



Brunswick-Glynn County Joint Water and Sewer Commission
1703 Gloucester Street, Brunswick GA 31520
Wednesday, June 5, 2019 at 1:30 PM
Commission Meeting Room

FACILITIES COMMITTEE MEETING AGENDA

COMMITTEE MEMBERS: **Chairman Ben Turnipseed**
 Commissioner Bob Duncan
 Commissioner Steve Copeland
 Interim 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 May 15, 2019 Facilities Committee Meeting (*subject to any necessary changes*)**
- 2. SPLOST V Odor Control IGA with City of Brunswick – A. Burroughs**
- 3. Wade Journey Comprehensive Agreement – A. Burroughs**
- 4. Academy Creek Engineering RFP Recommendation Award – A. Burroughs**
- 5. Ridgewood WPF Engineering Update Award – A. Burroughs**
- 6. Pump Station 4003 Force Main Inspection Approval – A. Burroughs**

DISCUSSION

- 1. SR27 Resurfacing Contract Discussion – A. Burroughs**
- 2. Pump Station 4003 Discussion – A. Burroughs**
- 3. Pump Station 4105 Force Main Reroute – A. Burroughs**
- 4. Residential Meter Sizes – A. Burroughs**
- 5. SPLOST 2020 Recommended Projects Detail – A. Burroughs**
- 6. Project Report – A. Burroughs**

MEETING ADJOURNED

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



Brunswick-Glynn County Joint Water and Sewer Commission

Memo

To: Facilities Committee
From: Charles A. Dorminy, J.D., LL.M.
Date: June 5, 2019
Re: SPLOST V IGA with City - Re: Odor Control at Academy Creek WWTP

Background

The Seventh Addendum to the Operational Agreement amended the Operational Agreement to allow the JWSC to receive direct disbursements of remaining, eligible SPLOST V proceeds from the City and/or County for approved water and sewer SPLOST V projects, under such terms and conditions as are mutually agreed upon with the JWSC by the County and/or City, as applicable, in a separate Intergovernmental Agreement. SPLOST V included various water and sewer capital outlay projects for the City of Brunswick and Glynn County, specifically including capital upgrades and improvements to the Academy Creek Wastewater Treatment Plant necessary to address upstream collection system needs and odor control. The enclosed intergovernmental agreement is required by law to be entered into in order for the City to be able to provide SPLOST V funds to the JWSC and so that the JWSC may manage the project.

Overview of Proposal/Agreement

Through the IGA, the County and JWSC agree that the Project is to be funded in whole or in part using the \$160,659.00 of SPLOST V proceeds allocated and reserved by the City specifically for odor control at Academy Creek WWTP.

The JWSC agrees to promptly perform and complete the Project and understands that it is solely responsible for the completion of same. If any unspent SPLOST V funds remain with the JWSC after JWSC has satisfactorily completed and funded the SPLOST V JWSC Project, such remaining funds shall be deemed excess funds, immediately returned to the City, and disposed of by the City or County as provided by Georgia law.

The JWSC agrees to promptly proceed with the acquisition, construction, and equipping of the Project. The JWSC understands and agrees that it must fund and complete the Project and that

the project cannot be abandoned even if the actual cost of the Project exceeds the amount of SPLOST proceeds received from the City under this Agreement.

Motion

I hereby move to forward the recommendation for the JWSC to enter into the SPLOST V Intergovernmental Agreement with the City of Brunswick for Odor Control at the Academy Creek WWTP to the full Commission for approval.

**STATE OF GEORGIA
COUNTY OF GLYNN**

**SPLOST V AGREEMENT
BY AND BETWEEN
THE CITY OF BRUNSWICK, GEORGIA
AND
BRUNSWICK-GLYNN COUNTY
WATER AND SEWER COMMISSION**

This Intergovernmental Agreement (“Agreement”) is made and entered into as of the date of the last signature below (the “Effective Date”), by and between **THE CITY OF BRUNSWICK, GEORGIA**, a municipal subdivision of the State of Georgia, acting by and through its duly elected Mayor and Board of Commissioners (hereafter sometimes referred to as the “City”) and the **BRUNSWICK-GLYNN COUNTY WATER AND SEWER COMMISSION**, a body corporate and politic, acting by and through its Commissioners (hereafter sometimes referred to as the “JWSC”).

WITNESSETH:

WHEREAS, the JWSC is a body corporate and politic created by the General Assembly of the State of Georgia pursuant to an act approved April 19, 2006, (Ga. L. 2006, p. 3661), as amended by: (i) an act of the General Assembly of the State of Georgia approved April 11, 2012 (Ga. L. 2012, p. 5287); and (ii) an act of the General Assembly of the State of Georgia approved March 31, 2016 (Ga. L. 2016, page 3523) (hereinafter collectively referred to as the “Act”), for the purpose of, inter alia, operating the combined water and sewer systems (“Unified System”) of the City and County;

WHEREAS, on June 5, 2007, pursuant to the Act, the City, County and JWSC entered into an Operational Agreement detailing the power of the JWSC to operate the Unified System and the rights of the County, City, and JWSC during the period of such operation by the JWSC, which agreement has been amended by the following amendments thereto: (i) Addendum entered into on July 6, 2007; (ii) Second Addendum entered into on June 30, 2010; (iii) Third Addendum entered into on November 4, 2010; (iv) Fourth Addendum entered into on December 18, 2014; and (v) Fifth Addendum entered into on April 20, 2017; (vi) Sixth Addendum entered into on June 21, 2018; and (vii) Seventh Addendum entered into on January 7, 2019. The Operational Agreement, as amended, is hereinafter collectively referred to as the “Operational Agreement”;

WHEREAS, the Fifth Addendum to the Operational Agreement amended the Operational Agreement to allow the JWSC to receive direct disbursements of eligible SPLOST proceeds from the City and/or County for approved water and sewer SPLOST projects, beginning with SPLOST 2016, and to authorize the JWSC to complete such SPLOST projects, under such terms and conditions as may be mutually agreed upon with the JWSC by the County and/or City, as applicable, in a separate Intergovernmental Agreement;

WHEREAS, on November 8, 2005, voters of Glynn County approved the imposition of a Special Local Option Sales Tax (hereinafter referred to as "SPLOST V") to be collected, beginning on January 1, 2007, for the raising of an estimated amount of \$124,449,616 for the purpose of funding certain capital outlay projects, including improvements to the sewer and water systems in the City of Brunswick and Glynn County;

WHEREAS, the Seventh Addendum to the Operational Agreement further amended the Operational Agreement to allow the JWSC to also receive direct disbursements of remaining, eligible SPLOST V proceeds from the City and/or County for approved water and sewer SPLOST V projects, under such terms and conditions as may be mutually agreed upon with the JWSC by the County and/or City, as applicable, in a separate Intergovernmental Agreement;

WHEREAS, the approved SPLOST V projects for the City of Brunswick included various water and sewer capital outlay projects, including wastewater treatment projects;

WHEREAS, the City and JWSC desire to enter into this Intergovernmental Agreement in order for the City to allow for the disbursement of eligible SPLOST V proceeds to the JWSC for the water and wastewater treatment project (hereinafter sometimes referred to as the "SPLOST V JWSC Project" or "Project") and for the JWSC to complete such SPLOST V project under the terms and conditions set forth herein;

WHEREAS, the Constitution of the State of Georgia provides, in Article IX, Section III, Paragraph I, subparagraph (a), that any county, municipality, school district, or other political subdivision of the State of Georgia may contract for any period not exceeding 50 years, with each other or with any other public agency, public corporation, or public authority for joint services, for the provision of services, or for the joint or separate use of facilities or equipment when such contracts deal with activities, services, or facilities which the contracting parties are authorized by law to undertake or provide; and

NOW THEREFORE, incorporating the foregoing recitals, and in consideration of the mutual promises and undertakings contained herein and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, the City of Brunswick and the Brunswick-Glynn County Water and Sewer Commission hereby agree as follows:

**SECTION 1.
REPRESENTATIONS AND MUTUAL CONSENTS**

(a) Proceeds of SPLOST V were disbursed to Glynn County by the state in accordance with O.C.G.A. § 48-8-115, pursuant to which one percent of the amount collected was paid into the general fund of the state treasury in order to defray the costs of administration, and the remainder of which was distributed to the governing authority of Glynn County. All such remaining SPLOST V proceeds received by Glynn County from the state revenue commissioner were then distributed to Glynn County and the City on a monthly basis based on the ratio that the population of the City bears to the total population of the County.

(b) SPLOST V proceeds actually received from the state revenue commissioner were substantially less than estimated, resulting in a shortfall and reduction in the amounts originally estimated for many SPLOST V projects, including water and wastewater projects. SPLOST V proceeds in the amount of \$160,659.00 have been allocated and reserved by the City for the completion of the SPLOST V water and wastewater project described and set forth in Section 4 of this Agreement. Such SPLOST V project is to be funded in whole or in part from the City's portion of the SPLOST V proceeds in accordance with SPLOST Law and as set forth and agreed upon in this Agreement.

(c) It is the intention of the City and JWSC to comply in all respects with O.C.G.A. § 48-8-110 et seq. (herein sometimes referred to as "SPLOST Law"), and all provisions of this Agreement shall be construed in light of O.C.G.A. § 48-8-110 et seq. JWSC shall use all SPLOST proceeds received from the City under this Agreement in a manner consistent with SPLOST Law and this Agreement.

(d) The parties agree that the SPLOST V project contemplated and to be completed by JWSC under this Agreement shall be maintained as a public facility and in public ownership. All SPLOST V JWSC Projects shall be operated by JWSC for the benefit of and made available to the general public. The operation of all such projects shall be at the sole risk of the JWSC. If ownership of a project funded or financed pursuant to this Agreement is transferred to private ownership, the proceeds of the sale shall, for the purposes of this Agreement, be deemed excess funds, immediately provided to the City, and disposed of by the City as provided under O.C.G.A. § 48-8-121(g)(2). The obligation to return any such excess funds to the City shall survive any termination of this Agreement.

(e) The JWSC agrees to maintain thorough and accurate records concerning the receipt of SPLOST V proceeds from the City and the expenditures for each project undertaken by JWSC hereunder. Without limiting the generality of the foregoing, the JWSC shall also maintain and retain any and all agreements, contracts, purchase orders, invoices, and payment records with any vendors, contractors, and third parties pertaining to the SPLOST V JWSC Project and/or the expenditure of any SPLOST proceeds received from the City. Upon request by City, the JWSC shall promptly submit to City any and all such records and materials for review, inspection, and/or copying.

SECTION 2. EFFECTIVE DATE AND TERM OF AGREEMENT

(a) This Agreement shall commence upon the date of its execution and shall terminate upon the later of:

- (i) The disbursement of the last dollar of SPLOST V proceeds from City to JWSC for the SPLOST V JWSC Project as set forth under this Agreement; or
- (ii) The completion of the SPLOST V JWSC Project by JWSC.

(b) However, notwithstanding any termination of this Agreement, the JWSC shall continue to use and operate the SPLOST V JWSC Project in a manner consistent with SPLOST Law and any other applicable law.

SECTION 3. SEPARATE ACCOUNTS

(a) A special fund or account shall be created by the JWSC and designated as the 2005 JWSC Special Purpose Local Option Sales Tax Fund (“JWSC SPLOST V Fund”). The JWSC shall select a local bank which shall act as a depository and custodian of the JWSC SPLOST Fund upon such terms and conditions as may be acceptable to the JWSC.

(b) All SPLOST V proceeds received by JWSC shall be maintained by the JWSC in the separate accounts or funds established pursuant to this Section 3. SPLOST V proceeds received by JWSC shall not be commingled with other funds of the JWSC and shall be used exclusively for the SPLOST V JWSC Project as detailed in this Agreement. Under no circumstances may any SPLOST V proceeds distributed by City to JWSC be used for any other project or purpose. No funds, other than SPLOST V proceeds, shall be placed in such funds or accounts.

SECTION 4. PROJECT

(a) SPLOST V included various water and wastewater projects for the City. It has been found and determined by both the City and JWSC that due in large part to the Financial Crisis of 2008 and the Great Recession of 2008, SPLOST V proceeds actually received from the state revenue commissioner ended up being substantially less than estimated, resulting in a significant shortfall and reduction in the amount originally estimated for many SPLOST V projects, including the subject SPLOST V JWSC Project.

