheduling Precon and NTP.
2103	NM Water Loops	Dec 2022	Sep 2024	Const.	Kline/Vo	Four Waters Engineering, Inc.	Four Waters Engineering, Inc.	Vallencourt Counstruction	\$1,250,000	\$0	\$0	\$1,250,000	\$3,210,458	\$0	\$3,210,458	\$161,000	\$3,049,459	\$0	\$3,210,459	-\$1,960,459	256.84%	Construction activities are ongoing at Bailey Rd, and a mini progress meeting was held with EOR and Glynn County on 10/26/2023. Bailey Road paving is anticipated on 11/20/2023. Monthly Construction Progress Meeting Held 11/07/2023.
2104	PS 4002 Rehab	TBD	Apr 2024	Const.	Kline	Kimley-Horn	Kimley-Horn	PopCo Inc.	\$650,000	\$0	\$0	\$650,000	\$1,016,886	\$0	\$1,016,886	\$17,000	\$999,886	\$43,314	\$1,060,200	-\$410,200	163.11%	Precon kickoff meeting held 09/14/2023. NTP pending electrical submittal and contractor scheduling.
2105	PS 4044 Rehab	Nov 2022	Sep 2024	Const.	Kline/Vo	LEA	LEA	PopCo Inc.	\$550,000	\$0	\$0	\$550,000	\$2,060,007	\$0	\$2,060,007	\$53,450	\$2,006,557	\$0	\$2,060,007	-\$1,510,007	374.55%	NTP 10/23/2023. 30-inch tree removal completed 10/19/2023. GA Power onsite coordination held 10/24/2023. Major construction activities are pending AGL gas line relocation. Contractor working on submittals.
2106	Dunbar Creek Engineering	May 2022	May 2022	Const.	Burroughs	BRW/HGB	HGB	BRW	\$4,200,000	\$0	\$5,200,000	\$9,400,000	\$5,690,405	\$4,128,961	\$9,819,366	\$4,531,358	\$5,288,008	\$900	\$9,820,266	-\$420,266	104.47%	Missing parts for filter mechanical installation. Startup of the filters and UV system is delayed until the second week of December 2023. PLC changeouts are to begin the week of 10/16/2023. Plant will have no SCADA for approximately 1 week and will require 24/7 staffing during downtime.
2108	PS 4001 Rehab	TBD	Apr 2024	Const.	Kline	Kimley-Horn	Kimley-Horn	PopCo Inc.	\$400,000	\$0	\$0	\$400,000	\$407,774	\$0	\$407,774	\$13,646	\$394,127	\$21,657	\$429,430	-\$29,430	107.36%	Precon kickoff meeting held 09/14/2023. NTP pending electrical submittal and contractor scheduling.
2109	Hwy 17 North Pump Station	TBD	TBD	On Hold	Kline/Patel	JWSC	JWSC	TBD	\$400,000	\$0	\$0	\$400,000	\$34,927	\$0	\$34,927	\$31,805	\$3,122	\$0	\$34,927	\$365,073	8.73%	Bid alternate for HDPE and FRP wet well included in the Bid Form. Finalizing package for re-advertising.
2110	PS 3101 Rehab	TBD	Apr 2024	Const.	Kline	Kimley-Horn	Kimley-Horn	PopCo Inc.	\$375,000	\$0	\$0	\$375,000	\$404,629	\$0	\$404,629	\$13,648	\$390,982	\$21,656	\$426,286	-\$51,286	113.68%	Precon kickoff meeting held 09/14/2023. NTP pending electrical submittal and contractor scheduling.
2201	Academy Creek RAS Replacements	TBD	TBD	Design	Burroughs	JWSC	JWSC	TBD	\$1,500,000	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	0.00%	EPD approval received. Finalizing bid documents.
2202	Water Production SCADA	TBD	TBD	Design	Burroughs	JWSC	JWSC	TBD	\$750,000	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000	0.00%	WPD and SCADA finalizing the scope of work for Engineering RFP.
