



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD
AGENDA

July 15, 2015

1:30 p.m.

Beaufort Industrial Village, Building 3 Conference Room
104 Industrial Village Road, Beaufort
843.255.2805

In accordance with South Carolina Code of Laws, 1976, as amended, Section 30-4-80(d), all local media was duly notified of the time, date, place and agenda of this meeting.

1. CALL TO ORDER – 1:30 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – May 20, 2015 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. UNFINISHED BUSINESS –
 - A. Rate Study Final Report – ATM and Eric Larson, P.E. ([backup](#))
5. NEW BUSINESS
 - A. Stormwater Management Utility Budget – Eric Larson, P.E.
 - B. Revised Ordinance Presentations - Eric Larson, P.E.
6. PUBLIC COMMENT
7. NEXT MEETING AGENDA
 - A. August 26, 2015 ([backup](#))
8. ADJOURNMENT

*The following reports are included in this Agenda, but will not have a verbal report:

- [Stormwater Manager's Report](#)
- [May 20, 2015 Financial Report](#)
- [Maintenance Project Report](#)



Beaufort County Stormwater Management Utility Board (SWMU Board)
Meeting Minutes

May 20, 2015 at 2:00 p.m. in Beaufort Industrial Village Building #3 Conference Room
Draft June 16, 2015

Board Members

Present	Absent
Allyn Schneider	
Don Smith	
William Bruggeman	
Marc Feinberg	
Larry Meisner	
Patrick Mitchell	
James Fargher	

Ex-Officio Members

Present	Absent
Andy Kinghorn	
Jeremy Ritchie	
Scott Liggett	
Van Willis	

Beaufort County Staff

Eric Larson
Eddie Bellamy
Carolyn Wallace
Kevin Pitts
Patricia Wilson
Colin Kinton

Visitors

Jennifer Fitts, Raftelis Financial Consultants, Inc.
Tony Maglione, ATM
Cynthia Bensch, County Council

1. Meeting called to order – Don Smith

- A. Agenda – The board members consented to add (6B) under New Business. The agenda was approved with this change.
- B. April 29, 2015 Minutes - Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Reports – (Mr. Eric Larson and Mr. Eddie Bellamy provided a written report and Mr. Alan Eisenman provided a copy of the April financials and they were attached to the agenda and can be accessed at <http://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2015/052015.pdf>)

A. Utility Update – Eric Larson

Meeting with Hilton Head Island Airport staff and Town of Hilton Head Island staff - Mr. Larson discussed a meeting with Hilton Head Island Airport explaining how applying Best Management Practices (BMP) measures can provide a stormwater utility fee credit.

County Staff Review Team - When asked about the 10 projects reviewed, Mr. Larson stated all projects were private development and volume is increasing. He also mentioned that the county has an informal agreement with the City of Beaufort to review projects which the county is trying to formalize.

B. Municipal Separate Storm Sewer System (MS4 Update) – Eric Larson

MS4 Permit Application – Mr. Jeremy Ritchie talked to Jill Stewart with DHEC and she said the permits have not been reviewed, but she expects to review the permits in the next couple weeks. This will possibly push the July 1, 2015 deadline back.

MS4 Staffing - The County is advertising and accepting applications for a MS4 Coordinator Position until the end of June. The MS4 Coordinator will handle MS4 permits, update ordinances and procedures, communicate between departments and direct MS4 day to day operations.

C. Monitoring Update – Eric Larson

Shell Point Area- Staff are adding additional monitoring stations to try and isolate the source of fecal coliform which is traveling into the impaired Battery Creek location. Kevin Pitts responded to a question of station locations by pointing out outfalls by Picket Fences, one next to the Latter Day Saints Church, and one where Savannah Highway meets Parris Island Gateway.

Beaufort County Pond Conference – Beaufort Soil and Water Conservation District is coordinating a pond conference to mimic the Charleston Pond Conference. The focus will be operation and maintenance and education on implementing procedures. The tentative date is Thursday, October 22, 2015.

D. Stormwater Implementation Committee (SWIC) Report – Eric Larson

The majority of the SWIC meeting focused on the rate study which Applied Technology Management (ATM) will present a preliminary view of today. The committee finalized the Request for Qualifications (RFQ) to be advertised on May 22, 2015 for a consultant to help update the Stormwater Management Plan.

E. Stormwater Related Projects – Eric Larson

US 278 Retrofit Ponds – The spoil site is the future Buckwalter Complex soccer fields. The live oaks that are being cleared for the fields are perfect for a restoration of the Mayflower II which Mystic Seaport Shipyard has contracted to do for Plymouth Plantation. Staff is in the process of working out an agreement.

Okatie West / SC 170 – The utility filed for an EPA Section 319 Grant to build a pond on the property. The updated Okatie Watershed Plan has been posted to the Stormwater Department's Website for public viewing.

Sheldon Ditch Instability Issue – Mr. Larson met with the property owner and submitted a written proposed solution and is waiting for a response.

Turtle Lane Paving on Lady's Island – The utility is working with the engineering department to design a solution for a known stormwater dirt road problem. The utility will supply the upgrade which includes larger pipes and fittings for the growing watershed area. This project is still in the design phase.

F. Professional Contracts Report – Eric Larson

Utility Rate Study – Will be discussed under New Business.

Stormwater Management Plan (Master Plan) Update – RFQ will be advertised May 22, 2015.

Statements of Qualifications will be received through July 2, 2015. SWIC will meet in July through August to make a selection recommendation to present to the Stormwater Management Utility Board, County Council and the Municipalities.

G. Regional Coordination - Eric Larson

Sea Level Rise and Future Planning – The Sea Level Rise report is in its final draft form. The utility is getting ready to present the report to administration. The utility has been contacted by another researcher interested in how local infrastructure will respond to sea level rise. Mr. Larson responded that the utility would be willing to work with this study.

Battery Creek Pond Funded by an EPA 319 Grant – Andy Kinghorn questioned the permit and grant status. Mr. Larson replied that the permit had been issued. The start date may be moved back,

depending on the grant status. Mr. Larson believes an extension will be issued if deadlines are not met.

May River Watershed Action Plan – Mr. Jeremy Ritchie said the Town of Bluffton had a kick off meeting on the Pine Ridge (not Pine Grove) Project.

H. Financial Report – Eric Larson

Mr. Larson briefly reviewed the April financials provided in the agenda and stated that the utility is under budget for the year and that expenses are down compared to last year. Revenue from fee collections are ahead of last year.

I. Maintenance Projects Report – Eddie Bellamy

Mr. Bellamy addressed the cleaning of the catch basin at Beaufort Industrial Village Building one. Cleaning crews were dumping wax water into the catch basin. Kevin Pitts (Stormwater Inspector) was concerned about the wax stripper which is highly caustic with a PH of 13. He devised a bilge pump to clean out the basin according to standards. This illicit discharge was discovered as a result of Mr. Pitts working with Laura Lee Rose (Clemson Extension) to convert a landscaped island into a rain garden.

5. Unfinished Business – None

6. New Business –

A. Preliminary Rate Study Results – Tony Maglione, ATM and Jennifer Fitts, Raftelis Financial Consultants, Inc., provided a handout and a PowerPoint Presentation to accompany their report. (Please see attachment). Mr. Tony Maglione discussed the six options for the rate structure model. The first option is similar to the current rate structure, but it incorporates updated source data. The second option is similar to the first option but it incorporates debt financing. The third option would include a modified rate structure using an existing impervious area charge, eliminate current run-off factor and add gross area charge based on total land area of customer parcel, continue simplified residential rates, continue application of agricultural use policy, administrative costs would be allocated per account, a minimum charge would be added to all accounts, and continue Pay-As-You-Go capital funding. The fourth option is similar to the third option, but administrative costs are allocated per ERU (Equivalent Rate Unit), and a new minimum charge is included. The fifth option is the same as the fourth option, but administrative costs are allocated per account and it incorporates debt financing. The sixth option is the same as option five, but administrative costs are allocated per ERU (Equivalent Rate Unit). Mr. Maglione also discussed an optional method for reallocating costs from one jurisdiction to another which would be prefunded through the rate structure model.

Mr. Eddie Bellamy pointed out that terminology used should be agreed upon by all jurisdictions. He also expressed difficulties the county has acquiring easements for desired maintenance projects which should also be considered. Don Smith questioned how gross area and impervious surface would be assessed. Jennifer Fitts replied that the gross run off factors assume an imperviousness which adds a transparency element to assign a cost. Mr. Marc Feinberg questioned scheduling concerns in order for the county to implement rate changes. In response to Andy Kinghorn's question about the number of options to be chosen, Mr. Maglione said that one option would be chosen because multiple rate models would result in a huge burden on administrative staff. Mr. Larson cleared up scheduling issues by stating that the municipalities had to submit rate changes to the county by August 15, 2015 per the IGA (Inter Governmental Agreement). Schedules will have to be shifted in order to give recommendations to the Natural Resources Committee meeting on July 20, 2015 and a first reading by County Council on July 22, 2015.

B. Memo to Natural Resource Committee for Contract Renewal Request for Beaufort Soil and Water Conservation District – Eric Larson

Motion was approved to submit the memo to the Natural Resources Committee for review on June 1, 2015.

7. Public Comment(s) –Cynthia Bensch (County Council)

Ms. Bensch represents District 7 where the new highway 170 is being repaved and widened. Thomas and Hutton Engineering recommended that five pipes be installed at the intersection of Highway 170 and Bluffton Parkway. The decision was made to install only one pipe. Ms. Bensch disagrees with county council's decision to pay the construction company overseeing the project in light of the change to the original plans. She would like to know who is responsible for the change in the project. Eric Larson said that the Public Facilities Committee has jurisdiction over this road project.

8. Next Meeting Agenda – Approved with the following changes: ([Please see attachment](#))

The board approved scheduling the next board meeting for July 15, 2015. The board also dropped item number 4 (Reports) from the agenda and made adjustments accordingly.

9. Meeting Adjourned.

SWUB Meeting – Rate Study Update- May 20, 2015

Current ATM Scope of Services for Rate Studies

- **Rate Studies**
 - o Beaufort County, City of Beaufort, Town of Port Royal, Town of HHI and Town of Bluffton
 - o Incorporate current revenue requirements, future MS4 related expenses, and capital needs
 - o Accommodate current rate structure and evaluate alternate rate structures and other funding methods
 - o Allocate costs appropriately across jurisdictions and cost drivers
- **Impervious area source data update**
 - o Update impervious “foot print” of approximately 5,000 non-residential properties across all five jurisdictions using current aerial photography
- **Deliverables**
 - o A common financial planning and rate model that can be used by each jurisdiction to simulate various cost vs. income scenarios, for example:
 - Capital spending PAYGO vs. debt
 - Impact of increased operational costs on stormwater rates (e.g. MS4 costs)
 - o Updated data base file of all non-residential properties impervious & pervious areas
 - o Report for each jurisdiction with recommended rates developed using a single common to all financial planning and rate model

Costs of Service and Allocability

The proposed rate structures take into account a number of costs that vary by:

- who provides the service,
- who receives the service, and
- what drives the cost of the service (the existence of an account, impervious area or gross area).

An impervious and gross area rate structure allocates some cost to each of the two variables, in this case either allocating 80% or 90% of the variable costs to impervious area, and the remaining costs to gross area. The gross area units would include a declining block also, such that large properties had more units of gross area than small properties, but the increase in units of gross area as overall parcel size increased were blunted by the declining block.

This section describes the different elements of the jurisdictions’ and utility’s program costs and how they may be accommodated in the rate structures.

Jurisdictional Infrastructure O&M

Each of the five jurisdictions maintains its own stormwater drainage infrastructure and funds those costs from utility revenue. These costs are driven by impervious area and gross area in the jurisdiction, which contribute to stormwater runoff and nutrient loading. As such, the impervious and/or gross area component of the fee will include these costs. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Jurisdiction Capital Projects

Each of the five jurisdictions has an independent capital plan, and can determine whether bond funding or pay as you go funding is appropriate. Capital financing has been “pay-as-you-go” for most jurisdictions. An alternative is for jurisdictions to borrow money (through revenue bonds or other means) to build capital projects and pay this back over time. This option is described in the definitions as debt.

The cost drivers for capital projects are similar to those for regular O&M, and are allocable to impervious and gross area within a jurisdiction. Debt service (in the case of bond funding) or cash contributions to capital projects are included in the impervious and/or gross area components of a fee. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Countywide Infrastructure O&M

The County maintains some infrastructure within each of the four municipalities in addition to the unincorporated area. County-wide infrastructure maintenance costs have not been allocated to any ratepayers outside the unincorporated County to date. This option will allocate the costs for the County to maintain just the countywide drainage infrastructure across the entire rate base in all jurisdictions based on infrastructure miles per jurisdiction or another intra-jurisdictional allocation model.

The cost drivers for operation and maintenance of county infrastructure are similar to those for jurisdictional infrastructure. These costs may be recovered through an impervious and/or gross area fee component, the revenue from which supports County efforts. Revenue from this fee component would be returned to the service provider, the County.

Utility Administration

The County administers the cooperative utility for each of the five jurisdictions. Currently administrative fees are allocated across the impervious area rate base such that properties with a large number of SFUs of impervious area pay more in administrative fees than those with fewer SFUs.

Costs for this effort are more closely allocable to the number of parcels or accounts for which data must be maintained, customer service must be provided, etc. These costs may instead be recovered via a fixed charge component charged to all utility customers. Revenue from this fee component would be returned to the service provider, the County.

MS4 Compliance

Each jurisdiction will be subject to MS4 permit requirements beginning in late 2015. Some program elements are fulfilled by each individual jurisdiction while others are provided cooperatively. Any existing interlocal agreements will be revised as necessary if an alternate structure is chosen.

Individual Efforts

Other MS4 permit compliance activities will be done separately by each jurisdiction, and provided only to that jurisdiction. These costs are allocable to the impervious and/or gross area fee component and revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Cooperative Efforts

Monitoring

The County may provide monitoring efforts in some jurisdictions (specifically North of the Broad). These costs would be driven by the number of accounts and would be included in the fixed charge component

of the fee, only in the jurisdictions where the County provides this monitoring service. Revenue from this fee component would be returned to the service provider, the County.

Public Education/Outreach

Currently, the jurisdictions participate in a cooperative public education & outreach scheme. Rather than implement separate agreements between each jurisdiction, this cost can be considered a per account cost and included in the fixed charge component of the fee, applicable to everyone in the County. Revenue from this fee component would be returned to the service provider, the County.

Elements of Six Rate Structure Options

Simplified residential rate: Charge one of a series of flat rates, based on SFUs, to different classes of residential properties. This is how residential rates work in the current rate structure.

Continued application of the agricultural use policy: Properties legally under certain agricultural uses have limits placed on their stormwater fees by state law. The rate structure options will continue to follow this approach.

Updated source data: The County is currently checking about 5,000 non-residential parcels for new or changed impervious area and editing the impervious area on these parcels if needed. The results of this update will be used in the model.

Minimum charge: A minimum charge is a rate structure feature whereby once the amount a property owes in annual stormwater fees is computed it is compared to the minimum charge and if less, the minimum charge is applied to the property. The minimum charge is set to reflect the minimum amount of demand a property can actually place on the jurisdiction providing service.

Partial tax funding: If any jurisdiction wishes to partially fund its stormwater program with tax revenues the model will allow for this mathematically.