(b) The City and JWSC have carefully considered said growth reduction and change in development patterns, as well as the reduction in available SPLOST V proceeds, and have determined and concluded that the wastewater treatment needs of the City will best be served by odor control upgrades to the JWSC wastewater treatment in the City;

(c) The City and JWSC agree that the Project is to be funded in whole or in part using the remaining \$160,659.00 of SPLOST V proceeds allocated and reserved by the City specifically for this Project and shall be as follows:

Odor Control at the Academy Creek Wastewater Treatment Plant

The specific scope of the odor remediation Project to be completed with duly appropriated SPLOST V funds held by the City will be more fully set out in an Request for Proposal (RFP) published by the JWSC in accordance with this Agreement, the terms of which are incorporated herein by reference.

SECTION 5.
PROCEDURE FOR DISBURSEMENT OF SPLOST PROCEEDS

(a) Within ten (10) business days following the execution of this Agreement by both parties, the City shall directly distribute SPLOST V proceeds in the amount of \$160,659 to the JWSC in a single lump sum transfer. Such SPLOST V proceeds received by JWSC from City shall be immediately deposited in the separate fund established by the JWSC in accordance with Section 3 of this Agreement and shall be used exclusively for the SPLOST V JWSC Project as detailed in this Agreement. No other or further distributions will be made by the City to the JWSC under this Agreement.

(b) The City will not be responsible for any SPLOST V JWSC Project expense or any SPLOST V distributions to JWSC beyond the \$160,659, nor shall the total of all distributions from City to JWSC under this Agreement exceed a maximum of \$160,659.

(c) Should the JWSC cease to exist as a legal entity before all funds are distributed under this Agreement, the JWSC's share of the funds subsequent to dissolution shall be paid to the City as part of the City's share unless an Act of the Georgia General Assembly makes the defunct JWSC part of another successor entity. If such an act is passed, the defunct JWSC's share shall be paid to the successor entity in addition to all other funds to which the successor entity would otherwise be entitled.

SECTION 6.
COMPLETION OF PROJECT

(a) The JWSC agrees to promptly perform and complete the SPLOST V JWSC Project and understands that it is solely responsible for the completion of same. The City and JWSC acknowledge that the \$160,659 SPLOST V JWSC Project cost is an estimated amount.

(b) If any unspent SPLOST V funds remain with the JWSC after JWSC has satisfactorily completed and funded the SPLOST V JWSC Project, such remaining funds shall be deemed excess funds, immediately returned to the City, and disposed of by the City as provided under O.C.G.A. § 48-8-121(g)(2). The obligation to return any such excess funds to the City shall survive any termination of this Agreement.

(c) The JWSC agrees to promptly proceed with the acquisition, construction, and equipping of the SPLOST V JWSC Project. The JWSC understands and agrees that it must fund and complete the SPLOST V JWSC Project and that the project cannot be abandoned even if the actual cost of the SPLOST V JWSC Project exceeds the amount of SPLOST proceeds received from the City under this Agreement.

SECTION 7.
CERTIFICATE OF COMPLETION

Within thirty (30) days after the acquisition, construction or equipping of the SPLOST V JWSC Project listed in Section 4 above is completed, the JWSC shall file with the City a Certificate

of Completion signed by the Chair of the JWSC or the Executive Director of the JWSC, setting forth the date on which the project was completed, and the final cost of the project.

**SECTION 8.
ANNUAL REPORT**

(a) During the term of this Agreement, the JWSC shall at its expense cause to be prepared and submitted to the City an annual report on or before December 1 of each year of this Agreement setting forth the following in relation to the SPLOST V JWSC Project listed and described in Section 4 above: (i) a description of the project and the total funds expended thereon to date; and (ii) whether the SPLOST V JWSC Project is completed or currently under construction, the total funds expended thereon, and the current estimate of funds necessary to complete the project (if incomplete).

(b) The JWSC shall also cooperate with and assist the City in providing any other information or documentation pertaining to the SPLOST V JWSC Project which might be necessary or desirable for City to comply with SPLOST Law and any other applicable law, including but not necessarily limited to its annual audit and annual reporting requirements.

**SECTION 9.
NOTICES**

All notices, consents, waivers, directions, requests or other instruments or communications provided for under this Agreement shall be deemed properly given when delivered personally or sent by registered or certified United States mail, postage prepaid, as follows:

If to JWSC:
Brunswick-Glynn County
Water and Sewer Commission
Attn: Executive Director
1703 Gloucester Street
Brunswick, Georgia 31520

If to the City of Brunswick:
City of Brunswick
Attn: City Manager
601 Gloucester Street
Brunswick, Georgia 31520

**SECTION 10.
ENTIRE AGREEMENT**

This Agreement, including any attachments or exhibits, constitutes all of the understandings and agreements existing between the City and the JWSC with respect to distribution and use of the proceeds from the SPLOST V. Furthermore, this Agreement supersedes all prior agreements, negotiations and communications of whatever type, whether written or oral, between the parties hereto with respect to distribution and use of said SPLOST.

**SECTION 11.
AMENDMENTS**

This Agreement shall not be amended or modified except by agreement in writing executed by the governing authorities of the City and the JWSC.

**SECTION 12.
GOVERNING LAW**

This Agreement shall be deemed to have been made and shall be construed and enforced in accordance with the laws of the State of Georgia.

**SECTION 13.
SEVERABILITY/ACTION BY STATE OF GEORGIA**

(a) Should any phrase, clause, sentence, or paragraph of this Agreement be held invalid or unconstitutional, the remainder of the Agreement shall remain in full force and effect as if such invalid or unconstitutional provision were not contained in the Agreement unless the elimination of such provision detrimentally reduces the consideration that any party is to receive under this Agreement or materially affects the operation of this Agreement. If this Agreement is held to be invalid or unconstitutional, the City shall have no obligation to distribute any SPLOST V proceeds to the JWSC. Upon a portion of the Agreement being declared invalid, the JWSC shall pay back to the City any SPLOST V funds received under this Agreement that are related to the portion of the Agreement declared invalid or unenforceable. The obligation to return any such funds to the City shall survive any termination of this Agreement.

(b) If any action or enactment of the State of Georgia or any of its departments or agencies results in the elimination or termination of SPLOST V and/or the elimination of the distribution or transfer of any SPLOST V proceeds to the City by the state revenue commissioner, the City shall be under no further obligation under this Agreement to distribute any SPLOST V proceeds to JWSC.

**SECTION 14.
COMPLIANCE WITH LAW**

The City and the JWSC shall comply with all applicable local, state, and federal statutes, ordinances, rules and regulations.

**SECTION 15.
NO CONSENT TO BREACH**

No consent or waiver, express or implied, by any party to this Agreement, to any breach of any covenant, condition or duty of another party shall be construed as a consent to or waiver of any future breach of the same.

**SECTION 16.
COUNTERPARTS**

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

**SECTION 17.
MEDIATION**

The City and the JWSC agree to submit any controversy arising under this Agreement to mediation for a resolution. The parties to the mediation shall mutually select a neutral party to serve as mediator. Costs of mediation shall be shared equally among the parties to the mediation.

**SECTION 18.
RECITALS**

The recitals set forth above in this Agreement are made a part of this Agreement and are incorporated herein by reference.

**SECTION 19.
THIRD PARTIES**

This Agreement shall not create any rights for any non-signatory third party nor shall any party hereto assign or share any of the benefits designated herein.

[Signatures Contained on Following Page]

IN WITNESS WHEREOF, the City of Brunswick, Georgia, and the Brunswick-Glynn County Water and Sewer Commission have caused this Agreement to be executed in their respective names by their duly authorized officers and their respective official seals to be hereunto affixed and attested by their duly authorized officials, all as of the date first above written.

CITY OF BRUNSWICK, GEORGIA:

By:

Cornell L. Harvey
Cornell L. Harvey, Mayor
City of Brunswick

June 5, 2019
Date

Attest:

Naomi D. Atkinson
Naomi D. Atkinson, City Clerk
(SEAL)



**BRUNSWICK-GLYNN COUNTY
WATER AND SEWER COMMISSION:**

By:

G. Ben Turnipseed
G. Ben Turnipseed, Chairman

6/6/19
Date

Attest:

Janice Meredith
Janice Meredith, Exec. Commission Administrator
(SEAL)



Brunswick-Glynn County Joint Water and Sewer Commission

Memo

To: Facilities Committee
From: Charles A. Dorminy, J.D., LL.M.
Date: June 5, 2019
Re: Wade Journey Comprehensive Agreement

Background

The Developer, WJH, LLC f/k/a Wade Journey Home, Inc., owns fifty-nine (59) platted lots located in Saddle Brooke Community, Brunswick, Georgia and intends to construct single family residential homes on those lots. Eighteen (18) water and sewer taps for the Lots in the Saddle Brooke Community have already been issued, and the developer desires to obtain water and sewer taps for the remaining forty-one (41) lots in the Saddle Brooke Community set forth in Exhibit 1 (the "Lots").

The JWSC believes that the basins 4105 and 4107 are currently without sufficient capacity to support the anticipated connections to the public sewer system when combined with other approved projects. However, the JWSC has implemented a plan to make improvements to the infrastructure to enable the JWSC to accept additional connections to the public water and sewer system including for the Lots.

Developer desires to enter into this Agreement in order to pay for additional water and sewer taps in order to facilitate approval of building permits to allow construction of single family residential homes on the Lots.

Overview of Proposal/Agreement

In addition to the eighteen (18) water and sewer taps already issued in the Saddle Brooke Community, the Utility agrees to immediately issue forty-one (41) additional water and sewer taps to the Developer for the Lots upon execution of this Agreement and upon payment of the water and sewer connection fees under the current JWSC rate resolution. Utility agrees that it shall allow physical connection into the System for all fifty-nine (59) Lots including the forty-one (41) Lots, immediately upon completion of construction.

Further, the Developer waives and releases any and all claims against BGCJWSC for the prior refusal to issue taps, failure to maintain sufficient capacity in the sewer system up to the date of this agreement. In accordance with JWSC policy, all taps issued for the Lots are transferable within the basin in which each Lot is served subject to payment of transfer fees not to exceed fifty dollars (\$50.00) per parcel. Any parcels to which a tap has been transferred must comply with all regulations of the Glynn County Community Development Office.

Motion

I hereby move that the Facilities Committee recommend that the JWSC approve the Comprehensive Agreement with WJH, LLC f/k/a Wade Journey Homes, Inc. and authorize the Chairman to execute the same.

AGREEMENT

This AGREEMENT (“Agreement”) entered this ___ day of _____, 2019, by WJH LLC F/K/A WADE JURNEY HOMES, INC. and its successors and assigns (collectively hereinafter “Owner”), and BRUNSWICK-GLYNN COUNTY WATER SEWER COMMISSION, a body corporate and politic created by Local Act of the General Assembly of the State of Georgia (hereinafter “Utility”).

WITNESSETH THAT:

WHEREAS, the Utility owns and operates water and sewer systems serving customers inside the limits of the City of Brunswick and in the unincorporated portion of Glynn County, Georgia (hereinafter "System");

WHEREAS, the Utility asserts that the System currently has infrastructure in need of improvements prior to allowing any additional physical connection to the system;

WHEREAS, the Owner owns fifty-nine (59) platted lots located in Saddle Brooke Community, Brunswick, Georgia (the “Lots”) and intends to construct single family residential homes on said lots;

WHEREAS, eighteen (18) water and sewer taps for the Lots in the Saddle Brooke Community have already been issued, Owner desires to obtain water and sewer taps for the remaining forty-one (41) lots in the Saddle Brooke Community set forth in **Exhibit 1** (the “Lots”);

WHEREAS, the Lots are within the area served by the public water and sewer system;

WHEREAS, the Utility asserts that the relevant Sewer Basins are currently without sufficient infrastructure and capacity to support additional physical connections to the public sewer system;

WHEREAS, the Utility has implemented a plan to make improvements to the infrastructure (hereinafter “Improvements”) to allow the Utility to allow additional physical connections to the public water and sewer system including for the Lots;

WHEREAS, Owner desires to enter into this Agreement in order to receive additional water and sewer taps in order to facilitate approval of building permits to allow construction of single family residential homes on the Lots ;

NOW THEREFORE, for and in consideration of the above-stated provisions, and in exchange for Utility issuing forty-one (41) additional water and sewer tap(s), Owner and Utility agree and acknowledge as follows:

1) In addition to the eighteen (18) water and sewer taps already issued in the Saddle Brooke Community; the Utility agrees to immediately issue forty-one (41) additional water and sewer taps

for the Lots upon execution of this Agreement and upon payment of the water and sewer connection fees under the current BGCJWSC rate resolution;

2) Utility agrees that it shall allow physical connection into the System for all fifty-nine (59) Lots including the forty-one (41) Lots, immediately upon completion of construction;

3) Subject to the conditions stated in this Agreement, Owner and its successors in interest agree to forbear the commencement of any action against BGCJWSC relating to any prior refusal to issue taps, failure to maintain sufficient capacity in the sewer system up to the date of this agreement, and denial of the ability to physically connect to the Lots and Owner waives and releases any and all claims against BGCJWSC for the prior refusal to issue taps, failure to maintain sufficient capacity in the sewer system up to the date of this agreement;

4) In accordance with BGCJWSC policy, all taps issued for the Lots are transferable within the basin in which each Lot is served subject to payment of transfer fees not to exceed fifty dollars (\$50.00) per parcel. Any parcels to which a tap has been transferred must comply with all regulations of the Glynn County Community Development Office; and

5) Nothing contained herein shall constitute any admission, waiver, or estoppel to any claim or defense by either party regarding a denial of a request to physically connect to the public water and sewer system after the dates set forth herein.