2203	EST Rehab at Glynn Place Mall and Oglethrope Sites	June 2023	Dec 2023	Const.	Kline/Vo	JWSC	JWSC	TankPro	\$1,000,000	\$0	\$0	\$1,000,000	\$1,441,022	\$0	\$1,441,022	\$1,236,872	\$204,150	\$0	\$1,441,022	-\$441,022	144.10%	Both ESTs are pending remaining electrical, SCADA, and valve replacements. The remaining items are anticipated to be delivered and installed by the end of November 2023. The contractor's weekly teleconference for progress and schedule update is for every Wednesday until the project closeout.
2204	PS 2056 Pumps and FM Improvements	TBD	TBD	Design	Kline/Vo	JWSC	JWSC	TBD	\$700,000	\$0	\$0	\$700,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$700,000	0.00%	Forcemain Improvements Engineering RFP pending scheduling for advertisement.
2205	PS 2033/2034 Rehab	TBD	TBD	Design	Kline/Vo	JWSC	JWSC	TBD	\$1,400,000	\$0	\$0	\$1,400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,400,000	0.00%	Design package pending final electrical drawings for construction advertisement.
2206	Ocean Boulevard WM Improvements	TBD	TBD	On Hold	Burroughs	JWSC	JWSC	TBD	\$1,750,000	\$0	\$0	\$1,750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,750,000	0.00%	Project on hold. The package will require an updated SUE/survey, drawings, reports, and technical specs to be submitted for permit approval prior to construction project advertisement.

									BUDGET VS. EXPENDITURES													
									BOC APPROVED FUNDING & SOURCE				COMMITTED			EXPENDITURES				BALANCE	% Funds Committed	STATUS
Proj #	Project Name	Programmed Completion Date	Current/Actual Completion Date	Phase	Project Director/ Project Manager	Concept Design 30%	Detail Design 60-90-100%	Construction	R&R Reserve	CIF Reserve	SPLOST/ Other	Total Original Approved Budget	Purchase Orders Issued	BOC Approved Change Orders	Total PO+CO	Expenditures Paid to PO's	Remaining Encumbrances	Expenditures Misc.	Total Expenditures	Original Approved Budget Remaining (Original Approved Budget - Total Expenditures)		Status
2207	Wesley Oaks Circle WM Improvements	TBD	TBD	Const.	Simmons	JWSC	JWSC	D&C Directional	\$450,000	\$0	\$0	\$450,000	\$179,906	\$0	\$179,906	\$79,465	\$100,440	\$0	\$179,905	\$270,095	39.98%	Materials have been ordered and beginning to arrive, and working with the Contractor to determine a start date for improvements.
2208	JWSC Facilities Improvements	TBD	TBD	Const.	Burroughs	JWSC	JWSC	Various	\$450,000	\$0	\$0	\$450,000	\$103,053	\$0	\$103,053	\$103,452	\$0	\$2,924	\$106,376	\$343,624	23.64%	Working with the City of Brunswick and Glynn County on storm improvements to the HQ parking lot.
2209	Brunswick Villa Area Sewer Extensions	TBD	TBD	Design	Patel	Kimley-Horn	Kimley-Horn	TBD	\$0	\$2,750,000	\$0	\$2,750,000	\$551,180	\$0	\$551,180	\$291,928	\$259,252	\$0	\$551,180	\$2,198,820	20.04%	90% submittal received and EOPC is \$5.3M. Preparing LDA/EPD submission packets.
2210	PS 3114 Force Main Reroute	TBD	TBD	Design	Kline	JWSC	TBD	TBD	\$0	\$400,000	\$0	\$400,000	\$9,375	\$0	\$9,375	\$8,650	\$725	\$0	\$9,375	\$390,625	2.34%	Engineering Survey received. In-house preliminary FM design layout in progress. Project coordination required with Exit 29 WPF and EST.
2211	NM WPCF Land Acquisition and Engineering	TBD	TBD	Design	Burroughs	JWSC	TBD	TBD	\$3,750,000	\$0	\$0	\$3,750,000	\$10,854	\$0	\$10,854	\$10,854	\$0	\$2,275	\$13,129	\$3,736,871	0.35%	Property acquisition MOU approved. Working on design-build RFP for advertisement.
