



**Brunswick-Glynn Joint Water and Sewer Commission  
1703 Gloucester Street, Brunswick GA 31520  
Wednesday, November 17, 2021 at 1:00 PM  
Commission Meeting Room**

## **FACILITIES COMMITTEE MEETING AGENDA**

### **AMENDED**

**COMMITTEE MEMBERS:**                    **Committee Chairman Ben Turnipseed  
Commissioner Bob Duncan  
Commissioner Chuck Cook  
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 20, 2021 Facilities Committee Meeting (*subject to any necessary changes*)**
- 2. Arco Area Water & Sewer Extension Contract Award – A. Burroughs**
- 3. AMI Meter Replacement Project – Change Order #1 – A. Burroughs**
- 4. Pump Station 2002 Force Main Installation Bid Rejection – A. Burroughs**
- 5. Canal Road Water Production Facility – A. Burroughs**
- 6. Engineering Services for Academy Creek WPCF Rehab Change Order #1 – A. Burroughs**

#### **DISCUSSION**

- 1. SCADA Demonstration**
- 2. WPCF Plant Flows Report – A. Burroughs**
- 3. Capital Project Report – T. Kline / A. Burroughs**
  - Capital Project Report Photos**
  - Capital Project Spreadsheet**
  - EVA Report**

#### **MEETING ADJOURNED**

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



**Brunswick-Glynn Joint Water & Sewer Commission**  
**1703 Gloucester Street, Brunswick, GA 31520**  
**Commission Meeting Room**  
**Wednesday, November 17, 2021 at 1:00 PM**

## **FACILITIES COMMITTEE MINUTES**

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

**ALSO PRESENT:**        **Charlie Dorminy, Legal Consultant**  
                                  **Todd Kline, Director of Engineering**  
                                  **LaDonnah Roberts, Deputy Executive Director**  
                                  **Christa Free, Procurement Coordinator**

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

Chairman Turnipseed provided the invocation.

### **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 20, 2021**

Commissioner Cook made a motion seconded by Commissioner Duncan to approve the minutes from the Facilities Committee Meeting held on October 20, 2021. Motion carried 3-0-0.

**2. Contract Award – Arco Water & Sewer Extension (Construction Phase) – A. Burroughs**  
Mr. Burroughs presented Invitation for Bid No. 22-013, Arco Area Water & Sewer Extension (Construction Phase), which was released on September 24, 2021. The scope of work for this project includes the installation of 11,307 linear feet of 8-inch and 3,116 linear feet of 10-inch PVC gravity sewer as well as 1,040 linear feet of 6-inch and 3,207 linear feet of 8-inch PVC water main to allow properties in the Arco area of Brunswick access to the JWSC system. Two bids were received Thursday, October 28, 2021, with UWS, Inc. being the apparent low bidder at \$3,655,749.60. The Contract period for this work will be 240 consecutive calendar days.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee forward the above described contract for Arco Area Water & Sewer Extension (Construction

Phase) to UWS Inc., in the amount of \$3,655,749.60 to the full Commission for approval. Motion carried 3-0-0.

**3. AMI Meter Replacement Project – Change Order #1 – L. Roberts**

Ms. Roberts presented a change order request from Delta Municipal Supply Company (“Delta”) for the Advanced Metering Infrastructure and Meter Data Management System project. During the course of installation of meter change-outs Delta encountered a larger quantity of fused meters, dubbed “yoke bars”, than had been anticipated during the initial research, thereby increasing the original “not-to-exceed” allowance value. Delta suspended meter installation in May of 2021 and completed a full-scale visual audit of the entire meter system. It was determined following the audit that the “not-to-exceed” allowance should increase by \$3,287,712.60 for the remainder of the project in order to account for the additional “yoke bars” located throughout the JWSC system. The project is funded by GEFA loan.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee recommend the full Commission approve the above described Change Order #1 for Delta Municipal Supply Company for the Meter Replacement project. Motion carried 3-0-0.

**4. Pump Station 2002 Force Main Installation Bid Rejection – A. Burroughs**

Mr. Burroughs presented a bid rejection for IFB No. 22-012 Pump Station 2002 Force Main Installation. The bid was released on September 22, 2021, with a pre-bid meeting held October 12 with four contractors in attendance. One bid was received November 9, 2021 from T.B. Landmark Construction, at a bid price of \$769,315.00. The bid does not include the cost of the materials, which are being ordered by the JWSC due to supply chain and lead time issues. Due to budgeted funds of \$500,000 for this project, staff recommends rejecting the bid from T.B. Landmark Construction. Chairman Turnipseed requested that Mr. Burroughs submit a proposal for SmartBall technology to the next Committee meeting in order for JWSC staff to determine a more cost effective way to rehabilitate Pump Station 2002.

Commissioner Duncan made a motion seconded by Commission Cook to move that the Facilities Committee recommend the full Commission reject the bid for IFB No. 22-012 Pump Station 2002 Force Main Replacement due to insufficient funds allocated for the project. Motion carried 3-0-0

**5. Contract Award – Engineering Services for Canal Road Water Production Facility – A. Burroughs**

Mr. Burroughs presented Request for Proposal No. 22-015 Engineering Services for Canal Road Water Production Facility. The RFP was released on September 29, 2021 and a pre-proposal meeting attended by ten engineering firms was held on October 18, 2021. The scope of work for this project includes engineering services to provide additional water production capability to the North Mainland District. There is a current fire well located at 104 Canal Road, which has been determined to possess sufficient yield to allow for conversion to a full water production facility. The existing well is an Upper Floridan well and will reduce JWSC dependence on the two Miocene wells in the North Mainland. Six proposals were received on November 2, 2021 and were evaluated by a three member panel representing JWSC Operations, Engineering, and Senior Leadership. Thomas & Hutton Engineering Co., was the highest scoring proposal at 91. The proposal from Thomas & Hutton was also the lowest cost proposal at \$225,800.00. The estimated time to complete design services and produce bid ready plans and specifications is 120 days.

Commissioner Cook made a motion seconded by Commissioner Duncan to move that the Facilities Committee recommend the full Commission award a contract for Engineering Services to Thomas &

Hutton Engineering, Co., in the amount of \$225,800.00 for Canal Road Water Production Facility project. Motion carried 3-0-0.

**6. Engineering Services for Academy Creek WPCF Rehab Change Order #1 – A. Burroughs**  
Mr. Burroughs informed the Committee that in July 2020 the JWSC received an updated NPDES discharge permit that contained significant changes to ammonia, BODs, and *Enterococci* discharge limitations. Existing plant changes as a result of current rehab work at the Academy Creek WPCF will improve ammonia and BODs removal at the facility, and internal improvements were made to the existing chlorine disinfection equipment to increase the availability of chlorination and dechlorination for disinfection purposes. However, increased dosing rates of both chlorine for disinfection and sulfur dioxide for dechlorination are required to effectively treat against the more resistant *Enterococci*. The new dosing rate is also affected by an increase cost of chemicals due to supply chain issues. Costs have increased through 1Q FY2022 by 25% and the JWSC has also been notified of a 50% increase for chlorine effective November 1, 2021, which would add an additional annual cost of \$50,000 to the current chlorine budget. As the Engineer of Record for the current rehab work at the Academy Creek WPCF, the JWSC approached GMC about costs to design improvements for the installation of UV disinfection equipment. The current contract for engineering of the Academy Creek WPCF is \$1,181,150.00 and the change order request to engineer for UV system is \$79,000. There is currently \$112,049 of uncommitted funding for this project. Chairman Turnipseed requested that Mr. Burroughs receive a timeline of work from GMC for the updated engineering.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee recommend that the full Commission approve the above described Change Order #1 for GMC Engineering for the UV system engineering at the Academy Creek WPCF. Motion carried 3-0-0.

## **DISCUSSION**

### **1. SCADA Demonstration – A. Burroughs**

Mr. Burroughs gave a demonstration of the new SCADA system currently being installed by EMC Technologies. At the time of the meeting, 136 sites were complete. The new updated system allows JWSC employees to operate station pumps remotely. Each station will show current water level, pump run/start times, and historical data and alarms. Forty hours of training is provided to JWSC employees based on job description.

### **2. WPCF Plant Flows Report – A. Burroughs**

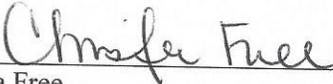
Mr. Burroughs reviewed the Wastewater Flow Reports with the Commissioners. This report contains data regarding the influent and effluent flows, concentration of elements and chemicals, plant capacity, etc. The influent flow at Academy Creek was at 7.0 and the effluent flow was 7.0, with the plant operating at 52% of its capacity. The influent flow at Dunbar Creek was at 2.5 and the effluent flow was 2.9, with the plant operating at 71% capacity. The influent flow at South Port was at 0.430 and the effluent flow was at 0.490, with the plant operating at 29r% capacity. JWSC's wastewater treatment plants are operating very well and are within permit limits.

### **3. Capitol Project Report – T. Kline**

Mr. Kline gave an update on the Project Report for projects currently in process. The Commissioners were provided with a packet containing: the Capital Project Report Spreadsheet, Capital Project Photographs, the Capital Project Gantt Chart of project timelines, and also 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.

There being no further Committee business, Chairman Turnipseed adjourned the meeting at 2:58 p.m.

  
\_\_\_\_\_  
G. Ben Turnipseed, Chairman

Attest:   
\_\_\_\_\_  
Christa Free  
Procurement Coordinator



# *Brunswick-Glynn*

## *Joint Water and Sewer Commission*

# *Memorandum*

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**To:** Facilities Committee  
**From:** Andrew Burroughs, P.E., Executive Director  
**Date:** Wednesday, November 17, 2021  
**Re:** CONTRACT AWARD – Arco Area Water and Sewer Extensions

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### **Background**

In the Arco neighborhood of Glynn County, an opportunity exists to extend both water and sewer access to properties currently on private wells and septic tanks. The project scope includes the installation of 11,307 linear feet of 8-inch and 3,116 linear feet of 10-inch PVC gravity sewer as well as 1,040 linear feet of 6-inch and 3,207 linear feet of 8-inch PVC water main. This will allow these properties access to the JWSC system. Engineering design was completed by Thomas & Hutton. Construction services are needed at this time to meet the next overall project milestone.

### **Staff Report**

Invitation For Bids No. 22-013 was released on Friday, September 24, 2021. A pre-bid teleconference was held on Monday, October 18, 2021, with three (3) prime and one (1) subcontractor construction firm in attendance. Two (2) bids were received on Thursday, October 28, 2021. UWS Inc. was the low bidder at \$3,655,749.60. A copy of the bid tabulation is attached.

### **Funding Source**

This project was funded from the Capital Reserve. The project number is 2101. The budgeted funding amount for construction was \$3,500,000.00. The additional \$155,749.60 of this project can be funded by proceeds from the Series 2021 Bond issuance.

### **Recommended Action**

After reviewing the bid packages, staff and the engineer of record recommends moving forward with an award to UWS, Inc. in the amount of \$3,655,749.60. Contract completion time is 240 consecutive calendar days. The amount and timeline for completion of services is in line with staff estimates.

### **Recommended Motion**

*“I move that the Facilities Committee recommend the full Commission award a contract for the construction of the Arco Area Water and Sewer Extensions to UWS, Inc., in the amount of \$3,655,749.60.”*

### **Enclosures**

Bid Tabulation dated October 29, 2021

EOR (Thomas & Hutton Engineering, Inc.) Recommendation Letter dated November 5, 2021

**BRUNSWICK-GLYNN JOINT WATER AND SEWER COMMISSION**  
**BID TABULATION IFB NO 22-013**  
**ARCO AREA WATER AND SEWER EXTENSION**