Six Rate Structure Options to Model

Option #1

- Current rate structure with updated source data
- current approach for administrative fees based on impervious area units
- compliance with current rate ordinance
- pay-as-you-go capital financing

Option #2

- Current rate structure with updated source data
- current approach for administrative fees based on impervious area units
- compliance with current rate ordinance
- debt capital financing

Option #3

- Modified rate structure based on impervious and gross area
- continued use of simplified residential rates
- continued application of agricultural use policy

- County-wide administrative costs allocated to per-account basis
- County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model
- new minimum charge for all accounts
- pay-as-you-go capital financing

Option #4

- Modified rate structure based on impervious and gross area
- continued use of simplified residential rates
- continued application of agricultural use policy
- County-wide administrative costs allocated to impervious/gross area basis
- County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model
- new minimum charge for all accounts
- pay-as-you-go capital financing

Option #5

- Modified rate structure based on impervious and gross area
- continued use of simplified residential rates
- continued application of agricultural use policy
- County-wide administrative costs allocated to per-account basis
- County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model
- new minimum charge for all accounts
- debt capital financing

Option #6

- Modified rate structure based on impervious and gross area
- continued use of simplified residential rates
- continued application of agricultural use policy
- County-wide administrative costs allocated to impervious/gross area basis
- County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model
- new minimum charge for all accounts
- debt capital financing

Each Municipality to work with County to define:

- Primary Drainage Systems
- Amount of Primary Drainage Systems for County to maintain
- County to develop fixed cost for agreed upon Primary Drainage System maintenance
- Municipality to create an additional SW fee to reimburse County for Primary Drainage System maintenance
- Municipality can assess fee based on method of payment of final selected option

Tabularly, the six options can be described as below:

Modeled Rate Structure Option	Overall Rate Structure	Debt Financing for Some Capital	Partial Tax Funding	Method for Allocating Administrative Costs	Method for Allocating County-wide Infrastructure Maintenance Costs	Method for Re-allocating Costs from One Jurisdiction to another	Minimum Charge	Simplified Residential Rates
A	Impervious Area	No	Optional at Jurisdiction's Choice	Impervious Area SFU's	None	Optional at Jurisdiction's Choice	No	Yes
B	Impervious Area	Yes	Optional at Jurisdiction's Choice	Impervious Area SFU's	None	Optional at Jurisdiction's Choice	No	Yes
C	Impervious and Gross Area at 80/20 or 90/10	No	Optional at Jurisdiction's Choice	Per Account	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
D	Impervious and Gross Area at 80/20 or 90/10	No	Optional at Jurisdiction's Choice	Impervious and Gross Area	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
E	Impervious and Gross Area at 80/20 or 90/10	Yes	Optional at Jurisdiction's Choice	Per Account	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
F	Impervious and Gross Area at 80/20 or 90/10	Yes	Optional at Jurisdiction's Choice	Impervious and Gross Area	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes

Financial Planning Tasks Update

Task 1: Rate Studies

- Prepare studies for Beaufort County, City of Beaufort, Town of Port Royal, Town of HHI and Town of Bluffton
- Incorporate current revenue requirements, future MS4 related expenses, and capital needs
- Accommodate current rate structure and evaluate alternate rate structures and other funding methods
- Allocate costs appropriately across jurisdictions and cost drivers

Task 2: Impervious area source data update

- Update impervious “foot print” of approximately 5,000 non-residential properties

Deliverables

- A common financial planning and rate model that can be used by each jurisdiction to simulate various cost vs. income scenarios
- Updated data base file of all non-residential properties impervious & pervious areas
- Report for each jurisdiction with recommended rates developed using a single common to all financial planning and rate model

Focus of Today's Presentation:

Rate Study Update:

- Six options for rate structure
- Date base update
- Potential maintenance option
- Key tasks to complete and schedule

Rate Structure Options to Model

(variables that are being reviewed)

- Overall rate structure: impervious area
- Overall rate structure: impervious plus gross land area charge
- Debt financing for capital vs. continued reliance on pay-as-you-go financing
- Partial program funding from taxes or entire program funding from fees?
- ERU vs. Customer Administrative Fee
- Option for funding County to do primary drainage infrastructure maintenance

Option #1 -

- Current rate structure
- Updated source data,
- Current approach for administrative fees based on impervious area units,
- Compliance with current rate ordinance,
- Pay-as-you-go capital financing

Option #2 -

- Current rate structure
- Updated source data,
- Current approach for administrative fees based on impervious area units
- Compliance with current rate ordinance,
- Debt capital financing

Option # - 3

- Modified current rate structure using existing impervious area charge
- Eliminate current run-off factor and add gross area charge based on total land area of customer parcel
- Continued use of simplified residential rates,
- Continued application of agricultural use policy,
- Administrative costs allocated to per account
- Add minimum charge for all accounts
- Pay-as-you-go capital financing,

Option # - 4

- Modified current rate structure using existing impervious area charge
- Eliminate current run-off factor and add gross area charge based on total land area of customer parcel
- Continued use of simplified residential rates,
- Continued application of agricultural use policy
- Administrative costs allocated to per ERU
- New minimum charge for all accounts
- Pay-as-you-go capital financing,

Option # - 5

- Modified current rate structure using existing impervious area charge
- Eliminate current run-off factor and add gross area charge based on total land area of customer parcel
- Continued use of simplified residential rates
- Continued application of agricultural use policy
- Administrative costs allocated to per account
- New minimum charge for all accounts
- Debt capital financing,

Option # - 6

- Modified current rate structure using existing impervious area charge
- Eliminate current run-off factor and add gross area charge based on total land area of customer parcel
- Continued use of simplified residential rates
- Continued application of agricultural use policy
- Administrative costs allocated to per ERU
- New minimum charge for all accounts
- Debt capital financing

Option for County Maintenance in Municipalities

Each Municipality can work with County to define:

- Primary Drainage Systems
- Amount of Primary Drainage Systems for County to maintain
- County to develop fixed cost for agreed upon Primary Drainage System maintenance
- Municipality to create an additional SW fee to reimburse County for Primary Drainage System maintenance
- Municipality can assess fee based on method of payment of final selected option

Next Steps

- Continue with impervious area update and program planning – Completion date June 17, 2015
- Complete the financial planning model that supports evaluating the six options July 15, 2015 for County other will follow
- However, no recommendations until data update is completed models are run for each entity
- Recommend rate structure option July 15, 2015

Beaufort County Stormwater Rate Study
(Including the Towns of Hilton Head Island, Bluffton, and
Port Royal, the City of Beaufort, and the Unincorporated
Beaufort County)
DRAFT Report
July 10, 2015

Prepared by Applied Technology & Management

Assistance from Raftelis Financial Consultants



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Appendix E – Town of Hilton Head Island Example Rates (Options A-F)..... 2

Executive Summary

Beaufort County, in cooperation with the City of Beaufort, and the Towns of Bluffton, Hilton Head Island, and Port Royal retained Applied Technologies and Management (ATM) and its sub-consultant, Raftelis Financial Consultants to perform a rate study for the five stormwater utilities operated by the respective jurisdictions.

The County is facing a declining rate base driven by annexations, steeply mounting costs for maintaining countywide drainage infrastructure and complying with new MS4 requirements, and in need of continued capital project construction. The municipalities also face challenges which vary by jurisdiction from regulatory compliance under MS4 permits, to unmet capital project needs, to needs specifically within the Town of Hilton Head Island to increase operation and maintenance funding for aging infrastructure recently taken over by the Town.

The rate analyses performed in support of this rate study included six options for each jurisdiction. The options vary the rate metrics (impervious area, fixed charges per ratepayer, gross area), vary the way that shared costs are allocated between jurisdictions (by impervious area or by account), accommodate the existing administrative charges paid by each jurisdiction to the County (currently at \$3.18 per SFU), accommodate the existing payments made by municipalities to the County for varying levels of water quality monitoring and public outreach, and accommodate a new charge by the County to each municipality for that municipality's proportionate share of the entire County's drainage infrastructure to be maintained by the County. The detailed description of the six options is as follows:

Modeled Rate Structure Option	Overall Rate Structure	Debt Financing for Some Capital	Partial Tax Funding	Method for Allocating Administrative Costs	Method for Allocating County-wide Infrastructure Maintenance Costs	Method for Re-allocating Costs from One Jurisdiction to another	Minimum Charge	Simplified Residential Rates
A	Impervious Area	No	Optional at Jurisdiction's Choice	Impervious Area SFU's	None	Optional at Jurisdiction's Choice	No	Yes
B	Impervious Area	Yes	Optional at Jurisdiction's Choice	Impervious Area SFU's	None	Optional at Jurisdiction's Choice	No	Yes
C	Impervious and Gross Area at 80/20 or 90/10	No	Optional at Jurisdiction's Choice	Per Account	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
D	Impervious and Gross Area at 80/20 or 90/10	No	Optional at Jurisdiction's Choice	Impervious and Gross Area	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
E	Impervious and Gross Area at 80/20 or 90/10	Yes	Optional at Jurisdiction's Choice	Per Account	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes
F	Impervious and Gross Area at 80/20 or 90/10	Yes	Optional at Jurisdiction's Choice	Impervious and Gross Area	Impervious and Gross Area	Optional at Jurisdiction's Choice	Yes	Yes

In these evaluations, simplified residential rates means a series of flat rate charges for impervious area (three) similar to how the rate structure works now.

The recommended rate structure option from these evaluations is Option E. In this option jurisdictions can use debt financing for large capital projects, would share administrative costs allocated on a per-account basis, and would all pay for their proportionate share of countywide infrastructure costs

allocated across impervious and gross area. This option results in the most affordable rates for the County over the coming five years, and is likely to do so for the municipalities as well.

However, rate modeling done to date has been less detailed for the municipalities than it has for the County. This is because the County seeks to make rate structure changes immediately while the municipalities expect to not make immediate changes. Also, the budget and capital planning data available for the municipalities has varied in level of detail and in some cases no capital project planning data was available. Additional efforts between the consultants and the municipalities will complete this process and in this draft report any rates offered as examples for the municipalities should be taken as illustrative and not in any way as recommendations.

For the County, the existing rates are \$50 per SFU per year. Continuing with the current rate structure and without proportionate share funding from the municipalities for countywide infrastructure operation and maintenance, these rates would need to escalate over the coming five years to \$120 per SFU per year by FY 2019-2020. This is a 140% increase.

Under the recommended option E, the rate structure will change to one with a fixed charge per account, plus a variable charge for impervious area and another variable charge for gross lot area. For a “tier 2” (average house) residence in the County on a lot smaller than 2 acres, the existing charge is \$50 per SFU per year. Under option E this charge would escalate to \$87 per year by FY 2019-2020. This is a 74% increase. While still large, it is much more reasonable than the “stay the course” option.

The County is responsible for funding 76.4% of all countywide infrastructure (CWI) operation and maintenance under the CWI allocation used. This is \$44.34 of the total \$87.00 annual charge for an average house on a lot smaller than 2 acres. The four municipalities are responsible for the remaining CWI funding, with the allocation based on the amount of infrastructure to be maintained that falls within each jurisdiction. For this fiscal year their CWI funding on an SFU basis is:

City of Beaufort	\$9.31 per SFU
Town of Port Royal	\$5.82 per SFU
Town of Bluffton	\$30.49 per SFU
Town of Hilton Head Island	\$8.86 per SFU

Background

The Southern Coast of South Carolina has long been a desirable tourist destination and sought after place to live, in no small part due to the natural beauty surrounding the areas waterways. In recent years, Beaufort County has declared its intention to be a regional leader in environmental quality initiatives in order to promote this existing advantage. An important subset of environmental quality, especially in this region, is the effective management of stormwater runoff. Because the County is right on the coast, and is crossed by large water bodies otherwise, the imperative to manage stormwater runoff has immediate implications on water quality in the region, rather than somewhere downstream. Beaufort County and its underlying jurisdictions – the City of Beaufort, the Town of Port Royal, Town of Hilton Head Island, and Town of Bluffton – take this charge seriously, and have over time developed individual and cooperative programs to manage the public safety and water quality concerns related to stormwater runoff.

As these programs have matured over time, they have become more costly, and several jurisdictions now find themselves with just enough revenue to cover operating costs, without much to invest in needed capital improvement projects. The jurisdictions are interested in revising rates and exploring other financial tools to support program initiatives, especially capital spending, and have engaged Applied Technology & Management (ATM) and subcontractor Raftelis Financial Consultants (RFC) to conduct a rate structure analysis and rate study. This report summarizes the results of that effort.

Jurisdictional Cooperation

Although historically each jurisdiction has managed stormwater concerns indirectly through individual development standards and environmental ordinances, the group has been working together for many years to manage storm drainage and ensure an improved standard of living for residents of the County. This relationship has become more explicit over time, through the development of interlocal agreements and memoranda of understanding, and through a closer working relationship among staff of each local government.

The most outstanding example of cooperation relates to the administration of the five separate utilities. Since 2001, when the utilities went into effect, the County has provided administrative services, including billing, billing data maintenance, and customer service, in exchange for a small portion of the fee revenues for each underlying jurisdiction.

The County has historically been a significant service provider for drainage maintenance activities to each of the underlying jurisdictions, offering a menu of drainage infrastructure cleaning, maintenance, and repair activities at hourly rates. The patchwork nature of the jurisdictional boundaries lends itself to a cooperative approach to these activities whenever possible to maximize efficiencies in equipment and staff time.

Three of the five jurisdictions participating in the regional stormwater utility has recently submitted a notice of intent to be permitted as a municipal separate storm sewer system (MS4) and regulated under a National Pollutant Discharge Elimination System (NPDES) MS4 permit. Permits are anticipated in September 2015. These permits will require strict management of activities that impact the quality of stormwater runoff, such as construction and industrial activities, as well as significant goals of public education and outreach in order to bolster the general public's ability to and interest in managing stormwater runoff responsibly.

Under the new permits, the jurisdictions will be required to perform maintenance activities on existing stormwater drainage infrastructure (as is done now), monitor water quality at outfalls, inspect facilities and infrastructure, and provide education and outreach to citizens. The costs for these activities can be limited if they are performed in coordination between jurisdictions, either across the entire county or in more geographically distinct regions (such as North or South of the Broad River).

Utility background

Each of the five jurisdictions has a separate stormwater utility, established by separate ordinance, allowing the jurisdiction to collect revenues dedicated to stormwater management activities. As mentioned above, each jurisdiction cooperates in the administration of the utility by funding a portion of the County staff and material costs, effectively creating a regional utility.

At the inception of the regional utility in 2001, each property was charged a stormwater fee (conveyed on the annual tax bill) based on the size of the property and a runoff factor associated with that type of property. At this time, all five jurisdictions were charging the same rate, such that a similar property in any jurisdiction would pay the same annual fee. By 2005, the County had access to aerial photography that allowed for a more reliable approach to fee calculation. Rather than use tabular property characteristics to develop the fee for an individual property, the fee could be calculated based on one characteristic that was deemed an important cost driver: impervious surface area. Some elements of the previous rate structure remained intact, but for developed properties, the utility replaced their existing rate structure with one based on impervious surface area as measured from aerial photography.

At its core, this is an industry standard approach to calculating stormwater fees. However, the data available to the County in 2005 were already several years out of date and of relatively poor quality (see Figure 1 below). In recent years, the County has been able to obtain much higher quality imagery on an annual basis and has been updating its impervious area measurements, the foundational billing data, as properties change.



Figure 1. Comparison of 2002 and 2015 Aerial Photography

Current Stormwater Utility Structure

Rate Structure

As defined by the ordinances passed in 2005, the jurisdictions share a rate structure, though each is allowed to charge rates necessary to generate the revenue needed within each individual jurisdiction. The current rate structure has three distinct parts: residential properties, nonresidential properties, and vacant lands. Because the stormwater fee is conveyed on the tax bill and the data should be related, every property falls into one of these three categories depending on its classification in the tax system. Generally, the basis for the rate is the amount of runoff a property generates, whether that be the result of impervious area or some other driver.