2212	Village Drainage Improvements - Ph II	TBD	TBD	Design	Patel	JWSC	Glynn County	Allen Owens Construction	\$250,000	\$0	\$0	\$250,000	\$250,000	\$0	\$250,000	\$0	\$217,325	\$0	\$217,325	\$32,675	86.93%	Glynn Co. project: contract awarded to Allen Owens Construction. Water main installation complete and testing in progress.
2213	Exit 42 Elevated Storage Tank	TBD	TBD	Design	Kline/Patel	JWSC	JWSC	TBD	\$0	\$0	\$3,000,000	\$3,000,000	\$16,663	\$0	\$16,663	\$16,663	\$0	\$0	\$16,663	\$2,983,337	0.56%	In-house Engineering plans in progress. GA power +/- 1.5 years away from extending power to site. Staff looking at different ways to operate tank and electrical components. Staff is reviewing electrical plans. Finalizing Plan set and specifications for EPD submission. Additional entrance road improvements and survey will be required.
2214	Academy Creek UV Installation	TBD	TBD	Design	Burroughts	BRW/HGB	HGB	BRW	\$1,900,000	\$0	\$0	\$1,900,000	\$644,000	\$0	\$644,000	\$874,000	\$46,000		\$920,000	\$980,000	48.42%	EPD approval received. Finalizing bid documents. Trojan UV equipment received.
2215B	Hwy 341 and Crispen Blvd	August 2023	Nov 2023	Const.	Kline	JWSC	JWSC	PopCo Inc. & Bio-Nomics Services, Inc.	\$0	\$0	\$679,000	\$679,000	\$679,000	\$0	\$679,000	\$148,700	\$530,300	\$0	\$679,000	\$0	100.00%	Final paving and GDOT approval were provided on 11/02/2023. Final paving thermoplastic marking pending for project closeout.
2216S	SPLOST Exit 29 WPF and EST	TBD	TBD	Design	Kline/Vo	Thomas & Hutton	Thomas & Hutton	TBD	\$0	\$0	\$6,000,000	\$6,000,000	\$230,480	\$0	\$230,480	\$2,676	\$227,804	\$0	\$230,480	\$5,769,520	3.84%	Revised 30% package submitted for review and EOPC \$13.4M-\$14.4M 10/27/2023. JWSC review comments returned to EOR 11/02/2023.
2401R	PS 2001/2002 Rehab	TBD	TBD	On Hold	Kline	TBD	TBD	TBD	\$1,350,000	\$0	\$0	\$1,350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,350,000	0.00%	Not started
2402R	Harrington, Airport, and Mallery WPF Improvements	TBD	TBD	On Hold	Burroughs	TBD	TBD	TBD	\$1,850,000	\$0	\$0	\$1,850,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,850,000	0.00%	Not started
2403C	PS 3103 Expansion & FM	TBD	TBD	On Hold	Kline	TBD	TBD	TBD	\$0	\$3,500,000	\$0	\$3,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500,000	0.00%	Not started
2404CIF	PS 4119 Expansion & FM	TBD	TBD	On Hold	Kline	TBD	TBD	TBD	\$0	\$6,300,000	\$0	\$6,300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,300,000	0.00%	Not started
2405S	SPLOST W&S Service Extensions	TBD	TBD	Design	Kline/Vo	TBD	TBD	TBD	\$0	\$0	\$7,000,000	\$7,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000,000	0.00%	Working on design-build RFP for advertisement.