This the ___ day of May, 2019.

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date first above written.

WJH LLC F/K/A WADE JURNEY HOMES, INC.

DocuSigned by:
Richard Taylor
By Richard Taylor

Its: Director of Lot Acquisition

5/21/2019

BRUNSWICK-GLYNN COUNTY WATER & SEWER COMMISSION

By:

Its:

EXHIBIT 1

	ParcelID	AlternateID	HouseNun	PropertyAddress	City	LegalDesc
NO TAPS						
1	03-21428	0075-00 016-001	107	107 SADDLE BROOKE TRC	BRUNSWICK	1 SADDLE BROOKE PHS 1
2	03-21436	0075-00 016-009	133	133 SADDLE BROOKE TRC	BRUNSWICK	9 SADDLE BROOKE PHS 1
3	03-21437	0075-00 016-010	137	137 SADDLE BROOKE TRC	BRUNSWICK	28 SADDLE BROOKE PHS 1
4	03-21444	0075-00 016-017	161	161 SADDLE BROOKE TRC	BRUNSWICK	34 SADDLE BROOKE PHS 1
5	03-21445	0075-00 016-018	169	169 SADDLE BROOKE TRC	BRUNSWICK	113 SADDLE BROOKE PHS 1
6	03-21454	0075-00 016-027	199	199 SADDLE BROOKE TRC	BRUNSWICK	121 SADDLE BROOKE PHS 1
7	03-21455	0075-00 016-028	207	207 SADDLE BROOKE TRC	BRUNSWICK	122 SADDLE BROOKE PHS 1
8	03-21456	0075-00 016-029	211	211 SADDLE BROOKE TRC	BRUNSWICK	123 SADDLE BROOKE PHS 1
9	03-21457	0075-00 016-030	213	213 SADDLE BROOKE TRC	BRUNSWICK	124 SADDLE BROOKE PHS 1
10	03-21458	0075-00 016-031	215	215 SADDLE BROOKE TRC	BRUNSWICK	125 SADDLE BROOKE PHS 1
11	03-21459	0075-00 016-032	219	219 SADDLE BROOKE TRC	BRUNSWICK	126 SADDLE BROOKE PHS 1
12	03-21460	0075-00 016-033	221	221 SADDLE BROOKE TRC	BRUNSWICK	127 SADDLE BROOKE PHS 1
13	03-21461	0075-00 016-034	225	225 SADDLE BROOKE TRC	BRUNSWICK	128 SADDLE BROOKE PHS 1
14	03-21462	0075-00 016-035	227	227 SADDLE BROOKE TRC	BRUNSWICK	129 SADDLE BROOKE PHS 1
15	03-21463	0075-00 016-036	231	231 SADDLE BROOKE TRC	BRUNSWICK	130 SADDLE BROOKE PHS 1
16	03-21464	0075-00 016-037	235	235 SADDLE BROOKE TRC	BRUNSWICK	131 SADDLE BROOKE PHS 1
17	03-21467	0075-00 016-040	234	234 SADDLE BROOKE TRC	BRUNSWICK	303 SADDLE BROOKE PHS 1
18	03-21468	0075-00 016-041	230	230 SADDLE BROOKE TRC	BRUNSWICK	304 SADDLE BROOKE PHS 1
19	03-21469	0075-00 016-042	228	228 SADDLE BROOKE TRC	BRUNSWICK	305 SADDLE BROOKE PHS 1
20	03-21470	0075-00 016-043	226	226 SADDLE BROOKE TRC	BRUNSWICK	306 SADDLE BROOKE PHS 1
21	03-21471	0075-00 016-044	222	222 SADDLE BROOKE TRC	BRUNSWICK	307 SADDLE BROOKE PHS 1
22	03-21472	0075-00 016-045	220	220 SADDLE BROOKE TRC	BRUNSWICK	308 SADDLE BROOKE PHS 1
23	03-21473	0075-00 016-046	216	216 SADDLE BROOKE TRC	BRUNSWICK	309 SADDLE BROOKE PHS 1
24	03-21474	0075-00 016-047	214	214 SADDLE BROOKE TRC	BRUNSWICK	310 SADDLE BROOKE PHS 1
25	03-21475	0075-00 016-048	212	212 SADDLE BROOKE TRC	BRUNSWICK	311 SADDLE BROOKE PHS 1
26	03-21476	0075-00 016-049	208	208 SADDLE BROOKE TRC	BRUNSWICK	312 SADDLE BROOKE PHS 1
27	03-21477	0075-00 016-050	204	204 SADDLE BROOKE TRC	BRUNSWICK	313 SADDLE BROOKE PHS 1
28	03-21479	0075-00 016-052	198	198 SADDLE BROOKE TRC	BRUNSWICK	346 SADDLE BROOKE PHS 1
29	03-21489	0075-00 016-062	101	101 AMBER MILL CIR	BRUNSWICK	356 SADDLE BROOKE PHS 1
30	03-21494	0075-00 016-067	140	140 SADDLE BROOKE TRC	BRUNSWICK	361 SADDLE BROOKE PHS 1
31	03-21498	0075-00 016-071	118	118 SADDLE BROOKE TRC	BRUNSWICK	365 SADDLE BROOKE PHS 1
32	03-21499	0075-00 016-072	112	112 SADDLE BROOKE TRC	BRUNSWICK	366 SADDLE BROOKE PHS 1
33	03-21500	0075-00 016-073	108	108 SADDLE BROOKE TRC	BRUNSWICK	367 SADDLE BROOKE PHS 1
34	03-21502	0075-00 016-075	103	103 AMBER MILL CIR	BRUNSWICK	336 SADDLE BROOKE PHS 1
35	03-21503	0075-00 016-076	109	109 AMBER MILL CIR	BRUNSWICK	337 SADDLE BROOKE PHS 1
36	03-21521	0075-00 016-094	114	114 AMBER MILL CIR	BRUNSWICK	322 SADDLE BROOKE PHS 1
37	03-21522	0075-00 016-095	13	13 AMBER MILL CT	BRUNSWICK	323 SADDLE BROOKE PHS 1
38	03-21523	0075-00 016-096	19	19 AMBER MILL CT	BRUNSWICK	324 SADDLE BROOKE PHS 1
39	03-21524	0075-00 016-097	25	25 AMBER MILL CT	BRUNSWICK	325 SADDLE BROOKE PHS 1
40	03-21527	0075-00 016-100	24	24 AMBER MILL CT	BRUNSWICK	328 SADDLE BROOKE PHS 1
41	03-21528	0075-00 016-101	20	20 AMBER MILL CT	BRUNSWICK	329 SADDLE BROOKE PHS 1

EXHIBIT 1

TAPS

	ParcelID	AlternateID	HouseNun	PropertyAddress	City	LegalDesc
1	03-21430	0075-00 016-003	113	113 SADDLE BROOKE TRC	BRUNSWICK	3 SADDLE BROOKE PHS 1
2	03-21431	0075-00 016-004	117	117 SADDLE BROOKE TRC	BRUNSWICK	4 SADDLE BROOKE PHS 1
3	03-21438	0075-00 016-011	139	139 SADDLE BROOKE TRC	BRUNSWICK	29 SADDLE BROOKE PHS 1
4	03-21440	0075-00 016-013	147	147 SADDLE BROOKE TRC	BRUNSWICK	30 SADDLE BROOKE PHS 1
5	03-21441	0075-00 016-014	151	151 SADDLE BROOKE TRC	BRUNSWICK	31 SADDLE BROOKE PHS 1
6	03-21446	0075-00 016-019	173	173 SADDLE BROOKE TRC	BRUNSWICK	114 SADDLE BROOKE PHS 1
7	03-21448	0075-00 016-021	179	179 SADDLE BROOKE TRC	BRUNSWICK	116 SADDLE BROOKE PHS 1
8	03-21452	0075-00 016-025	193	193 SADDLE BROOKE TRC	BRUNSWICK	119 SADDLE BROOKE PHS 1
9	03-21453	0075-00 016-026	195	195 SADDLE BROOKE TRC	BRUNSWICK	120 SADDLE BROOKE PHS 1
10	03-21484	0075-00 016-057	184	184 SADDLE BROOKE TRC	BRUNSWICK	351 SADDLE BROOKE PHS 1
11	03-21511	0075-00 016-084	139	139 AMBER MILL CIR	BRUNSWICK	345 SADDLE BROOKE PHS 1
12	03-21514	0075-00 016-087	138	138 AMBER MILL CIR	BRUNSWICK	315 SADDLE BROOKE PHS 1
13	03-21515	0075-00 016-088	134	134 AMBER MILL CIR	BRUNSWICK	316 SADDLE BROOKE PHS 1
14	03-21520	0075-00 016-093	118	118 AMBER MILL CIR	BRUNSWICK	321 SADDLE BROOKE PHS 1
15	03-21530	0075-00 016-103	14	14 AMBER MILL CT	BRUNSWICK	331 SADDLE BROOKE PHS 1
16	03-21531	0075-00 016-104	10	10 AMBER MILL CT	BRUNSWICK	332 SADDLE BROOKE PHS 1
17	03-21532	0075-00 016-105	108	108 AMBER MILL CIR	BRUNSWICK	333 SADDLE BROOKE PHS 1
18	03-21534	0075-00 016-107	102	102 AMBER MILL CIR	BRUNSWICK	335 SADDLE BROOKE PHS 1



Brunswick-Glynn County Joint Water and Sewer Commission

Memo

To: Facilities Committee
From: Andrew Burroughs, P.E.
Date: June 5, 2019
Re: APPROVAL – Academy Creek Engineering Recommendation

Background

Rehab work is needed at both the Academy Creek WPCF. Completion of this project will provide greater operational flexibility, reduce odors, improve screening and grit removal, improve solids handling, reduce foaming events, and improve instrumentation and control at Academy Creek. The engineering work at Academy Creek is to be paid out of recently transferred SPLOST V funds. Construction is to be funded by a GEFA loan.

The Request for Proposals for this project include work at the Dunbar Creek WPCF as well. At this time, staff does not recommend awarding engineering at Dunbar Creek. The strategy is to complete the Academy Creek project prior to commencing work at Dunbar Creek. Depending on available funding at that time, the engineering at Dunbar Creek can be readvertised to ensure up to date proposals and pricing.

Staff Report

A Request for Proposal was issued on Friday, March 8, 2019 and a pre-proposal meeting was held on Tuesday, March 26, 2019 for potential proposers with seven (7) firms in attendance. Five (5) proposals were received on Tuesday, April 30, 2019. The firms submitting proposals included the following:

- Goodwyn, Mills, Cawood, Inc.
- Hussey Gay Bell & DeYoung Engineers
- McKim & Creed
- P.C. Simonton & Associates, Inc.
- Stantec

A three (3) member JWSC staff team evaluated the proposals. Listed below is the evaluation criteria considered in the evaluation:

Recently Completed Projects	35 possible points
Experience and Qualifications	20 possible points
Project Approach and Timeline	25 possible points
Interview.....	10 possible points
Pricing.....	10 possible points
Local Preference	5 possible points

A summary of scores is attached for your reference. The proposal received from Goodwyn Mills Cawood received the highest score at 298. Four reference checks were made of the proposed engineering firm that solidified the recommendation. The following comments were made by the evaluation team with regard to the GMC proposal:

- Recent and similar project experience with active wastewater treatment facility rehabilitations
- Substantial experience of team members
- Timeline for construction proposed in line with staff expectations
- Highly qualified construction administration personnel
- Costs for design in line with other proposals
- Costs for construction admin includes allowances for extended construction periods that will help limit change orders for this line item or substantially decrease total engineering costs if construction is shorter

After reviewing cost proposals, the \$1,181,150 amount submitted by GMC for Academy Creek and \$462,470 amount submitted by GMC for Dunbar Creek is reasonable and acceptable to staff and in line with the pricing submitted from the other proposers for the anticipated scope of services and overall project timeline.