Item #	Description	Quantities	Units	UWS, Inc.		Popco, Inc.	
				Unit Cost	Total	Unit Cost	Total
<b>CLEARING, GRADING, AND EROSION CONTROL</b>							
1	Mobilization/Demobilization	1	LS	\$54,000.00	\$54,000.00	\$495,000.00	\$495,000.00
2	Traffic Control	1	LS	\$68,400.00	\$68,400.00	\$165,000.00	\$165,000.00
3	Erosion, Sedimentation, and Pollution Control	1	LS	\$13,200.00	\$13,200.00	\$180,000.00	\$180,000.00
4	Grassing	1	LS	\$13,200.00	\$13,200.00	\$95,000.00	\$95,000.00
<b>Sub-Total: CLEARING, GRADING AND EROSION CONTROL</b>					<b>\$148,800.00</b>		<b>\$935,000.00</b>
<b>WASTEWATER COLLECTION SYSTEM</b>							
Item #	Description	Quantities	Units	Unit Cost	Total	Unit Cost	Total
5	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (0-6)	2,508	LF	\$67.20	\$168,537.60	\$127.00	\$318,516.00
6	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (6-8)	5,043	LF	\$67.20	\$338,889.60	\$130.00	\$655,590.00
7	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (8-10)	2,118	LF	\$80.40	\$170,287.20	\$132.00	\$279,576.00
8	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (10-12)	969	LF	\$120.00	\$116,280.00	\$152.00	\$147,288.00
9	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (12-14)	245	LF	\$156.00	\$38,220.00	\$182.00	\$44,590.00
10	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (14-16)	178	LF	\$240.00	\$42,720.00	\$242.00	\$43,076.00
11	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (16-18)	180	LF	\$300.00	\$54,000.00	\$297.00	\$53,460.00
12	8" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (18-20)	66	LF	\$600.00	\$39,600.00	\$322.00	\$21,252.00
13	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (0-6)	1,047	LF	\$78.00	\$81,666.00	\$148.00	\$154,956.00
14	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (6-8)	395	LF	\$78.00	\$30,810.00	\$152.00	\$60,040.00
15	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (8-10)	320	LF	\$84.00	\$26,880.00	\$161.00	\$51,520.00
16	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (10-12)	260	LF	\$138.00	\$35,880.00	\$204.00	\$53,040.00
17	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (12-14)	890	LF	\$168.00	\$149,520.00	\$221.00	\$196,690.00
18	10" Dia. PVC Gravity Sewer Main, ASTM D3034, SDR26 (14-16)	204	LF	\$240.00	\$48,960.00	\$266.00	\$54,264.00
19	Connect to Existing SSMH. Core MH and Use S.S. Flexible Boot. Coat Existing MH with Raven 405	4	EA	\$6,000.00	\$24,000.00	\$21,645.00	\$86,580.00
20	Proposed 6" Single Service Laterals	50	EA	\$1,440.00	\$72,000.00	\$1,500.00	\$75,000.00
21	Proposed 6" Double Service Laterals	108	EA	\$2,040.00	\$220,320.00	\$2,100.00	\$226,800.00
22	6" Cleanout	3	EA	\$600.00	\$1,800.00	\$400.00	\$1,200.00
23	8" Cleanout	1	EA	\$600.00	\$600.00	\$500.00	\$500.00
24	Sanitary Sewer Manhole (4-6)	19	EA	\$3,840.00	\$72,960.00	\$5,800.00	\$110,200.00
25	Sanitary Sewer Manhole (6-8)	18	EA	\$5,400.00	\$97,200.00	\$6,300.00	\$113,400.00
26	Sanitary Sewer Manhole (8-10)	9	EA	\$7,560.00	\$68,040.00	\$7,600.00	\$68,400.00
27	Sanitary Sewer Manhole (10-12)	3	EA	\$7,560.00	\$22,680.00	\$10,100.00	\$30,300.00
28	Sanitary Sewer Manhole (12-14)	3	EA	\$7,560.00	\$22,680.00	\$13,000.00	\$39,000.00
29	Sanitary Sewer Manhole (14-16)	1	EA	\$12,600.00	\$12,600.00	\$15,500.00	\$15,500.00
30	Drop Sanitary Sewer Manhole (8-10)	1	EA	\$12,600.00	\$12,600.00	\$12,000.00	\$12,000.00
31	Drop Sanitary Sewer Manhole (18-20)	2	EA	\$12,600.00	\$25,200.00	\$23,000.00	\$46,000.00
<b>Sub-Total: WASTEWATER COLLECTION SYSTEM</b>					<b>\$1,994,930.40</b>		<b>\$2,958,738.00</b>
<b>WATER DISTRIBUTION SYSTEM</b>							
Item #	Description	Quantities	Units	Unit Cost	Total	Unit Cost	Total
32	Abandoned Existing 2" Dia Water Main	2,230	LF	\$1.20	\$2,676.00	\$18.00	\$40,140.00
33	Abandoned Existing 6" Dia Water Main	912	LF	\$7.20	\$6,566.40	\$30.00	\$27,360.00
34	Abandoned Existing 8" Dia Water Main	2,585	LF	\$7.20	\$18,612.00	\$47.00	\$121,495.00
35	6" Dia PVC Water Main, AWW C900, DR18	1,040	LF	\$32.40	\$33,696.00	\$73.00	\$75,920.00
36	8" Dia PVC Water Main, AWW C900, DR18	3,207	LF	\$44.40	\$142,390.80	\$95.00	\$304,665.00
37	8" Dia D.I. Water Main (C151, PC350)	40	LF	\$120.00	\$4,800.00	\$140.00	\$5,600.00
38	8" Gate Valve in Box	14	EA	\$2,400.00	\$33,600.00	\$2,100.00	\$29,400.00
39	Fittings	1,150	LBS	\$3.60	\$4,140.00	\$9.00	\$10,350.00
40	Reconnect Existing Fire Hydrant to Proposed 8" Dia. PVC	2	EA	\$4,200.00	\$8,400.00	\$2,100.00	\$4,200.00
41	Cut 2" Ball Valve into Existing 2" Water Main	2	EA	\$2,040.00	\$4,080.00	\$500.00	\$1,000.00
42	Connect to Existing Water Main with 2" x 2" Tapping Sleeve & Valve	2	EA	\$1,440.00	\$2,880.00	\$940.00	\$1,880.00
43	Connect to Existing Water Main with 6" x 6" Tapping Sleeve & Valve	3	EA	\$6,600.00	\$19,800.00	\$4,500.00	\$13,500.00
44	Connect to Existing Water Main with 8" x 8" Tapping Sleeve & Valve	8	EA	\$6,600.00	\$52,800.00	\$5,900.00	\$47,200.00
45	Connect to Existing Water Main with 12" x 8" Tapping Sleeve &	3	EA	\$6,600.00	\$19,800.00	\$7,400.00	\$22,200.00
<b>Sub-Total: WATER DISTRIBUTION SYSTEM</b>					<b>\$354,241.20</b>		<b>\$704,910.00</b>
<b>REMOVAL AND REPLACEMENT</b>							
Item #	Description	Quantities	Units	Unit Cost	Total	Unit Cost	Total
46	Remove & Replace Existing Pavement	18,127	SY	\$60.00	\$1,087,620.00	\$75.00	\$1,359,525.00
47	Remove & Replace Existing Gravel	184	SY	\$12.00	\$2,208.00	\$50.00	\$9,200.00
48	Remove & Replace Existing Concrete	784	SY	\$60.00	\$47,040.00	\$110.00	\$86,240.00
49	Remove & Replace Existing Fence	145	SY	\$30.00	\$4,350.00	\$450.00	\$65,250.00
50	Remove & Replace 15" RCP	108	LF	\$120.00	\$12,960.00	\$150.00	\$16,200.00
51	Remove & Replace Junction Box	1	EA	\$3,600.00	\$3,600.00	\$8,500.00	\$8,500.00
<b>Sub-Total: REMOVAL AND REPLACEMENT</b>					<b>\$1,157,778.00</b>		<b>\$1,544,915.00</b>
<b>TOTAL</b>					<b>\$3,655,749.60</b>		<b>\$6,143,563.00</b>

Engineer of Record Signature: 

Name: Chris Stavall

Date: 10/29/2021



50 PARK OF COMMERCE WAY  
SAVANNAH, GA 31405 | 912.234.5300  
WWW.THOMASANDHUTTON.COM

November 5, 2021

Mr. Andrew Burroughs  
Brunswick-Glynn Joint Water &  
Sewer Commission  
1703 Gloucester St  
Brunswick, GA 31520

RE: ITB No. 20-013  
Arco Area Water and Sewer Main Extension  
Recommendation of Award

Dear Mr. Burroughs:

This letter serves as our recommendation of award of a construction contract for the referenced project.

After legal advertisement on the BGJWSC's website and State Procurement page, sealed bids were received at BGJWSC offices at 12:00 p.m., Thursday, October 28, 2021 and were then publicly opened and read aloud.

Two bids were received. We have reviewed the bids, checked the line item prices for any errors, and have prepared the attached bid abstract for the project. The apparent low bidder was UWS, Inc. of Trion, Georgia with a total base bid of \$3,655,749.60.

We have not worked with this firm on previous projects; however, their subcontractor, Blackcreek Contracting, has completed projects for JWSC and has a history of successfully completing projects for the JWSC. Most of these projects have been smaller than the referenced project, but they appear to be able to complete projects of this scale and complexity. Based on the materials provided by the contractor and a reference check, the prime contractor has successfully completed many utility projects similar to this one. We have checked the [State of Georgia - Suspended and Debarred Suppliers](#) list on the Georgia Department of Administrative Services website to determine the debarment status of the company and the low bidder is not on the list. We therefore recommend award of a construction contract to UWS, Inc. as the lowest responsive, responsible bidder to include the base bid with alternatives in the amount of \$3,655,749.60.

Should you have any questions, please do not hesitate to call.

Sincerely,

**THOMAS & HUTTON**

A handwritten signature in blue ink that reads 'A. Stovall'.

A. Christopher Stovall, P.E.

ACS/dcEnclosures



# *Brunswick-Glynn*

## *Joint Water and Sewer Commission*

# *Memorandum*

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**To:** Facilities Committee  
**From:** LaDonnah Roberts, Deputy Executive Director  
**Date:** Wednesday, November 17, 2021  
**Re:** AMI Meter Replacement Project – Change Order #1

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### **Background**

At the July 16, 2020 Commission meeting the Board approved a contract for award to Delta Municipal Supply Company (“Delta”) for replacement of all 30,000+ water meters in the BGJWSC system to include accompanying Advanced Metering Infrastructure and a Meter Data Management System. The contract contained both a fixed price portion and a “not to exceed” allowance. The allowance was based on a schedule of pricing for specific labor and materials beyond the meter itself that would be needed to change out the meter assemblies.

### **Staff Report**

As Delta and its team proceeded with the meter change-outs they encountered a larger quantity of certain types of meter assemblies (“yoke bars”) than had been anticipated in arriving at the “not-to-exceed” allowance value. Delta presented this information to the JWSC project leadership in May of this year. At that time, JWSC made the decision to suspend large-scale meter replacements until a full visual audit of the system could be conducted by Delta and its team in order to determine the full financial impact of the yoke bar assemblies and other non-standard installations on the project budget. Excerpts of the data gathered during that audit is attached, as is a summary of the findings. Calculation of the impact to the “not to exceed” allowance yields a cost increase of \$3,287,712.60 for the remainder of the full project.

### **Funding Source**

GEFA loan funding was approved for the first two phases of the project, and a second GEFA loan application is planned for submission in January 2022 with an anticipated decision by GEFA at their May 2022 Board meeting. In the event the second loan application is not approved then the remaining project work will be funded with Repair & Replacement Reserve funds.

### **Recommended Action**

In an effort to proactively address supply chain challenges and pricing issues, staff requests that the Commission approve Change Order No. 1 for the increase in the “not-to-exceed” allowance described above.

### **Recommended Motion**

*“I move that the Facilities Committee recommend the full Commission approve Change Order No. 1 in the amount of \$3,287,712.60 to the Delta Municipal Supply Company’s AMI Meter Replacement contract.”*

### **Attachments**

Data excerpts from BGJWSC\_Location\_Audit.xls  
Delta quote based on full audit findings

BGWSC Location Audit

status	mewo	route	address	lid_needs_cut	yoke_set	needs_box	landscape_issue
LOCATE	204	49	345 BELMONT CIR				
LOCATE	205	49	339 BELMONT CIR				
LOCATE	206	49	325 BELMONT CIR				
READY	10001	91	201 AUBREY ST	no	no	no	no
LOCATE	10002	91	204 AUBREY ST				
READY	10003	91	300 AUBREY ST	no	yes	yes	no
LOCATE	10004	91	301 AUBREY ST				
READY	10005	91	305 AUBREY ST	no	yes	yes	no
READY	10006	91	702 AVALON AV	no	yes	yes	no
READY	10007	91	703 AVALON AV	no	yes	yes	no
READY	10008	91	704 AVALON AV	no	yes	yes	no
READY	10009	91	804 AVALON AV	no	yes	yes	no
NEED LID CUT	10010	91	1003 B AND W GRADE RD	yes	no	no	no
READY	10011	91	1010 B AND W GRADE RD	no	yes	yes	no
NEEDS GPS	10012	91	1014 B AND W GRADE RD	no	yes	yes	no
NEEDS GPS	10013	91	1253 B AND W GRADE RD	no	yes	yes	
NEEDS GPS	10014	91	1253 B AND W GRADE RD	no	yes	yes	
READY	10015	91	132 BUTLER DR	no	yes	yes	
READY	10016	91	200 BUTLER DR	no	yes	yes	
READY	10017	91	275 BUTLER DR	no	yes	yes	no
READY	10018	91	300 BUTLER DR	no	yes	yes	no
LOCATE	10019	91	304 BUTLER DR				
READY	10020	91	400 BUTLER DR	no	yes	yes	no
NEED LID CUT	10022	91	120 CANAL RD	yes	no	no	no
NEED LID CUT	10023	91	130 CANAL RD	yes	no	no	no
READY	10024	91	245 CANAL RD	no	no	no	no
READY	10025	91	252 CANAL RD	no	no	no	no
NEED LID CUT	10026	91	803 CANAL ST	yes	no	no	no
LOCATE	10027	91	400 CARY ST				
READY	10028	91	1003 COMMERCIAL DR	no	yes	yes	no
READY	10029	91	1004 COMMERCIAL DR	no	yes	yes	no
LOCATE	10030	91	1008 COMMERCIAL DR				
NEED LID CUT	10031	91	1010 COMMERCIAL DR	yes	yes	no	no
READY	10032	91	1012 COMMERCIAL DR	no	no	no	no
READY	10033	91	1014 COMMERCIAL DR	no	yes	yes	no
READY	10034	91	1017 COMMERCIAL DR	no	yes	yes	no
READY	10035	91	1019 COMMERCIAL DR	no	yes	yes	no
LOCATE	10036	91	1021 COMMERCIAL DR				
LOCATE	10037	91	1025 COMMERCIAL DR				
LOCATE	10038	91	1032 COMMERCIAL DR				
LOCATE	10039	91	2001 COMMERCIAL DR S				
READY	10040	91	2001 COMMERCIAL DR S	no	no	no	no
LOCATE	10041	91	2002 COMMERCIAL DR S				
READY	10042	91	2003 COMMERCIAL DR S	no	yes	yes	no
NEED LID CUT	10043	91	2003 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10044	91	2003 COMMERCIAL DR S	yes	no	no	no
READY	10046	91	2005 COMMERCIAL DR S	no	yes	yes	no
READY	10047	91	2006 S COMMERCIAL DR	no	yes	yes	
READY	10048	91	2006 S COMMERCIAL DR	no	yes	yes	
READY	10049	91	2006 S COMMERCIAL DR	no	no	no	no
NEED LID CUT	10050	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10051	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10052	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10053	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10054	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10055	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10056	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10057	91	2006 COMMERCIAL DR S	no	no	no	no
READY	10058	91	2006 COMMERCIAL DR S	no	no	no	no
READY	10059	91	2006 COMMERCIAL DR S	no	no	no	no
NEED LID CUT	10060	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10061	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10062	91	2006 COMMERCIAL DR S	yes	no	no	no

BGJWSC Location Audit

READY	10063	91	2006 COMMERCIAL DR S	no	no	no	no
NEED LID CUT	10064	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10065	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10066	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10067	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10068	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10069	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10070	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10071	91	2006 COMMERCIAL DR S	no	no	yes	no
NEED LID CUT	10072	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10073	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10074	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10075	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10076	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10077	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10078	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10079	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10080	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10081	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10082	91	2006 COMMERCIAL DR S	no	yes	yes	
NEED LID CUT	10083	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10084	91	2006 COMMERCIAL DR S	no	no	no	no
NEED LID CUT	10085	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10086	91	2006 COMMERCIAL DR S	no	no	no	no
NEED LID CUT	10087	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10088	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10089	91	2006 COMMERCIAL DR S	yes	no	no	no
READY	10090	91	2006 COMMERCIAL DR S	no	no	no	no
READY	10091	91	2006 COMMERCIAL DR S	no	no	no	no
NEED LID CUT	10092	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10093	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10094	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10095	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10096	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10097	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10098	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10099	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10100	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10101	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10102	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10103	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10104	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10105	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10106	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10107	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10108	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10109	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10110	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10111	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10112	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10113	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10114	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10115	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10116	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10117	91	2006 COMMERCIAL DR S	yes	no	no	no
NEED LID CUT	10118	91	4227 COMMUNITY RD	yes	no	no	no
NEED LID CUT	10119	91	4229 COMMUNITY RD	yes	no	no	no
READY	10120	91	4240 COMMUNITY RD	no	yes	yes	no
LOCATE	10121	91	4254 COMMUNITY RD				
NEED LID CUT	10122	91	4298 COMMUNITY RD	yes	no	no	no
LOCATE	10123	91	101 CRISPEN LN				
LOCATE	10124	91	101 CRISPEN BLVD				
READY	10125	91	102 CRISPEN LN	no	yes	yes	no
LOCATE	10126	91	103 CRISPEN LN				