									\$34,135,500	\$13,985,000	\$50,611,585	\$98,732,085	\$49,716,277	\$11,745,540	\$61,461,817	\$29,159,889	\$20,322,352	\$339,815	\$49,822,056	\$48,910,029		

Phase	Amount
Master	1
Design	15
Const.	16
On Hold	10
Complete	3
Total Projects	45

Project Director/ Project Manager	Total PO+CO	Total Expenditures
Burroughs	\$24,725,894	\$14,048,779
Kline	\$3,576,278	\$3,673,147
Kline/Patel	\$4,004,854	\$4,004,853
Kline/Vo	\$7,169,767	\$7,169,768
Patel	\$1,458,746	\$1,427,195
Roberts/Head	\$19,247,096	\$17,893,065
Simmons	\$635,182	\$685,249
Young	\$0	\$0
Total	\$60,817,817	\$48,902,056

PM	Burroughs	Roberts	Kline	Vo	Patel	Simmons	Head	Young
Total PO+CO	\$24,725,894	\$19,247,096	\$14,750,899	\$7,169,767	\$5,463,600	\$635,182	\$19,247,096	\$0
Total Expenditures	\$14,048,779	\$17,893,065	\$14,847,768	\$7,169,768	\$5,432,048	\$685,249	\$17,893,065	\$0
Percentage Spent	56.82%	92.97%	100.66%	100.00%	99.42%	107.88%	92.97%	#DIV/0!
Total Projects (Includes Master/Sub-projects)	10	1	25	9	8	3	1	1

ID	Task Name	Duration	Scheduled Start	Scheduled Finish	Actual Start	Actual Finish	20182019202020212022202320242025202620272028																																															
1	Engineering	2031 days	Thu 11/15/18	Thu 6/6/24	Thu 11/15/18	NA	Engineering																																															
6	PS 4105-4107 and FM (In-house)	393 days	Tue 11/1/22	Thu 11/30/23	Tue 11/1/22	NA	PS 4105-4107 and FM (In-house)																																															
13	Brunswick Villa Area Sewer Extensions	364 days	Fri 12/2/22	Thu 11/30/23	Fri 12/2/22	NA	Brunswick Villa Area Sewer Extensions																																															
17	SPLOST Exit 29 WPF EST	330 days	Thu 7/13/23	Thu 6/6/24	Thu 7/13/23	NA	SPLOST Exit 29 WPF EST																																															
18	Community Road W&S Extension	1256 days	Mon 6/22/20	Thu 11/30/23	Mon 6/22/20	NA	Community Road W&S Extension																																															
27	Advertisement	1734 days	Fri 10/25/19	Tue 7/23/24	Fri 10/25/19	NA	Advertisement																																															
34	PS 4105-4107 and FM (In-house)	47 days	Fri 12/1/23	Tue 1/16/24	NA	NA	PS 4105-4107 and FM (In-house)																																															
49	Brunswick Villa Area Sewer Extensions	47 days	Fri 12/1/23	Tue 1/16/24	NA	NA	Brunswick Villa Area Sewer Extensions																																															
50	SPLOST Exit 29 WPF EST	47 days	Fri 6/7/24	Tue 7/23/24	NA	NA	SPLOST Exit 29 WPF EST																																															
51	Community Road W&S Extension	47 days	Fri 12/1/23	Tue 1/16/24	NA	NA	Community Road W&S Extension																																															
53	Contract Administration	1767 days	Wed 11/6/19	Fri 9/6/24	Wed 11/6/19	NA	Contract Administration																																															
59	Community Road W&S Extension	45 days	Wed 1/17/24	Fri 3/1/24	NA	NA	Community Road W&S Extension																																															