At the time of the last rate base and rate structure analysis, the median impervious surface area on single family residential properties was 4,906 square feet. This became the base unit (single family unit or SFU) for measuring impervious area on other types of properties as well. For property types within the tax system that have **residential** classifications, each equates to a distinct SFU equivalency factor in three “tiers.” Residential property with less than 2,520 square feet of impervious area is tier 1. Tier 3 is residential property with more than 7,266 square feet of impervious area, and all residential property between these two impervious measures is tier 2. The tier equivalent SFU factor is multiplied by the per SFU rate for encompassing jurisdiction results in the rate. This concept is called simplified residential rates and is recommended in the newly modeled rate structures described in this study. The residential property types and SFU equivalencies are as follows:

Property Type	Equivalent SFUs
<i>Tier 1 Single Family Unit ($\leq 2,521$ square feet)</i>	0.50
<i>Tier 2 Single Family Unit (2,522 to 7,265 square feet)</i>	1.00
<i>Tier 3 Single Family Unit ($\geq 7,266$ square feet)</i>	1.50
<i>Mobile Home</i>	0.36
<i>Apartment</i>	0.39
<i>Townhouse</i>	0.60
<i>Condominium</i>	0.27

Where a single property includes multiple residential units, the equivalent SFU is per unit, such that an apartment complex property with 100 units would be charged for 0.39 (SFUs per unit) times 100 (number of units) times the rate to calculate the final fee.

Nonresidential properties represent the simplest of area of the current rate structure. For every property not classified as residential or vacant in the tax system, the stormwater fee is calculated based on the amount of impervious surface area on that property. This amount, divided by the 4,906 square foot SFU and multiplied by the per SFU rate, results in the final fee. There is no rounding or other manipulation of data.

Finally, **vacant** lands are presumed to have no impervious area, and are therefore not charged on that basis. They do still have an impact on the stormwater system, however, and should be responsible for a portion of the costs. At present, the rate structure allows for 'runoff factors' to be applied to vacant lands, with different factors used depending on a matrix of classification including whether a property is classified as agriculture, forestry, disturbed, or undisturbed.

Business Processes

In addition to the documented rate structure, there exist a number of business processes that have been developed over time to facilitate utility administration. Most of these processes are in line with the current ordinance but some have evolved to address data collection and maintenance difficulties that emerged from the existing rate structure. These include:

- the treatment of golf courses and parks as vacant land when in fact they may have a good deal of impervious area
- treatment of multi-use parcels (such as house and forested area on the same lot) as separate parcels with summed fees
- granting stormwater best management practices credit by overriding a property's fee to 1 SFU

During the course of these studies, the ATM team worked to identify any divergent business processes and compute updated metrics for the affected properties.

Rates

With the same rate structure in place since 2005, each jurisdiction has experienced increased revenue requirements and subsequently higher rates. Beaufort County altered the rate only once, while the Town of Hilton Head Island has had much more variation in its rate over time. See Table 1 for a detailed account of each jurisdiction's rate per SFU over time.

Table 1. Stormwater Fee Rates over Time

	2005- 2006	2007	2008	2009	2010	2011	2012- 2014
Beaufort County	\$ 44.43	\$ 44.43	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00
City of Beaufort	\$ 44.43	\$ 44.43	\$ 44.43	\$ 44.43	\$ 105.00	\$ 105.00	\$ 105.00
Town of Port Royal	\$ 44.43	\$ 44.43	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00
Town of Bluffton	\$ 49.00	\$ 49.00	\$ 98.00	\$ 98.00	\$ 98.00	\$ 98.00	\$ 98.00
Town of Hilton Head Island	\$ 44.43	\$ 50.76	\$ 50.76	\$ 83.23	\$ 108.70	\$ 108.70	\$ 108.70

Stormwater Programs

Beaufort County

Beaufort County's stormwater program serves as the backbone for the programs in the other jurisdictions. The County has historically been financially responsible for maintenance and repair on countywide infrastructure on and off County road rights of way, even within the municipal boundaries of underlying jurisdictions.

More recently, the County has become unable to adequately provide stormwater services throughout the entirety of the unincorporated county with the available funds. That is, maintenance activities in parts of the county, especially those pockets within other jurisdictions, have been neglected in favor of addressing needs that could be met more economically. The City and Towns have not been receiving the stormwater management services they have come to expect from the County, those the County also endeavors to provide, because of funding shortfalls.

The County is in a unique position in that its unincorporated area or its stormwater revenue base, is shrinking due to annexation, while its costs are still increasing. A notable portion of these costs are associated with managing water quality and drainage in rapidly growing regions just outside the underlying jurisdictional boundaries. Historically, some of these areas have been annexed into the adjacent Town or City yet the County continues to provide stormwater services.

There are a number of capital projects that have been identified by the County for completion in the next several years. While these are currently in unincorporated areas, they are either near to or surrounded by the municipalities such that the benefit is conferred well beyond the unincorporated region.

For these reasons and the new requirements soon to be imposed by the MS4 permit, the County has rapidly increasing costs paired with a declining revenue base. In recognition of this, the County was facing an enormous rate increase. Rather than simply adjust the rates in the unincorporated region, the County initiated a dialog with the City and Towns to discuss the growing countywide infrastructure operation and maintenance needs. The jurisdictions began exploring a more collaborative and equitable approach to sharing the costs (and receiving the benefits) of these services.

City of Beaufort

The City of Beaufort is the oldest, most densely built out of the jurisdictions. While the incorporated area is small, there is an extensive amount of old, buried infrastructure throughout the City, much of

which is estimated at over 100 years old. The City has been conducting an inventory of its drainage infrastructure and has identified approximately \$3 million in capital need, but the true need, not yet fully quantified, is likely much higher. The City may be interested in issuing debt to fund a capital program, but is likely to do so with general obligation bonds (for which the City itself is responsible) rather than revenue bonds (for which the utility is solely responsible).

An MS4 permit for the City is imminent, and it anticipates that the illicit discharge detection and elimination requirement of the permit will be costly as the aged infrastructure and unknown construction are likely to have a higher proportion of illicit connections.

The City is working, along with the other jurisdictions, on developing level and extent of service documentation to further define the parameters of its program going forward.

Town of Port Royal

The Town of Port Royal, just north of the Broad River, features widely varied development patterns, from the old town center to an expansive naval base, historic residential neighborhoods and recent development. Still, there is limited Town-maintained stormwater infrastructure. The primary piece of stormwater infrastructure is a regional BMP designed and constructed several years ago, which now requires regular maintenance. The BMP manages much of the stormwater runoff from the Town as well as from areas beyond its boundary.

At the outset of this project, the Town identified little pressing capital need, but increasing operating costs and a dwindling fund balance.

Town of Hilton Head Island

The Town of Hilton Head Island is contained on the County's largest, southern-most island. The Town is unique in its numerous planned unit developments, nearly all of which include individual and separate stormwater drainage systems. Upon development, the individual systems, associated BMPs, and their maintenance are the responsibility of the homeowners association or developer. Over time, however, the Town has taken over BMPs in the 10 largest residential developments. Many other, smaller, developments are interested in having the Town take over maintenance of their infrastructure and BMPs as well, so the Town is working toward a revised definition of its own level and extent of service that may accommodate these citizen requests.

Being the most secluded of the jurisdictions, Hilton Head Island has a particular difficulty receiving infrastructure maintenance services from the County. County staff and equipment are positioned at the other end of the county, making trips to the island inefficient and ineffectual. The Town is open to other arrangements that could result in quicker and less costly service provision.

The Town's pattern of BMP takeover is causing its basic cost picture to change over time. With a new permit for its MS4, the Town will face steeply rising costs as it complies with stringent monitoring, maintenance, and reporting requirements. These, paired with the difficulties associated with receiving services from the County, have been the impetus for a desire to develop a more comprehensive program, potentially one with dedicated equipment and staff.

Town of Bluffton

The Town of Bluffton has a stable stormwater management program funded by a moderate fee. The Town has a small set of equipment and staff available for maintenance work but relies on the County to provide drainage maintenance services outside the jurisdictional boundary. In Bluffton's case, the Town's municipal area has numerous unincorporated pockets, a circumstance which muddies the distinction between the County's responsibility and the Town's. This circumstance also makes it highly inefficient to work on individual sections of a continuous drainage system. Both parties would likely benefit from a thoughtful, well-executed drainage maintenance arrangement.

The Town is also anticipating MS4 permitting in September of this year. The permit will require additional monitoring, maintenance, and reporting efforts, and may require the Town to invest in additional equipment, hire additional staff, or make other arrangements to collaborate with the other newly permitted jurisdictions.

The Town is anticipating a small debt issuance in the coming years to fund identified capital projects.

Rate Study Approach

The ATM team was contracted to assist Beaufort County Stormwater (County) with a detailed stormwater utility rate study. For the unincorporated County and each of the four municipalities, the team conducted a full accounting of planned stormwater program costs over the next five years, which are expected to increase driven by the combination of existing operations and maintenance activities, a significant capital project backlog, and emerging NPDES compliance needs. The rate study was performed concurrent with the budgeting process for the fiscal year that began July 1, 2015, and resulted in the development and consideration of a number of rate structure options, described below.

Goals

The primary goal of the rate study was to model financially sufficient scenarios to support the jurisdictions' current and future stormwater programs. This included the following supporting objectives:

1. Determine the current and future (from MS4 compliance, jurisdictional growth, etc.) revenue requirements of each program;
2. Determine the most fair and reasonable way to recover revenues while balancing data maintenance efforts;
3. Facilitate future program visioning; and
4. Account for potential future collaboration and shared costs.

Through numerous meetings, extensive model development and refinement, and collaborative review of the results, the team and the project remained accountable to these goals throughout the process.

Modeling

The primary deliverable from the rate study is a model that was developed to compare and contrast different financial scenarios for each of the jurisdictions. The model balances revenue requirements with funding from the stormwater fee and other possible sources. On the revenue requirements side, for each jurisdiction the ATM team considered existing revenue requirements, future MS4 permit related

expenses, and capital needs. Revenue was modeled as the resulting revenue from several different rate structures as well as supplemental resources from bond issuances or other sources. With that basic structure in place, the model was refined to allow for allocation of costs across jurisdictions and rate components (see below for more information) in order to optimize rate equity.

The finalized model will be made available to each jurisdiction for ongoing use as a financial planning tool.

Data update

Much of the impervious area data originally developed for the 2005 rate study was created using low-quality 2002 aerial imagery. With the possible shift in rates and rate structure, it was critical to have improved source data. As a part of the rate study, the ATM team conducted a targeted review update (where needed) of approximately 5,000 parcel polygons within the GIS and across all of the jurisdictions in order to update the rate base.

At the conclusion of the effort, RFC reviewed and updated the impervious features as necessary on 5,937 parcel polygons, deriving the features using the newest available imagery from 2013.

Rate Components

Fixed Costs

Many costs associated with the administration of the utility have little to do with specific characteristics of the land. Rather, they represent a public service to which each property owner (account holder) has equal access. Billing and collections, data management and updating, programming, and customer support may fall within this category. These costs, then, are distributed evenly to each account holder by being allocable to a fixed charge per parcel.

Variable Costs: Impervious Surfaces Area and Gross Parcel Area

Impervious area is the area of land covered by a hard surface through which rainwater cannot pass, such as building footprints and parking lots. The amount of impervious area on a parcel is most directly related to the quantity of stormwater to be handled by the system. For bare soil and vegetated ground cover, some water will infiltrate into the ground—even during heavy rain—rather than run across the surface. For impervious surfaces, on the other hand, water cannot infiltrate into the ground. For that reason, impervious surface causes the peak discharge volume of runoff from a parcel of land to be higher than it would otherwise. Regardless of how the land is managed, runoff tends to gather nutrients and other potential pollutants. Because virtually none of this runoff (and the pollutants it carries) soaks into the ground, runoff from impervious area carries a greater volume of harmful materials toward receiving waterbodies than pervious area.

One unique aspect of the stormwater utilities in these jurisdictions is the wide variety of land use represented within each jurisdiction. Gross area is included as a component of the stormwater fee to capture the costs not solely related to impervious area runoff. As opposed to impervious area, gross land area contributes proportionately more to the nutrients and pollutants that stormwater runoff may pick up and less to the sheer volume of runoff to be managed. As discussed, pervious land can absorb some of the water that falls on it, so it does not contribute as much to runoff. However, pervious land still contributes pesticides, fertilizers, leaves, and other undesirable materials to the runoff that does

occur. As such, stormwater costs related to water quality and quantity (most O&M costs) are allocable in some portion to gross land area.

In the costs described below, allocability to impervious area and gross area represents a relationship between a particular cost and the demand for that cost caused by a higher volume of stormwater (including higher levels of pollution) to be managed. An impervious and gross area rate structure allocates some cost to each of the two variables, in this case either allocating 80% or 90% of the variable costs to impervious area, and the remaining costs to gross area. The gross area units would include a declining block, such that large properties have more units of gross area than small properties, but the increase in units of gross area as overall parcel size increase are blunted by the declining block.

Cost Allocability

The proposed rate structures take into account a number of costs that vary by:

- Who provides the service,
- Who receives the service, and
- What drives the cost of the service (the existence of an account, impervious area or gross area)

This section describes the different elements of the jurisdictions' and utility's program costs and how they may be accommodated in the rate structures. The resulting modeled rates for each jurisdiction take into account the distribution of costs across all jurisdictions based on the chosen allocation scheme, and the particular rate base of that jurisdiction.

Jurisdictional Infrastructure O&M

Each of the five jurisdictions maintains its own stormwater drainage infrastructure and funds those costs from utility revenue. These costs are driven by impervious area and gross area in the jurisdiction, which contribute to stormwater runoff and nutrient loading. As such, the impervious and/or gross area component of the fee will include these costs. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Jurisdiction Capital Projects

Each of the five jurisdictions has an independent capital plan, and can determine whether bond funding or pay as you go funding (or paying with available unencumbered funds) is appropriate. Capital financing has been "pay-as-you-go" for most jurisdictions. An alternative is for jurisdictions to borrow money to build capital projects and pay this back over time. This option is described in the definitions as debt.

The cost drivers for capital projects are similar to those for regular O&M, and are allocable to impervious and gross area within a jurisdiction. Debt service (in the case of bond funding) or cash contributions to capital projects are included in the impervious and/or gross area components of a fee. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Debt

For many of the jurisdictions, capital needs greatly outpace the funds available through fee revenue. Issuing debt in the form of revenue bonds is a viable alternative to fund these projects, and in some cases may be the most appropriate option. Debt financing is appropriate for large physical assets with long expected lives, generally constructed improvements. Most notable, debt service creates a

mechanism for future ratepayers to help fund the infrastructure from which they still benefit. The exceptional environmental quality found in this region is one of the primary reasons people choose to live and work here, and at its most basic, every investment made in capital projects supports that fundamental tenet. Through debt funding of capital projects, ratepayers of the future can pay back into the program that promotes this high quality of life.

Revenue bonding will not affect a jurisdiction's existing covenants or caps. With revenue bonds, the jurisdiction's stormwater utility will be solely responsible for servicing that debt, and there is no risk to the greater entity.

Countywide Infrastructure O&M

The County maintains some larger drainage infrastructure within each of the four municipalities in addition to drainage infrastructure within the unincorporated area. County-wide infrastructure (defined as pipes and open ditches both in and out of rights of way that are owned or maintained by the County) maintenance costs have not been allocated to any ratepayers outside the unincorporated County to date. That is, revenue from fees charged to property owners in the unincorporated County have been funding infrastructure maintenance, repair, and replacement activities throughout all five jurisdictions. Currently, these activities have been limited in the incorporated areas because funding levels, supported by the unincorporated ratepayers only, are insufficient. The modified rate structure will share the County's costs for Countywide infrastructure maintenance across all the unincorporated and incorporated areas of the County based on linear feet of pipes and open ditches in each jurisdiction.

The cost drivers for operation and maintenance of county infrastructure are similar to those for jurisdictional infrastructure. These costs may be recovered through an impervious and/or gross area fee component, the revenue from which supports County efforts. Revenue from this fee component would be returned to the service provider, the County.