# DELTA MUNICIPAL SUPPLY

## Quote

408 Jesse Cronin Road  
Braselton, GA 30517

Date	Quote #
10/18/2021	12178

Bill To
Brunswick Glynn Co JWSC 1703 Gloucester St. Brunswick, GA 31520 Attn: Accounts Payable

Ship To
Brunswick Glynn Co JWSC 161 South Harrington St. Simons IS, GA 31522

Your No.	Terms	Rep	FOB	Ship Via
	Net 30 Days	H		

Quantity	Description	Unit Price	Total
*** Total Audited ***			
9,801	1" Curb Stop + Installation	138.80	1,360,378.80
17,212	3/4" AY McD 711X-3JF 43 Dual Check Valve + Installation	58.90	1,013,786.80
4,132	1 1/4 x 1 AY 711X3JF54 Dual Check + Installation	67.00	276,844.00
6,124	New Box Installation	32.00	195,968.00
11,783	Lid Cut w/ New Hole	5.00	58,915.00
*** Locates/ Not Audited ***			
1,572	1" Curb Stop + Installation	138.80	218,193.60
1,896	3/4" AY McD 711X-3JF 43 Dual Check Valve + Installation	58.90	111,674.40
167	1 1/4 x 1 AY 711X3JF54 Dual Check + Installation	67.00	11,189.00
979	New Box Installation	32.00	31,328.00
1,887	Lid Cut w/ New Hole	5.00	9,435.00
**** Material Prices Good Only Through End of 2021 Year **** <i>Nov. 30 Deadline</i>			

<b>Subtotal</b>		\$3,287,712.60
<b>Sales Tax (0.00)</b>		\$0.00
<b>Total</b>		<b>\$3,287,712.60</b>

**WE APPRECIATE YOUR BUSINESS!** Please contact our office with any questions regarding this quote.

Phone: 770-277-0211 Fax: 770-277-2412 Toll Free: 1-800-273-0574

*"We Supply Service"*



# *Brunswick-Glynn*

## *Joint Water and Sewer Commission*

# *Memorandum*

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**To:** Facilities Committee  
**From:** Andrew Burroughs, P.E., Executive Director  
**Date:** Wednesday, November 17, 2021  
**Re:** Bid Rejection – Pump Station 2002 Force Main Replacement

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### **Background**

Pump Station 2002 is located on Arnold Road on St. Simons Island, near the intersection of Ocean Boulevard and Arnold Road. The existing 10” cast iron force main is the original force main installed in the station and has reached the end of its useful life. The force main has had multiple issues over recent years, which has caused emergency repairs to the infrastructure and road closures to complete the work. TR Long Engineering was contracted to design a new 12” PVC force main along the northern shoulder of Arnold Road to eliminate the pipe being at the center line of the road.

### **Staff Report**

Invitation for Bids No. 22-012 was released on Wednesday, September 22, 2021. A pre-bid site visit was held on Tuesday, October 12, 2021, with four (4) prime contractor and two (2) subcontractor construction firms in attendance. One (1) bid were received on Tuesday, November 9, 2021. Bid results do not include the cost of materials, which are being ordered separately by the JWSC due to lead time issues. The sole bid received was from T.B. Landmark Construction with a total bid price of \$769,315.00.

Staff believed that installation in the shoulder of the road would reduce costs to the utility as it would not require extensive paving on Arnold Road. Arnold Road is not on the current paving list for Glynn County. However, due to the extensive utilities existing in the shoulder and aboveground improvements, costs for the installation of the force main in the shoulder vastly exceeded expectations.

### **Funding Source**

Staff intended to recommend payment for this project out of Project No. 2014, which had \$500,000 allocated from the R&R Reserve in the 2000 Capital Projects Plan. Engineering costs committed to this project are \$38,235. Materials for the project have been ordered at a total cost of \$108,686.30. This leaves an uncommitted balance of \$353,078.70 remaining in the project budget for construction services. The received bid price is \$416,236.30 over budget.

### **Recommended Action**

The pricing for the one (1) bid received exceeds the available funds for this work. Staff feels it is not in the best interest of the JWSC to proceed with awarding a contract for this work at the bid price received. TR Long Engineering and staff recommend rejecting all bids.

### **Recommended Motion**

***“I move that the Facilities Committee recommend the full Commission reject all bids for IFB No. 22-012 Pump Station 2002 Force Main Replacement due to insufficient funds being allocated for the project.”***

### **Enclosures**

Bid Tabulation dated November 10, 2011

EOR (TR Long Engineering, P.C.) Recommendation Letter dated November 15, 2021

**BID TABULATION**  
**BRUNSWICK-GLYNN COUNTY JOINT WATER AND SEWER COMMISSION**  
**IFB NO. 22-012**  
**PUMP STATION 2002 FORCEMAIN REPLACEMENT (PROJECT NO. 2014)**

ITEM	DESCRIPTION	QUANTITY		T B LANDMARK CONSTRUCTION, INC.	
		NUMBER OF UNITS	UNIT MEASURE	PER UNIT	TOTAL COST
1	Remove and Replace 6" Concrete Driveway	140	SY	\$ 120.00	\$ 16,800.00
2	Remove and Replace Asphalt Pavement	10	SY	\$ 750.00	\$ 7,500.00
3	Remove and Replace 24" Curb and Gutter	20	LF	\$ 100.00	\$ 2,000.00
4	Remove and Replace Chain Link Fence	190	LF	\$ 80.00	\$ 15,200.00
5	Installation of 12" PVC Force Main	1015	LF	\$ 350.00	\$ 355,250.00
6	Installation of 12" FPVC or Certa-Lok PVC Force Main	300	LF	\$ 170.00	\$ 51,000.00
7	Air Release Valve	3	EA	\$ 14,000.00	\$ 42,000.00
8	4' Diameter Manhole	4	EA	\$ 7,500.00	\$ 30,000.00
9	Installation of Fittings	1	SUM	\$ 75,000.00	\$ 75,000.00
10	Flowable Fill	35	CY	\$ 454.00	\$ 15,890.00
11	Silt Fence Sd1-NS	1400	LF	\$ 15.00	\$ 21,000.00
12	Temporary Grassing	0.45	AC	\$ 8,500.00	\$ 3,825.00
13	Permanent Grassing	0.45	AC	\$ 8,500.00	\$ 3,825.00
14	Mulching	0.45	AC	\$ 4,500.00	\$ 2,025.00
15	Traffic Control	1	SUM	\$ 33,000.00	\$ 33,000.00
16	Utility Relocation	1	SUM	\$ 75,000.00	\$ 75,000.00
17	Mobilization (Max 3% Bid)	1	SUM	\$ 20,000.00	\$ 20,000.00
<b>GRAND TOTAL</b>					<b>\$ 769,315.00</b>
	<i>Optional</i>				
1	Remove and Replace 2' Wide Strip 1.5" Asphalt Pavement	200	SY	\$ 150.00	\$ 30,000.00
2	8" Graded Aggregate Base	200	SY	\$ 150.00	\$ 30,000.00
<b>GRAND TOTAL</b>					<b>\$ 60,000.00</b>

Bid Opening Date: November 9, 2021; 3:00 P.M.

Prepared by: Michelle C Adams

I certify that this is a correct representation of the bids received.

T. R. Long Engineering, P.C.  
114 North Commerce Street  
Hinesville, Georgia 31313  
912-368-5664

  
Trent R. Long, P. E.

11-10-2021  
Date

114 North Commerce Street  
Hinesville, Georgia 31313  
Office: (912) 368-5664  
Fax: (912) 368-7206



308 Commercial Drive  
Savannah, Georgia 31406  
Office: (912) 335-1046  
Fax: (912) 355-1642

November 15, 2021

Mr. Andrew Burroughs  
Brunswick – Glynn County Joint Water and Sewer Commission  
1703 Gloucester Street  
Brunswick, Georgia 31520

Re: Pump Station 2002 Forcemain Replacement  
TRL # 2021-01

Dear Mr. Burroughs,

Bids were opened for the above referenced project on November 9, 2021. As shown on the bid tabulation, one bid was received. The bidder is T. B. Landmark Construction, Inc. with a bid price of \$769,315.00 and a bid price for optional roadway work of \$60,000.00.

T. R. Long Engineering, P. C. has reviewed the bid received and evaluated options for possible reductions in costs. Based on our review, T. R. Long Engineering, P.C. recommends that the Brunswick – Glynn County Joint Water and Sewer Commission reject the bid received. This bid exceeds the budget established for this project.

It is recommended that the Commission consider redesigning and re-bidding the force main replacement using a different approach. The redesign would include placing the replacement force main underneath the existing roadway adjacent to the existing force main. This will require rebuilding the northern most lane of Arnold Drive. The force main replacement along Demere Road will remain as currently designed. This approach will avoid multiple utility conflicts and will most likely increase interest from competing contractors and reduce costs to the commission.

Rejecting the bid received will potentially result in a delayed construction time that will conflict with the tourist season. The condition of the existing force main is poor. The force main is currently functioning but quantifying the chances that the current force main will last until next year is not possible. Several options exist for re-bidding and construction.

One option is to delay the bidding until the summer of 2022 so that construction can begin in late September or early November after the tourist season ends. This option increases the risk of potential failure of the existing force main.

Another option is to re-bid the project soon so that the project can be completed during off-peak hours during the beginning of tourist season. This will most likely require night work and plating of excavated areas during peak periods, resulting in higher construction costs. Close coordination will be required with Glynn County for the roadway work. This option will help reduce the time the existing force main remains in service and the chances of a failure.

T. R. Long Engineering, P.C. recommends that the Brunswick – Glynn County Joint Water and Sewer Commission consider redesigning the project to move the new force main under the

northern most lane of Arnold Drive. The redesign should take place as soon as possible. Upon completion of the redesign and review of the construction plan, the commission should consider rebidding the project. The timing of the re-bid is at the pleasure of the Commission.

Should you have any questions, comments, or need any additional information, please contact us.

Sincerely,

A handwritten signature in blue ink that reads "Trent R. Long". The signature is written in a cursive style with a prominent initial "T".

Trent R. Long, P.E.



# *Brunswick-Glynn*

## *Joint Water and Sewer Commission*

# *Memorandum*

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**To:** Facilities Committee  
**From:** Andrew Burroughs, P.E., Executive Director  
**Date:** Wednesday, November 17, 2021  
**Re:** CONTRACT AWARD –Engineering Services for Canal Road Water Production Facility

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### **Background**

In the North Mainland District, additional water production capability is needed to support the projected growth in this area. JWSC currently maintains a fire well located at 104 Canal Road, near the intersection of Canal Road and Harry Driggers Boulevard. Aquifer performance testing was recently conducted, and it was confirmed that the existing fire well asset demonstrates sufficient yield to allow for conversion to a full water production facility. The existing well is an Upper Floridan well and will reduce JWSC dependence on the two Miocene wells in the North Mainland. Engineering design and construction management services are needed at this time to meet the next overall project milestone.

### **Staff Report**

Request for Proposals No. 22-015 was released on Wednesday, September 29, 2021. A pre-proposal teleconference was held on Monday, October 18, 2021, with ten (10) engineering firms in attendance. Six (6) proposals were received on Tuesday, November 2, 2021. A three (3) member panel with representation from JWSC Operations, Engineering and the Senior Leadership teams reviewed and scored each proposal. A copy of the combined evaluation matrix is attached for your review. Thomas and Hutton Engineering, Inc., was the highest scoring proposal at 91.

### **Funding Source**

This project was funded from the R&R Reserve. The project number is 2102. The budgeted funding amount is \$1,850,000. If approved, this would leave \$1,624,200 for construction of the improvements. For comparison, the Ridgewood well conversion project cost \$1,437,906.75 to construct.

### **Recommended Action**

After reviewing the proposals, staff recommends moving forward with an award to Thomas & Hutton Engineering, Inc. in the amount of \$225,800.00. Estimated time to complete design services and produce a bid ready set of plans and specifications is 120 days. The amount and timeline for completion of services is in line with staff estimates.

### **Recommended Motion**

*“I move that the Facilities Committee recommend the full Commission award a contract to Thomas and Hutton Engineering, Inc., in the amount of \$225,800.00 for Engineering Services for the Canal Road Water Production Facility.”*

### **Enclosures**

Combined Evaluation Matrix dated November 9, 2021

EVALUATION MATRIX  
Engineering Services Canal Road WPF (Water Production Facility)  
RFP NO. 22-015  
November 2, 2021

		Thomas & Hutton			Hussey Gay Bell			WSP			Goodwyn, Mills Cawood			AECOM			KHA FRA		
Evaluation Criteria	Possible Points	Evaluator #1	Evaluator #2	Evaluator #3	Evaluator #1	Evaluator #2	Evaluator #3	Evaluator #1	Evaluator #2	Evaluator #3	Evaluator #1	Evaluator #2	Evaluator #3	Evaluator #1	Evaluator #2	Evaluator #3	Evaluator #1	Evaluator #2	Evaluator #3
General Experience of Firm:	10	10	10	10	10	10	10	10	10	10	9	10	10	9	10	10	8	8	8
Specific Personnel Experience:	20	20	18	20	19	18	20	15	15	20	17	18	20	16	15	20	18	15	20
<b>Strength of the Project Team members, &amp; key project staff (total)</b>	<b>30</b>	<b>30</b>	<b>28</b>	<b>30</b>	<b>29</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>30</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>25</b>	<b>25</b>	<b>30</b>	<b>26</b>	<b>23</b>	<b>28</b>
<b>Demonstrated Understanding of Project Objectives and Scope</b>	<b>30</b>	29	25	20	30	20	25	25	20	30	28	23	20	27	20	30	26	20	15
<b>Clarity of Project Timeline and Deliverables</b>	<b>25</b>	21	20	25	22	20	25	24	20	23	23	22	20	25	15	25	20	15	15
<b>Pricing</b>	<b>15</b>	15	15	15	11	11	11	11	11	11	10	10	10	7	7	7	9	9	9
<b>Total Possible Points</b>	<b>100</b>	<b>95</b>	<b>88</b>	<b>90</b>	<b>92</b>	<b>79</b>	<b>91</b>	<b>85</b>	<b>76</b>	<b>94</b>	<b>87</b>	<b>83</b>	<b>80</b>	<b>84</b>	<b>67</b>	<b>92</b>	<b>81</b>	<b>67</b>	<b>67</b>
<b>Combined Average</b>		<b>91</b>			<b>87</b>			<b>85</b>			<b>83</b>			<b>81</b>			<b>72</b>		



# *Brunswick-Glynn*

## *Joint Water and Sewer Commission*

# *Memorandum*

---

**To:** Facilities Committee  
**From:** Andrew Burroughs, P.E., Executive Director  
**Date:** Wednesday, November 17, 2021  
**Re:** APPROVAL – Engineering Services for Academy Creek WPCF Rehab Change Order No. 1

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### **Background**

Existing rehab work is ongoing at the Academy Creek WPCF consisting of headworks improvements, odor control improvements, a new main flow splitter box, clarifier improvements, RAS piping improvements, solids handling improvements, and the installation of tertiary filtration. The project has been under construction since December 2020 and is on track to be completed well within contractual completion date of May 2022. All improvements included in the current construction contracted were designed by Goodwyn Mills Cawood (GMC).