68	Brunswick Villa Area Sewer Extensions	45 days	Wed 1/17/24	Fri 3/1/24	NA	NA	Brunswick Villa Area Sewer Extensions																																															
69	SPLOST Exit 29 WPF EST	45 days	Wed 7/24/24	Fri 9/6/24	NA	NA	SPLOST Exit 29 WPF EST																																															
70	PS 4105-4107 and FM (In-house)	45 days	Wed 1/17/24	Fri 3/1/24	NA	NA	PS 4105-4107 and FM (In-house)																																															
80	Construction	2243 days	Thu 1/10/19	Sat 3/1/25	Thu 1/10/19	NA	Construction																																															
92	NM Water Loops	330 days	Mon 10/2/23	Fri 8/30/24	Mon 10/2/23	NA	NM Water Loops																																															
93	Canal Road Water Production Facility	365 days	Mon 11/27/23	Mon 11/25/24	NA	NA	Canal Road Water Production Facility																																															
95	EST Rehab at Glynn Place Mall and Oglethorpe Sites	364 days	Fri 12/2/22	Thu 11/30/23	Fri 12/2/22	NA	EST Rehab at Glynn Place Mall and Oglethorpe Sites																																															
96	PS 4105-4107 and FM (In-house)	180 days	Sat 3/2/24	Wed 8/28/24	NA	NA	PS 4105-4107 and FM (In-house)																																															
107	PS4044 Rehab	330 days	Thu 10/26/23	Thu 9/19/24	Thu 10/26/23	NA	PS4044 Rehab																																															
110	Dunbar Creek WPCF Rehab	435 days	Fri 10/21/22	Fri 12/29/23	Fri 10/21/22	NA	Dunbar Creek WPCF Rehab																																															
111	Annual Galvanized Replacements Program	365 days	Mon 7/3/23	Mon 7/1/24	Mon 7/3/23	NA	Annual Galvanized Replacements Program																																															
113	Community Road W&S Extension	365 days	Sat 3/2/24	Sat 3/1/25	NA	NA	Community Road W&S Extension																																															
114	Sea Palms East Water Line Rehab	1250 days	Tue 6/30/20	Fri 12/1/23	Tue 6/30/20	NA	Sea Palms East Water Line Rehab																																															
118	Village Drainage Improvements - Ph II	120 days	Tue 9/5/23	Tue 1/2/24	Tue 9/5/23	NA	Village Drainage Improvements - Ph II																																															
119	PS Rehab 3101-4001-4002	180 days	Mon 10/30/23	Fri 4/26/24	NA	NA	PS Rehab 3101-4001-4002																																															
120	Brunswick Villa Area Sewer Extensions	365 days	Sat 3/2/24	Sat 3/1/25	NA	NA	Brunswick Villa Area Sewer Extensions																																															
121	SPLOST Exit 29 WPF EST	540 days	Sat 9/7/24	Sat 2/28/26	NA	NA	SPLOST Exit 29 WPF EST																																															
122	Highway 341 and Crispend Blvd	68 days	Mon 9/11/23	Fri 11/17/23	Mon 9/11/23	NA	Highway 341 and Crispend Blvd																																															
123	Arco Area Water and Sewer Extension	696 days	Mon 3/7/22	Wed 1/31/24	Mon 3/7/22	NA	Arco Area Water and Sewer Extension																																															
Project: Capital Projects Gantt Chart Date: Thu 11/9/23		Task		Project Summary		Manual Task		Start-only		Deadline		Progress																																										