The overall design and construction project milestones are listed below:

Project Milestone	Anticipated Completion
Engineering Proposals Received	April 2019
Award of Engineering Services	June 2019
Engineering Contract Execution	June 2019
Finalization of Construction Documents	February 2020
Construction Bids Received	April 2020
Award of Construction Services	April 2020
Pre-Con / Notice To Proceed	May 2020
Construction Finalized – Academy Creek	September – November 2021
Construction Finalized – Dunbar Creek	March – May 2022

Recommended Action

Staff recommends entering into a contract with Goodwyn, Mills, Cawood, Inc. in the amount of \$1,181,150 for Academy Creek for the Engineering Services related to this project.

Enclosures:
RFP Evaluation Summary

Recommended Motion

"I make a motion that the Facilities Committee recommend to the full Commission that the Brunswick Glynn County Joint Water & Sewer Commission enter into contract with Goodwyn, Mills, Cawood, Inc. in the amount of \$1,181,150 for Engineering Services related to the Academy Creek Rehab Project."



Brunswick-Glynn County Joint Water and Sewer Commission

MEMO for Recommendation

To: BGJWSC – Facilities Committee
From: Todd Kline, P.E. (Planning & Construction, Director of Engineering)
Date: 05 June 2019
Re: Construction Contract Administration Services; Proposed Ridgewood WPF

Background

Capital Project #417 Ridgewood Water Production Facility (WPF) was added to the Capital projects list in 2014. At that time, the design plan, specifications and bid documents for construction were completed by Elmo A. Richardson, Jr., P.E., LLC consulting engineers (EAR). Two other similar projects were created at the same time. These were the Hampton WPF and the Southport/Exit 29 WPF. The Hampton WPF project was completed in 2016. The Ridgewood and Southport/Exit 29 projects were placed on hold. All three projects were designed to improve and utilize existing wells at each location.

Staff Report

The formerly separate North Mainland and City of Brunswick water systems were connected in 2016 with the completion of the Canal Road water and forcemain improvement projects to support the significant growth in that area. Even with connection of the two systems, JWSC Operations observed an increased strain on the two Miocene aquifer production facilities (Golden Isles 1 & 2) that supply the service area around I-95/Exit 38 and Harry Driggers Blvd. The Ridgewood project location is near Exit 38 on Perry Lane Road, west of Cate Road. The current facility consists only of a well and hydro-pneumatic tank. The well at this location is viable, but currently offline. The project will add ground storage volume and high service pumps with supporting building and appurtenances. Addition of the WPF improvements will supplement this area of high demand, decrease the strain on existing production facilities and utilize the existing offline well.

A proposal was solicited from RGA to update the construction bid documents, Engineer's Opinion of Probable Cost (EOPC) and to provide contract administration services (see attached). The fee for these services appears to be consistent with the same during the successful Hampton WPF project. Staff recognizes value in and recommends maintaining the Engineer or Record as the same for engineering services during construction.

Fiscal Impact

The attached RGA proposal for engineering services is **\$104,450**. JWSC Finance confirms this action will be funded from the Repair & Replacement Capital Reserves. The currently funded budget for this project is \$1,000,000. The construction contract cost alone for the Hampton WPF completed in 2016 was \$979,500. It is anticipated that the total budget for the Ridgewood project will require an increase to fund the additional, final engineering services and construction. The total anticipated project cost will be reevaluated at the updated EOPC and bid phases.

Action Options

- 1) Do nothing. Defer implementation of the Ridgewood WPF improvements at a later date.
- 2) Solicit additional engineering service proposals from engineers other than the Engineer of Record.
- 3) Execute the proposal from EAR consulting engineers and move forward with bidding the Ridgewood WPF improvements project for construction.

Recommended Committee Action

I move to forward the attached proposal for project engineering services to the full BOC for approval and execution.

Attachments

- 1) Elmo A. Richardson, Jr., LLC proposal for engineering services



Richardson, Garretson & Associates, LLC
Consulting Engineers
4875 Riverside Drive, Suite 101
Macon, Georgia 31210-1117
Office: (478) 757-1903
Fax: (478) 757-1963
WWW.RGA-ENG.COM

2019 Schedule of Rates

<u>Description</u>	<u>Unit Rate</u>
Engineering & Consulting Services – Principal.....	\$150.00 per hour
Engineering & Consulting Services – Project Manager.....	\$135.00 per hour
Engineering & Consulting Services – Project Engineer.....	\$110.00 per hour
Expert Witness – Principal.....	\$180.00 per hour
Sr. Engineering Technician.....	\$110.00 per hour
Sr. CADD Technician.....	\$ 90.00 per hour
CADD Technician.....	\$ 75.00 per hour
Clerical.....	\$ 36.00 per hour
Reimbursable Mileage:	\$ 0.58 per mile*
Reimbursable Project Expenses:	
Misc. Costs (printing, reproduction, supplies)	Cost + 10%
Subconsultants	Cost + 10%

*Mileage rate revised January 1, 2019 per IRS allowable reimbursable rate.

Rates current through December 31, 2019



Brunswick-Glynn County Joint Water and Sewer Commission

MEMO for Recommendation

To: BGJWSC – Facilities Committee
From: Todd Kline, P.E. (Planning & Construction, Director of Engineering)
Date: 05 June 2019
Re: Forcemain Assessment Services; PS4003/4002

Background

Capital Project #703 is a SPLOST 2016 funded project to rehabilitate and upgrade PS4003 and a section of its upstream gravity sewer system. As part of the initial assessment and surveying portion of the design for improvements, Staff recommends also investigating the existing cast iron forcemain system for condition.

Staff Report

JWSC mapping records indicate the existing PS4003/4002 forcemain system to be made of cast iron. Operations personnel confirmed the material type through at least one repair made in the US341 GDOT R/W in past years. Existing high levels of hydrogen sulfide gas and visible corrosion at the pumpstation indicate a probable corrosive environment within this forcemain system. It is important to understand the condition of the existing forcemain system to determine any future rehabilitation or replacement needs and plan accordingly. Current technologies exist by which measurements can be taken by inserting specialized instruments, flushing them downstream and retrieving for data processing. This type of non-excavation testing is preferred to obtain information on wall thickness, leaks and inside diameter loss through tuberculation. The technology also locates area of gas pocket accumulation. This is important to target areas of highest concern for corrosion, but also to determine candidate locations for additional air release valve installations. This can result in increased pump/forcemain performance.

Staff was introduced to the Xylem brand Pure Technologies U.S. Inc. group during an AWWA conference last year in Atlanta. Pure Technologies later was invited to present a lunch & learn to JWSC staff where their "Smart Ball" technology was shown and explained with regard to pipe analysis. The technology is particularly effective for surveying water and forcemain condition with the side benefit of tracing the actual pathway of the infrastructure allowing the user to accurize GIS mapping. Staff also attended a live demonstration of Pure Technologies watermain surveying capabilities on Kings Bay Naval Submarine Base during the last week of May 2019.

A proposal was solicited from Pure Technologies (see attached) to survey the PS4003/4002 forcemain system. If shown to be beneficial, this technology would be useful to survey additional existing cast iron and ductile iron assets for condition based planning.

Fiscal Impact

The fee for base services in the attached pipeline survey proposal is \$72,725.00. As noted in the proposal, field verified wall thickness testing is billed at \$6,500.00/each. Using an assumed number of three field verifications, the total for services would be **\$92,225.00**. JWSC Finance confirms this action will be funded from the SPLOST 2016 Capital Reserves. The currently funded budget for the PS4003 project is \$3.3M.

Action Options

- 1) Do nothing. Defer the forcemain analysis to a later date.
- 2) Locate other similar technology sources and solicit additional survey proposals.
- 3) Execute the proposal from Pure Technologies and move forward with analyzing the forcemain system for condition based planning.

Recommended Committee Action

I move to forward the attached proposal for forcemain analysis services to the full BOC for approval and execution.

Attachments

- 1) Pure Technologies U.S. Inc. proposal for forcemain analysis services.
- 2) Forcemain condition report example.

May 7, 2019

Todd Kline
Planning and Construction Sr. Engineer
Brunswick-Glynn County Joint Water and Sewer Commission
1703 Gloucester Street
Brunswick, GA 31520

Subject: Pump Stations 4002 and 4003 16" and 18" Force Main Condition Assessment

Dear Mr. Kline:

Pure Technologies U.S. Inc. (Pure Technologies) is pleased to offer our services to Brunswick-Glynn County Joint Water and Sewer Commission (BGJWSC) for condition assessment. The purpose of this project is to perform an in-line inspection and condition assessment along approximately 1 mile of the 16 and 18-inch diameter Cast Iron (CI) Force Main, from PS 4002 and PS 4003 to an extraction manhole before the plant or at the wastewater treatment facility headworks.

PROPOSED APPROACH

While there are several mechanisms for the failure of sewer pressure pipe, research conducted as part of the Water Environment Research Foundation: 2010 Guidelines for the Inspection of Wastewater Force Mains, shows that the most common failure mode is internal hydrogen sulfide corrosion. This form of corrosion starts by a gas pocket forming in the pipeline, which develops the environmental conditions necessary to corrode the pipe wall, eventually leading to a failure. Collapse due to vacuum has a higher risk of occurrence at gas pocket locations should a transient pressure wave traverse the pipeline. With the exception of deflection and fatigue, these potential failure modes can be evaluated using inline leak and gas pocket detection tools.

Gas pockets can also impact the operation of a pump station system by reducing capacity of the pipeline. Pure Technologies has performed an analysis of force mains inspected using acoustic based technologies in order to better characterize the frequency and location of gas pockets. Based on the analysis, it was found that 72% of gas pockets were not at known high points or air release valves.

Pipeline leaks are of concern for all pipe materials as they are often found to be the precursor of major failures. A pipeline failure can begin with weakening of the joint or barrel that may include a small leak. As constant use of the pipeline continues and pressure surges occur, the leak may grow possibly leading to a catastrophic failure or undermining the support of the pipeline. Therefore, identification of both gas pockets and leaks may eliminate these potential failures.

Transient pressure events in a pipeline can affect the structural integrity of the pipe wall as they increase the stress in the pipe wall and can cause damage to the pipe. The level of damage caused by these events depends on the magnitude of the transient and the current structural condition of the pipe. Sustained damage of this nature may eventually lead to severe deterioration and fatigue. Therefore, it is important to understand the frequency and magnitude of transient pressure events. An understanding of the actual pressures in the line also facilitates informed decisions regarding future modifications that affect the performance of the pipeline.

SCOPE OF SERVICES

The overall scope of work is to provide leak and gas pocket detection services utilizing the free-swimming SmartBall® platform within the subject force main, while it remains in service. The following sections describe the technologies, anticipated inspection plan and project deliverables.

SmartBall® Technology Description

The SmartBall platform is an internal free-swimming acoustic gas pocket and leak detection tool well suited for both water and wastewater force mains. The SmartBall device is composed of a water-tight, aluminum core that contains the power source, electronic components and instrumentation (including an acoustic sensor, accelerometer, magnetometer, GPS synchronized ultrasonic transmitter, and temperature sensor). The core is encapsulated inside a protective outer foam shell or sphere. The outer foam shell provides additional surface area to propel the device and it also eliminates any noise the device might generate while traversing the pipeline. The SmartBall is inserted into the water flow of a pipeline and it simply travels the pipeline – propelled by the hydraulic flow - and is captured at a point downstream. The device records acoustic activity and positional data as it traverses the pipeline, which is evaluated to report the presence, approximate size, and location of leaks and gas pockets.



Figure 1: SmartBall Instrument and
SmartBall Receiver (SBR)

The SmartBall instrument contains sensors needed to produce reliable, reproducible data in normal pipeline operating conditions. Pure Technologies has also developed appropriate analysis software and can generate reports that allow accurate determination of the locations of anomalies. Given the battery life of the SmartBall tool, many miles of pipeline can be tested during a single deployment. Pure Technologies utilizes a proprietary SmartBall Acoustic Receiver (SBR) to track the location of the device as it traverses the pipeline.