A detailed analysis of the proportions of this County-wide infrastructure was prepared in 2015 by the County, and was used as the basis for the cost allocations to unincorporated areas of the County and to the municipalities. This inventory was conducted in GIS data layers and was made available to all jurisdictions by the County as part of this study. The analysis shows the proportions to be:

Unincorporated County	76.4%
City of Beaufort	3.4%
Town of Port Royal	1.0%
Town of Bluffton	11.1%
Town of Hilton Head Island	8.1%

Utility Administration

The County administers the cooperative utility for each of the five jurisdictions. Currently administrative fees are allocated across the impervious area rate base such that properties with a large number of SFUs of impervious area pay more in administrative fees than those with fewer SFUs.

Costs for this effort may be allocable to either the number of parcels or accounts for which data must be maintained, customer service must be provided, etc. These costs may instead be recovered via a fixed charge component charged to all utility customers. Alternatively, costs could be allocable to the

impervious and/or gross area fee component if they are more closely related to the effort of maintaining the geospatial data or researching and addressing detailed questions from large, complex customers. Revenue from this fee component would be returned to the service provider, the County.

MS4 Compliance

The County, the Town of Hilton Head, and the Town of Bluffton will be subject to MS4 permit requirements beginning in late 2015. Some program elements are fulfilled by each individual jurisdiction while others are provided cooperatively. Any existing interlocal agreements and Memoranda of Understanding (MOU) may need to be revised if an alternate structure is chosen.

Individual Efforts

Other MS4 permit compliance activities will be done separately by each jurisdiction, and provided only to that jurisdiction. These costs are allocable to the impervious and/or gross area fee component and revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Cooperative Efforts

Monitoring

The County currently provides monitoring efforts in some jurisdictions (specifically North of the Broad). This relationship could be expanded to other jurisdictions if desired. These costs would be driven by the number of accounts and would be included in the fixed charge component of the fee, only in the jurisdictions where the County provides this monitoring service. Revenue from this fee component would be returned to the service provider, the County.

Public Education/Outreach

Currently, the jurisdictions participate in a cooperative public education and outreach scheme. Rather than implement separate agreements between each jurisdiction, this cost can be considered a per account cost and included in the fixed charge component of the fee, applicable to everyone in the County. Revenue from this fee component would be returned to the service provider, the County.

Modeled Options

Elements of Six Rate Structure Options

Simplified residential rate: Charge one of a series of flat rates, based on SFUs, to different classes of residential properties. This is how residential rates work in the current rate structure.

Continued application of the agricultural use policy: Properties legally under certain agricultural uses have limits placed on their stormwater fees by state law. The rate structure options will continue to follow this approach.

Updated source data: RFC reviewed and updated as necessary 5,937 parcel polygons with the newest available imagery from 2013. The results of this update were used to model both the modified rate structure options and the current rate structure options, which make use of the newly measured impervious features.

Minimum charge: A minimum charge is a rate structure feature whereby once the amount a property owes in annual stormwater fees is computed it is compared to the minimum charge and if less, the minimum charge is applied to the property. The minimum charge is set to reflect the minimum amount

of demand a property can actually place on the jurisdiction providing service. The minimum charge is represented as a fixed fee component and is charged to every property.

Options

- A. Current rate structure with updated source data; current approach for administrative fees based on impervious area units; compliance with current rate ordinance; pay-as-you-go capital financing
- B. Current rate structure with updated source data; current approach for administrative fees based on impervious area units; compliance with current rate ordinance; debt financing for some capital projects
- C. Modified rate structure based on impervious and gross area; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to per-account basis; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; pay-as-you-go capital financing
- D. Modified rate structure based on impervious and gross area; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to impervious and gross area; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; pay-as-you-go capital financing
- E. Modified rate structure based on impervious and gross area at 80/20 or 90/10 allocation; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to per account basis; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; debt for some capital financing
- F. Modified rate structure based on impervious and gross area at 80/20 or 90/10 allocation; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to impervious and gross area; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; debt for some capital financing

Alternative Cost Sharing Approach

As an alternative to the modeled countywide infrastructure charge, each underlying jurisdiction can work individually with the County to establish a level of service and cost for providing that service within the jurisdiction. Each jurisdiction is entitled to convey that fee to its customers in any reasonable manner, but must remit the appropriate amount to the County to receive the agreed upon services.

Table 2. Modeled Rate Structure Options

	<i>Overall Rate Structure</i>	<i>Debt Financing for Some Capital?</i>	<i>Method for Allocating Admin & Reg Costs</i>	<i>Method for Allocating CWI O&M Costs</i>	<i>Simplified Residential Rates</i>	<i>Alternative Cost Sharing Approach</i>
A	Current (Imp Area)	No	SFUs	Optional	Yes	Optional
B	Current (Imp Area)	Yes	SFUs	Optional	Yes	Optional
C	Impervious & Gross Area	No	Per account	Impervious & Gross Area	Yes	Optional
D	Impervious & Gross Area	No	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional
E	Impervious & Gross Area	Yes	Per account	Impervious & Gross Area	Yes	Optional
F	Impervious & Gross Area	Yes	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional

Modified Rate Structure

ATM modeled four of the six options based on a modified rate structure design that relies more heavily on measured impervious area data but retains the basic backbone of the existing rate structure.

Fee Structure

The recommended fee includes three components: a fixed component to convey costs allocable by account, and two variable components: one based on gross area and one based on impervious area, to convey the costs that vary by property characteristic. With the exception of those explicitly exempt, every real property (which in some cases does not include land on the ground) has a stormwater fee calculated for it.

Bill Class

Every taxed property falls into one of several bill classes, which determine fee calculation for that property. Residential properties are treated in a similar manner as they are currently, with SFU equivalents to represent the impervious area on each type of residential property. Gross area and fixed fee components are added to this portion of the residential fee. Vacant property is not charged for any impervious area, measured or assumed. It is, however, charged for the gross land area of the parcel and the fixed component of the fee, as described below. Agricultural properties in the County are excluded from any fee changes by State law, and as such represent their own category of properties for which the current fee is carried forward. Exempt parcels are not charged any portion of the fee. Finally, all other properties are considered non-residential, non-vacant properties (herein called “commercial”), which are charged a per unit rate for impervious area, along with a fixed fee and gross area charge.

Rate Structure Design

Impervious Area Units

The existing impervious area unit of 4906 has been retained for maximum equity between residential and commercial bill classes in impervious area charge. Residential properties are charged for impervious area based on the factors existing in the current rates structure. Commercial properties are charged per 4,906 square feet unit, or part thereof, of impervious area. Under the modified rate structure design, 80% of variable costs are funded through gross area charges.

Gross Area Blocks

A gross area fee component is included for all properties that have a real parcel and parcel area found in GIS. The gross area charge is calculated in equivalent units as follows:

- Every property is charged \$X for the first 2 acres of gross area. This means that every property getting a gross area fee is charged at least \$X.
- For every acre above 2 acres, and up to 10 acres, the property is charged $.5 * \$X$ per acre.
- For every acre above 10 acres, and up to 100 acres, the property is charged $.4 * \$X$ per acre.
- For every acre above 100 acres, the property is charged $.3 * \$X$ per acre.

This declining block structure maintains the important rate base of large properties. Under the modified rate structure design, 20% of variable costs are funded through gross area charges.

Exempt Properties and Special Cases

The modified rate structure design mirrors the current rate structure in exempt properties. Roads, railroads, private roads, and boat slip properties are exempt from stormwater fees. As described above, vacant (undeveloped) parcels are not exempt from the entire fee, but are not charged for the impervious area fee component.

Credit

For properties receiving credit for BMPs, that credit can be carried forward in this modified rate structure.

Rate Study Results

ATM developed a spreadsheet-based rate model tool to model the way the individual jurisdiction and Countywide costs impact rates in each jurisdiction. The comprehensive model can be manipulated to calculate rates for each of the six options described above, as well as allow for manual override of the calculated rates to predict the revenue generation and sufficiency of a particular rate structure and rate choice.

Beaufort County

For the unincorporated County, Option E (see appendix A) results in rates for a fixed charge, an impervious area charge, and a gross area charge. This option would raise the annual charge for an average single family home on a 1 acre lot from the current \$50 per year to \$87 per year and the rate could be held stable for at least five years. All other options for the County result in less favorable rates. The fee charged to an average house on a one acre parcel in Beaufort County under the current rates and the six options modeled as part of this rate study are as follows:

	Fiscal Year				
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Option A	\$100	\$100	\$100	\$110	\$120
Option B	\$95	\$95	\$95	\$95	\$95
Option C	\$87	\$99	\$99	\$99	\$101
Option D	\$90	\$100	\$100	\$100	\$107
Option E	\$87	\$87	\$87	\$87	\$87
Option F	\$90	\$90	\$90	\$90	\$92

Therefore, ATM recommends rate structure option E for the County, under which administrative and regulatory compliance charges are allocated on a per account basis, infrastructure O&M costs are allocated based on the impervious and gross area, and two bond sales of \$5,000,000 occur in FY 2017 and FY2019. Because the underlying jurisdictions are unlikely to adopt a rate structure change in the coming fiscal year, the existing \$3.18 per (paid) SFU administrative charge that has already been negotiated is retained.

The County is responsible for funding 76.4% of all countywide infrastructure (CWI) operation and maintenance under the CWI allocation used. This is \$44.34 of the total \$87.00 annual charge for an average house on a lot smaller than 2 acres. The four municipalities are responsible for the remaining CWI funding, with the allocation based on the amount of infrastructure to be maintained that falls within each jurisdiction, as described previously. For the 2015-16 fiscal year their CWI funding on an SFU basis is:

City of Beaufort	\$9.31 per SFU
Town of Port Royal	\$5.82 per SFU
Town of Bluffton	\$30.49 per SFU
Town of Hilton Head Island	\$8.86 per SFU

City, Towns

Because the City and Towns are not expected to change their rate structures this year, the financial planning for the municipalities was not constrained to the same timeline, and efforts to refine the rate model are ongoing. Draft rates for each of the municipalities have been produced for at least some of the six rate structure options but they should be viewed as examples rather than recommendations, and will likely be revised in the coming months. Because the timing of major costs, particularly capital expenses, can be so critical to rates, opportunities for each jurisdiction to work with the model are necessary and have not happened. Similarly, some jurisdictions have not provided any planned capital projects or costs and so the model is not yet capable of modeling debt options. Options where a reasonable model run cannot yet be created were not modeled.

Following a consensus on program and financial planning, final recommended rates can be developed with each municipality. Example model runs and the rates they use are provided in Appendix B (City of Beaufort), Appendix C (Town of Port Royal), Appendix D (Town of Bluffton), and Appendix E (Town of Hilton Head Island). As mentioned previously, these are illustrative only.

In general, the ATM team recommends rate structure options C or E for the jurisdictions, depending on the evolving capital needs of the programs. The team understands that this change is unlikely to happen in the coming year, so the recommendation extends to the following year if the current rate structure is

retained for this year. In future years, the County may need to charge a higher administrative fee to jurisdictions that do not adopt the rate structure of the group, as additional administrative effort will be spent managing a rate structure and supporting customer service needs in ways different than and in some cases separate from the regional utility.

The model provided as part of this rate study will assist the jurisdictions in fine-tuning program and capital expenses in the future to develop the most suitable set of rates over time.

General Impacts of Rate Structure Changes

The recommended rate structure (Option E if capital intensive, Option C if not) incorporates a fixed charge per account (parcel), plus two variable charges: one for impervious area on the parcel and one for gross parcel area. It also continues the practice of using simplified residential rates for residential properties of varying types from single family detached through condominium units. Because the current billing practices for large undeveloped tracts include an impervious area estimation process while the new rates structures do not charge an impervious area fee if there is no impervious area present, the impervious charges may be divergent between the rate structures. However, the introduction of a gross area charge in the new rate structure modeled largely mimics the fee outcomes.

Using three rate metrics (fixed, impervious area, gross area) allows the fee to have components that relate to cost causation most directly and is generally preferred in utility ratemaking. For example, some administrative costs for billing and collections efforts relate much more to the existence of a bill than to the size of the bill. Paying these costs from an impervious area rate shifts costs to large ratepayers while paying these costs from a fixed charge, as recommended, allocates the costs more equally across all ratepayers.

Needed Ordinance Revisions

County

If a new rate structure is adopted, significant revisions to the County's stormwater utility fee ordinance will be needed. While the revisions are outside the ATM team's scope of work, the team has identified the following categories to focus on:

1. The definitions for residential dwelling classifications and nonresidential properties will need to be revised according to the new rate structure, which does not strictly classify properties according to their land use code in the County tax data.
2. In the definitions and general funding policy section, the rate structure and fee calculation description will need to be updated (refer to Rate Structure Design section above).
3. The stormwater service fee rates for other jurisdictions should be removed and replaced with language that says the County will convey the fees for all jurisdictions until each has transitioned to the revised rate structure. The ordinance should state that the same rate structure will apply for all jurisdictions and should describe how the County will maintain stormwater billing data and conduct other administrative tasks. Once a jurisdiction has transitioned to the new rate structure, the jurisdiction should revise its own ordinance on stormwater service fee rates and execution of utility authority.
4. References to findings from the 2005 rate study should be eliminated or updated to reflect the current findings.

- References to the stormwater utility's responsibilities and how it is managed will need to be revised to take into account the multijurisdictional nature of the utility and any changes to the way funding (especially for countywide drainage infrastructure) occurs. The revisions can be based on current interlocal governmental agreements with the City and Towns.

Other jurisdictions

Following the County ordinance revision and adoption of the revised rate structure, each underlying jurisdiction should revise its ordinance accordingly and mirror the County's language on the rate structure.

Interlocal Agreements

After each jurisdiction transitions to the revised rate structure, the references to interlocal agreements on administrative fees in the County ordinance can be replaced with details on the actual fee component.

Ongoing Billing Data Maintenance

Data maintenance processes for stormwater utility fee billing are crucial to enabling accurate and timely reporting and customer service. Parcel data from the five jurisdictions should be integrated and kept as current as possible for use in determining properties that are billable for the stormwater fee. A GIS layer representing impervious surfaces should be updated regularly in response to development, demolition, and recognition of incorrect data. Other County data sources such as building permit applications and changes in improvement values can also be utilized as triggers to begin or update stormwater billing.

The ATM team will provide technical guidance on data maintenance in a separate memorandum that will go into detail on digitization and GIS processes, triggers for new or changed development, and other processes for keeping stormwater billing data current.