In July 2020, Academy Creek received an updated NPDES discharge permit that contained significant changes to ammonia, BOD<sub>5</sub>, and *Enterococci* discharge limitations. Existing plant changes will improve ammonia and BOD<sub>5</sub> removal at the facility, and internal improvements were made to the existing chlorine disinfection equipment to increase the availability of chlorination and dechlorination for disinfection purposes.

### **Staff Report**

The changes to Academy Creek's disinfection procedures have enabled compliance with the new NPDES permit; however, increased dosing rates of both chlorine for disinfection and sulfur dioxide for dechlorination are required to effectively disinfect against the more resistant *Enterococci*. This new dosing rate has been compounded by the increased cost of chemicals due to the ongoing supply chain issues. Through 1Q FY 2022, costs have increased approximately 25% since the start of the new permit and we were notified of a 50% price increase for chlorine effective November 1, 2021. Estimated impact of the new cost increase is \$50,000 annually. Notwithstanding increased costs, the current disinfection procedure has a narrow window for compliance that is heavily operator dependent. Staff approached GMC about the costs to design improvements for the installation of UV disinfection equipment, similar to what is currently installed at Dunbar Creek WPCF and South Port WPCF.

### **Funding Source**

The current engineering contract for the design improvements for Academy Creek WPCF totals \$1,181,150.00. The requested change order amount is \$79,000 for the design and construction oversight of UV system installation. This project is funded through JWSC Project Number 906, which has \$112,049 of uncommitted funding.

### **Recommended Action**

After reviewing the proposal, staff recommends approving Change Order No. 1 to the contract of Goodwyn Mills Cawood for Academy Creek WPCF Rehab Engineering in the amount of \$79,000.00.

### **Recommended Motion**

*"I move that the Facilities Committee recommend the full Commission approve Change Order No. 1 to the contract of Goodwyn Mills Cawood for Academy Creek Water Pollution Control Facility Rehab Engineering in the amount of \$79,000.00 for design of UV disinfection system improvements."*

### **Enclosures**

GMC Proposal Dated November 11, 2021



**Goodwyn Mills Cawood**

1450 Greene Street  
Suite 505  
Augusta, GA 30801

T (706) 251-9099

www.gmcnetwork.com

November 11, 2021

Mr. Andrew Burroughs  
Executive Director  
BGJWSC  
1703 Gloucester Street  
Brunswick, GA 31520

**RE: UV Design-Academy Creek WPCF**

Dear Mr. Burroughs:

Thank you for the opportunity to submit a proposal to provide design services to install UV Treatment in the existing Chlorine Contact Basin. Our team is composed of professionals committed to meet your needs and the goals that will be established for the project. We have prepared this proposal for your review and look forward to working with you throughout this evaluation effort. In accordance with our conversations, we have the following understanding of the Project Scope and the primary work required.

**PROJECT UNDERSTANDING:**

This main objective of this project is to design, permit, and administer construction for the project scope enumerated below. In general, this scope will consist of the addition of UV treatment to the existing Chlorine Contact Basin.

**PROJECT SCOPE:**

**Task 1 – UV System Upgrades:**

- a. Review vendor data packages, as-builts, and existing conditions
- b. Provide a 60% set of plans, specifications, and cost estimate to include structural and electrical details
- c. Provide a 100% set of plans, specifications and cost estimates to include structural and electrical drawings
- d. Receive permitting from GAEPD
- e. Assist in bidding services
- f. Provide construction administration and part-time onsite inspection to include weekly site visits.

We approach each project with a professional level of diligence, and we strive to maintain our schedule commitments. However, from time-to-time circumstances outside of our control will influence project schedules. These will be communicated should circumstances arise. Once the project has been awarded, dates for major milestones will be established with input from BGJWSC. This project can be performed on an hourly basis under the existing construction and design contract for the 2019 WPCF Rehabilitation Academy Creek WPCF Project.

**BASIC SERVICES FEES:**

We propose performing the work illustrated above under the “Scope of Services” section via an hourly not to exceed basis of the value shown in the table provided below.



Task	Cost
UV System Design, Permitting, & Bidding	\$55,000
UV System Construction Administration & Inspection	\$24,000

We appreciate the opportunity to work with you over the course of this project, and trust our proposal is consistent with your expectations. Please feel free to contact me at your convenience to discuss the terms of this proposal and any questions or concerns you may have.

Sincerely:  
GOODWYN MILLS CAWOOD, LLC.

Jim Teel  
Regional Vice President

Nathan McDonald EIT  
Project Manager

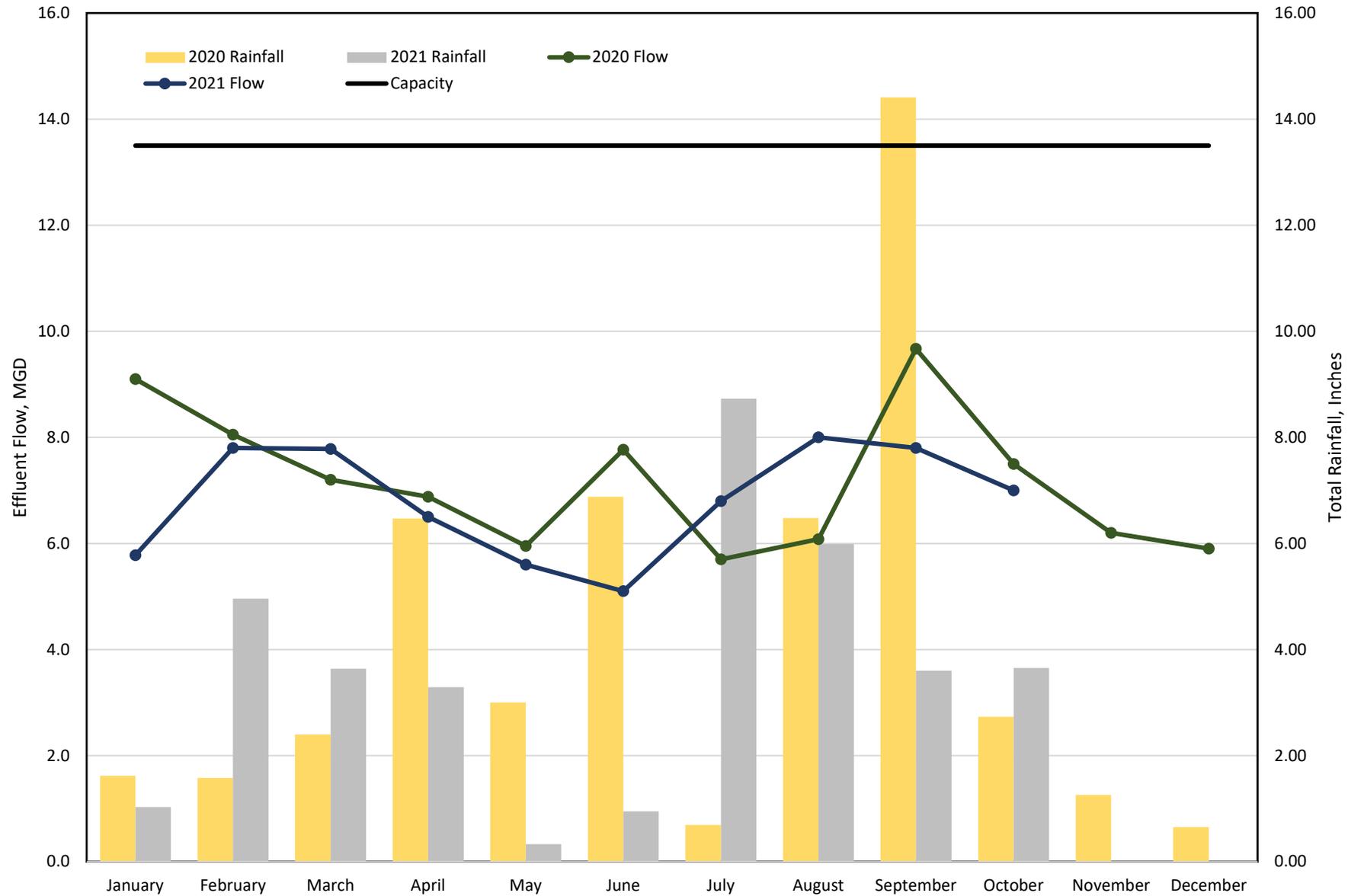
Authorized By: \_\_\_\_\_

Date: \_\_\_\_\_

ACADEMY CREEK WWTP	FLOW (MGD)				Influent Concentrations					Effluent Concentrations							Removal Efficiency		Rainfall		Water Meter Monthly MGal	Sludge Tons to Landfill	
	INF	PINOVA	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	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
January 2020	8.1	0.7	9.1	67%	7.6	186	195	14.0	7.2	6.6	6.2	10	13	8.6	0.07	11	1.3	94.62%	93.33%	0.75	1.62	0.725	61.04
February 2020	7.1	0.8	8.1	60%	7.6	207	248	19.3	21.6	6.6	6.5	9	11	11.5	0.10	3	6.0	95.65%	95.56%	0.42	1.58	0.666	126.20
March 2020	7.1	0.7	7.2	53%	7.5	188	195	19.8	16.2	6.6	6.4	8	10	8.4	0.03	13	7.2	95.74%	94.87%	1.20	2.40	0.650	43.54
April 2020	7.1	0.8	6.9	51%	7.4	186	223	18.0	8.6	6.5	6.1	9	15	6.1	0.01	8	1.9	95.16%	93.27%	1.60	6.47	0.626	71.62
May 2020	6.1	0.8	6.0	44%	7.6	232	262	18.1	14.2	6.5	6.1	8	15	5.0	0.01	17	4.0	96.55%	94.27%	1.90	3.00	0.417	59.80
June 2020	7.5	0.8	7.8	58%	7.6	212	240	14.8	10.4	6.6	5.9	7	18	5.3	0.05	107	3.9	96.70%	92.50%	3.20	6.88	0.609	61.42
July 2020	5.5	0.7	5.7	42%	7.4	212	200	23.0	7.2	6.6	5.9	9	20	7.6	0.03	78	4.2	95.75%	90.00%	0.57	0.69	0.597	33.78
August 2020	6.0	0.7	6.1	45%	7.4	192	202	20.9	8.0	6.6	6.0	7	11	9.8	0.08	223	3.7	96.35%	94.55%	1.15	6.48	0.518	20.11
September 2020	9.8	0.8	9.7	72%	7.3	179	172	14.6	12.6	6.6	6.1	18	35	7.9	0.08	217	7.6	89.94%	79.65%	8.70	14.41	0.617	15.99
October 2020	7.8	0.6	7.5	56%	7.4	207	218	13.9	9.9	6.6	6.4	8	8	5.6	0.09	324	2.1	96.14%	96.33%	0.85	2.73	0.605	22.99
November 2020	6.2	0.7	6.2	46%	7.5	278	253	19.0	12.7	6.5	6.3	9	11	5.2	0.08	185	6.8	96.76%	95.65%	0.85	1.26	0.650	31.16
December 2020	5.8	0.7	5.9	44%	7.3	364	344	21.3	13.1	6.7	6.5	6	9	2.8	0.09	3	5.7	98.35%	97.38%	0.60	0.65	0.662	82.64
January 2021	5.7	0.7	5.8	43%	7.5	244	215	20.3	11.9	6.6	6.8	8	11	4.3	0.09	14	5.6	96.72%	94.88%	0.75	1.03	0.643	93.54
February 2021	7.8	1.0	7.8	58%	7.7	247	261	16.8	13.2	6.7	6.8	10	16	4.5	0.10	4	5.3	95.95%	93.87%	1.50	4.96	0.739	108.47
March 2021	7.8	0.8	7.8	58%	7.7	252	299	18.9	11.8	6.8	6.8	11	16	6.9	0.10	10	2.8	95.63%	94.65%	1.80	3.64	1.030	88.57
April 2021	6.4	0.7	6.5	48%	7.7	231	241	20.8	13.4	6.9	6.6	7	9	8.9	0.08	3	4.4	96.97%	96.27%	1.30	3.29	1.329	142.20
May 2021	5.5	0.8	5.6	41%	7.6	251	276	21.7	8.2	6.9	6.6	7	9	7.0	0.03	5	2.9	97.21%	96.74%	0.21	0.33	1.160	112.74
June 2021	5.0	0.8	5.1	38%	7.5	441	516	22.9	15.3	6.7	6.1	8	10	8.1	0.01	11	4.5	98.19%	98.06%	0.90	0.95	1.413	123.10
July 2021	7.6	0.8	6.8	50%	7.6	280	282	19.4	9.8	6.6	6.2	9	11	10.2	0.47	10	3.5	96.79%	96.10%	5.35	8.73	1.026	85.20
August 2021	8.1	0.8	8.0	59%	7.7	176	159	13.7	6.2	6.6	6.6	8	9	7.7	0.09	14	2.1	95.45%	94.34%	2.15	5.99	0.909	114.21
September 2021	7.4	0.8	7.8	58%	7.5	180	233	17.5	9.8	6.9	6.5	7	8	9.0	0.04	30	3.3	96.11%	96.57%	1.25	3.60	1.173	113.80
October 2021	7.0	0.6	7.0	52%	7.5	184	239	21.0	8.0	6.7	6.3	7	8	11.6	0.03	2	1.7	96.20%	96.65%	1.50	3.65	N/A	131.16
November 2021																							
December 2021																							
Average	6.9	0.8	7.0	52%	7.5	233.1	249	18.6	11.33	6.7	6.4	8.6	12.9	7.4	0.08	59	4.1	96.04%	94.34%	1.75	3.83	0.798	79.24
Max	9.8	1.0	9.7	72%	7.7	441.0	516	23.0	21.6	6.9	6.8	18.0	35.0	11.6	0.47	324	7.6	98.35%	98.06%	8.70	14.41	1.413	142.20
Min	5.0	0.6	5.1	38%	7.3	176.0	159	13.7	6.20	6.5	5.9	6.0	8.0	2.8	0.01	2	1.3	89.94%	79.65%	0.21	0.33	0.417	15.99
Permit Limits	N/A	N/A	13.5	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	2.0	20.0	30.0	17.4	0.14	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