Preliminary Inspection Plan

Pure Technologies will meet with BGJWSC staff to perform a site visit to verify and inspect access locations and potential challenges in order to finalize the Project Planning Document. This proposal is developed recognizing that tool deployment will need to be coordinated with BGJWSC staff due to insertion/extraction points and flow control required to maintain minimum/maximum flows, which optimize efficiency during the inspection. To mitigate project costs, it is our understanding that the BGJWSC will facilitate all civil activity for pipeline access, tool insertion/extraction and SBR installations, including fitting modification, excavation, tapping, shoring and other activities necessary to access valves and appurtenances identified as being critical to the performance of the inspection, if required.

Insertion/Extraction Locations

A minimum 4-inch or greater diameter full access port is needed for insertion and extraction of the SmartBall tool. Typically, the inspection platform can be inserted through a check valve within a pump station and extracted downstream from a discharge manhole. Details for insertion and extraction of the SmartBall tool will be summarized in the Project Planning Document following a site visit.

Installation of SBRs

Prior to the inspection, SBRs will be installed along the pipeline to track the position of the inspection tool. The SBRs perform best when attached directly to the metal surfaces of pipeline appurtenances, such as existing air-release valves, flanges, valves, or any other contact points on the pipe. At these locations, Pure Technologies staff will adhere the requisite number of acoustic sensors on the pipe for the duration of the survey(s). Existing air-release valve locations will be used for tracking. Additional SBR locations may be required and assistance with locating and accessing them will be identified during an initial site visit. Details for installing SBRs will be included in the Project Planning Document prior to the inspection.

Minimum Flow Requirements

The SmartBall platform requires a pipeline liquid average velocity of 1 to 4 feet per second. The inspection rate is approximately 70% of average liquid velocity. Pure Technologies will request BGJWSC staff control the flow rate to confirm the requisite velocity during tool deployment. Pure Technologies will also evaluate pumping rates and cycle times to determine if supplemental water will be required to complete the inspection. It should be noted that gas pocket and leak detection surveys can be performed under typical operating conditions.

Pipeline Pressures

A minimum pressure differential of 15 psi is necessary for leak detection. BGJWSC staff will operate the system to maintain pipeline pressures as necessary to accommodate the needs of its customers. Approximate pressure measurements may be requested prior to and/or during the inspection.

Transient Pressure Monitoring

One of the initial phases of any condition assessment project should include monitoring for short duration pressure transients. Traditional pressure monitors collect data in intervals of minutes while transients or events of specific interest may occur in fractions of a second. A transient pressure monitor addresses the sampling frequency issue by continuously monitoring pressure while under normal operating conditions and recording normal operating data every few minutes (based on user-defined time intervals). However, when a transient event occurs in a pipeline, the monitor detects the sudden change in pressure and records data at a higher sampling rate (typically in intervals of 50 milliseconds). Collection of the transient data is critical for the hydraulic evaluation of the force main and ultimately the condition assessment of the pipeline. If a pipeline owner or operator relies solely on traditional pressure monitoring data, the actual pressures that influence a pipeline may not be documented, limiting an accurate condition assessment of the pipeline.

If requested, Pure Technologies will install one self-contained pressure-monitoring device at the pump station to record transient events for up to 30 days. Pure Technologies will then remove the temporary monitor and incorporate the results in the final report. Transient monitoring will be performed concurrently with project planning and implementation to maintain project schedule.

Field Verifications / Wall Thickness Measurements

Wall thickness data for metallic pipes can be statistically analyzed to evaluate the failure probability for pipelines. A Monte Carlo simulation is used to estimate remaining wall thickness and rate of loss based on the results of the inspection, actual wall thickness measurements obtained during field verifications and the structural evaluation.

Using this simulation, pipe management strategies can be developed that address the short-term management and long-term renewal strategies for the force main. It should be noted that a statistical evaluation and remaining useful life calculations are contingent upon performing test pits to obtain wall thickness measurements. The preferred means to accomplish the remaining useful life calculations is via test pits that are chosen at statistically significant locations. Additional ultrasonic thickness measurements can be taken at existing ARV locations or where leaks or pockets of trapped gas are being externally repaired.

A summary of the typical field verification protocols is summarized below:

- Prior to external testing, pipe diameter and length will be measured by Pure. The pipe's identification, station location, or length to known reference point will be boldly marked or painted on the pipe so as to be clearly seen in photographs. Photographs will be taken of the in situ pipe from various angles.
- Soil and groundwater (where applicable) samples may be collected at the discretion of Pure Technologies.
- Burial depth will be measured as well as notation made on potential live loading.
- GPS points will be captured using Trimble 7-Series GPS equipment or better of pipe and excavation including elevations and multiple photographs.
- External testing will be performed to determine wall thickness and areas of internal and external corrosion. This will be done using one or more of the following techniques; external MFL, pulsed-eddy current, ultrasonic thickness testing, magnetic particle testing or dye penetrant testing.

Pure Technologies will coordinate test pit location site preparation with the BGJWSC prior to mobilizing to the project site.

AWWA Design Check

The withdrawn AWWA C101 standard dictated the design requirements for CIP. By using the equations presented in the standards, the minimum required wall thickness for current loading conditions is calculated over the length of the pipeline. With only the inputs of overburden, internal pressure, and pipe material, we can understand if the pipe that was installed meets or exceeds the standards (was the pipe over or under designed). This is a first and conservative step to evaluating the significance of any defects.

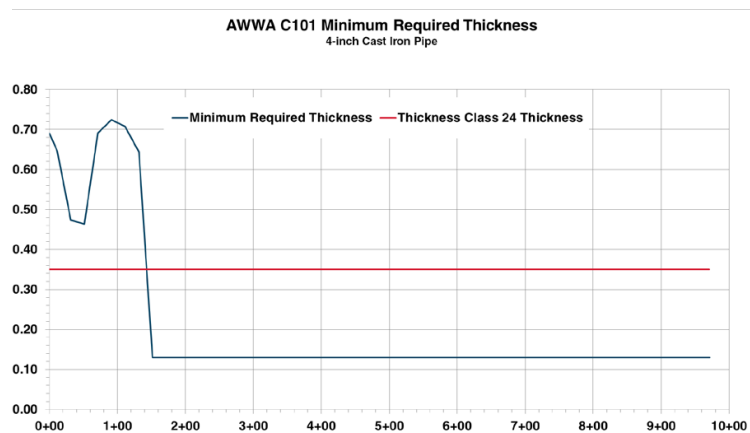


Figure 2: Example CIP Design Check for AWWA C101

Remaining Useful Life (RUL) Analysis

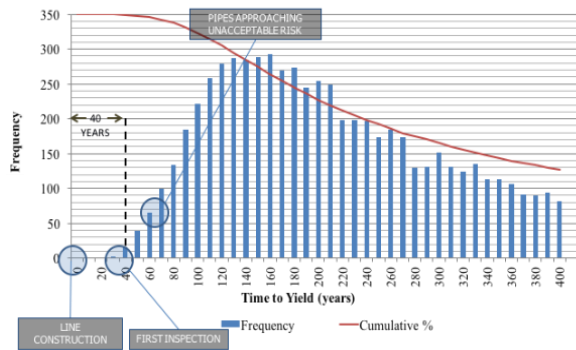


Figure 3: Remaining Useful Life Output

By combining the structural evaluation with condition data, estimates of when the pipeline should next be inspected along with a remaining service life of the asset can be completed. To do this, Pure Technologies has developed a statistical simulation that utilizes multiple asset attributes such as failure history, inspection data, and structural analysis. An example of the output of this model is shown in the figure to the left which shows the number of failures predicted (y-axis) by year into the future (x-axis). The simulation data indicates that based on the data collected, several areas within the pipeline are expected to corrode to the point of requiring intervention within the next 10 to 20 years. Remaining useful life estimates should be used as guidance for re-inspection interval planning as collection of subsequent condition data can be used to better refine the asset life estimates. Once another inspection is completed, the data collected in that inspection should be analyzed in conjunction with the data presented in the initial inspection report to provide a more accurate and robust remaining useful life evaluation. This information may then be used by the client for its capital planning and any associated business case evaluations.

DELIVERABLES

1. A detailed Project Plan will be submitted to the BGJWSC prior to the inspection in electronic PDF format. The project plan will be provided approximately two weeks prior to the inspection, dependent on the receipt of project data.
2. A Draft Report (electronic PDF) will be generated and delivered to the BGJWSC within eight weeks of completion of the inspection. The report will include the following information:
 - SmartBall® – Identification and geospatial reference (provided in shapefile format) of any leaks and/or gas pockets detected along the force main as well as ARV installation recommendations.
 - If included under the additional scope services, Pure Technologies will also provide transient pressure monitoring, wall thickness measurements, a structural evaluation and/or perform a statistical analysis to determine the remaining useful life of the force main.
 - Pure Technologies typically provides a presentation summarizing draft results to stakeholders in order to facilitate review of the Draft Report.
3. A Final Report will be submitted within two weeks of the receipt of comments from the client summarizing the findings based on the proposed inspection. The Final Report shall be delivered in electronic format (PDF format).

SCHEDULE

The proposed schedule for the SmartBall inspection and condition assessment is outlined below:

- Site Visit 1-3 weeks after NTP
- Project Planning Document 2-4 weeks after NTP
- SmartBall Inspection 2-4 weeks from Project Plan approval
- Data Analysis and Draft Report 6-8 weeks from Inspection completion
- Review Period 2 weeks from receipt of the Draft Report
- Final Report 2 weeks from receipt of review comments

Notes:

Draft report schedule is dependent upon notice to proceed for wall thickness measurements and request for structural and statistical analysis. Anticipated schedule for draft report would be six weeks following the completion of wall thickness measurements.

PROPOSED FEE AND PAYMENT SCHEDULE

Pure Technologies will deliver leak and gas pocket detection services on the SmartBall platform for the subject force main while it remains in service. The estimated cost for this project is based on the information provided at this time and is detailed in the tables below.

Project Fee

Item	Description	Unit	Unit Price	Quantity	Total Price
1	Project Planning and Mobilization	EA	\$ 26,250.00	1	\$ 26,250.00
2	Inspection: leak and gas pocket detection (approx. 5,280 LF)	Mile	\$ 15,750.00	1	\$ 15,750.00
3	Project Reporting	EA	\$ 10,500.00	1	\$ 10,500.00
<i>Not-to-Exceed Project Cost without Additional Services</i>					\$ 52,500.00
Additional Services (provided upon request at the unit prices noted below)					
4	Transient Pressure Monitoring	LS	\$ 5,250.00	1	\$ 5,250.00
5	Field Verifications/Wall Thickness Measurements	EA	\$ 6,500.00	-	TBD
6	AWWA Design Check (per pipe diameter/class)	EA	\$ 2,500.00	2	\$ 5,000.00
7	Statistical Analysis – RUL (per pipe diameter/class)	EA	\$ 9,975.00	1	\$ 9,975.00

All travel, shipping and related expenses are included in the field data collection/inspection costs. Payment of services rendered by Pure Technologies will be invoiced accordingly:

Payment Schedule

Service	Fee	Invoicing Period
Project Planning and Mobilization	\$ 26,250.00	Upon submittal of the Project Planning Document
Inspection	\$ 15,750.00	Upon completion of the Inspection
Field Verifications/Wall Thickness Measurements	As Incurred	\$6,500 each - Upon completion of the Wall Thickness Measurements (if requested)
Project Reporting (Draft)	\$ 5,250.00	Upon submittal of the Draft Report
Transient Pressure Monitoring	\$ 5,250.00	Upon submittal of the Draft Report (if requested)
AWWA Design Check (per pipe diameter/class)	As Incurred	\$2,500 each - Upon submittal of the Draft Report (if requested)
Statistical Analysis – RUL (per pipe diameter/class)	As Incurred	\$9,975 each - Upon submittal of the Draft Report (if requested)
Project Reporting (Final)	\$ 5,250.00	Upon submittal of the Final Report

Mobilization Fee Summary

The following is a summary of basic items covered under the project planning and mobilization line item included in this proposal:

- Project document review;
- Preliminary site visit and review (including travel costs);
- Pre-inspection coordination/meetings;
- Planning document development;
- Equipment and staffing logistics to and from the project sites;
- Tool calibration; and,
- Pre-inspection activities required in advance of the scheduled inspection date.

Project Execution and Local Assistance

During the inspection planning process, the following information will be requested of the BGJWSC for the preparation and execution of the inspection.