Appendix A – Beaufort County Recommended Rates (Options A-F)

**Beaufort County
Summary Sheet**

Sheet Name: BC-A
Option: A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 169,198	\$ 170,714	\$ 173,066	\$ 175,151	\$ 178,139
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 555,853	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 5,553,674	\$ 6,281,348	\$ 5,838,382	\$ 5,890,971	\$ 7,562,224
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Current RS Fee Alternative					
Impervious Area Units	60,927	60,622	60,319	60,017	59,717
Fee	\$ 100.00	\$ 100.00	\$ 100.00	\$ 110.00	\$ 120.00
Countywide Infrastructure Charge	\$ 43.79	\$ 42.93	\$ 43.42	\$ 44.80	\$ 45.44
Override Countywide Infrastructure Charge	\$ -	\$ -	\$ -	\$ -	\$ -
Anticipated Unincorporated County Fee Billings	\$ 6,092,675	\$ 6,062,211	\$ 6,031,900	\$ 6,601,915	\$ 7,166,079
Collection Factor	94%	94%	94%	94%	94%
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 5,727,114	\$ 5,698,479	\$ 5,669,986	\$ 6,205,800	\$ 6,736,114
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 191,297	\$ 193,011	\$ 195,671	\$ 198,028	\$ 201,407
Regulatory Compliance	\$ 64,390	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 429,127	\$ 103,423	\$ 192,199	\$ 763,903
Total Costs	\$ 5,553,674	\$ 6,281,348	\$ 5,838,382	\$ 5,890,971	\$ 7,562,224
Total Revenues	\$ 5,982,801	\$ 5,955,643	\$ 5,927,158	\$ 6,462,675	\$ 6,996,368
Surplus (Deficit)	\$ 429,127	\$ (325,705)	\$ 88,776	\$ 571,704	\$ (565,857)
FY End Fund Balance	\$ 429,127	\$ 103,423	\$ 192,199	\$ 763,903	\$ 198,047

**Beaufort County
Summary Sheet**

Sheet Name: **BC-B**
Option: **B**

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 169,198	\$ 170,714	\$ 173,066	\$ 175,151	\$ 178,139
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 555,853	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 5,553,674	\$ 6,281,348	\$ 5,838,382	\$ 5,890,971	\$ 7,562,224
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		13.79	6.91	4.30	3.09
Current RS Fee Alternative					
Impervious Area Units	60,927	60,622	60,319	60,017	59,717
Fee	\$ 95.00	\$ 95.00	\$ 95.00	\$ 95.00	\$ 95.00
Countywide Infrastructure Charge	\$ 43.79	\$ 42.93	\$ 43.42	\$ 44.80	\$ 45.44
Override Countywide Infrastructure Charge	\$ -	\$ -	\$ -	\$ -	\$ -
Anticipated Unincorporated County Fee Billings	\$ 5,788,041	\$ 5,759,101	\$ 5,730,305	\$ 5,701,654	\$ 5,673,146
Collection Factor	94%	94%	94%	94%	94%
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 5,440,759	\$ 5,413,555	\$ 5,386,487	\$ 5,359,555	\$ 5,332,757
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 191,297	\$ 193,011	\$ 195,671	\$ 198,028	\$ 201,407
Regulatory Compliance	\$ 64,390	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 142,772	\$ 4,385,958	\$ 3,898,864	\$ 8,185,767
Total Costs	\$ 5,553,674	\$ 6,427,533	\$ 6,130,752	\$ 6,329,527	\$ 8,146,966
Total Revenues	\$ 5,696,446	\$ 10,670,719	\$ 5,643,658	\$ 10,616,430	\$ 5,593,011
Surplus (Deficit)	\$ 142,772	\$ 4,243,186	\$ (487,094)	\$ 4,286,903	\$ (2,553,955)
FY End Fund Balance	\$ 142,772	\$ 4,385,958	\$ 3,898,864	\$ 8,185,767	\$ 5,631,812

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Beaufort County
Summary Sheet

Sheet Name: BC-C
Option: C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 187,106	\$ 188,782	\$ 191,384	\$ 193,689	\$ 196,994
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 572,294	\$ 639,616	\$ 589,928	\$ 625,797	\$ 652,451
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,667,868	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
	\$ -	\$ -	\$ -	\$ -	\$ -
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,763,057	\$ 5,510,500	\$ 5,062,579	\$ 5,093,447	\$ 6,757,423
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 11.63	\$ 13.19	\$ 12.41	\$ 12.92	\$ 13.30
Fixed Cost per Account, admin portion:	\$ 2.86	\$ 3.49	\$ 3.55	\$ 3.62	\$ 3.70
Fixed Cost per Account, regulatory compliance portion:	\$ 8.76	\$ 9.70	\$ 8.85	\$ 9.30	\$ 9.60
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ 12.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 58.90	\$ 69.22	\$ 63.61	\$ 63.82	\$ 88.67
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 39.24	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 19.65	\$ 30.74	\$ 24.70	\$ 23.67	\$ 47.94
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 65.00	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00
Variable Costs, GA Unit Fee Calc	\$ 7.66	\$ 9.05	\$ 8.36	\$ 8.43	\$ 11.77
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 5.10	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 2.56	\$ 4.02	\$ 3.24	\$ 3.13	\$ 6.36
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,364,442	\$ 6,017,238	\$ 5,995,803	\$ 5,974,702	\$ 6,154,736
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,881,642	\$ 5,535,859	\$ 5,636,055	\$ 5,616,220	\$ 5,785,452
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 173,390	\$ 174,943	\$ 177,354	\$ 179,490	\$ 182,552
Regulatory Compliance	\$ 47,948	\$ 48,230	\$ 45,825	\$ 43,421	\$ 43,421
Countywide Infrastructure Maintenance	\$ 824,966	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 118,585	\$ 143,944	\$ 717,420	\$ 1,240,193
Total Costs	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total Revenues	\$ 5,927,945	\$ 6,563,872	\$ 6,669,029	\$ 6,670,619	\$ 6,850,507
Surplus (Deficit)	\$ 118,585	\$ 25,359	\$ 573,476	\$ 522,773	\$ (971,971)
FY End Fund Balance	\$ 118,585	\$ 143,944	\$ 717,420	\$ 1,240,193	\$ 268,222

**Beaufort County
Summary Sheet**

Sheet Name: **BC-D**
Option: **D**

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 169,198	\$ 170,714	\$ 173,066	\$ 175,151	\$ 178,139
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 555,853	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,667,868	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
	\$ -	\$ -	\$ -	\$ -	\$ -
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,728,708	\$ 5,476,509	\$ 5,028,587	\$ 5,059,483	\$ 6,723,142
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, admin portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, regulatory compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 69.56	\$ 80.96	\$ 74.72	\$ 75.55	\$ 100.90
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.52	\$ 2.57	\$ 2.62	\$ 2.67
Variable Costs, IA Unit Fee, reg compliance portion:	\$ 8.18	\$ 9.22	\$ 8.53	\$ 9.11	\$ 9.56
Variable Costs, IA Unit Fee, CWI portion:	\$ 39.24	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 19.65	\$ 30.74	\$ 24.70	\$ 23.67	\$ 47.94
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 80.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 95.00
Variable Costs, GA Unit Fee Calc	\$ 9.05	\$ 10.59	\$ 9.82	\$ 9.98	\$ 13.39
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.32	\$ 0.33	\$ 0.34	\$ 0.35	\$ 0.35
Variable Costs, GA Unit Fee, reg compliance portion:	\$ 1.06	\$ 1.21	\$ 1.12	\$ 1.20	\$ 1.27
Variable Costs, GA Unit Fee, CWI portion:	\$ 5.10	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 2.56	\$ 4.02	\$ 3.24	\$ 3.13	\$ 6.36
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,396,494	\$ 5,905,440	\$ 5,870,700	\$ 5,836,240	\$ 6,269,372
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,910,810	\$ 5,433,005	\$ 5,518,458	\$ 5,486,066	\$ 5,893,210
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 191,297	\$ 193,011	\$ 195,671	\$ 198,028	\$ 201,407
Regulatory Compliance	\$ 64,390	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ 824,966	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 182,102	\$ 138,598	\$ 628,469	\$ 1,055,052
Total Costs	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total Revenues	\$ 5,991,462	\$ 6,495,009	\$ 6,585,424	\$ 6,574,429	\$ 6,992,545
Surplus (Deficit)	\$ 182,102	\$ (43,504)	\$ 489,871	\$ 426,583	\$ (829,933)
FY End Fund Balance	\$ 182,102	\$ 138,598	\$ 628,469	\$ 1,055,052	\$ 225,119

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**Beaufort County
Summary Sheet**

Sheet Name: **BC-E**
Option: **E**

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 187,106	\$ 188,782	\$ 191,384	\$ 193,689	\$ 196,994
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 572,294	\$ 639,616	\$ 589,928	\$ 625,797	\$ 652,451
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,667,868	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
	\$ -	\$ -	\$ -	\$ -	\$ -
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,763,057	\$ 5,510,500	\$ 5,062,579	\$ 5,093,447	\$ 6,757,423
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		10.16	5.49	3.37	2.40
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 11.63	\$ 13.19	\$ 12.41	\$ 12.92	\$ 13.30
Fixed Cost per Account, admin portion:	\$ 2.86	\$ 3.49	\$ 3.55	\$ 3.62	\$ 3.70
Fixed Cost per Account, regulatory compliance portion:	\$ 8.76	\$ 9.70	\$ 8.85	\$ 9.30	\$ 9.60
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 58.90	\$ 71.38	\$ 67.96	\$ 70.37	\$ 97.44
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 39.24	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 19.65	\$ 32.90	\$ 29.04	\$ 30.22	\$ 56.71
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 65.00	\$ 65.00	\$ 65.00	\$ 65.00	\$ 65.00
Variable Costs, GA Unit Fee Calc	\$ 7.66	\$ 9.34	\$ 8.93	\$ 9.30	\$ 12.94
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 5.10	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 2.56	\$ 4.30	\$ 3.82	\$ 3.99	\$ 7.53
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00
Anticipated Unincorp County Fee Billings	\$ 5,364,442	\$ 5,344,144	\$ 5,324,099	\$ 5,304,356	\$ 5,284,872
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,881,642	\$ 4,916,612	\$ 5,004,653	\$ 4,986,095	\$ 4,967,780
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 173,390	\$ 174,943	\$ 177,354	\$ 179,490	\$ 182,552
Regulatory Compliance	\$ 47,948	\$ 48,230	\$ 45,825	\$ 43,421	\$ 43,421
Countywide Infrastructure Maintenance	\$ 824,966	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 118,585	\$ 4,378,512	\$ 4,028,216	\$ 8,482,308
Total Costs	\$ 5,809,361	\$ 6,684,698	\$ 6,387,923	\$ 6,586,402	\$ 8,407,219
Total Revenues	\$ 5,927,945	\$ 10,944,625	\$ 6,037,627	\$ 11,040,494	\$ 6,032,835
Surplus (Deficit)	\$ 118,585	\$ 4,259,927	\$ (350,296)	\$ 4,454,092	\$ (2,374,385)
FY End Fund Balance	\$ 118,585	\$ 4,378,512	\$ 4,028,216	\$ 8,482,308	\$ 6,107,923

Beaufort County and Municipalities Stormwater Rate Study DRAFT Report

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Beaufort County
Summary Sheet

Sheet Name: BC-F
Option: F

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 169,198	\$ 170,714	\$ 173,066	\$ 175,151	\$ 178,139
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 555,853	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,667,868	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,335,790	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
	\$ -	\$ -	\$ -	\$ -	\$ -
Total County Costs (excl. debt service)	\$ 5,809,361	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,728,708	\$ 5,476,509	\$ 5,028,587	\$ 5,059,483	\$ 6,723,142
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		10.52	5.63	3.44	2.76
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, admin portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, regulatory compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 69.56	\$ 83.13	\$ 79.06	\$ 82.10	\$ 109.68
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.52	\$ 2.57	\$ 2.62	\$ 2.67
Variable Costs, IA Unit Fee, reg compliance portion:	\$ 8.18	\$ 9.22	\$ 8.53	\$ 9.11	\$ 9.56
Variable Costs, IA Unit Fee, CWI portion:	\$ 39.24	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 19.65	\$ 32.90	\$ 29.04	\$ 30.22	\$ 56.71
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 80.00	\$ 80.00	\$ 80.00	\$ 80.00	\$ 80.00
Variable Costs, GA Unit Fee Calc	\$ 9.05	\$ 10.87	\$ 10.39	\$ 10.84	\$ 14.56
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.32	\$ 0.33	\$ 0.34	\$ 0.35	\$ 0.35
Variable Costs, GA Unit Fee, reg compliance portion:	\$ 1.06	\$ 1.21	\$ 1.12	\$ 1.20	\$ 1.27
Variable Costs, GA Unit Fee, CWI portion:	\$ 5.10	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 2.56	\$ 4.30	\$ 3.82	\$ 3.99	\$ 7.53
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,396,494	\$ 5,364,280	\$ 5,332,250	\$ 5,300,480	\$ 5,469,752
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,910,810	\$ 4,935,138	\$ 5,012,315	\$ 4,982,451	\$ 5,141,567
Anticipated Revenue from other Jurisdictions	\$ -	\$ -	\$ -	\$ -	\$ -
Administrative Fee	\$ 191,297	\$ 193,011	\$ 195,671	\$ 198,028	\$ 201,407
Regulatory Compliance	\$ 64,390	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ 824,966	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 182,102	\$ 4,494,545	\$ 4,185,903	\$ 8,670,316
Total Costs	\$ 5,809,361	\$ 6,684,698	\$ 6,387,923	\$ 6,586,402	\$ 8,407,219
Total Revenues	\$ 5,991,462	\$ 10,997,142	\$ 6,079,281	\$ 11,070,814	\$ 6,240,902
Surplus (Deficit)	\$ 182,102	\$ 4,312,444	\$ (308,642)	\$ 4,484,413	\$ (2,166,317)
FY End Fund Balance	\$ 182,102	\$ 4,494,545	\$ 4,185,903	\$ 8,670,316	\$ 6,503,999

Appendix B – City of Beaufort Example Rates (Options A-F)

City of Beaufort Summary Sheet

Option A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
0.75% Accounts	6,431	6,479	6,528	6,577	6,626
1.25% Billable IA Units	12,726	12,885	13,046	13,209	13,374
1.25% Billable Equivalent GA Units	9,747	9,869	9,992	10,117	10,243
Costs					
Stormwater O&M	\$ 376,438	\$ 385,849	\$ 395,495	\$ 405,382	\$ 415,517
Shared County Services					
City Portion: Administration	\$ 26,220	\$ 31,857	\$ 32,255	\$ 32,658	\$ 33,067
City Portion: Monitoring & Outreach	\$ 25,882	\$ 25,235	\$ 24,686	\$ 24,137	\$ 24,137
City Portion: County-Wide Infrastructure O&M (CWI)	\$ 118,124	\$ 115,242	\$ 115,952	\$ 119,058	\$ 120,145
Capital Purchases & Projects	\$ 3,631	\$ 3,722	\$ 3,815	\$ 3,910	\$ 4,008
Total City Costs (excl. debt service)	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total City Costs payable to County for Shared Services	\$ 170,226	\$ 172,335	\$ 172,893	\$ 175,853	\$ 177,349
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Current RS Fee Alternative					
Impervious Area Units	12,685	12,844	13,004	13,167	13,331
Fee	\$ 50.00	\$ 55.00	\$ 60.00	\$ 60.00	\$ 60.00
Countywide Infrastructure Charge	\$ 9.31	\$ 8.97	\$ 8.92	\$ 9.04	\$ 9.01
Override Countywide Infrastructure Charge	\$ 9.31	\$ 8.97	\$ 8.92	\$ 9.04	\$ 9.01
Anticipated City Fee Billings	\$ 752,345	\$ 821,600	\$ 896,241	\$ 909,024	\$ 919,987
Collection Factor	65%	65%	65%	65%	65%
Administrative Fee per Paid Unit	\$ 3.18	\$ 3.82	\$ 3.82	\$ 3.82	\$ 3.82
Revenues					
Anticipated City Fee Revenue	\$ 489,024	\$ 534,040	\$ 582,556	\$ 590,865	\$ 597,991
Anticipated funds remitted to County for Utility Admin	\$ (26,220)	\$ (31,857)	\$ (32,255)	\$ (32,658)	\$ (33,067)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (25,882)	\$ (25,235)	\$ (24,686)	\$ (24,137)	\$ (24,137)
Anticipated funds remitted to County for CWI	\$ (118,124)	\$ (115,242)	\$ (115,952)	\$ (119,058)	\$ (120,145)
Anticipated Remaining City Fee Revenue	\$ 318,799	\$ 361,706	\$ 409,663	\$ 415,012	\$ 420,642
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 450,749	\$ 389,479	\$ 361,614	\$ 371,968	\$ 377,688
Total Costs	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total Revenues	\$ 318,799	\$ 361,706	\$ 409,663	\$ 415,012	\$ 420,642
Surplus (Deficit)	\$ (61,270)	\$ (27,865)	\$ 10,354	\$ 5,720	\$ 1,118
FY End Fund Balance	\$ 389,479	\$ 361,614	\$ 371,968	\$ 377,688	\$ 378,805

City of Beaufort - Option B

No model run - City Capital Projects not identified

Beaufort County and Municipalities Stormwater Rate Study DRAFT Report
 City of Beaufort
 Summary Sheet