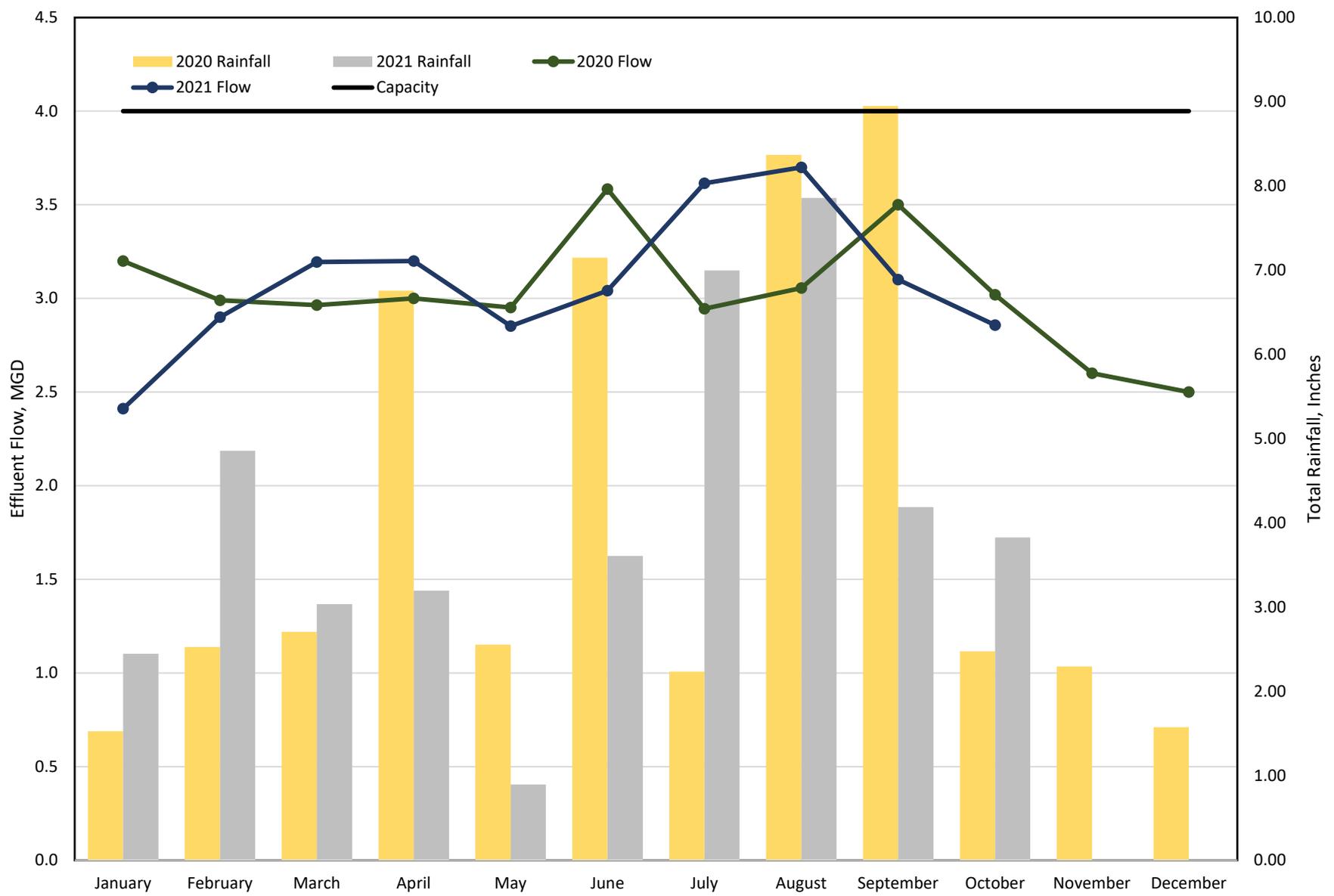
### Academy Creek Effluent Flow



DUNBAR CREEK WWTP	FLOW (MGD)			Influent Concentrations					Effluent Concentrations						Removal Efficiency		Rainfall		Water Meter Monthly M/Gal	Sludge Tons to Landfill		
	Month	INF	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	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
January 2020	3.0	3.2	80%	7.0	141	150	19.0	2.95	7.2	9.0	2.0	1.7	0.1	3	2.1	98.58%	98.87%	0.62	1.53	0.049	17.92	
February 2020	2.8	3.0	75%	7.1	159	202	19.4	3.15	7.3	9.1	2.0	2.0	0.6	3	2.3	98.74%	99.01%	0.98	2.53	0.034	20.70	
March 2020	2.7	3.0	74%	7.1	157	179	20.1	3.70	7.3	8.6	2.0	2.0	0.4	2	2.2	98.73%	98.88%	1.07	2.71	0.033	20.28	
April 2020	2.8	3.0	75%	7.0	144	165	20.2	3.05	7.0	8.1	1.0	2.0	0.4	2	2.7	99.31%	98.79%	1.41	6.76	0.039	24.42	
May 2020	2.6	3.0	74%	7.1	174	209	21.1	4.65	6.9	8.2	2.0	2.0	0.2	1	3.5	98.85%	99.04%	1.24	2.56	0.036	24.00	
June 2020	3.3	3.6	90%	7.2	178	186	19.5	3.40	6.5	7.3	1.0	2.0	0.2	3	2.1	99.44%	98.92%	2.71	7.15	0.036	20.67	
July 2020	2.6	2.9	74%	7.0	203	209	28.0	5.55	6.9	7.5	4.1	2.0	0.6	1	2.9	97.97%	99.04%	0.79	2.24	0.031	7.24	
August 2020	2.8	3.1	76%	7.1	148	194	19.0	3.80	7.0	7.6	3.0	1.0	0.4	4	3.1	97.97%	99.48%	1.71	8.37	0.033	24.82	
September 2020	3.4	3.5	88%	6.9	120	154	20.6	2.75	6.8	7.6	5.0	3.0	0.7	19	2.8	95.83%	98.05%	3.35	8.95	0.032	24.42	
October 2020	2.8	3.0	76%	6.8	162	209	41.1	3.20	6.8	7.6	4.0	3.8	0.5	7	2.2	97.53%	98.18%	0.68	2.48	0.028	22.72	
November 2020	2.5	2.6	65%	6.9	180	215	23.9	3.75	6.9	8.3	4.0	3.0	0.5	6	2.7	97.78%	98.60%	0.53	2.30	0.027	13.80	
December 2020	2.7	2.5	63%	7.2	190	189	28.9	3.75	6.8	8.9	3.0	2.8	0.5	2	2.7	98.42%	98.52%	0.73	1.58	0.036	12.61	
January 2021	2.3	2.4	60%	7.1	181	210	34.9	3.90	6.8	8.6	3.0	2.0	0.4	2	3.0	98.34%	99.05%	0.68	2.45	0.049	27.32	
February 2021	2.7	2.9	73%	7.1	167	181	31.2	3.80	6.8	8.3	4.0	2.6	0.5	12	2.4	97.60%	98.56%	1.28	4.86	0.049	26.58	
March 2021	2.8	3.2	80%	7.2	188	244	42.2	4.70	7.0	8.1	3.0	2.0	0.9	7	3.0	98.40%	99.18%	1.56	3.04	0.026	29.47	
April 2021	2.6	3.2	80%	7.2	212	277	53.4	4.20	6.9	7.7	2.0	2.0	0.7	2	2.4	99.06%	99.28%	1.94	3.20	0.053	20.21	
May 2021	2.4	2.9	71%	7.2	228	248	32.0	4.30	7.6	7.9	3.0	1.0	0.6	2	2.7	98.68%	99.60%	0.34	0.90	0.044	18.33	
June 2021	2.6	3.0	76%	7.1	237	257	23.3	5.05	6.9	6.4	3.0	2.0	0.2	4	2.4	98.73%	99.22%	1.11	3.61	0.072	24.35	
July 2021	3.0	3.6	90%	7.0	199	226	40.6	4.55	6.8	7.5	4.0	3.0	0.5	6	3.3	97.99%	98.67%	4.43	7.00	0.091	33.61	
August 2021	3.2	3.7	93%	6.9	150	255	24.7	4.05	6.9	7.7	4.0	2.0	0.7	7	2.9	97.33%	99.22%	2.01	7.86	0.052	20.51	
September 2021	2.7	3.1	78%	7.1	143	167	27.0	3.10	7.0	7.9	3.8	1.0	0.6	3	2.0	97.34%	99.40%	1.29	4.19	0.026	13.23	
October 2021	2.5	2.9	71%	7.0	179	208	29.6	4.05	7.7	7.6	3.0	2.0	0.8	6	2.7	98.32%	99.04%	1.46	3.83	0.079	24.55	
November 2021																						
December 2021																						
Average	2.8	3.1	76%	7.1	174.5	206.1	28.2	3.88	7.0	8.0	3.0	2.1	0.5	5	2.6	98.23%	98.94%	1.5	4.1	0.043	21.44	
Max	3.4	3.7	93%	7.2	237.0	277.0	53.4	5.55	7.7	9.1	5.0	3.8	0.9	19	3.5	99.44%	99.60%	4.4	9.0	0.091	33.61	
Min	2.3	2.4	60%	6.8	120.0	150.0	19.0	2.75	6.5	6.4	1.0	1.0	0.1	1	2.0	95.83%	98.05%	0.3	0.9	0.026	7.24	
Permit Limits	N/A	4.0	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	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