- Provide information about the pipeline to Pure Technologies at least four weeks prior to the inspection date including, but not limited to, plan and profile drawings, lay sheets, shop drawings, manufacturing details, and details of access structures, air valves, blow-offs, and main line valves – if available;
- Provision of any required legal right-of-entry on the property for insertion/extraction and tool tracking, including environmentally sensitive areas;
- Provide support personnel during the inspection for locating and accessing insertion/extraction and tracking points, traffic control, and other support as necessary;
- Prepare and/or modify existing pipeline fittings and structures as indicated by Pure Technologies to accommodate insertion and extraction of the inspection equipment;
- Excavate, de-water, shore up, and/or provide scaffolding of job area and other civil activity, as necessary, in compliance with OSHA and local standards and regulations;

- Provide and maintain safe and reasonable access to all insertion/extraction and tracking points throughout the inspection and obtain public works and/or police permits, as required;
- Operate the pipeline in a manner that will achieve the minimum/maximum flow velocities indicated in the Project Plan throughout the inspection;
- Render confined space areas safe for service, including locking and tagging pumps, valves and motors; de-watering areas to permit movement of persons and equipment; and vector and rodent control, as necessary; and,
- Provide Pure Technologies with the recommended test pits for field verifications/wall thickness measurements in order to determine the amount of wall loss at strategic locations, if requesting remaining useful life analysis.

Pure Technologies appreciates the opportunity to perform the proposed scope of work. We are committed to providing you with a successful project. If you have any questions or comments, please do not hesitate to contact me.

Best regards,



Jimmy Stewart
Business Development Manager
Jimmy.Stewart@XylemInc.com

Attachments - CONDITIONS OF ENGAGEMENT FOR THE PROVISION OF SERVICES

SCHEDULE "A"

CONDITIONS OF ENGAGEMENT FOR THE PROVISION OF SERVICES (North America)

The Proposal is issued upon and is subject to these Conditions of Engagement. If the Proposal is accepted by the Client, these Conditions of Engagement and the Proposal will be deemed to form part of the Contract between the Client and Pure.

DEFINITIONS

1. In these Conditions of Engagement, the following definitions apply:
 - a. **Client** means any person or persons, firm or company engaging Pure to provide the Services.
 - b. **Contract** means the agreement awarded to Pure as a result of the Proposal.
 - c. **Pure** means Pure Technologies Ltd., Pure Technologies Canada Ltd., Pure Technologies U.S. Inc., PureHM Inc., PureHM U.S. Inc., or any of their affiliates, as the case may be, which submitted the Proposal and is a party to the Contract.
 - d. **Proposal** means Pure's offer to carry out the Services and includes all related correspondence plus agreed written variations or amendments thereto.
 - e. **Services** mean those services of whatever nature to be supplied by Pure under the Contract.
 - f. **Site** means the facility, land, installation or premises to which Pure is granted access for the purposes of the Contract and may include any combination of the foregoing.

PURE'S OBLIGATIONS

2. Pure will perform the Services in accordance with the procedures described in the Proposal, using reasonable skill, care and diligence and consistent with industry standards.
3. Pure will ensure that the equipment used in performing the Services is in a good and functional state.

CLIENT'S OBLIGATIONS

4. The Client will provide to Pure full, good faith co-operation to assist Pure in providing the Services. Unless otherwise specified in the Proposal and without limiting the generality of the foregoing, the Client will at its own expense:
 - a. ensure, if required, access to private land will be given to Pure and that any official permits or permissions required for Pure to have access to the Site or carry out the Services are obtained and are in force for the duration of the Services;

- b. inform Pure in writing of any special circumstances or danger which the execution of the Services may entail or which are inherent in the Site, including the existence and identity of any known hazardous substance or material; and
 - c. perform such additional duties and responsibilities and provide such information and resources as are described in the Proposal.
5. The description of the Services and related compensation amount set out in the Proposal will be based upon information that the Client shall have provided to Pure, and assumptions that Pure shall have identified in the Proposal. The Client acknowledges that if any such information provided by Client is materially incomplete or inaccurate, or if the assumptions identified by Pure are not correct, then the parties will modify the Proposal to reflect the actual information, assumptions, and Services required, and the compensation to Pure will be adjusted accordingly using the change order process set out in the Contract, or if there is no such process, on an equitable basis.

PROPRIETARY AND CONFIDENTIAL INFORMATION

6. All reports generated in the performance of the Services and delivered by Pure to the Client will become the property of the Client.
7. Pure's equipment which is made available to the Client in connection with the Contract and the raw data generated in the performance of the Services will remain the sole and exclusive property of Pure. The Client will not acquire any proprietary rights in Pure's equipment, systems, software, technology, inventions (whether or not patentable), patents, patent applications, documentation, specifications, designs, data, databases, methods, processes or know-how ("**Pure's Proprietary Technology**"). Any modifications or improvements to the Pure's Proprietary Technology made during the performance of the Services will be the sole and exclusive property of Pure.
8. Both parties agree to keep confidential all documentation and information provided by the other during the performance of the Contract. The obligations set out in this clause 8 will remain in full force and effect after any termination or expiry, as the case may be, of the Contract.
9. Notwithstanding anything herein to the contrary, Contractor will have a limited, non-exclusive, royalty-free license to utilize data collected in the performance of services hereunder for purposes of:
 - a. providing services
 - b. analyzing and improving the services, and
 - c. internal research and development for the benefit of Contractor clients.

LIABILITY AND WARRANTIES

10. Pure will indemnify the Client against any expense, demand, liability, loss, claim or proceeding whatsoever in respect of personal injury to or the death of any person, or any loss, destruction or damage to any tangible property and arising directly or indirectly from the negligence of Pure, its employees, servants or agents except to the extent caused by

the negligence of the Client or any person for whom the Client is responsible. The Client will similarly indemnify Pure.

11. Pure will not be liable for any loss of production, loss of use of property, loss of revenue or profit, equipment downtime, business interruption, loss of goodwill, loss of anticipated savings, cost of procurement of substitute goods or services, or for any consequential, indirect, incidental, or special loss or damage suffered by the Client or any third party, or for any punitive damages, even if advised of the possibility thereof and notwithstanding the failure of essential purpose of any remedy.
12. Pure's cumulative liability under the Contract, whether in contract, tort (including negligence), or otherwise, will in no event exceed the aggregate consideration paid by the Client to Pure for the portion of the Services that gave rise to the liability, provided, however, that this clause shall not limit Pure's indemnification obligations under these Conditions of Engagement.
13. The report(s) and any other recommendations or advice made by Pure relating to the pipeline or the Services will be made in accordance with the procedures described in the Proposal, using reasonable skill, care and diligence consistent with industry standards, but do not and will not constitute a warranty of the pipeline's quality, capacity, safety or fitness for purpose. Pure will not be liable to the Client for any liability or damages that arise from the Client's reliance upon or application or use of such final report or recommendations or advice made by Pure in relation to the pipeline or Services, and the Client will indemnify Pure against any liability to third parties resulting therefrom.
14. Pure's warranties for the Services will be set out in the Contract. Pure disclaims all implied or statutory warranties or conditions, including of merchantability, merchantable quality, durability, or fitness for a particular purpose to the extent allowed by applicable law. This means Pure's warranty obligations will be limited to what is expressly set out in the Contract.

BGJWSC Proposed SPLOST 2020 Projects

Water Rehab Projects

Beverly Shores	Replace transite lines in poor condition, increase sizing in some areas for increase fire flow, 0.53 Breaks/Mile/Year	\$ 2,890,083.00
College Park	Replace transite lines in poor condition, increase sizing in some areas for increase fire flow, 0.87 Breaks/Mile/Year	\$ 1,232,844.00
Fairway Oaks	Replace transite lines in poor condition, increase sizing in some areas for increase fire flow, 0.39 Breaks/Mile/Year	\$ 5,956,600.00
Waverly Pines	Replace transite lines in poor condition, increase sizing in some areas for increase fire, 0.20 Breaks/Mile/Year	\$ 3,126,175.00
Village Project Phase II	Replace transite, galvanized water mains Butler/Lord Ave	\$ 212,030.00
Subtotal Water		\$ 13,417,732.00

Sewer Rehab Projects

LS4039/4109 Force Main Reroute	Reroute FMs from LS 4039/4109 into new 4110 FM	\$ 2,291,120.00
CIPP Gravity Sewers	CCTV PACP Scores 4 and 5, non-PVC with lateral lining, county-wide	\$ 8,072,448.00
Lift Station Odor Control	Vapor Phase Odor Control - 2001, 2002, 2003, 2032, 3101, 3114, 2056, 4001, 4002, 4017, 4028, 4048	\$ 2,964,000.00
Permanent Bypass Pumps	Install Permanent Bypass Pumps - 2051, 2056, 2062, 3101, 3114, 4001, 4002, 4003, 4016, 4017, 4021, 4035, 4036, 4044, 4107, 4118, 4119	\$ 2,932,500.00
Subtotal Sewer		\$ 16,260,068.00

Expansion Projects

Exit 42 Tank & Well	New WPF and Tank in Exit 42 area to serve potential industrial, commercial, and residential development in area	\$ 5,000,000.00
Unserviced Areas Expansion	Areas from Study, Estimate to change based upon study results	Pending
Subtotal Expansion		\$ 5,000,000.00
Total Combined		\$ 34,677,800.00



LIFT STATION PERMANENT BYPASS PUMP INSTALLATION
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	Bypass Pumps				
a	Permanent Bypass Pump	17	Each	\$100,000.00	\$1,700,000.00
b	Concrete, Fittings, Site Work	17	Each	\$50,000.00	\$850,000.00
		SUB-TOTAL			\$2,550,000.00
		CONTINGENCY 15%			\$382,500.00
		TOTAL			\$2,932,500.00



FAIRWAY OAKS WATER MAIN IMPROVEMENTS
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$30,000.00	\$30,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	3000	LF	\$3.00	\$9,000.00
b	Hay Bale Check Dam	15	EA.	\$250.00	\$3,750.00
c	Mulching & Temporary Grassing	1	AC.	\$1,100.00	\$1,100.00
d	Permanent Grassing	1	AC.	\$2,000.00	\$2,000.00
f	Construction Entrance	4	EA.	\$1,500.00	\$6,000.00
g	Inlet Sediment Traps	30	EA.	\$300.00	\$9,000.00
h	Storm Drain Outlet Protection	30	EA.	\$1,250.00	\$37,500.00
ITEM 3	WATER MAINS AND ACCESSORIES				
a	10" PVC Water Main Installation	4800	LF	\$50.00	\$240,000.00
a	8" PVC Water Main Installation	1300	LF	\$50.00	\$65,000.00
b	6" PVC Water Main Installation	15350	LF	\$45.00	\$690,750.00
c	4" PVC Water Main Installation	4950	LF	\$42.00	\$207,900.00
d	10" Valve in Box (Square Nut)	10	EA.	\$5,800.00	\$58,000.00
d	8" Valve in Box (Square Nut)	3	EA.	\$5,000.00	\$15,000.00
e	6" Valve in Box (Square Nut)	31	EA.	\$4,500.00	\$139,500.00
f	4" Valve in Box (Square Nut)	10	EA.	\$2,500.00	\$25,000.00
g	Misc. Fittings	1	LS	\$20,000.00	\$20,000.00
i	Fire Hydrant Assembly - Complete	50	EA.	\$3,500.00	\$175,000.00
j	Utility Conflict Resolution - Complete	4	EA.	\$2,000.00	\$8,000.00
k	Service Lateral - Short Side	240	EA.	\$1,250.00	\$300,000.00
l	Service Lateral - Long Side	240	EA.	\$750.00	\$180,000.00
m	Flowable Fill for Watermains	26400	LF	\$15.00	\$396,000.00
n	Testing & Disinfection	26400	LF	\$1.50	\$39,600.00
o	Mobilization	1	LS	\$150,000.00	\$150,000.00
ITEM 4	ROADWAY				
a	Graded Aggr Base Crs, 8 Inch	1500	SY	\$18.40	\$27,600.00
b	Asphalt Conc 19 MM Superpave (3 Inch)	1500	SY	\$16.00	\$24,000.00
c	Asphalt Conc 9.5 MM Superpave (1 1/2 Inch)	1500	SY	\$8.00	\$12,000.00
d	Bituminous Tack Coat	100	GAL	\$3.00	\$300.00
e	24" Curb and Gutter	60000	LF	\$12.00	\$720,000.00
f	24" C & G base material 8" GAB	40000	SY	\$18.00	\$720,000.00
G	Concrete Driveways and Sidewalks (6")	5000	SY	\$54.00	\$270,000.00
					SUB-TOTAL
					\$4,582,000.00
					ENGINEERING 15%
					\$687,300.00
					CONTINGENCY 15%
					\$687,300.00
					TOTAL
					\$5,956,600.00