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Option C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	6,431	6,479	6,528	6,577	6,626
1.25% Billable IA Units	12,726	12,885	13,046	13,209	13,374
1.25% Billable Equivalent GA Units	9,747	9,869	9,992	10,117	10,243
Costs					
Stormwater O&M	\$ 376,438	\$ 385,849	\$ 395,495	\$ 405,382	\$ 415,517
Shared County Services					
City Portion: Administration	\$ 18,423	\$ 18,588	\$ 18,844	\$ 19,071	\$ 19,397
City Portion: Monitoring & Outreach	\$ 12,510	\$ 12,187	\$ 11,931	\$ 11,676	\$ 11,676
City Portion: County-Wide Infrastructure O&M (CWI)	\$ 118,124	\$ 115,242	\$ 115,952	\$ 119,058	\$ 120,145
Capital Purchases & Projects	\$ 3,631	\$ 3,722	\$ 3,815	\$ 3,910	\$ 4,008
Total City Costs (excl. debt service)	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total City Costs payable to County for Shared Services	\$ 149,057	\$ 146,017	\$ 146,727	\$ 149,805	\$ 151,218
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 4.81	\$ 4.75	\$ 4.72	\$ 4.68	\$ 4.69
Fixed Cost per Account, administrative portion:	\$ 2.86	\$ 2.87	\$ 2.89	\$ 2.90	\$ 2.93
Fixed Cost per Account, monitoring & outreach portion:	\$ 1.95	\$ 1.88	\$ 1.83	\$ 1.78	\$ 1.76
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	90%	90%	90%	90%	90%
Fixed Cost per Account, Override	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 31.32	\$ 31.35	\$ 31.60	\$ 32.00	\$ 32.29
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 7.43	\$ 7.16	\$ 7.11	\$ 7.21	\$ 7.19
Variable Costs, IA Unit Fee, City costs portion:	\$ 23.89	\$ 24.19	\$ 24.49	\$ 24.79	\$ 25.09
IA Collection Rate	62%	63%	64%	65%	65%
Variable Costs, IA Unit Fee Override	\$ 50.00	\$ 55.00	\$ 55.00	\$ 60.00	\$ 60.00
Variable Costs, GA Unit Fee Calc	\$ 10.23	\$ 10.24	\$ 10.32	\$ 10.45	\$ 10.54
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 2.42	\$ 2.34	\$ 2.32	\$ 2.35	\$ 2.35
Variable Costs, GA Unit Fee, City costs portion:	\$ 7.80	\$ 7.89	\$ 7.99	\$ 8.09	\$ 8.19
GA Collection Rate	62%	63%	64%	65%	65%
Variable Costs, GA Unit Fee Override	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
Anticipated City Fee Billings	\$ 785,435	\$ 859,498	\$ 870,074	\$ 946,829	\$ 958,486
Per Account Fees Paid to City	\$ 0.19	\$ 0.25	\$ 0.28	\$ 0.32	\$ 0.31
Per Impervious Area Unit Fees Paid to City	\$ 42.57	\$ 47.84	\$ 47.89	\$ 52.79	\$ 52.81
Per Gross Area Unit Fees Paid to City	\$ 9.58	\$ 9.66	\$ 9.68	\$ 9.65	\$ 9.65
Per Account Fees Paid to County	\$ 4.81	\$ 4.75	\$ 4.72	\$ 4.68	\$ 4.69
Per Impervious Area Unit Fees Paid to County	\$ 7.43	\$ 7.16	\$ 7.11	\$ 7.21	\$ 7.19
Per Gross Area Unit Fees Paid to County	\$ 2.42	\$ 2.34	\$ 2.32	\$ 2.35	\$ 2.35
Revenues					
Anticipated City Fee Revenue	\$ 495,973	\$ 550,230	\$ 565,334	\$ 623,660	\$ 631,298
Anticipated funds remitted to County for Utility Admin	\$ (18,423)	\$ (18,588)	\$ (18,844)	\$ (19,071)	\$ (19,397)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (12,510)	\$ (12,187)	\$ (11,931)	\$ (11,676)	\$ (11,676)
Anticipated funds remitted to County for CWI	\$ (118,124)	\$ (115,242)	\$ (115,952)	\$ (119,058)	\$ (120,145)
Anticipated Remaining City Fee Revenue	\$ 346,916	\$ 404,213	\$ 418,607	\$ 473,855	\$ 480,081
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 450,749	\$ 417,597	\$ 432,240	\$ 451,537	\$ 516,100
Total Costs	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total Revenues	\$ 346,916	\$ 404,213	\$ 418,607	\$ 473,855	\$ 480,081
Surplus (Deficit)	\$ (33,152)	\$ 14,643	\$ 19,297	\$ 64,563	\$ 60,556
FY End Fund Balance	\$ 417,597	\$ 432,240	\$ 451,537	\$ 516,100	\$ 576,656

Beaufort County and Municipalities Stormwater Rate Study DRAFT Report

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City of Beaufort
Summary Sheet

Option D

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	6,431	6,479	6,528	6,577	6,626
1.25% Billable IA Units	12,726	12,885	13,046	13,209	13,374
1.25% Billable Equivalent GA Units	9,747	9,869	9,992	10,117	10,243
Costs					
Stormwater O&M	\$ 376,438	\$ 385,849	\$ 395,495	\$ 405,382	\$ 415,517
Shared County Services					
City Portion: Administration	\$ 39,591	\$ 39,946	\$ 40,496	\$ 40,984	\$ 41,683
City Portion: Monitoring & Outreach	\$ 25,882	\$ 25,235	\$ 24,686	\$ 24,137	\$ 24,137
City Portion: County-Wide Infrastructure O&M (CWI)	\$ 118,124	\$ 115,242	\$ 115,952	\$ 119,058	\$ 120,145
Capital Purchases & Projects	\$ 3,631	\$ 3,722	\$ 3,815	\$ 3,910	\$ 4,008
Total City Costs (excl. debt service)	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total City Costs payable to County for Shared Services	\$ 183,597	\$ 180,423	\$ 181,134	\$ 184,179	\$ 185,965
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	90%	90%	90%	90%	90%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 35.44	\$ 35.39	\$ 35.60	\$ 35.95	\$ 36.22
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.48	\$ 2.48	\$ 2.48	\$ 2.49
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ 1.63	\$ 1.57	\$ 1.51	\$ 1.46	\$ 1.44
Variable Costs, IA Unit Fee, CWI portion:	\$ 7.43	\$ 7.16	\$ 7.11	\$ 7.21	\$ 7.19
Variable Costs, IA Unit Fee, City costs portion:	\$ 23.89	\$ 24.19	\$ 24.49	\$ 24.79	\$ 25.09
IA Collection Rate	62%	63%	64%	65%	65%
Variable Costs, IA Unit Fee Override	\$ 55.00	\$ 55.00	\$ 55.00	\$ 60.00	\$ 60.00
Variable Costs, GA Unit Fee Calc	\$ 11.57	\$ 11.56	\$ 11.62	\$ 11.74	\$ 11.83
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.81	\$ 0.81	\$ 0.81	\$ 0.81	\$ 0.81
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ 0.53	\$ 0.51	\$ 0.49	\$ 0.48	\$ 0.47
Variable Costs, GA Unit Fee, CWI portion:	\$ 2.42	\$ 2.34	\$ 2.32	\$ 2.35	\$ 2.35
Variable Costs, GA Unit Fee, City costs portion:	\$ 7.80	\$ 7.89	\$ 7.99	\$ 8.09	\$ 8.19
GA Collection Rate	62%	63%	64%	65%	65%
Variable Costs, GA Unit Fee Override	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
Anticipated City Fee Billings	\$ 816,912	\$ 827,103	\$ 837,434	\$ 913,944	\$ 925,356
Per Account Fees Paid to City	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to City	\$ 43.46	\$ 43.80	\$ 43.89	\$ 48.85	\$ 48.88
Per Gross Area Unit Fees Paid to City	\$ 8.23	\$ 8.34	\$ 8.37	\$ 8.36	\$ 8.37
Per Account Fees Paid to County	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to County	\$ 11.54	\$ 11.20	\$ 11.11	\$ 11.15	\$ 11.12
Per Gross Area Unit Fees Paid to County	\$ 3.77	\$ 3.66	\$ 3.63	\$ 3.64	\$ 3.63
Revenues					
Anticipated City Fee Revenue	\$ 506,485	\$ 521,075	\$ 535,958	\$ 594,064	\$ 601,481
Anticipated funds remitted to County for Utility Admin	\$ (39,591)	\$ (39,946)	\$ (40,496)	\$ (40,984)	\$ (41,683)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (25,882)	\$ (25,235)	\$ (24,686)	\$ (24,137)	\$ (24,137)
Anticipated funds remitted to County for CWI	\$ (118,124)	\$ (115,242)	\$ (115,952)	\$ (119,058)	\$ (120,145)
Anticipated Remaining City Fee Revenue	\$ 322,889	\$ 340,652	\$ 354,824	\$ 409,885	\$ 415,516
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 450,749	\$ 393,569	\$ 344,650	\$ 300,165	\$ 300,757
Total Costs	\$ 380,069	\$ 389,570	\$ 399,309	\$ 409,292	\$ 419,525
Total Revenues	\$ 322,889	\$ 340,652	\$ 354,824	\$ 409,885	\$ 415,516
Surplus (Deficit)	\$ (57,180)	\$ (48,918)	\$ (44,486)	\$ 592	\$ (4,009)
FY End Fund Balance	\$ 393,569	\$ 344,650	\$ 300,165	\$ 300,757	\$ 296,748

City of Beaufort - Option E

No model run due to no CIP data yet

City of Beaufort - Option F

No model run due to no CIP data yet

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Appendix C – Town of Port Royal Example Rates (Options A-F)

Town of Port Royal Summary Sheet

Option A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
0.75% Accounts	3,850	3,879	3,908	3,937	3,967
1.25% Billable IA Units	6,330	6,409	6,489	6,570	6,652
1.25% Billable Equivalent GA Units	6,328	6,408	6,488	6,569	6,651
Costs					
Stormwater O&M	\$ 225,497	\$ 368,870	\$ 400,727	\$ 408,742	\$ 416,917
Shared County Services					
Town Portion: Administration	\$ 10,554	\$ 12,824	\$ 12,984	\$ 13,146	\$ 13,311
Town Portion: Monitoring & Outreach	\$ 12,873	\$ 12,552	\$ 12,279	\$ 12,006	\$ 12,006
Town Portion: County-Wide Infrastructure O&M	\$ 37,169	\$ 36,263	\$ 36,486	\$ 37,463	\$ 37,805
Capital Purchases & Projects	\$ 100,000	\$ 24,000	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Town Costs payable to County for Shared Services	\$ 60,597	\$ 61,638	\$ 61,749	\$ 62,615	\$ 63,122
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Current RS Fee Alternative					
Impervious Area Units	6,383	6,462	6,543	6,625	6,708
Fee	\$ 90.00	\$ 120.00	\$ 120.00	\$ 130.00	\$ 130.00
Countywide Infrastructure Charge	\$ 5.82	\$ 5.61	\$ 5.58	\$ 5.65	\$ 5.64
Override Countywide Infrastructure Charge	\$ 5.82	\$ 5.61	\$ 5.58	\$ 5.65	\$ 5.64
Anticipated Town Fee Billings	\$ 611,590	\$ 811,752	\$ 821,703	\$ 898,689	\$ 909,855
Collection Factor	52%	52%	52%	52%	52%
Administrative Fee per Paid Unit	\$ 3.18	\$ 3.82	\$ 3.82	\$ 3.82	\$ 3.82
Revenues					
Anticipated Town Fee Revenue	\$ 318,027	\$ 422,111	\$ 427,286	\$ 467,318	\$ 473,125
Anticipated funds remitted to County for Utility Admin	\$ (10,554)	\$ (12,824)	\$ (12,984)	\$ (13,146)	\$ (13,311)
Anticipated funds remitted to County for Regulatory Compliance	\$ (12,873)	\$ (12,552)	\$ (12,279)	\$ (12,006)	\$ (12,006)
Anticipated funds remitted to County for CWI	\$ (37,169)	\$ (36,263)	\$ (36,486)	\$ (37,463)	\$ (37,805)
Anticipated Remaining Town Fee Revenue	\$ 257,430	\$ 360,473	\$ 365,537	\$ 404,703	\$ 410,003
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 171,713	\$ 103,646	\$ 71,249	\$ 36,058	\$ 32,019
Total Costs	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Revenues	\$ 257,430	\$ 360,473	\$ 365,537	\$ 404,703	\$ 410,003
Surplus (Deficit)	\$ (68,067)	\$ (32,397)	\$ (35,190)	\$ (4,039)	\$ (6,914)
FY End Fund Balance	\$ 103,646	\$ 71,249	\$ 36,058	\$ 32,019	\$ 25,106

Town of Port Royal - Option B

Capital needs not likely to suggest traditional debt option

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Town of Port Royal
Summary Sheet

Option C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	3,850	3,879	3,908	3,937	3,967
1.25% Billable IA Units	6,330	6,409	6,489	6,570	6,652
1.25% Billable Equivalent GA Units	6,328	6,408	6,488	6,569	6,651
Costs					
Stormwater O&M	\$ 225,497	\$ 368,870	\$ 400,727	\$ 408,742	\$ 416,917
Shared County Services					
Town Portion: Administration	\$ 11,029	\$ 11,128	\$ 11,281	\$ 11,417	\$ 11,612
Town Portion: Monitoring & Outreach	\$ 7,489	\$ 7,296	\$ 7,143	\$ 6,990	\$ 6,990
Town Portion: County-Wide Infrastructure O&M	\$ 37,169	\$ 36,263	\$ 36,486	\$ 37,463	\$ 37,805
Capital Purchases & Projects	\$ 100,000	\$ 24,000	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Town Costs payable to County for Shared Services	\$ 55,688	\$ 54,686	\$ 54,910	\$ 55,870	\$ 56,407
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 4.81	\$ 4.75	\$ 4.72	\$ 4.68	\$ 4.69
Fixed Cost per Account, administrative portion:	\$ 2.86	\$ 2.87	\$ 2.89	\$ 2.90	\$ 2.93
Fixed Cost per Account, monitoring & outreach portion:	\$ 1.95	\$ 1.88	\$ 1.83	\$ 1.78	\$ 1.76
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	90%	90%	90%	90%	90%
Fixed Cost per Account, Override	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 45.84	\$ 53.57	\$ 53.91	\$ 54.34	\$ 54.69
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 4.70	\$ 4.53	\$ 4.50	\$ 4.56	\$ 4.55
Variable Costs, IA Unit Fee, Town costs portion:	\$ 41.14	\$ 49.04	\$ 49.40	\$ 49.77	\$ 50.14
IA Collection Rate	50%	50%	50%	51%	52%
Variable Costs, IA Unit Fee Override	\$ 90.00	\$ 100.00	\$ 110.00	\$ 120.00	\$ 130.00
Variable Costs, GA Unit Fee Calc	\$ 11.47	\$ 13.40	\$ 13.48	\$ 13.59	\$ 13.68
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 1.17	\$ 1.13	\$ 1.12	\$ 1.14	\$ 1.14
Variable Costs, GA Unit Fee, Town costs portion:	\$ 10.29	\$ 12.26	\$ 12.35	\$ 12.44	\$ 12.54
GA Collection Rate	50%	50%	50%	51%	52%
Variable Costs, GA Unit Fee Override	\$ 12.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
Anticipated Town Fee Billings	\$ 664,891	\$ 750,007	\$ 824,162	\$ 900,051	\$ 977,709
Per Account Fees Paid to Town	\$ 0.19	\$ 0.25	\$ 0.28	\$ 0.32	\$ 0.31
Per Impervious Area Unit Fees Paid to Town	\$ 85.30	\$ 95.47	\$ 105.50	\$ 115.44	\$ 125.45
Per Gross Area Unit Fees Paid to Town	\$ 10.83	\$ 12.87	\$ 12.88	\$ 12.86	\$ 12.86
Per Account Fees Paid to County	\$ 4.81	\$ 4.75	\$ 4.72	\$ 4.68	\$ 4.69
Per Impervious Area Unit Fees Paid to County	\$ 4.70	\$ 4.53	\$ 4.50	\$ 4.56	\$ 4.55
Per Gross Area Unit Fees Paid to County	\$ 1.17	\$ 1.13	\$ 1.12	\$ 1.14	\$ 1.14
Revenues					
Anticipated Town Fee Revenue	\$ 340,145	\$ 382,762	\$ 419,897	\$ 466,703	\$ 515,946
Anticipated funds remitted to County for Utility Admin	\$ (11,029)	\$ (11,128)	\$ (11,281)	\$ (11,417)	\$ (11,612)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (7,489)	\$ (7,296)	\$ (7,143)	\$ (6,990)	\$ (6,990)
Anticipated funds remitted to County for CWI	\$ (37,169)	\$ (36,263)	\$ (36,486)	\$ (37,463)	\$ (37,805)
Anticipated Remaining Town Fee Revenue	\$ 284,458	\$ 328,075	\$ 364,987	\$ 410,833	\$ 459,539
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 171,713	\$ 130,674	\$ 65,879	\$ 30,138	\$ 32,229
Total Costs	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Revenues	\$ 284,458	\$ 328,075	\$ 364,987	\$ 410,833	\$ 459,539
Surplus (Deficit)	\$ (41,039)	\$ (64,795)	\$ (35,740)	\$ 2,091	\$ 42,622
FY End Fund Balance	\$ 130,674	\$ 65,879	\$ 30,138	\$ 32,229	\$ 74,851