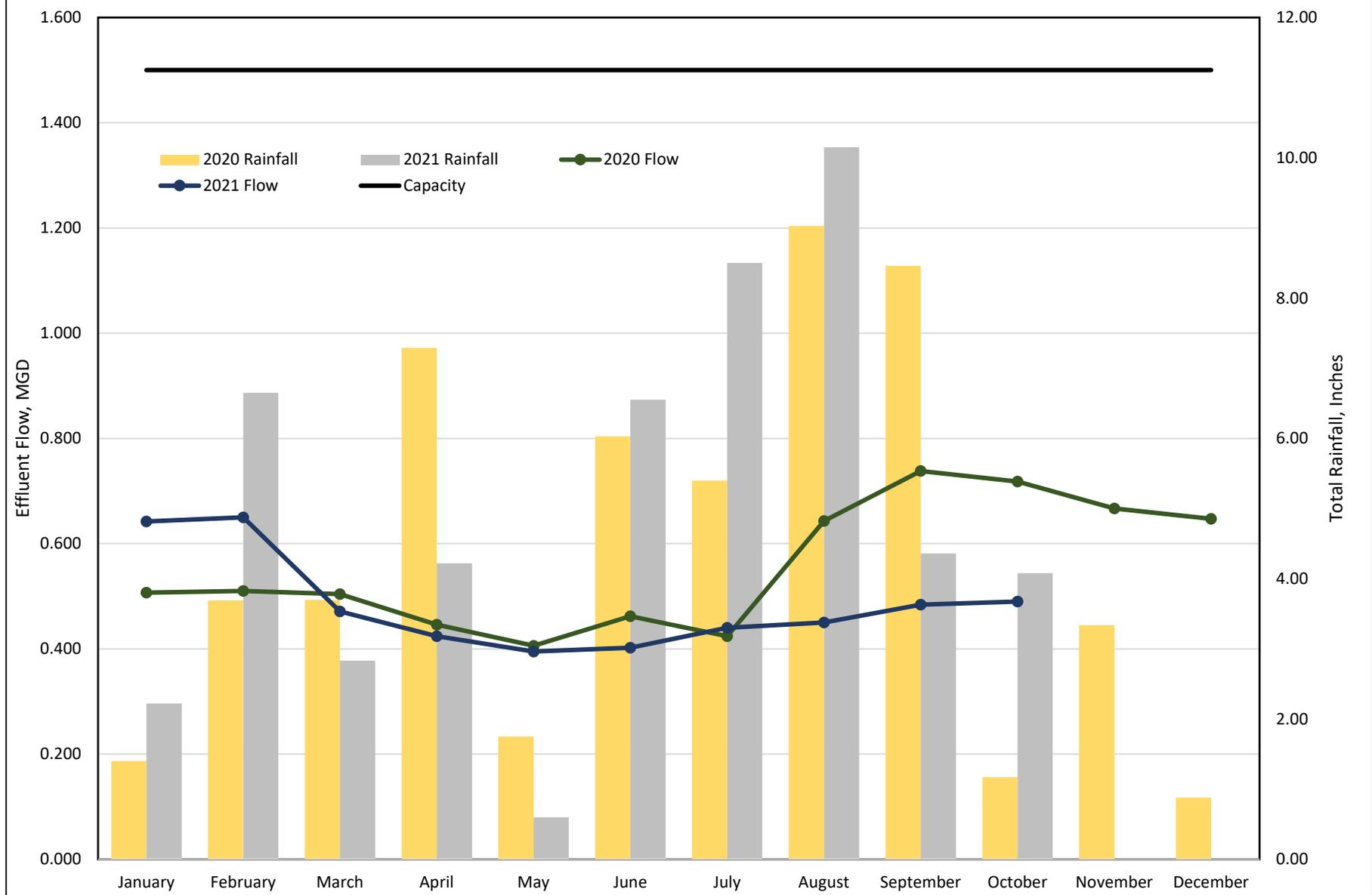
### Dunbar Creek Effluent Flow



SOUTH PORT WWTP	FLOW (MGD)			Influent Concentrations					Effluent Concentrations						Removal Efficiency		Rainfall		Water Meter Monthly M/Gal	Sludge Tons to Landfill	
	Month	INF	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Fecal #/100 mL	Phos. mg/L	BOD %	TSS %			Maximum Inches
January 2020	0.439	0.507	34%	6.8	120	106	28.5	4.00	6.8	8.1	3.0	9.0	0.2	12	0.3	97.50%	91.51%	0.72	1.40	0.027	6.60
February 2020	0.413	0.510	34%	6.8	112	130	24.0	2.95	7.0	8.0	3.0	8.0	1.7	21	0.2	97.32%	93.85%	1.16	3.69	0.012	3.73
March 2020	0.408	0.504	34%	6.8	111	119	24.5	2.65	7.5	6.9	3.7	7.0	0.4	3	0.2	96.67%	94.12%	2.01	3.70	0.079	6.15
April 2020	0.402	0.446	30%	6.6	137	189	23.3	3.60	6.9	8.1	4.9	6.6	0.3	2	0.1	96.42%	96.51%	1.96	7.29	0.014	0.00
May 2020	0.384	0.406	27%	6.8	133	136	22.7	4.40	7.4	7.7	5.0	4.0	0.4	6	0.4	96.24%	97.06%	1.16	1.75	0.022	13.03
June 2020	0.415	0.462	31%	6.7	147	185	21.8	4.50	7.2	7.2	6.0	4.0	0.3	21	0.5	95.92%	97.84%	2.16	6.03	0.065	0.00
July 2020	0.395	0.424	28%	6.6	179	224	23.9	4.90	7.3	7.0	8.0	3.0	0.4	28	0.2	95.53%	98.66%	2.80	5.40	0.008	3.55
August 2020	0.624	0.643	43%	6.7	85	138	13.8	5.45	7.3	7.3	6.0	4.0	0.2	32	0.2	92.94%	97.10%	3.75	9.03	0.056	6.92
September 2020	0.733	0.738	49%	6.7	57	82	13.0	1.95	6.9	7.1	5.0	4.0	0.9	41	0.1	91.23%	95.12%	1.82	8.46	0.062	6.41
October 2020	0.707	0.718	48%	6.8	70	80	31.4	2.80	7.4	7.5	4.0	3.0	0.5	18	0.2	94.29%	96.25%	0.42	1.17	0.054	9.14
November 2020	0.675	0.667	44%	6.9	74	70	15.9	2.97	7.5	7.9	5.1	2.8	0.5	2	0.4	93.11%	96.00%	0.56	3.34	0.116	2.69
December 2020	0.666	0.647	43%	7.0	91	105	19.0	2.80	7.5	8.4	4.0	3.0	0.4	2	0.3	95.60%	97.14%	0.82	0.88	0.059	0.00
January 2021	0.635	0.642	43%	6.9	103	154	27.3	4.20	7.4	8.3	5.0	3.0	0.3	1	0.4	95.15%	98.05%	0.54	2.22	0.053	0.00
February 2021	0.609	0.650	43%	7.0	96	155	24.3	2.75	7.5	8.6	7.0	3.0	0.6	14	0.6	92.71%	98.06%	1.26	6.65	0.026	11.09
March 2021	0.464	0.471	31%	6.9	118	180	37.6	3.60	7.6	7.9	6.0	4.0	1.0	23	1.6	94.92%	97.78%	1.46	2.83	0.012	2.53
April 2021	0.414	0.424	28%	6.5	170	237	53.8	4.20	7.6	7.6	7.0	3.0	0.4	4	1.4	95.88%	98.73%	2.18	4.22	0.117	2.19
May 2021	0.399	0.395	26%	6.8	233	239	40.0	3.40	7.9	7.6	7.0	4.0	0.7	5	2.5	97.00%	98.33%	0.30	0.60	0.125	2.12
June 2021	0.392	0.402	27%	6.9	152	124	25.3	5.10	7.8	7.0	5.0	4.0	0.2	7	2.6	96.71%	96.77%	1.75	6.55	0.116	1.99
July 2021	0.403	0.440	29%	7.0	138	139	43.9	3.95	7.6	7.0	5.0	3.0	2.3	6	3.1	96.38%	97.84%	4.75	8.50	0.131	3.88
August 2021	0.408	0.450	29%	7.0	103	98	35.8	4.60	7.1	7.4	8.0	3.0	0.7	7	2.8	92.23%	96.94%	2.15	10.15	0.024	4.16
September 2021	0.420	0.484	29%	6.8	94	103	32.5	3.05	7.1	6.9	6.0	2.0	0.7	6	1.7	93.62%	98.06%	1.15	4.36	0.052	1.89
October 2021	0.430	0.490	29%	6.9	134	143	33.1	3.75	7.7	7.0	5.0	2.0	1.0	5	1.7	96.27%	98.60%	2.01	4.08	0.026	5.02
November 2021																					
December 2021																					
Average	0.493	0.524	35%	6.8	120.8	142.5	28.0	3.71	7.4	7.6	5.4	4.1	0.6	12	1.0	95.16%	96.83%	1.7	4.7	0.057	4.23
Max	0.733	0.738	49%	7.0	233.0	239.0	53.8	5.45	7.9	8.6	8.0	9.0	2.3	41	3.1	97.50%	98.73%	4.8	10.2	0.131	13.03
Min	0.384	0.395	26%	6.5	57.0	70.0	13.0	1.95	6.8	6.9	3.0	2.0	0.2	1	0.1	91.23%	91.51%	0.3	0.6	0.008	0.00
Permit Limits	N/A	1.500	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	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

### South Port Effluent Flow



## Facility Construction Project Photos – November 2021

#702 (PHASE II) NMSI PHII PUMPSTATION 4035 & 4036 UPGRADES (54% - JANUARY 2022)



1. PS4035 view of ongoing installation of instrumentation and control panels in electrical room.
2. PS4035 view of ongoing piping-conduit installation and wall penetration demolition in dry pit.
3. PS4035 view of new installation BIOREM odor control tank and associated appurtenances.
4. PS4036 view of electrical equipment, piping, and misc. materials received for electrical room.
5. PS4036 view of ongoing wall piping penetration demolition in dry pit.
6. PS4036 view of ongoing wall piping penetration demolition in wet well.

## Facility Construction Project Photos – November 2021

#702 (PHASE III) NMSI PHIII FORCEMAIN RE-ROUTE (47% - FEBRUARY 2022)



1. View of 12-inch WM open cut activities on the West bound section of the Canal Road and Glynco Parkway Intersection.
2. View of newly installed fire hydrant on Canal Road.
3. Contractor preparing to fuse 10-inch pipe for HDD installation crossing near PS4111 connection.
4. North bound view of anticipated FM alignment crossing Harry Driggers Blvd for PS4111 connection.
5. Fused 14-inch pipe awaiting to be scheduled for HDD installation within the wetland area.
6. Fused 14-inch pipe awaiting to be scheduled for HDD installation near PS4110.

## Facility Construction Project Photos – November 2021

#703 PUMPSTATION 4003 UPGRADES (99% - AUG 2021)



1. View of instrumentation and control panels in electrical room.
2. View of loading dock area from stairwell – spare parts and materials.
3. View of dry pit – pumps, controls, and piping assemblies.
4. Contractor addressing remaining electrical and punchlist items.

## Facility Construction Project Photos – November 2021

### #704 CANAL ROAD TO GLYNCO 12-INCH WATER MAIN (32% - JULY 2021)



1. Approximately 2,194 out of 5,200 LF of 12-inch waterline installed to date by in-house staff. Final installation pending remaining piping delivery. TB Landmark Construction, Inc NTP 11/09/2021.
2. West bound view of equipment and materials stored location along Glyngo Parkway.
3. West bound view of equipment and materials stored location along Glyngo Parkway.

### #804 MAGNOLIA WATER IMPROVEMENTS (CITY OF BRUNSWICK) (91% - OCTOBER 2021)



1. View of punchlist item – Completed fire hydrant reinstallation at 2318 South Woodland Way.
2. View of final asphalt pavement construction activities at the intersection of Poinsettia Circle and Cherry Street.
3. View of recently adjusted SSMH#40110100 on Cherry Street in preparation for final pavement.
4. View of SSMH#40070040 at intersection of Habersham Street and Tara Lane.
5. Final Record drawings and Final Pay Application remaining to be submitted by Contractor.

## Facility Construction Project Photos – November 2021

#906 WATER POLLUTION CONTROL REHAB- ACADEMY CREEK WPCF (43% - MARCH 2022)



1. Handrail and stairway installation nearly completed at the sludge dewatering & drying building.
2. Handrail, stairway, and grates installation completed at effluent filters.
3. RAS structural forming activities completed for Aeration #1 behind the Pre-aeration building
4. Structural forming and piping activities at the Pre-Aeration building.
5. Electrical control box to be removed and replaced near Clarifier #6
6. Fiber Loops and terminal box installation on-going near the Administration building.

## Facility Construction Project Photos – November 2021

#2001 PS4105 BASIN EXPANSION/FORCE MAIN REROUTE & 4036 CIPP\* (13% - MARCH 2022)



1. West bound view of PS4105 entrance and Winstead Drive toward Cate Road.
2. South bound view of PS4107 entrance and Cate Road toward Perry Lane Road.
3. PreCCTV view of tap Break-in/hammer on segment between SSMH#40360190-40360200.
4. PreCCTV view of attached deposits on segment between SSMH#40360440-40360450.
5. PreCCTV view of broken pipe on segment between SSMH#40360530-40360540.
6. PostCCTV view of CIPP liner installed on segment between SSMH#40360530-40360540.

## **Facility Construction Project Photos – November 2021**

### **#2007 BERGEN WOODS OFFSITE FORCEMAIN (COMP. AGREEMENT) (69% - FEB 2022)**



- 1. Comp. Agreement w/ planned Bergen Woods Apts. group for associated forcemain improvements; development plan change resulting in Comp. Agreement revisions.**
- 2. East bound view 8-inch forcemain route crossing location at the intersection of Cate Road and Golden Isles Parkway – pending tie-in connections and testing.**
- 3. South bound view of 8-inch forcemain route along the ditch near the entrance Public Safety Complexes.**

### **#2009 SEA PALMS EAST WATER LINE REHAB (0% - TBD)**



- 1. Planned in-house construction effort by JWSC Water Distribution.**
- 2. Anticipated 8-inch waterline rehab location at the intersection of S. Windward and Colonial Drive.**
- 3. Anticipated 8-inch waterline rehab location in front of the Sea Palms Golf Club Resort.**

## **Facility Construction Project Photos – November 2021**

**#2010 OAK GROVE FM & PS4132 IMPROVEMENTS (COMP. AGREEMENT) (0% - TBD)**



- 1. 3 bids received and under EOR and applicant review with apparent low bidder, TB Landmark Construction Inc for 10-inch base bid \$2,049,823.00. 10/05/2021.**
- 2. Drone view of anticipated force main location crossing near the intersection of Oak Grove Island Cir and RV and Boat storage lot near the front of Oak Grove Subdivision.**
- 3. Drone view of anticipated force main location crossing near the intersection of Oak Grove Island Cir and railroad crossing in front of Oak Grove Subdivision.**

## Facility Construction Project Photos – November 2021

### #2014 PS2002 FORCEMAIN REPLACEMENT (0% - TBD)



1. One bid received with the apparent low bidder, T.B. Landmark Construction, Inc for \$769,315.00 and under Procurement review 11/09/2021.
2. West bound view of anticipated FM alignment near Island Cottage & Business Center on Arnold Road.
3. West bound view of anticipated FM alignment near PS2002 on Arnold Road.

### #2016 ARCO AREA WATER & SEWER EXTENSIONS (0% - JANUARY 2023)



1. Two bids received with the apparent low bidder UWS, Inc for \$3,655,749.60 10/28/2021.
2. Proposed extension location at the intersection on Townsend Street and Cochran Ave.
3. Proposed extension location near 3708 Hardee Avenue.

## Facility Construction Project Photos – November 2021

#2020 COMMUNITY ROAD SEWER EXPANSION (0% - JANUARY 2023)



1. Plans complete. LDA permitting approved. EPD sewer approved.
2. Easement exhibits received and forwarded to Ronnie Lewis and JWSC legal for review/preparation of legal descriptions.
3. Anticipated sewer expansion location near Network Monkey Repair Services on Key Circle Drive.
4. Anticipated sewer expansion location near Sellers Garage Auto Repair Shop on Key Circle Drive.
5. Anticipated sewer expansion location near Ellis Marine Boat Dealership on Key Circle Drive.

## Facility Construction Project Photos – November 2021

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



1. Alvin Hall (Supervisor) along with Caleb Lovell (WDD Crew Leader) proudly showcasing 2-inch galvanized line from 1501 Newcastle Street on North Mainland and remaining 1-inch galvanized line from 229 Florida Street on SSI.
2. Enlarge view of the galvanized lines removed from the North Mainland and SSI system.

### #2027 PS4116 REHAB & FM UPGRADE (65% - OCTOBER 2021)

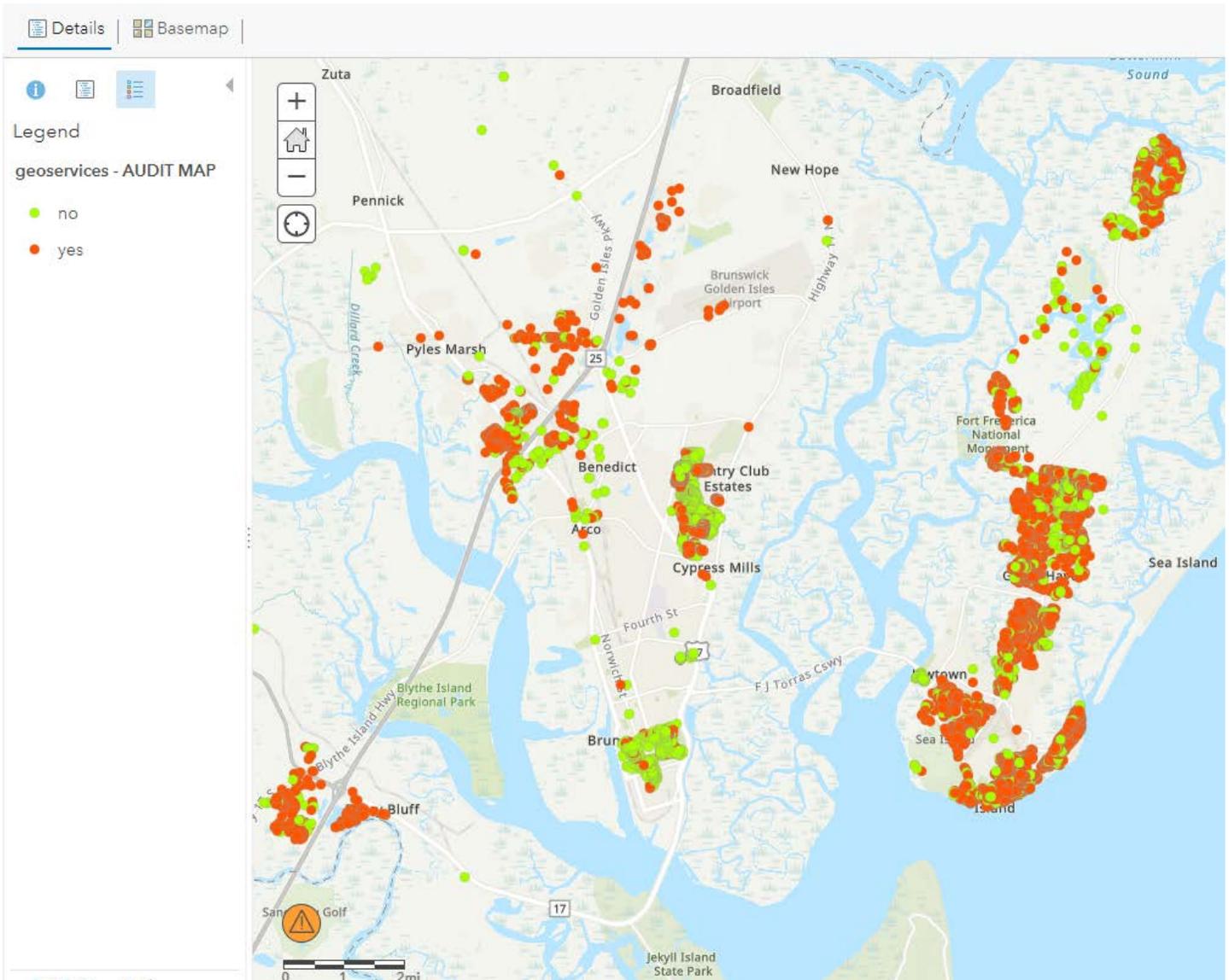


1. West bound view of ongoing construction activities at the project site.
2. East bound view of ongoing construction activities at the project site.
3. Site grading in progress.
4. Awaiting GA Power to schedule power pole relocation and electrical/miscellaneous fittings-parts pending manufacturing delivery.