		Split		Inactive Task		Duration-only		Finish-only		Baseline		Manual Progress																																										
		Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Baseline Milestone																																												
		Summary		Inactive Summary		Manual Summary		External Milestone		Baseline Summary																																												
Page 1																																																						

Capital Projects Earned Value Analysis
Financial Data as of 11/09/2023

Proj #	Project Name	Project Manager	Concept Design	Detail Design	Construction	BAC	PV	EV	AC	SV	CV	ETC	EAC	VAC	SPI	CPI	TCPI
801	FEMA Hazard Mitigation-Academy Creek	Burroughs	Haggerty	TBD	TBD	\$ 3,188,000.00	\$ 3,188,000.00	\$ 956,400.00	\$ 725,437.27	\$ (1,212,968.49)	\$ 230,962.73	\$ 1,692,686.96	\$ 2,418,124.23	\$ 769,875.77	0.30	1.32	0.91
906	Water Pollution Rehab-Academy & Dunbar	Burroughs	JWSC	GMC	Ruby-Collins, LLC	\$ 11,641,306.00	\$ 11,320,150.00	\$ 11,319,880.13	\$ 12,045,611.69	\$ (269.87)	\$ (725,731.56)	\$ 342,032.88	\$ 12,387,644.57	\$ (746,338.57)	1.00	0.94	-0.80
2001	PS 4105 Basin Expansion	Vo	JWSC	Roberts Civil Engineering	TBD	\$ 2,735,000.00	\$ 2,735,000.00	\$ 1,005,133.69	\$ 1,126,696.74	\$ (1,729,866.31)	\$ (121,563.05)	\$ 1,939,080.10	\$ 3,065,776.84	\$ (330,776.84)	0.37	0.89	1.08
2009	Sea Palms East Water Line Rehab	Simmons	JWSC	N/A	TBD	\$ 178,595.00	\$ 178,595.00	\$ 29,468.18	\$ 34,646.15	\$ (149,126.83)	\$ (5,177.98)	\$ 175,330.52	\$ 209,976.67	\$ (31,381.67)	0.17	0.85	1.04
2016	Arco Water and Sewer Expansion	Patel	JWSC	T&H	UWS	\$ 3,800,000.00	\$ 3,800,000.00	\$ 2,540,350.00	\$ 2,031,788.08	\$ (2,087,420.00)	\$ 508,561.92	\$ 1,007,476.08	\$ 3,039,264.16	\$ 760,735.84	0.67	1.25	0.71
2018	Meter Replacements	Roberts	JWSC	N/A	Delta Municipal Supply	\$ 18,450,000.00	\$ 7,318,082.19	\$ 17,487,220.00	\$ 15,607,421.17	\$ 10,169,137.81	\$ 1,879,798.83	\$ 859,285.41	\$ 16,466,706.58	\$ 1,983,293.42	2.39	1.12	0.34
2020	Community Rd Area Water and Sewer Expansion	Patel	JWSC	HGB	TBD	\$ 250,000.00	\$ 250,000.00	\$ 162,475.00	\$ 265,921.00	\$ (13,690.48)	\$ (103,446.00)	\$ 143,251.18	\$ 409,172.18	\$ (159,172.18)	0.65	0.61	-5.50
2021	Galvanized Replacements	Simmons	JWSC	N/A	JWSC	\$ 750,000.00	\$ 750,000.00	\$ 278,409.09	\$ 344,727.20	\$ (471,590.91)	\$ (66,318.11)	\$ 583,925.67	\$ 928,652.87	\$ (178,652.87)	0.37	0.81	1.16
2102	Canal Road WPF	Vo	T&H	T&H	TBD	\$ 1,850,000.00	\$ 1,850,000.00	\$ 151,286.00	\$ 120,680.00	\$ (1,698,714.00)	\$ 30,606.00	\$ 1,355,054.70	\$ 1,475,734.70	\$ 374,265.30	0.08	1.25	0.98
2103	North Mainland Water Loops	Vo	4Waters	4Waters	Vallencourt Construction	\$ 1,250,000.00	\$ 345,854.55	\$ 246,980.00	\$ 406,305.30	\$ (98,874.55)	\$ (159,325.30)	\$ 1,650,062.12	\$ 2,056,367.42	\$ (806,367.42)	0.71	0.61	1.19
2104	PS 4002 Rehab	Kline	Kimley-Horn	Kimley-Horn	Popco, Inc.	\$ 650,000.00	\$ 650,000.00	\$ 53,600.00	\$ 61,593.98	\$ (596,400.00)	\$ (7,993.98)	\$ 685,347.94	\$ 746,941.92	\$ (96,941.92)	0.08	0.87	1.01