Beaufort County and Municipalities Stormwater Rate Study DRAFT Report

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Town of Port Royal

Option D

Summary Sheet

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	3,850	3,879	3,908	3,937	3,967
1.25% Billable IA Units	6,330	6,409	6,489	6,570	6,652
1.25% Billable Equivalent GA Units	6,328	6,408	6,488	6,569	6,651
Costs					
Stormwater O&M	\$ 225,497	\$ 368,870	\$ 400,727	\$ 408,742	\$ 416,917
Shared County Services					
Town Portion: Administration	\$ 19,692	\$ 19,869	\$ 20,142	\$ 20,385	\$ 20,733
Town Portion: Monitoring & Outreach	\$ 12,873	\$ 12,552	\$ 12,279	\$ 12,006	\$ 12,006
Town Portion: County-Wide Infrastructure O&M	\$ 37,169	\$ 36,263	\$ 36,486	\$ 37,463	\$ 37,805
Capital Purchases & Projects	\$ 100,000	\$ 24,000	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Town Costs payable to County for Shared Services	\$ 69,735	\$ 68,683	\$ 68,907	\$ 69,854	\$ 70,544
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	90%	90%	90%	90%	90%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 49.96	\$ 57.62	\$ 57.90	\$ 58.28	\$ 58.63
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.48	\$ 2.48	\$ 2.48	\$ 2.49
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ 1.63	\$ 1.57	\$ 1.51	\$ 1.46	\$ 1.44
Variable Costs, IA Unit Fee, CWI portion:	\$ 4.70	\$ 4.53	\$ 4.50	\$ 4.56	\$ 4.55
Variable Costs, IA Unit Fee, Town costs portion:	\$ 41.14	\$ 49.04	\$ 49.40	\$ 49.77	\$ 50.14
IA Collection Rate	50%	50%	50%	51%	52%
Variable Costs, IA Unit Fee Override	\$ 80.00	\$ 110.00	\$ 130.00	\$ 130.00	\$ 140.00
Variable Costs, GA Unit Fee Calc	\$ 12.50	\$ 14.41	\$ 14.48	\$ 14.58	\$ 14.66
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.62	\$ 0.62	\$ 0.62	\$ 0.62	\$ 0.62
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ 0.41	\$ 0.39	\$ 0.38	\$ 0.37	\$ 0.36
Variable Costs, GA Unit Fee, CWI portion:	\$ 1.17	\$ 1.13	\$ 1.12	\$ 1.14	\$ 1.14
Variable Costs, GA Unit Fee, Town costs portion:	\$ 10.29	\$ 12.26	\$ 12.35	\$ 12.44	\$ 12.54
GA Collection Rate	50%	50%	50%	51%	52%
Variable Costs, GA Unit Fee Override	\$ 14.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00
Anticipated Town Fee Billings	\$ 594,998	\$ 807,518	\$ 947,378	\$ 959,204	\$ 1,037,696
Per Account Fees Paid to Town	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to Town	\$ 71.19	\$ 101.43	\$ 121.50	\$ 121.49	\$ 131.52
Per Gross Area Unit Fees Paid to Town	\$ 11.80	\$ 13.86	\$ 13.88	\$ 13.87	\$ 13.88
Per Account Fees Paid to County	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to County	\$ 8.81	\$ 8.57	\$ 8.50	\$ 8.51	\$ 8.48
Per Gross Area Unit Fees Paid to County	\$ 2.20	\$ 2.14	\$ 2.12	\$ 2.13	\$ 2.12
Revenues					
Anticipated Town Fee Revenue	\$ 297,499	\$ 403,759	\$ 473,689	\$ 489,194	\$ 539,602
Anticipated funds remitted to County for Utility Admin	\$ (19,692)	\$ (19,869)	\$ (20,142)	\$ (20,385)	\$ (20,733)
Anticipated funds remitted to County for Regulatory Compliance	\$ (12,873)	\$ (12,552)	\$ (12,279)	\$ (12,006)	\$ (12,006)
Anticipated funds remitted to County for CWI	\$ (37,169)	\$ (36,263)	\$ (36,486)	\$ (37,463)	\$ (37,805)
Anticipated Remaining Town Fee Revenue	\$ 227,764	\$ 335,076	\$ 404,782	\$ 419,340	\$ 469,058
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 171,713	\$ 73,980	\$ 16,185	\$ 20,240	\$ 30,838
Total Costs	\$ 325,497	\$ 392,870	\$ 400,727	\$ 408,742	\$ 416,917
Total Revenues	\$ 227,764	\$ 335,076	\$ 404,782	\$ 419,340	\$ 469,058
Surplus (Deficit)	\$ (97,733)	\$ (57,794)	\$ 4,055	\$ 10,598	\$ 52,141
FY End Fund Balance	\$ 73,980	\$ 16,185	\$ 20,240	\$ 30,838	\$ 82,979

Town of Port Royal - Option E

No model run - need to have CIP planning discussion

Town of Port Royal - Option F

No model run - need to have CIP planning discussion

DRAFT

Appendix D – Town of Bluffton Example Rates (Options A-F)

Town of Bluffton Summary Sheet

Option A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
0.75% Accounts	11,265	11,349	11,434	11,520	11,606
1.25% Billable IA Units	10,317	10,446	10,577	10,709	10,843
1.25% Billable Equivalent GA Units	20,471	20,727	20,986	21,248	21,514
Costs					
Stormwater O&M	\$ 1,292,640	\$ 1,329,919	\$ 1,423,541	\$ 1,468,747	\$ 1,526,476
Shared County Services					
Town Portion: Administration & Regulatory Compliance	\$ 39,925	\$ 48,509	\$ 49,116	\$ 49,729	\$ 50,351
Town Portion: Monitoring & Outreach	\$ 6,232	\$ 6,410	\$ 5,965	\$ 5,520	\$ 5,520
Town Portion: County-Wide Infrastructure O&M	\$ 386,627	\$ 377,195	\$ 379,517	\$ 389,684	\$ 393,243
Capital Purchases & Projects	\$ 358,925	\$ 722,245	\$ 565,000	\$ 480,000	\$ 150,000
Total Town Costs (excl. debt service)	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Town Costs payable to County for Shared Services	\$ 432,784	\$ 432,114	\$ 434,597	\$ 444,933	\$ 449,113
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Current RS Fee Alternative					
Impervious Area Units	12,682	12,840	13,001	13,163	13,328
Fee	\$ 140.00	\$ 170.00	\$ 170.00	\$ 170.00	\$ 170.00
Countywide Infrastructure Charge	\$ 30.49	\$ 29.38	\$ 29.19	\$ 29.60	\$ 29.50
Override Countywide Infrastructure Charge	\$ 30.49	\$ 29.38	\$ 29.19	\$ 29.60	\$ 29.50
Anticipated Town Fee Billings	\$ 2,162,141	\$ 2,560,128	\$ 2,589,659	\$ 2,627,427	\$ 2,658,937
Collection Factor	99%	99%	99%	99%	99%
Administrative Fee per Paid Unit	\$ 3.18	\$ 3.82	\$ 3.82	\$ 3.82	\$ 3.82
Revenues					
Anticipated Town Fee Revenue	\$ 2,140,519	\$ 2,534,527	\$ 2,563,763	\$ 2,601,153	\$ 2,632,348
Anticipated funds remitted to County for Utility Admin	\$ (39,925)	\$ (48,509)	\$ (49,116)	\$ (49,729)	\$ (50,351)
Anticipated funds remitted to County for Regulatory Com	\$ (6,232)	\$ (6,410)	\$ (5,965)	\$ (5,520)	\$ (5,520)
Anticipated funds remitted to County for CWI	\$ (386,627)	\$ (377,195)	\$ (379,517)	\$ (389,684)	\$ (393,243)
Anticipated Remaining Town Fee Revenue	\$ 1,707,735	\$ 2,102,413	\$ 2,129,165	\$ 2,156,220	\$ 2,183,234
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 56,170	\$ 106,419	\$ 247,043	\$ 454,516
Total Costs	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Revenues	\$ 1,707,735	\$ 2,102,413	\$ 2,129,165	\$ 2,156,220	\$ 2,183,234
Surplus (Deficit)	\$ 56,170	\$ 50,248	\$ 140,624	\$ 207,473	\$ 506,758
FY End Fund Balance	\$ 56,170	\$ 106,419	\$ 247,043	\$ 454,516	\$ 961,274

Town of Bluffton - Option B

No model run - debt options not fully fleshed out

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Town of Bluffton
Summary Sheet

Option C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	11,265	11,349	11,434	11,520	11,606
1.25% Billable IA Units	10,317	10,446	10,577	10,709	10,843
1.25% Billable Equivalent GA Units	20,471	20,727	20,986	21,248	21,514
Costs					
Stormwater O&M	\$ 1,292,640	\$ 1,329,919	\$ 1,423,541	\$ 1,468,747	\$ 1,526,476
Shared County Services					
Town Portion: Administration & Regulatory Compliance	\$ 32,271	\$ 32,560	\$ 33,009	\$ 33,406	\$ 33,976
Town Portion: Monitoring & Outreach	\$ 6,266	\$ 6,445	\$ 5,998	\$ 5,550	\$ 5,550
Town Portion: County-Wide Infrastructure O&M	\$ 386,627	\$ 377,195	\$ 379,517	\$ 389,684	\$ 393,243
Capital Purchases & Projects	\$ 358,925	\$ 722,245	\$ 565,000	\$ 480,000	\$ 150,000
Total Town Costs (excl. debt service)	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Town Costs payable to County for Shared Services	\$ 425,164	\$ 416,200	\$ 418,523	\$ 428,640	\$ 432,769
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 3.43	\$ 3.44	\$ 3.42	\$ 3.39	\$ 3.41
Fixed Cost per Account, administrative portion:	\$ 2.86	\$ 2.87	\$ 2.89	\$ 2.90	\$ 2.93
Fixed Cost per Account, monitoring & outreach portion:	\$ 0.56	\$ 0.57	\$ 0.52	\$ 0.48	\$ 0.48
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	96%	97%	98%	99%	99%
Fixed Cost per Account, Override	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 158.05	\$ 186.06	\$ 179.11	\$ 174.69	\$ 152.71
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 29.98	\$ 28.89	\$ 28.71	\$ 29.11	\$ 29.01
Variable Costs, IA Unit Fee, Town costs portion:	\$ 128.07	\$ 157.16	\$ 150.40	\$ 145.58	\$ 123.69
IA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, IA Unit Fee Override	\$ 180.00	\$ 180.00	\$ 180.00	\$ 180.00	\$ 180.00
Variable Costs, GA Unit Fee Calc	\$ 19.92	\$ 23.45	\$ 22.57	\$ 22.02	\$ 19.25
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 3.78	\$ 3.64	\$ 3.62	\$ 3.67	\$ 3.66
Variable Costs, GA Unit Fee, Town costs portion:	\$ 16.14	\$ 19.80	\$ 18.95	\$ 18.34	\$ 15.58
GA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, GA Unit Fee Override	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00
Anticipated Town Fee Billings	\$ 2,413,844	\$ 2,443,851	\$ 2,474,246	\$ 2,504,900	\$ 2,536,014
Per Account Fees Paid to Town	\$ 0.57	\$ 0.56	\$ 0.58	\$ 0.61	\$ 0.59
Per Impervious Area Unit Fees Paid to Town	\$ 150.02	\$ 151.11	\$ 151.29	\$ 150.89	\$ 150.99
Per Gross Area Unit Fees Paid to Town	\$ 21.22	\$ 21.36	\$ 21.38	\$ 21.33	\$ 21.34
Per Account Fees Paid to County	\$ 3.43	\$ 3.44	\$ 3.42	\$ 3.39	\$ 3.41
Per Impervious Area Unit Fees Paid to County	\$ 29.98	\$ 28.89	\$ 28.71	\$ 29.11	\$ 29.01
Per Gross Area Unit Fees Paid to County	\$ 3.78	\$ 3.64	\$ 3.62	\$ 3.67	\$ 3.66
Revenues					
Anticipated Town Fee Revenue	\$ 2,317,290	\$ 2,370,535	\$ 2,424,761	\$ 2,479,851	\$ 2,510,654
Anticipated funds remitted to County for Utility Admin	\$ (32,271)	\$ (32,560)	\$ (33,009)	\$ (33,406)	\$ (33,976)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (6,266)	\$ (6,445)	\$ (5,998)	\$ (5,550)	\$ (5,550)
Anticipated funds remitted to County for CWI	\$ (386,627)	\$ (377,195)	\$ (379,517)	\$ (389,684)	\$ (393,243)
Anticipated Remaining Town Fee Revenue	\$ 1,892,126	\$ 1,954,335	\$ 2,006,238	\$ 2,051,211	\$ 2,077,885
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 240,561	\$ 142,732	\$ 160,428	\$ 262,892
Total Costs	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Revenues	\$ 1,892,126	\$ 1,954,335	\$ 2,006,238	\$ 2,051,211	\$ 2,077,885
Surplus (Deficit)	\$ 240,561	\$ (97,829)	\$ 17,696	\$ 102,464	\$ 401,408
FY End Fund Balance	\$ 240,561	\$ 142,732	\$ 160,428	\$ 262,892	\$ 664,300

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Town of Bluffton
Summary Sheet