## Facility Construction Project Photos – November 2021

### #2028 METER REPLACEMENTS – YEAR 1 & 2 (INPROGRESS-TBD)

ArcGIS ▾ BGJWSC\_YOKE\_METERS



1. 3,924 new Neptune meters installed in JWSC system. Some meters were installed by BGJWSC as a new meter install for new construction. The majority have been installed by M&E Contracting.
2. M&E Contracting has finished the JWSC meter audit process.
3. M&E Contracting are in process of scheduling and changing out the inch and half and above commercial meters.
4. 5/8-inch X 3/4-inch and 1-inch meter change outs will resume after first of January 2022.

## Facility Construction Project Photos – November 2021

### #2107 PRIORITY BASIN CLEAN/CCTV (INPROGRESS-TBD)



1. CCTV view of settled deposits on segment between SSMH#40350751-40350750.
2. CCTV view of settled deposits on segment between SSMH#2WTP1440-2WTP0300.
3. CCTV view of settled deposits on segment between SSMH#2WTP1150-2WTP0980.
4. CCTV view of settled deposits on segment between SSMH#2WTP0650-2WTP0510.
5. Contractor has completed 23,890 feet of project to date. Large quantities of debris being removed, but all defects found to date can be repaired via trenchless method.

Proj #	Project Name	Projected Completion Date	Project Manager	Concept Design	Detail Design	Construction	BOC APPROVED FUNDING & SOURCE				COMMITTED			BUDGET VS. EXPENDITURES				BALANCE	% PO Remaining	% Budget Uncommitted	STATUS
							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				
702	North Mainland Sewer Improvements (NMSI)	Sept 2021	Kline/Vo	JWSC	Thomas & Hutton	(multiple)	\$0	\$3,200,000	\$11,700,000	\$14,900,000	\$14,149,083	-\$341,775.00	\$13,807,308	\$9,752,052	\$4,055,241	-\$67,853	\$13,739,440	\$1,160,560	71%	8%	Design Funds appropriated and divided into three sub-projects.
	NMSI PHII Gravity Sewer Rehab CIPP	Sept 2020	Kline/Vo	JWSC	Thomas & Hutton	IPR Southeast			\$2,550,519												Project Complete.
	NMSI - PHII PS4035 & 4036 Upgrade	Feb 2022	Kline/Vo	JWSC	Thomas & Hutton/Four Waters Engineering, Inc.	Southern Civil, LLC															Construction progress meeting 10/05/2021. PS4035 and PS4036 construction activities ongoing.
	NMSI - PHIII Force Main Reroute	Mar 2022	Kline/Vo	JWSC	Thomas & Hutton/Four Waters Engineering, Inc.	TB Landmark Construction Inc															Meeting held with Contractor and EOR to discuss alternative routes for Ogden ongoing. Construction progress meeting 10/05/2021. 14-inch WM HDD activities are ongoing.
703	Lift Station 4003 Upgrades	Sep 2021	Kline/Patel	JWSC	Hussey Gay Bell	Petticoat-Schmitt Civil Contractors, Inc	\$0	\$0	\$3,300,000	\$3,300,000	\$2,299,789	\$0	\$2,299,789	\$2,233,442	\$66,347	\$3,589	\$2,303,378	\$996,622	97%	30%	Contractor was found to be substantially complete as 09/17/2021. Contractor is in the process of submitting Record Drawings for JWSC/EOR review. Contractor addressing electrical and JWSC punchlist(s) at this time.
704	Canal Road to Glynco 12-inch Watermain Loop	Dec 2021	Kline/Patel/Vo	JWSC	JWSC	JWSC/TB Landmark Construction Inc	\$0	\$1,200,000	\$0	\$1,200,000	\$472,795	\$36,000	\$508,795	\$310,383	\$236,359	\$0	\$546,742	\$653,258	61%	58%	WDD construction activities on-going. Approx 2,200 LF installed to date and 3,000 LF remaining to be installed weather permitting. HDD Pre-con held 08/23/2021. 14/20-inch delivered 10/20/2021. Pending HDD equipment to mobilized and NTP executed on 11/09/2021
801	FEMA Hazard Mitigation-Academy Creek	TBD	Burroughs	Haggerty	TBD	TBD	\$3,188,000	\$0	\$0	\$3,188,000	\$395,690	\$0	\$395,690	\$69,683	\$329,307	\$163,747	\$562,737	\$2,625,263	18%	82%	Finalizing documents to purchase generators directly before bidding out installation. Delivery of ATS for first 22 sites has been delayed until week of 11/15. Disconnects to be delivered the week of 12/6.
804	Magnolia Water Improvements (City of Brunswick)	Oct 2021	Kline/Vo	JWSC	City of BWK / EMC Engineering Services	Georgia Asphalt Producers	\$1,700,000	\$0	\$0	\$1,700,000	\$1,898,311	\$30,000	\$1,928,311	\$1,637,531	\$290,780	\$0	\$1,928,311	\$ (228,311.00)	85%	-13%	City Project/Contract. Construction progress meeting 10/12/2021. Contractor addressing final punchlist items and preparing for project closeout.
906	Water Pollution Rehab-Academy & Dunbar	Apr 2022	Burroughs	JWSC	GMC	Ruby-Collins, Inc.	\$0	\$0	\$1,641,306	\$16,641,306	\$11,329,150	\$0	\$11,329,150	\$6,423,410	\$5,105,848	\$0	\$11,529,258	\$5,112,048	57%	32%	Clarifier improvements completed in Clarifiers 1 and 2. Fiber optic loop installation underway. Splitter box has been constructed. AB1 RAS box complete. Gate removal underway in influent wet well. Waiting on major equipment deliveries.
2001	PS4105-4107 Basin Expansion/FM Reroute & 4036 CIPP*	Jul 2022	Kline/Vo	JWSC	Roberts Civil Engineering/JWSC	TBD/ Bio-Nomics Services, Inc.	\$1,000,000	\$485,000	\$0	\$1,485,000	\$1,005,134	\$0	\$1,005,134	\$98,565.00	\$906,568.00	\$0	\$1,005,133	\$479,867	10%	32%	Design Funds appropriated and divided into two sub-projects.
	PS4105-4107 Basin Expansion/FM Reroute	Jul 2022	Kline/Vo	JWSC	Roberts Civil Engineering	TBD			\$0	\$0		\$0	\$0		\$0	\$0	\$0	\$0			Final bid-ready submittal under Procurement review for advertisement 10/14/2021.
	Basin 4036 CIPP	Jul 2022	Kline/Vo	JWSC	JWSC	Bio-Nomics Services, Inc.			\$0	\$0		\$0	\$0		\$0	\$0	\$0	\$0			GDOT Bypassing permit approved 08/18/2021. Construction progress meeting held 10/04/2021. Contractor remobilized and construction activities ongoing 10/25/2021.
2003	Sea Palms CIPP	Dec 2021	Phase I - Vo, Phase II - Burroughs	JWSC	JWSC	Phase I - IPR, Phase II - Insituform	\$0	\$0	\$561,795	\$561,795	\$543,292	\$0	\$543,292	\$233,594	\$309,698	\$0	\$543,292	\$18,503	0%	3%	Contractor began cleaning and televising lines 11/09/2021. Expected completion by 11/19/2021. Liner installation to begin 11/29/2021 with expected completion prior to Christmas, 2021.

Proj #	Project Name	Projected Completion Date	Project Manager	Concept Design	Detail Design	Construction	BOC APPROVED FUNDING & SOURCE				COMMITTED			BUDGET VS. EXPENDITURES				BALANCE		STATUS	
							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 (Original Approved Budget - Total Expenditures)	% PO Remaining	% Budget Uncommitted	Status
2007	Bergen Woods Offsite Forcemain Improvements*	Dec 2021	Kline/Patel	JWSC	Roberts Civil Engineering	Georgia Aphalt Producers	\$0	\$300,000	\$0	\$300,000	\$282,151	\$0	\$282,151	\$0	\$282,151	\$0	\$282,151	\$17,849	0%	6%	Contractor issued NTP on 10/05/2021. Contract time 60 days. FM installation complete pending tie-in connections and testing.
2009	Sea Palms East Water Line Rehab	TBD	Simmons	JWSC	JWSC	JWSC	\$0	\$0	\$178,595	\$178,595	\$36,548	\$0	\$36,548	\$22,522.00	\$14,026	\$1,156	\$37,704	\$140,891	62%	79%	Frederica Road open cut installation sections proposed during off season. JWSC working with Glynn County in regards to ROW permitting and currently sourcing materials for construction.
2010	Oak Grove Forcemain and PS4132 Improvements*	TBD	Kline/Patel/Vo	Roberts Civil Engineering	Roberts Civil Engineering	TBD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%		3 bids received and under EOR and Applicant review with apparent low bidder, TB Landmark Construction Inc for 10-inch base bid \$2,049,823.00. 10/05/2021. Anticipated construction to start mid-March 2022.
2011	LS SCADA Upgrades	Dec 2021	Burroughs/Grantham	JWSC	JWSC/EMC	Jam Electric	\$2,000,000	\$0	\$0	\$2,000,000	\$2,628,979	\$0	\$2,628,979	\$2,316,156	\$312,824	\$0	\$2,628,980	\$(628,980.00)	88%	-31%	Contractor in town finalizing hardware installation by 11/19/2021. Software programming and training to be completed in December, 2021.
2014	PS 2002 FM Replacement	TBD	Burroughs	JWSC	T R Long	TBD	\$500,000	\$0	\$0	\$500,000	\$38,235	\$0	\$38,235	\$10,530	\$27,705	\$0	\$38,235	\$461,765	28%	92%	1 bid received with the apparent low bidder, T.B. Landmark Construction, Inc for \$769,315.00 and under Procurement review and under Procurement review 11/09/2021. JWSC Sourcing materials separately.
2016	Arco Area Water and Sewer Extensions	Jan 2023	Patel	JWSC	Thomas & Hutton	TBD	\$0	\$300,000	\$0	\$300,000	\$388,340	\$0	\$388,340	\$259,319	\$129,021	\$0	\$388,340	-\$88,340.00	67%	-29%	2 bids received with apparent low bidder, UWS, Inc for \$3,655,749.60 10/28/2021. JWSC in the process of presenting memos for commission contract award.
2018	Meter Replacements	TBD	Roberts/Head	JWSC	JWSC	Delta Muncipal Supply/Neptune Technology	\$250,000	\$0	\$0	\$250,000	\$99,652	\$0	\$99,652	\$111,047	\$5,250	\$0	\$116,297	\$133,703	111%	60%	Project Complete.
2020	Community Rd Sewer Expansion	Jan 2023	Patel	Hussey Gay Bell	JWSC	JWSC	\$0	\$250,000	\$0	\$250,000	\$280,916	\$0	\$280,916	\$188,584	\$92,332	\$0	\$280,916	\$(30,916.00)	67%	-12%	Utility and E&S plans complete. LDA permitting complete and approved. EPD sewer - project not selected for review. Easement exhibits received and forwarded to Ronnie Lewis and JWSC legal for review/preparation of legal descriptions. EOR finalizing specifications and bid tab.
2021	Galvanized Replacements	TBD	Simmons	JWSC	JWSC	JWSC	\$500,000	\$0	\$0	\$500,000	\$131,201	\$0	\$131,201	\$147,358	\$6,563	\$383	\$154,304	\$345,696	112%	74%	Galvanized line replacement ongoing.
2024	Master Plan Update	Mar 2021	Burroughs	JWSC	Four Waters Engineering, Inc.	N/A	\$247,500	\$0	\$0	\$247,500	\$247,500	\$0	\$247,500	\$244,670	\$2,830	\$0	\$247,500	\$0	99%	0%	Project database delivered. Staff reviewing and familiarizing itself with the project database to determine any necessary changes.
2027	PS 4116 Upgrade (Safety Complex)	October 2021	Patel	JWSC	JWSC	Southern Civil, LLC	\$498,499	\$0	\$0	\$498,499	\$498,499	\$0	\$498,499	\$279,519	\$218,980	\$0	\$498,499	\$0	56%	0%	Construction activities ongoing. HDD FM installation and testing completed. Concrete structures tops installed. Site grading in progress. Awaiting electrical and misc. fittings delivery. Contractor has requested a time extension for material delays due to Covid which is under JWSC review.
2028	Meter Replacements - Years 1 and 2	June 2022	Roberts/Head	JWSC	JWSC	Delta Muncipal Supply/Neptune Technology	\$0	\$0	\$7,500,000	\$7,500,000	\$3,744,923	\$0	\$3,744,923	\$3,594,775	\$219,358	\$1,075	\$3,815,208	\$3,684,792	102%	6%	Change Order No. 1 for system wide brass needs presented for Commission consideration 11/17 and 11/18/2021. If approved, full installations will kick off again after first of the year. 3,924 meters installed to date.
2107	Priority Basin Clean/CCTV	TBD	Burroughs	JWSC	JWSC	Southeast Pipe Survey	\$425,000	\$0	\$0	\$425,000	\$272,250	\$0	\$272,250	\$4,529	\$267,721	\$0	\$272,250	\$152,750	2%	56%	Contractor has completed 23,890 feet of project to date. Large quantities of debris being removed, but all defects found to date can be repaired trenchlessly.