WAVERLY PINES WATER MAIN IMPROVEMENTS
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$20,000.00	\$20,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	2000	LF	\$3.00	\$6,000.00
b	Hay Bale Check Dam	10	EA.	\$250.00	\$2,500.00
c	Mulching & Temporary Grassing	0.8	AC.	\$1,100.00	\$880.00
d	Permanent Grassing	0.8	AC.	\$2,000.00	\$1,600.00
f	Construction Entrance	4	EA.	\$1,500.00	\$6,000.00
g	Inlet Sediment Traps	20	EA.	\$300.00	\$6,000.00
h	Storm Drain Outlet Protection	20	EA.	\$1,250.00	\$25,000.00
ITEM 3	WATER MAINS AND ACCESSORIES				
a	10" PVC Water Main Installation	1520	LF	\$50.00	\$76,000.00
a	8" PVC Water Main Installation	10300	LF	\$50.00	\$515,000.00
b	6" PVC Water Main Installation	3700	LF	\$45.00	\$166,500.00
c	4" PVC Water Main Installation	0	LF	\$42.00	\$0.00
d	10" Valve in Box (Square Nut)	3	EA.	\$5,800.00	\$17,400.00
d	8" Valve in Box (Square Nut)	21	EA.	\$5,000.00	\$105,000.00
e	6" Valve in Box (Square Nut)	8	EA.	\$4,500.00	\$36,000.00
f	4" Valve in Box (Square Nut)	0	EA.	\$2,500.00	\$0.00
g	Misc. Fittings	1	LS	\$20,000.00	\$20,000.00
i	Fire Hydrant Assembly - Complete	25	EA.	\$3,500.00	\$87,500.00
j	Utility Conflict Resolution - Complete	2	EA.	\$2,000.00	\$4,000.00
k	Service Lateral - Short Side	115	EA.	\$1,250.00	\$143,750.00
l	Service Lateral - Long Side	115	EA.	\$750.00	\$86,250.00
m	Flowable Fill for Watermains	15520	LF	\$15.00	\$232,800.00
n	Testing & Disinfection	15520	LF	\$1.50	\$23,280.00
o	Mobilization	1	LS	\$100,000.00	\$100,000.00
ITEM 4	ROADWAY				
a	Graded Aggr Base Crs, 8 Inch	500	SY	\$18.40	\$9,200.00
b	Asphalt Conc 19 MM Superpave (3 Inch)	500	SY	\$16.00	\$8,000.00
c	Asphalt Conc 9.5 MM Superpave (1 1/2 Inch)	500	SY	\$8.00	\$4,000.00
d	Bituminous Tack Coat	30	GAL	\$3.00	\$90.00
e	24" Curb and Gutter	30000	LF	\$12.00	\$360,000.00
f	24" C & G base material 8" GAB	10000	SY	\$18.00	\$180,000.00
G	Concrete Driveways and Sidewalks (6")	3000	SY	\$54.00	\$162,000.00
			SUB-TOTAL		\$2,404,750.00
			ENGINEERING 15%		\$360,712.50
			CONTINGENCY 15%		\$360,712.50
			TOTAL		\$3,126,175.00



BEVERLY SHORES WATER MAIN IMPROVEMENTS
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$20,000.00	\$20,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	2000	LF	\$3.00	\$6,000.00
b	Hay Bale Check Dam	10	EA.	\$250.00	\$2,500.00
c	Mulching & Temporary Grassing	0.8	AC.	\$1,100.00	\$880.00
d	Permanent Grassing	0.8	AC.	\$2,000.00	\$1,600.00
f	Construction Entrance	4	EA.	\$1,500.00	\$6,000.00
g	Inlet Sediment Traps	20	EA.	\$300.00	\$6,000.00
h	Storm Drain Outlet Protection	20	EA.	\$1,250.00	\$25,000.00
ITEM 3	WATER MAINS AND ACCESSORIES				
a	10" PVC Water Main Installation	2550	LF	\$50.00	\$127,500.00
a	8" PVC Water Main Installation	2770	LF	\$50.00	\$138,500.00
b	6" PVC Water Main Installation	8484	LF	\$45.00	\$381,780.00
c	4" PVC Water Main Installation	1450	LF	\$42.00	\$60,900.00
d	10" Valve in Box (Square Nut)	5	EA.	\$5,800.00	\$29,000.00
d	8" Valve in Box (Square Nut)	6	EA.	\$5,000.00	\$30,000.00
e	6" Valve in Box (Square Nut)	17	EA.	\$4,500.00	\$76,500.00
f	4" Valve in Box (Square Nut)	3	EA.	\$2,500.00	\$7,500.00
g	Misc. Fittings	1	LS	\$20,000.00	\$20,000.00
i	Fire Hydrant Assembly - Complete	7	EA.	\$3,500.00	\$24,500.00
j	Utility Conflict Resolution - Complete	2	EA.	\$2,000.00	\$4,000.00
k	Service Lateral - Short Side	150	EA.	\$1,250.00	\$187,500.00
l	Service Lateral - Long Side	150	EA.	\$750.00	\$112,500.00
m	Flowable Fill for Watermains	15254	LF	\$15.00	\$228,810.00
n	Testing & Disinfection	15254	LF	\$1.50	\$22,881.00
o	Mobilization	1	LS	\$100,000.00	\$100,000.00
ITEM 4	ROADWAY				
a	Graded Aggr Base Crs, 8 Inch	500	SY	\$18.40	\$9,200.00
b	Asphalt Conc 19 MM Superpave (3 Inch)	500	SY	\$16.00	\$8,000.00
c	Asphalt Conc 9.5 MM Superpave (1 1/2 Inch)	500	SY	\$8.00	\$4,000.00
d	Bituminous Tack Coat	30	GAL	\$3.00	\$90.00
e	24" Curb and Gutter	20000	LF	\$12.00	\$240,000.00
f	24" C & G base material 8" GAB	10000	SY	\$18.00	\$180,000.00
G	Concrete Driveways and Sidewalks (6")	3000	SY	\$54.00	\$162,000.00
			SUB-TOTAL		\$2,223,141.00
			ENGINEERING 15%		\$333,471.15
			CONTINGENCY 15%		\$333,471.15
			TOTAL		\$2,890,083.30



COLLEGE PARK WATER MAIN IMPROVEMENTS
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
 1703 GLOUCESTER STREET
 BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$10,000.00	\$10,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	1000	LF	\$3.00	\$3,000.00
b	Hay Bale Check Dam	5	EA.	\$250.00	\$1,250.00
c	Mulching & Temporary Grassing	0.5	AC.	\$1,100.00	\$550.00
d	Permanent Grassing	0.5	AC.	\$2,000.00	\$1,000.00
f	Construction Entrance	4	EA.	\$1,500.00	\$6,000.00
g	Inlet Sediment Traps	10	EA.	\$300.00	\$3,000.00
h	Storm Drain Outlet Protection	10	EA.	\$1,250.00	\$12,500.00
ITEM 3	WATER MAINS AND ACCESSORIES				
a	8" PVC Water Main Installation	250	LF	\$50.00	\$12,500.00
b	6" PVC Water Main Installation	5631	LF	\$45.00	\$253,395.00
c	4" PVC Water Main Installation	950	LF	\$42.00	\$39,900.00
d	8" Valve in Box (Square Nut)	1	EA.	\$5,000.00	\$5,000.00
e	6" Valve in Box (Square Nut)	12	EA.	\$4,500.00	\$54,000.00
f	4" Valve in Box (Square Nut)	4	EA.	\$2,500.00	\$10,000.00
g	Misc. Fittings	1	LS	\$10,000.00	\$10,000.00
i	Fire Hydrant Assembly - Complete	4	EA.	\$3,500.00	\$14,000.00
j	Utility Conflict Resolution - Complete	1	EA.	\$2,000.00	\$2,000.00
k	Service Lateral - Short Side	58	EA.	\$1,250.00	\$72,500.00
l	Service Lateral - Long Side	57	EA.	\$750.00	\$42,750.00
m	Flowable Fill for Watermains	6831	LF	\$15.00	\$102,465.00
n	Testing & Disinfection	6831	LF	\$1.50	\$10,246.50
o	Mobilization	1	LS	\$50,000.00	\$50,000.00
ITEM 4	ROADWAY				
a	Graded Aggr Base Crs, 8 Inch	100	SY	\$18.40	\$1,840.00
b	Asphalt Conc 19 MM Superpave (3 Inch)	100	SY	\$16.00	\$1,600.00
c	Asphalt Conc 9.5 MM Superpave (1 1/2 Inch)	100	SY	\$8.00	\$800.00
d	Bituminous Tack Coat	15	GAL	\$3.00	\$45.00
e	24" Curb and Gutter	10000	LF	\$12.00	\$120,000.00
f	24" C & G base material 8" GAB	1500	SY	\$18.00	\$27,000.00
G	Concrete Driveways and Sidewalks (6")	1500	SY	\$54.00	\$81,000.00
		SUB-TOTAL			\$948,341.50
		ENGINEERING 15%			\$142,251.23
		CONTINGENCY 15%			\$142,251.23
		TOTAL			\$1,232,843.95



LIFT STATION PERMANENT ODOR CONTROL INSTALLATION
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	Odor Control				
a	Vapor Phase Odor Control Units	12	Each	\$140,000.00	\$1,680,000.00
b	Concrete, Fittings, Site Work	12	Each	\$50,000.00	\$600,000.00
			SUB-TOTAL		\$2,280,000.00
			ENGINEERING 15%		\$342,000.00
			CONTINGENCY 15%		\$342,000.00
			TOTAL		\$2,964,000.00



**PHASE 2 - GLYNN CO. PARWAY - AVIATION ST.
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
1703 GLOUCESTER STREET
BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$2,000.00	\$2,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	5000	LF	\$3.00	\$15,000.00
b	Hay Bale Check Dam	25	EA.	\$250.00	\$6,250.00
c	Mulching & Temporary Grassing	1	AC.	\$1,100.00	\$1,100.00
d	Permanent Grassing	1	AC.	\$2,000.00	\$2,000.00
e	Stormwater Permitting & Monitoring	1	LS	\$5,000.00	\$5,000.00
f	Construction Entrance	2	EA.	\$1,500.00	\$3,000.00
g	Inlet Sediment Traps	5	EA.	\$300.00	\$1,500.00
h	Storm Drain Outlet Protection	3	EA.	\$1,250.00	\$3,750.00
ITEM 3	FORCEMAINS AND ACCESSORIES				
a	12" HDPE (DR11) Force Main Installation (Open Cut)	10500	LF	\$130.00	\$1,365,000.00
	12" HDPE (DR11) Force Main Installation (HDD)	1350	LF	\$100.00	\$135,000.00
b	12" MJt Adapter (HDPE)	20	EA.	\$700.00	\$14,000.00
	12" DI MJt 11.25° Bends	20	EA.	\$2,000.00	\$40,000.00
	12" DI MJt 45° Bends	20	EA.	\$2,000.00	\$40,000.00
c	2" Air Release Valve Assembly (Pedestal)	10	EA.	\$5,000.00	\$50,000.00
d	Isolation Valve/Structure	2	EA.	\$9,600.00	\$19,200.00
	Manifold existing 10-inch FM from PS 4109	1	LS	\$10,000.00	\$10,000.00
i	Testing & Disinfection	11850	LF	\$2.00	\$23,700.00
ITEM 4	MISCELLANEOUS REMOVALS, REPLACEMENTS, AND INSTALLATION				
a	Asphalt Pavement Remove & Replace	250	SY	\$100.00	\$25,000.00
b	Concrete Pavement Remove & Replace		SY	\$65.00	\$0.00
c	Concrete Curb & Gutter remove & Replace		LF	\$20.00	\$0.00
d	Gravel Driveway Remove & Replace	60	SY	\$15.00	\$900.00
		SUB-TOTAL			\$1,762,400.00
		ENGINEERING 15%			\$264,360.00
		CONTINGENCY 15%			\$264,360.00
		TOTAL			\$2,291,120.00