2105	PS 4044 Rehab	Kline	LEA	LEA	Popco, Inc.	\$ 550,000.00	\$ 102,184.09	\$ 48,072.50	\$ 53,450.00	\$ (54,111.59)	\$ (5,377.50)	\$ 558,074.26	\$ 611,524.26	\$ (61,524.26)	0.47	0.90	1.01
2106	Dunbar Creek WPCF Rehab	Burroughs	BRW/HGB	HGB	BRW	\$ 9,338,893.30	\$ 6,934,783.71	\$ 4,642,276.49	\$ 5,010,144.43	\$ (2,292,507.22)	\$ (367,867.94)	\$ 5,068,790.85	\$ 10,078,935.28	\$ (740,041.98)	0.67	0.93	1.08
2108	PS 4001 Rehab	Kline	Kimley-Horn	Kimley-Horn	Popco, Inc.	\$ 400,000.00	\$ 400,000.00	\$ 26,800.00	\$ 36,583.94	\$ (373,200.00)	\$ (9,783.94)	\$ 509,445.02	\$ 546,028.96	\$ (146,028.96)	0.07	0.73	1.03
2109	Highway 17 North Pump Station	Patel	JWSC	JWSC	TBD	\$ 400,000.00	\$ 400,000.00	\$ 10,000.00	\$ 31,804.83	\$ (390,000.00)	\$ (21,804.83)	\$ 1,240,388.37	\$ 1,272,193.20	\$ (872,193.20)	0.03	0.31	1.06
2110	PS 3101 Rehab	Kline	Kimley-Horn	Kimley-Horn	Popco, Inc.	\$ 375,000.00	\$ 375,000.00	\$ 26,800.00	\$ 36,583.94	\$ (348,200.00)	\$ (9,783.94)	\$ 475,318.21	\$ 511,902.15	\$ (136,902.15)	0.07	0.73	1.03
2203	Mall EST & Oglethorpe EST Rehab	Vo	JWSC	JWSC	TankPro, Inc.	\$ 1,000,000.00	\$ 1,000,000.00	\$ 970,000.00	\$ 1,236,872.00	\$ (30,000.00)	\$ (266,872.00)	\$ 38,253.77	\$ 1,275,125.77	\$ (275,125.77)	0.97	0.78	-0.13
2207	Wesley Oaks Circle Water Main Improvements	Burroughs	JWSC	JWSC	D&D Directional Drilling	\$ 450,000.00	\$ 450,000.00	\$ 11,250.00	\$ 79,465.70	\$ (438,750.00)	\$ (68,215.70)	\$ 3,099,162.30	\$ 3,178,628.00	\$ (2,728,628.00)	0.03	0.14	1.18
2208	JWSC Facilities Improvements	Crosby	JWSC	N/A	Multiple	\$ 450,000.00	\$ 450,000.00	\$ 105,500.00	\$ 106,376.00	\$ (344,500.00)	\$ (876.00)	\$ 347,360.49	\$ 453,736.49	\$ (3,736.49)	0.23	0.99	1.00
2209	Brunswick Villa Area Sewer Extensions	Patel	JWSC	Kimley-Horn	TBD	\$ 2,750,000.00	\$ 1,429,788.33	\$ 301,681.91	\$ 305,690.50	\$ (1,128,106.43)	\$ (4,008.59)	\$ 2,480,850.09	\$ 2,786,540.59	\$ (36,540.59)	0.21	0.99	1.00
2215B	Highway 341/Crispen Boulevard Repairs	Kline	N/A	N/A	Popco, Inc.	\$ 679,000.00	\$ 679,000.00	\$ 665,420.00	\$ 148,700.00	\$ (13,580.00)	\$ 516,720.00	\$ 3,034.69	\$ 151,734.69	\$ 527,265.31	0.98	4.47	0.03
2216S	SPLOST EXIT 29 WPF & EST	Kline	N/A	T&H	TBD	\$ 6,000,000.00	\$ 84,509.33	\$ 69,144.00	\$ 2,676.00	\$ (15,365.33)	\$ 66,468.00	\$ 229,535.04	\$ 232,211.04	\$ 5,767,788.96	0.82	25.84	0.99
TOTALS						\$ 67,135,794.30	\$ 44,690,947.21	\$ 41,108,146.98	\$ 39,819,175.92	\$ (3,582,800.23)	\$ 1,288,971.06	\$ 24,483,746.64	\$ 64,302,922.56	\$ 2,832,871.74	0.92	1.03	0.95

BAC
PV
EV
AC
SV
CV
ETC
EAC

Budget at Completion
Planned Vaue
Earned Value
Actual Cost
Schedule Variance
Cost Variance
Estimate to Complete
Estimate at Completion

Approved Budget for Project
% of Schedule Used x BAC
% of Work Completed x BAC
Actual Costs to Date
EV - PV
EV - AC
(BAC - EV) / CPI
AC + ETC

Positive means ahead of schedule
Positive is better
Estimate to complete based on cost performance to date
Estimated final project cost