ID	Task Name	Duration	Scheduled Start	Scheduled Finish	Actual Start	Actual Finish	2018	2019	2020	2021	2022	2023	2024	2025						
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
1	<b>Engineering</b>	1209 days	Thu 11/15/18	Mon 3/7/22	Thu 11/15/18	NA	Engineering													
11	NM Water Loops	120 days	Mon 11/8/21	Mon 3/7/22	Mon 11/8/21	NA	NM Water Loops													
12	Community Road W&S Extension	534 days	Mon 6/22/20	Wed 12/8/21	Mon 6/22/20	NA	Community Road W&S Extension													
21	<b>Advertisement</b>	497 days?	Fri 10/25/19	Mon 4/11/22	Fri 10/25/19	NA	Advertisement													
26	NM Water Loops	35 days	Tue 3/8/22	Mon 4/11/22	NA	NA	NM Water Loops													
27	PS 4105-4107 and FM	47 days	Thu 12/16/21	Mon 1/31/22	NA	NA	PS 4105-4107 and FM													
37	PS2002 FM Replacement	49 days	Wed 9/22/21	Tue 11/9/21	Wed 9/22/21	Tue 11/9/21	PS2002 FM Replacement													
39	Community Road W&S Extension	47 days	Thu 12/9/21	Mon 1/24/22	NA	NA	Community Road W&S Extension													
41	<b>Contract Administration</b>	933 days	Wed 11/6/19	Thu 5/26/22	Wed 11/6/19	NA	Contract Administration													
47	Community Road W&S Extension	45 days	Tue 1/25/22	Thu 3/10/22	NA	NA	Community Road W&S Extension													
48	NM Water Loops	45 days	Tue 4/12/22	Thu 5/26/22	NA	NA	NM Water Loops													
49	Oak Grove Forcemain	86 days	Wed 10/6/21	Thu 12/30/21	Wed 10/6/21	NA	Oak Grove Forcemain													
50	PS2002 FM Replacement	45 days	Wed 11/10/21	Fri 12/24/21	Wed 11/10/21	NA	PS2002 FM Replacement													
52	PS 4105-4107 and FM	45 days	Tue 2/1/22	Thu 3/17/22	NA	NA	PS 4105-4107 and FM													
61	Arco Area Water and Sewer Extension	22 days	Thu 10/28/21	Thu 11/18/21	Thu 10/28/21	NA	Arco Area Water and Sewer Extension													
62	<b>Construction</b>	1521 days	Thu 1/10/19	Fri 3/10/23	Thu 1/10/19	NA	Construction													
68	PS2002 FM Replacement	60 days	Mon 1/3/22	Thu 3/3/22	NA	NA	PS2002 FM Replacement													
72	Bergen Woods Offsite Forcemain Improvements	90 days	Tue 10/5/21	Sun 1/2/22	Tue 10/5/21	NA	Bergen Woods Offsite Forcemain Improvements													
74	NM Water Loops	135 days	Fri 5/27/22	Sat 10/8/22	NA	NA	NM Water Loops													
75	Basin 4036 CIPP	150 days	Tue 7/6/21	Thu 12/2/21	Tue 7/6/21	NA	Basin 4036 CIPP													
76	Canal Road Water Main Extension	45 days	Mon 11/8/21	Wed 12/22/21	Mon 11/8/21	NA	Canal Road Water Main Extension													
77	Oak Grove Forcemain	180 days	Mon 3/14/22	Fri 9/9/22	NA	NA	Oak Grove Forcemain													
78	PS 4105-4107 and FM	180 days	Fri 3/18/22	Tue 9/13/22	NA	NA	PS 4105-4107 and FM													
82	PS 4116 Rehabilitation and FM upgrade	213 days	Mon 6/14/21	Wed 1/12/22	Mon 6/14/21	NA	PS 4116 Rehabilitation and FM upgrade													
84	LS 4003 Upgrades	499 days	Mon 7/20/20	Tue 11/30/21	Mon 7/20/20	NA	LS 4003 Upgrades													
88	North Mainland Sewer Phase II-PS4035-4036	320 days	Mon 3/22/21	Fri 2/4/22	Mon 3/22/21	NA	North Mainland Sewer Phase II-PS4035-4036													
89	North Mainland Sewer Phase III-Forcemain	359 days	Thu 4/1/21	Fri 3/25/22	Thu 4/1/21	NA	North Mainland Sewer Phase III-Forcemain													
90	Academy Creek WPCF Rehab	446 days	Mon 1/4/21	Fri 3/25/22	Mon 1/4/21	NA	Academy Creek WPCF Rehab													
91	Galvanized Replacements	365 days	Thu 7/1/21	Thu 6/30/22	Thu 7/1/21	NA	Galvanized Replacements													
93	Community Road W&S Extension	365 days	Fri 3/11/22	Fri 3/10/23	NA	NA	Community Road W&S Extension													
94	Sea Palms East Water Line Rehab	564 days	Tue 6/16/20	Fri 12/31/21	Tue 6/16/20	NA	Sea Palms East Water Line Rehab													
95	Canal Rd to Glynco 12" Water Main Loop	236 days	Mon 5/10/21	Fri 12/31/21	Mon 5/10/21	NA	Canal Rd to Glynco 12" Water Main Loop													
98	Arco Area Water and Sewer Extension	365 days	Mon 1/3/22	Mon 1/2/23	NA	NA	Arco Area Water and Sewer Extension													

Project: Capital Projects Gantt Chart  
Date: Wed 11/10/21

Task		Inactive Task		Manual Summary Rollup		External Milestone		Progress	
Split		Inactive Milestone		Manual Summary		Deadline		Manual Progress	
Milestone		Inactive Summary		Start-only		Baseline			
Summary		Manual Task		Finish-only		Baseline Milestone			
Project Summary		Duration-only		External Tasks		Baseline Summary			

**Capital Projects Earned Value Analysis  
Financial Data as of 11/10/2021**

Proj #	Project Name	Project Manager	Concept Design	Detail Design	Construction	BAC	PV	EV	AC	SV	CV	ETC	EAC	VAC	SPI	CPI	TCPI
702	North Mainland Sewer Improvements (NMSI)	Kline	JWSC	T&H	(multiple)	\$ 14,900,000.00	\$ 12,564,091.29	\$ 10,829,790.42	\$ 9,684,198.43	\$ (1,734,300.87)	\$ 1,145,591.99	\$ 3,639,656.51	\$ 13,323,854.94	\$ 1,576,145.06	<b>0.86</b>	<b>1.12</b>	<b>0.78</b>
703	PS 4003 Decommission and Gravity Sewer	Patel	JWSC	HGB	Pettitcoat-Schmidt Civil Contractors	\$ 3,300,000.00	\$ 2,303,378.00	\$ 2,292,980.33	\$ 2,237,030.69	\$ (3,123,468.40)	\$ 55,949.64	\$ 982,447.99	\$ 3,219,478.68	\$ 80,521.32	<b>1.00</b>	<b>1.03</b>	<b>0.95</b>
704	Canal Road to Glynco 12" Watermain Loop	Vo	JWSC	T&H	TB Landmark/JWSC	\$ 1,200,000.00	\$ 1,094,621.21	\$ 435,397.15	\$ 309,270.44	\$ (3,123,467.40)	\$ 126,126.71	\$ 543,111.19	\$ 852,381.63	\$ 347,618.37	<b>0.40</b>	<b>1.41</b>	<b>0.86</b>
801	FEMA Hazard Mitigation-Academy Creek	Burroughs	Haggerty	TBD	TBD	\$ 3,188,000.00	\$ 2,681,413.70	\$ 868,490.90	\$ 233,429.54	\$ (1,212,968.49)	\$ 635,061.36	\$ 623,428.46	\$ 856,858.00	\$ 2,331,142.00	<b>0.32</b>	<b>3.72</b>	<b>0.79</b>
804	Magnolia Water Improvements (City of Brunswick)	Kline/Vo	JWSC	City / EMC	Georgia Asphalt Producers	\$ 1,700,000.00	\$ 1,700,000.00	\$ 1,694,775.56	\$ 1,639,072.27	\$ (5,224.44)	\$ 55,703.29	\$ 5,052.73	\$ 1,644,125.00	\$ 55,875.00	<b>1.00</b>	<b>1.03</b>	<b>0.09</b>
906	Water Pollution Rehab-Academy & Dunbar	Burroughs	JWSC	GMC	Ruby-Collins, LLC	\$ 11,641,306.00	\$ 7,444,162.89	\$ 7,396,003.20	\$ 6,857,055.81	\$ (48,159.69)	\$ 538,947.39	\$ 3,935,947.22	\$ 10,793,003.02	\$ 848,302.98	<b>0.99</b>	<b>1.08</b>	<b>0.89</b>
2001	PS 4105 Basin Expansion	Kline	JWSC	Roberts Civil Engineering	TBD	\$ 1,485,000.00	\$ 1,343,422.17	\$ 242,565.40	\$ 98,565.50	\$ (1,100,856.77)	\$ 143,999.90	\$ 504,858.44	\$ 603,423.94	\$ 881,576.06	<b>0.18</b>	<b>2.46</b>	<b>0.90</b>
2003	Sea Palms CIPP	Vo	JWSC	JWSC	TBD	\$ 561,795.00	\$ 258,209.54	\$ 244,084.44	\$ 233,594.50	\$ (14,125.10)	\$ 10,489.94	\$ 304,056.42	\$ 537,650.92	\$ 24,144.08	<b>0.95</b>	<b>1.04</b>	<b>0.97</b>
2009	Sea Palms East Water Line Rehab	Simmons	JWSC	N/A	TBD	\$ 178,595.00	\$ 178,595.00	\$ 29,468.18	\$ 23,677.71	\$ (149,126.83)	\$ 5,790.47	\$ 119,823.56	\$ 143,501.27	\$ 35,093.73	<b>0.17</b>	<b>1.24</b>	<b>0.96</b>
2011	Lift Station SCADA Upgrades	Burroughs	JWSC	EMC	EMC	\$ 2,000,000.00	\$ 1,640,000.00	\$ 1,764,705.88	\$ 2,316,155.78	\$ 124,705.88	\$ (551,449.90)	\$ 308,820.77	\$ 2,624,976.55	\$ (624,976.55)	<b>1.08</b>	<b>0.76</b>	<b>-0.74</b>
2014	PS 2002 FM Replacement	Burroughs	JWSC	TR Long	TBD	\$ 500,000.00	\$ 38,325.00	\$ 37,941.75	\$ 10,530.00	\$ (383.25)	\$ 27,411.75	\$ 128,235.34	\$ 138,765.34	\$ 361,234.66	<b>0.99</b>	<b>3.60</b>	<b>0.94</b>
2016	Arco Water and Sewer Expansion Engineering	Patel	JWSC	T&H	TBD	\$ 300,000.00	\$ 300,000.00	\$ 201,000.00	\$ 259,319.00	\$ (99,000.00)	\$ (58,319.00)	\$ 127,724.28	\$ 387,043.28	\$ (87,043.28)	<b>0.67</b>	<b>0.78</b>	<b>2.43</b>
2018	Meter Replacements	Roberts	JWSC	N/A	Delta Municipal Supply	\$ 7,750,000.00	\$ 4,356,796.12	\$ 2,212,000.00	\$ 3,706,897.70	\$ (2,144,796.12)	\$ (1,494,897.70)	\$ 9,280,650.75	\$ 12,987,548.45	\$ (5,237,548.45)	<b>0.51</b>	<b>0.60</b>	<b>1.37</b>
2020	Community Rd Area Water and Sewer Expansion	Patel	JWSC	HGB	TBD	\$ 250,000.00	\$ 250,000.00	\$ 164,987.50	\$ 189,271.00	\$ (13,690.48)	\$ (24,283.50)	\$ 97,524.97	\$ 286,795.97	\$ (36,795.97)	<b>0.66</b>	<b>0.87</b>	<b>1.40</b>
2021	Galvanized Replacements	Simmons	JWSC	N/A	JWSC	\$ 500,000.00	\$ 363,529.41	\$ 144,166.67	\$ 147,741.40	\$ (219,362.75)	\$ (3,574.73)	\$ 364,656.52	\$ 512,397.92	\$ (12,397.92)	<b>0.40</b>	<b>0.98</b>	<b>1.01</b>
2024	Master Plan Update	Burroughs	4Waters	N/A	N/A	\$ 247,500.00	\$ 247,500.00	\$ 247,237.50	\$ 244,670.00	\$ (262.50)	\$ 2,567.50	\$ 259.77	\$ 244,929.77	\$ 2,570.23	<b>1.00</b>	<b>1.01</b>	<b>0.09</b>
2107	Priority Basin Clean & CCTV	Burroughs	N/A	N/A	Southeast Pipe Survey	\$ 425,000.00	\$ 164,687.50	\$ 141,250.82	\$ 4,529.05	\$ (23,436.68)	\$ 136,721.77	\$ 9,098.10	\$ 13,627.15	\$ 411,372.85	<b>0.86</b>	<b>31.19</b>	<b>0.67</b>
<b>TOTALS</b>						\$ 50,127,196.00	\$ 36,928,731.82	\$ 28,946,845.68	\$ 28,195,008.82	\$ (7,981,886.15)	\$ 751,836.86	\$ 20,975,353.03	\$ 49,170,361.84	\$ 956,834.16	<b>0.78</b>	<b>1.03</b>	<b>0.97</b>

BAC	Budget at Completion	Approved Budget for Project
PV	Planned Value	% of Schedule Used x BAC
EV	Earned Value	% of Work Completed x BAC
AC	Actual Cost	Actual Costs to Date
SV	Schedule Variance	EV - PV
CV	Cost Variance	EV - AC
ETC	Estimate to Complete	(BAC - EV) / CPI
EAC	Estimate at Completion	AC + ETC
VAC	Variance at Completion	BAC - EAC
SPI	Schedule Performance Index	EV / PV
CPI	Cost Performance Index	EV / AC
TCPI	To Complete Performance Index	(BAC - EV) / (BAC - AC)

Positive means ahead of schedule  
Positive is better  
Estimate to complete based on cost performance to date  
Estimated final project cost  
Positive means project is projected to be under budget  
Greater than 1.0 means ahead of schedule  
Greater than 1.0 means costs are ahead of schedule  
Greater than 1.0 indicates project management needs to be more efficient to complete project on budget