VILLAGE DRAINAGE PHII - WM IMPROVEMENTS
BRUNSWICK-GLYNN JOINT WATER & SEWER COMMISSION
 1703 GLOUCESTER STREET
 BRUNSWICK, GA 31520
PROBABLE COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENSION
ITEM 1	CLEARING AND GRUBBING	1	AC.	\$2,000.00	\$2,000.00
ITEM 2	EROSION AND SEDIMENTATION CONTROL				
a	Sediment Barriers	1000	LF	\$3.00	\$3,000.00
b	Hay Bale Check Dam	5	EA.	\$250.00	\$1,250.00
c	Mulching & Temporary Grassing	0.5	AC.	\$1,100.00	\$550.00
d	Permanent Grassing	0.5	AC.	\$2,000.00	\$1,000.00
f	Construction Entrance	2	EA.	\$1,500.00	\$3,000.00
g	Inlet Sediment Traps	5	EA.	\$300.00	\$1,500.00
h	Storm Drain Outlet Protection	3	EA.	\$1,250.00	\$3,750.00
ITEM 3	WATER MAINS AND ACCESSORIES				
a	8" PVC Water Main Installation	1200	LF	\$50.00	\$60,000.00
b	6" PVC Water Main Installation	50	LF	\$45.00	\$2,250.00
c	8" Valve in Box (Square Nut)	3	EA.	\$5,000.00	\$15,000.00
d	6" Valve in Box (Square Nut)	2	EA.	\$4,500.00	\$9,000.00
	2" Valve in Box (Square Nut)	4	EA.	\$2,500.00	\$10,000.00
e	Misc. Fittings	1	LS	\$10,000.00	\$10,000.00
f	Harness Type Bell Restraints	10	EA.	\$250.00	\$2,500.00
g	Fire Hydrant Assembly - Complete	2	EA.	\$3,500.00	\$7,000.00
h	Utility Conflict Resolution - Complete	1	EA.	\$2,000.00	\$2,000.00
i	Flowable Fill for Watermains	1500	LF	\$15.00	\$22,500.00
j	Testing & Disinfection	1200	LF	\$1.50	\$1,800.00
k	Mobilization	1	LS	\$5,000.00	\$5,000.00
			SUB-TOTAL		\$163,100.00
			ENGINEERING 15%		\$24,465.00
			CONTINGENCY 15%		\$24,465.00
			TOTAL		\$212,030.00

PROJECT REPORT
Financial Data as of 04-26-2019

Proj #	Project Name	Original Project Estimate	Proj Mgr.	Concept Design	Detail Design	Construction	BUDGET VS. EXPENDITURES										PROJECT STATUS							
							BOC APPROVED FUNDING & SOURCE(1)				COMMITTED			EXPENDITURES				BALANCE		Current Phase Completion	Next Phase Length of Time	Total Project Anticipated Completion	Status	
							R&R Reserve	CIF Reserve	SPLOST 2016	Total Approved Funds	Purchase Orders Issued	BOC Approved Change Orders	Total PO+CO	Expenditures Paid to PO's	Remaining Encumbrances	Expenditures Misc.	Total Expenditures	Uncommitted \$\$\$ (App Fund - Exp)	% Approved Budget Available					
232	SR-99 Water Main Extension	2,200,000	T. Kline	EMC	RGA / EMC	Seaboard		2,200,000			2,200,000	1,263,167	287,693	1,550,860	1,478,971	177,373	282,572	1,938,916	261,084	11.87%	TBD	TBD	TBD	Reviewed Ph.1 rev. w/ Seaboard. Easement docs to Seaboard for execution. Change Order necessary to complete Ph.1. Retainage reduced to 10%. JWSC potholing existing utilities for onsite GDOT mtg to move forward.
417	Ridgewood Water Production Facility	1,000,000	T. Kline	JWSC	RGA	TBD	1,000,000			1,000,000	0	0	0	0	0	65,943	65,943	934,057	93.41%	TBD	TBD	TBD	Pricing received for EOR engineering services; under JWSC review.	
501	Alder Circle	300,000	T. Kline	JWSC	EMC	TBD	35,300		178,599	213,899	42,296	14,550	56,846	42,986	0	2,560	45,546	168,353	78.71%	TBD	TBD	TBD	SPLOST V funded. Reallocated to other Sea Palms East water improvements. WM crossing @ Frederica/Colonial - COMPLETE	
602	Holly Street	650,000	T. Kline	JWSC	HHNT	TBD	46,000		561,795	607,795	46,700	0	46,700	41,963	0	0	41,963	565,832	93.10%	TBD	TBD	TBD	Reallocating to collection system rehab; possibly Sea Palms East & West.	
702	North Mainland Sewer Improvements	14,900,000	T. Kline	JWSC/ EMC	T&H	TBD		11,700,000	3,200,000	14,900,000	3,918,587	286,264	4,204,851	4,162,558	708,787	0	4,871,345	10,028,655	67.31%	Winter 2019	180 days	Fall 2020	Engr. contract awarded to Thomas & Hutton. Kick-off meeting held on 03/28/2019. CCTV data under review for rehab spec; bid by end of May. Glynn Co. pursuing Canal Rd. section R/W.	
703	PS 4003 Decommission and Gravity Sewer	3,300,000	T. Kline	JWSC	HGB	TBD			3,300,000	3,300,000	248,599	0	248,599	5,543	243,057	3,589	252,189	3,047,811	92.36%	Winter 2019	120 days	Fall 2020	Engineering contract awarded to HGB. Kick-off meeting held on 02/19/19. Survey COMPLETE. Updating/reviewing wetwell options.	
704	Canal Road to Glynco 12" Watermain Loop	1,200,000	T. Kline	JWSC	JWSC	TBD		1,200,000		1,200,000	48,000	0	48,000	48,000	0	0	48,000	1,152,000	96.00%	TBD	TBD	TBD	Design at concept stage. Utilize surplus 12" C900 PVC material. Connect Glynco Pkwy. to Canal Rd. loop; JWSC engr. & const. Installation under Altamaha Canal complete.	
801	FEMA Hazard Mitigation-Academy Creek	3,188,000	A. Burroughs	Haggerty	TBD	TBD	3,188,000			3,188,000	33,908		33,908	28,083	0	78,665	106,748	3,081,252	96.65%	TBD	TBD	TBD	Final applications submitted. All state approvals have been received for transfer switch application. Awaiting FEMA decision.	
804	Magnolia Water Improvements	1,150,000	T. Kline	JWSC	City of BWK / EMC	TBD	1,150,000			1,150,000	117,050	0	117,050	28,071	88,979	0	117,050	1,032,950	89.82%	Winter 2019	270 days	Winter 2019	City Project/contract. Bid alternate for new 12" WM along Habersham. Final revisions provided to EOR. Wetland impact permitting in progress. Tentative advertising set for mid-spring.	
805	L Street Water Improvements	650,000	T. Kline	JWSC	City of BWK / EMC	Georgia Asphalt Producers	650,000			650,000	751,780	0	751,780	29,706	743,124	0	772,830	-122,830	-18.90%	Winter 2019	180 days	Fall 2019	Construction in process. Bid adjusting change order #1 review in process.	
806	Academy Creek Oxygen System Rehab	650,000	A. Burroughs	HGB	HGB	TBD	1,040,000			1,040,000	992,360	15,865	1,008,225	214,124	784,562	0	998,686	41,314	3.97%	120 days	N/A	120 days	Tanks, manifolds, and LEL panels installed. Valve replacements underway. Expected completion mid-June.	
807	SSI Phase II Smoke & Dye Testing	150,000	E. Zettler	TBD	TBD	McKim & Creed	150,000			150,000	119,656	0	119,656	0	119,656	0	119,656	30,344	20.23%	Spring 2019	30 Days	Fall 2019	Field Smoke testing has concluded. McKim & Creed are currently compiling data. Awaiting analysis from M&C & directions for next phase.	
901	Lift Station 3114 Upgrades Phase 1	60,000	K. Young	JWSC	JWSC	JWSC		60,000		60,000	53,600	0	53,600	26,856	26,744	0	53,600	6,400	10.67%	TBD	TBD	Spring 2019	Coordinating GA Power service entrance modifications.	
903	SR 27 Resurfacing from Yellow Bluff Creek to US 25	77,000	T. Kline	JWSC/GDOT	GDOT	GDOT	77,000			77,000	0	0	0	0	0	0	0	77,000	100.00%	TBD	TBD	TBD	Notice of Award issued to Seaboard Construction Company on 03/22/2019. Budget adjustment pending.	
904	Lift Station 4021 Improvements	275,000	T. Kline	JWSC	JWSC	TBD		275,000		275,000	0	0	0	0	0	0	0	275,000	100.00%	TBD	TBD	Summer 2019	In-House Engineering in progress.	
905	Glynn County Village Storm Improvements Phase 1	60,000	T. Kline	JWSC	GWES/ GlynnCo	Hiers/Griffin Utility	60,000			60,000	60,000	0	60,000	0	60,000	0	60,000	0	0.00%	Winter 2019	60 days	Winter 2019	Glynn Co project. No additional JWSC assets anticipated to be affected. Project coming to a close.	
906	Water Pollution Rehab-Academy & Dunbar	15,000,000	A. Burroughs								0	0	0	0	0	0	0	0	#DIV/0!	May 2019			Recommendation to Facilities Committee 6/5.	
907	Sewer Expansion Study - Brunswick	60,000	A. Burroughs	JWSC	GWES	TBD	60,000			60,000	17,636	0	17,636	0	17,636	0	17,636	42,364	70.61%	June 2019	60	June 2019	Expected completion 6/14/19	

TOTALS **7,456,300** **15,435,000** **7,240,394** **30,131,694** **7,713,339** **604,372** **8,317,711** **6,106,861** **2,969,918** **433,329** **9,510,108** **20,621,586** **68.44%**

UNSOLICITED PROPOSALS	DESCRIPTION	Concept	Application	Preliminary Engineering Report (PER)	Comprehensive Agreement	Project Value	Capital Fees Generated	STATUS
Sinclair S/D residential development (SSI)	121 Lot S/D; proposed improvements to PS2056 and force main.	Complete	Complete	Complete	Complete	*	*	Development still in planning review with Glynn County.

Bergen Woods Apartments		Proposed 252 apartment development; PS4105 and force main improvements.	Complete	Complete	Complete	Complete	*	*	Waiting on offsite forcemain & PS improvement plans for approval.
Frederica Township		Downstream upgrades to accommodate 200 additional lots; cooperative w/ Sinclair U.P.	Complete	Complete	Complete	Complete	*	*	Waiting on offsite forcemain & PS improvement plans for approval.
Oak Grove/Carolina Partners		Force main improvements to serve proposed development on Oak Grove Island.	Complete	Complete	Complete	Under review	*	*	Pending BOC approval.
Saddlebrook Subdivision / Wade Journey Homes		Improve PS4105 sewer capacity for the addition of 41 new homes	Complete	Complete	In Progress		*	*	Awaiting draft PER.
Hillpointe LLC Apts. (link to Proj 904)		Improve PS4056 & 4059 for proposed 240 unit apt. complex 3C Improve 4056 and 4059	Complete				*	*	
Boomers Bakery (fmr. Pumpkin Patch) W& FM extension		Extend W&S from Friendly Exp #71 to 341; obtain easement	In discussions						

<u>BULL PEN (Proposed)</u>	
Glynn County Village Storm Improvements- Phase II	Opportunity project with Glynn County to replace/upgrade sections of W&S in common with areas of storm improvements.
5-Year Plan List of Projects Currently Under Review	Pending JWSC BOC Approval
JWSC 2020 SPLOST projects	Initial proposed list under Staff review.

<u>COMPLETED</u>		
213 NM WTP NPDES Permit	418 Southport Water Production Facility	705 Hautala to Old Jesup Watermain Loop
225 CMMS System Upgrade	419 Canal Rd to Old Jesup W/S Improvements	706 Dunbar Creek WWTP Project Evaluation
301 SCADA Upgrade Project	424 Low Pressure Sewer Design-Community Rd	707 Academy Creek WWTP Project Evaluation
304 SSI Village Area Water Improvements	425 Low Pressure Sewer Design-Epworth Acres	708 Academy Creek WWTP Odor Control
319 Urbana	503 Canal Crossing W/S Improvements	709 Mainland Sewer Transmission Sys Cap
421 Mansfield	504 Canal Rd Pump Station	710 LF 2002 Upgrades
403 SCADA Upgrade	505 Lift Station 2032 and Forcemain	802 VT SCADA
409 LS 2030 and FM Rehab	701 PS 4048 Force Main Improvements	803 SSI Sanitary Sewer Flow Monitoring
413 Frederica/Atlantic Sewer & FM Rehab	702 (P1) North Mainland Sewer Improvements	902 Friendly Express
416 Hampton Water Production Facility		909 CCTV Pump Station 4105 Reroute