Option D

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	11,265	11,349	11,434	11,520	11,606
1.25% Billable IA Units	10,317	10,446	10,577	10,709	10,843
1.25% Billable Equivalent GA Units	20,471	20,727	20,986	21,248	21,514
Costs					
Stormwater O&M	\$ 1,292,640	\$ 1,329,919	\$ 1,423,541	\$ 1,468,747	\$ 1,526,476
Shared County Services					
Town Portion: Administration & Regulatory Compliance	\$ 32,095	\$ 32,382	\$ 32,828	\$ 33,224	\$ 33,791
Town Portion: Monitoring & Outreach	\$ 6,232	\$ 6,410	\$ 5,965	\$ 5,520	\$ 5,520
Town Portion: County-Wide Infrastructure O&M	\$ 386,627	\$ 377,195	\$ 379,517	\$ 389,684	\$ 393,243
Capital Purchases & Projects	\$ 358,925	\$ 722,245	\$ 565,000	\$ 480,000	\$ 150,000
Total Town Costs (excl. debt service)	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Town Costs payable to County for Shared Services	\$ 424,954	\$ 415,987	\$ 418,310	\$ 428,427	\$ 432,553
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	96%	97%	98%	99%	99%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 161.03	\$ 189.03	\$ 182.05	\$ 177.59	\$ 155.61
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.48	\$ 2.48	\$ 2.48	\$ 2.49
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ 0.48	\$ 0.49	\$ 0.45	\$ 0.41	\$ 0.41
Variable Costs, IA Unit Fee, CWI portion:	\$ 29.98	\$ 28.89	\$ 28.71	\$ 29.11	\$ 29.01
Variable Costs, IA Unit Fee, Town costs portion:	\$ 128.07	\$ 157.16	\$ 150.40	\$ 145.58	\$ 123.69
IA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, IA Unit Fee Override	\$ 180.00	\$ 180.00	\$ 180.00	\$ 180.00	\$ 180.00
Variable Costs, GA Unit Fee Calc	\$ 20.29	\$ 23.82	\$ 22.94	\$ 22.38	\$ 19.61
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31	\$ 0.31
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.05	\$ 0.05
Variable Costs, GA Unit Fee, CWI portion:	\$ 3.78	\$ 3.64	\$ 3.62	\$ 3.67	\$ 3.66
Variable Costs, GA Unit Fee, Town costs portion:	\$ 16.14	\$ 19.80	\$ 18.95	\$ 18.34	\$ 15.58
GA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, GA Unit Fee Override	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00
Anticipated Town Fee Billings	\$ 2,368,784	\$ 2,398,455	\$ 2,428,510	\$ 2,458,820	\$ 2,489,590
Per Account Fees Paid to Town	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to Town	\$ 147.05	\$ 148.14	\$ 148.36	\$ 147.99	\$ 148.09
Per Gross Area Unit Fees Paid to Town	\$ 20.85	\$ 20.99	\$ 21.01	\$ 20.97	\$ 20.98
Per Account Fees Paid to County	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to County	\$ 32.95	\$ 31.86	\$ 31.64	\$ 32.01	\$ 31.91
Per Gross Area Unit Fees Paid to County	\$ 4.15	\$ 4.01	\$ 3.99	\$ 4.03	\$ 4.02
Revenues					
Anticipated Town Fee Revenue	\$ 2,274,032	\$ 2,326,501	\$ 2,379,940	\$ 2,434,232	\$ 2,464,694
Anticipated funds remitted to County for Utility Administration	\$ (32,095)	\$ (32,382)	\$ (32,828)	\$ (33,224)	\$ (33,791)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (6,232)	\$ (6,410)	\$ (5,965)	\$ (5,520)	\$ (5,520)
Anticipated funds remitted to County for CWI	\$ (386,627)	\$ (377,195)	\$ (379,517)	\$ (389,684)	\$ (393,243)
Anticipated Remaining Town Fee Revenue	\$ 1,849,079	\$ 1,910,514	\$ 1,961,629	\$ 2,005,804	\$ 2,032,141
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 197,514	\$ 55,863	\$ 28,952	\$ 86,009
Total Costs	\$ 1,651,565	\$ 2,052,165	\$ 1,988,541	\$ 1,948,747	\$ 1,676,476
Total Revenues	\$ 1,849,079	\$ 1,910,514	\$ 1,961,629	\$ 2,005,804	\$ 2,032,141
Surplus (Deficit)	\$ 197,514	\$ (141,650)	\$ (26,912)	\$ 57,057	\$ 355,665
FY End Fund Balance	\$ 197,514	\$ 55,863	\$ 28,952	\$ 86,009	\$ 441,674

Town of Bluffton - Option E

No model run as yet - need to look at timing of planned CIP and consider temporal shift

Town of Bluffton - Option F

No model run as yet - need to look at timing of planned CIP and consider temporal shift

DRAFT

Appendix E – Town of Hilton Head Island Example Rates (Options A-F)

Town of Hilton Head Island Summary Sheet

Option A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
0.75% Accounts	38,980	39,272	39,567	39,864	40,163
1.25% Billable IA Units	32,119	32,520	32,927	33,339	33,756
1.25% Billable Equivalent GA Units	24,614	24,921	25,233	25,548	25,867
Costs					
Stormwater O&M	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Shared County Services					
Town Portion: Administration	\$ 100,540	\$ 122,157	\$ 123,684	\$ 125,230	\$ 126,795
Town Portion: Monitoring & Outreach	\$ 19,402	\$ 19,956	\$ 18,571	\$ 17,185	\$ 17,185
Town Portion: County-Wide Infrastructure O&M	\$ 283,045	\$ 276,140	\$ 277,840	\$ 285,283	\$ 287,889
Capital Purchases & Projects	\$ -	\$ -	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Total Town Costs payable to County for Shared Services	\$ 402,988	\$ 418,253	\$ 420,094	\$ 427,697	\$ 431,868
Debt Service					
Annual Debt Service (Existing & Potential New)	\$ 1,175,675	\$ 1,205,067	\$ 1,235,194	\$ 1,266,073	\$ 1,297,725
Current RS Fee Alternative					
Impervious Area Units	31,936	32,335	32,739	33,148	33,563
Fee	\$ 160.00	\$ 160.00	\$ 160.00	\$ 160.00	\$ 160.00
Countywide Infrastructure Charge	\$ 8.86	\$ 8.54	\$ 8.49	\$ 8.61	\$ 8.58
Override Countywide Infrastructure Charge	\$ 8.86	\$ 8.54	\$ 8.49	\$ 8.61	\$ 8.58
Anticipated Town Fee Billings	\$ 5,392,684	\$ 5,449,745	\$ 5,516,230	\$ 5,589,161	\$ 5,658,018
Collection Factor	99%	99%	99%	99%	99%
Administrative Fee per Paid Unit	\$ 3.18	\$ 3.82	\$ 3.82	\$ 3.82	\$ 3.82
Revenues					
Anticipated Town Fee Revenue	\$ 5,338,757	\$ 5,395,248	\$ 5,461,068	\$ 5,533,269	\$ 5,601,438
Anticipated funds remitted to County for Utility Admin	\$ (100,540)	\$ (122,157)	\$ (123,684)	\$ (125,230)	\$ (126,795)
Anticipated funds remitted to County for Regulatory Compliance	\$ (19,402)	\$ (19,956)	\$ (18,571)	\$ (17,185)	\$ (17,185)
Anticipated funds remitted to County for CWI	\$ (283,045)	\$ (276,140)	\$ (277,840)	\$ (285,283)	\$ (287,889)
Anticipated Remaining Town Fee Revenue	\$ 4,935,769	\$ 4,976,995	\$ 5,040,974	\$ 5,105,572	\$ 5,169,570
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 234,467	\$ 392,626	\$ 494,293	\$ 537,076
Total Costs	\$ 4,701,303	\$ 4,818,835	\$ 4,939,306	\$ 5,062,789	\$ 5,189,359
Total Revenues	\$ 4,935,769	\$ 4,976,995	\$ 5,040,974	\$ 5,105,572	\$ 5,169,570
Surplus (Deficit)	\$ 234,467	\$ 158,159	\$ 101,667	\$ 42,783	\$ (19,789)
FY End Fund Balance	\$ 234,467	\$ 392,626	\$ 494,293	\$ 537,076	\$ 517,287

Town of Hilton Head Island - Option B
No model run - no new CIP identified

**Town of Hilton Head Island
Summary Sheet**

Option C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	38,980	39,272	39,567	39,864	40,163
1.25% Billable IA Units	32,119	32,520	32,927	33,339	33,756
1.25% Billable Equivalent GA Units	24,614	24,921	25,233	25,548	25,867
Costs					
Stormwater O&M	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Shared County Services					
Town Portion: Administration	\$ 111,666	\$ 112,667	\$ 114,220	\$ 115,595	\$ 117,568
Town Portion: Monitoring & Outreach	\$ 21,683	\$ 22,303	\$ 20,754	\$ 19,205	\$ 19,205
Town Portion: County-Wide Infrastructure O&M	\$ 283,045	\$ 276,140	\$ 277,840	\$ 285,283	\$ 287,889
Capital Purchases & Projects	\$ -	\$ -	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Total Town Costs payable to County for Shared Services	\$ 416,395	\$ 411,109	\$ 412,813	\$ 420,084	\$ 424,661
Debt Service					
Annual Debt Service (Existing)	\$ 1,175,675	\$ 1,205,067	\$ 1,235,194	\$ 1,266,073	\$ 1,297,725
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ 3.43	\$ 3.44	\$ 3.42	\$ 3.39	\$ 3.41
Fixed Cost per Account, administrative portion:	\$ 2.86	\$ 2.87	\$ 2.89	\$ 2.90	\$ 2.93
Fixed Cost per Account, monitoring & outreach portion:	\$ 0.56	\$ 0.57	\$ 0.52	\$ 0.48	\$ 0.48
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	96%	97%	98%	99%	99%
Fixed Cost per Account, Override	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 124.15	\$ 125.34	\$ 126.76	\$ 128.34	\$ 129.81
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 7.05	\$ 6.79	\$ 6.75	\$ 6.85	\$ 6.82
Variable Costs, IA Unit Fee, Town costs portion:	\$ 117.10	\$ 118.54	\$ 120.01	\$ 121.49	\$ 122.99
IA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, IA Unit Fee Override	\$ 130.00	\$ 130.00	\$ 130.00	\$ 130.00	\$ 130.00
Variable Costs, GA Unit Fee Calc	\$ 40.51	\$ 40.89	\$ 41.36	\$ 41.87	\$ 42.35
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 2.30	\$ 2.22	\$ 2.20	\$ 2.23	\$ 2.23
Variable Costs, GA Unit Fee, Town costs portion:	\$ 38.20	\$ 38.67	\$ 39.15	\$ 39.63	\$ 40.12
GA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, GA Unit Fee Override	\$ 45.00	\$ 45.00	\$ 45.00	\$ 45.00	\$ 45.00
Anticipated Town Fee Billings	\$ 5,438,966	\$ 5,506,133	\$ 5,574,263	\$ 5,643,186	\$ 5,712,947
Per Account Fees Paid to Town	\$ 0.57	\$ 0.56	\$ 0.58	\$ 0.61	\$ 0.59
Per Impervious Area Unit Fees Paid to Town	\$ 122.95	\$ 123.21	\$ 123.25	\$ 123.15	\$ 123.18
Per Gross Area Unit Fees Paid to Town	\$ 42.70	\$ 42.78	\$ 42.80	\$ 42.77	\$ 42.77
Per Account Fees Paid to County	\$ 3.43	\$ 3.44	\$ 3.42	\$ 3.39	\$ 3.41
Per Impervious Area Unit Fees Paid to County	\$ 7.05	\$ 6.79	\$ 6.75	\$ 6.85	\$ 6.82
Per Gross Area Unit Fees Paid to County	\$ 2.30	\$ 2.22	\$ 2.20	\$ 2.23	\$ 2.23
Revenues					
Anticipated Town Fee Revenue	\$ 5,221,407	\$ 5,340,949	\$ 5,462,778	\$ 5,586,754	\$ 5,655,818
Anticipated funds remitted to County for Utility Admin	\$ (111,666)	\$ (112,667)	\$ (114,220)	\$ (115,595)	\$ (117,568)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (21,683)	\$ (22,303)	\$ (20,754)	\$ (19,205)	\$ (19,205)
Anticipated funds remitted to County for CWI	\$ (283,045)	\$ (276,140)	\$ (277,840)	\$ (285,283)	\$ (287,889)
Anticipated Remaining Town Fee Revenue	\$ 4,805,012	\$ 4,929,840	\$ 5,049,964	\$ 5,166,671	\$ 5,231,156
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 103,709	\$ 214,713	\$ 325,371	\$ 429,253
Total Costs	\$ 4,701,303	\$ 4,818,835	\$ 4,939,306	\$ 5,062,789	\$ 5,189,359
Total Revenues	\$ 4,805,012	\$ 4,929,840	\$ 5,049,964	\$ 5,166,671	\$ 5,231,156
Surplus (Deficit)	\$ 103,709	\$ 111,004	\$ 110,658	\$ 103,882	\$ 41,798
FY End Fund Balance	\$ 103,709	\$ 214,713	\$ 325,371	\$ 429,253	\$ 471,051

Beaufort County and Municipalities Stormwater Rate Study DRAFT Report

July 10, 2015

Town of Hilton Head Island
Summary Sheet

Option D

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
0.75% Accounts	38,980	39,272	39,567	39,864	40,163
1.25% Billable IA Units	32,119	32,520	32,927	33,339	33,756
1.25% Billable Equivalent GA Units	24,614	24,921	25,233	25,548	25,867
Costs					
Stormwater O&M	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Shared County Services					
Town Portion: Administration	\$ 99,919	\$ 100,815	\$ 102,204	\$ 103,435	\$ 105,200
Town Portion: Monitoring & Outreach	\$ 19,402	\$ 19,956	\$ 18,571	\$ 17,185	\$ 17,185
Town Portion: County-Wide Infrastructure O&M	\$ 283,045	\$ 276,140	\$ 277,840	\$ 285,283	\$ 287,889
Capital Purchases & Projects	\$ -	\$ -	\$ -	\$ -	\$ -
Total Town Costs (excl. debt service)	\$ 3,525,628	\$ 3,613,769	\$ 3,704,113	\$ 3,796,716	\$ 3,891,634
Total Town Costs payable to County for Shared Services	\$ 402,367	\$ 396,911	\$ 398,615	\$ 405,903	\$ 410,273
Debt Service					
Annual Debt Service (Existing)	\$ 1,175,675	\$ 1,205,067	\$ 1,235,194	\$ 1,266,073	\$ 1,297,725
Revised RS Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, monitoring & outreach portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	96%	97%	98%	99%	99%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 127.13	\$ 128.31	\$ 129.70	\$ 131.23	\$ 132.71
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.49	\$ 2.48	\$ 2.48	\$ 2.48	\$ 2.49
Variable Costs, IA Unit Fee, monitoring & outreach portion:	\$ 0.48	\$ 0.49	\$ 0.45	\$ 0.41	\$ 0.41
Variable Costs, IA Unit Fee, CWI portion:	\$ 7.05	\$ 6.79	\$ 6.75	\$ 6.85	\$ 6.82
Variable Costs, IA Unit Fee, Town costs portion:	\$ 117.10	\$ 118.54	\$ 120.01	\$ 121.49	\$ 122.99
IA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, IA Unit Fee Override	\$ 135.00	\$ 135.00	\$ 135.00	\$ 135.00	\$ 135.00
Variable Costs, GA Unit Fee Calc	\$ 41.48	\$ 41.86	\$ 42.31	\$ 42.82	\$ 43.30
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.81	\$ 0.81	\$ 0.81	\$ 0.81	\$ 0.81
Variable Costs, GA Unit Fee, monitoring & outreach portion:	\$ 0.16	\$ 0.16	\$ 0.15	\$ 0.13	\$ 0.13
Variable Costs, GA Unit Fee, CWI portion:	\$ 2.30	\$ 2.22	\$ 2.20	\$ 2.23	\$ 2.23
Variable Costs, GA Unit Fee, Town costs portion:	\$ 38.20	\$ 38.67	\$ 39.15	\$ 39.63	\$ 40.12
GA Collection Rate	96%	97%	98%	99%	99%
Variable Costs, GA Unit Fee Override	\$ 45.00	\$ 45.00	\$ 45.00	\$ 45.00	\$ 45.00
Anticipated Town Fee Billings	\$ 5,443,639	\$ 5,511,645	\$ 5,580,630	\$ 5,650,425	\$ 5,721,075
Per Account Fees Paid to Town	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to Town	\$ 124.98	\$ 125.24	\$ 125.32	\$ 125.26	\$ 125.28
Per Gross Area Unit Fees Paid to Town	\$ 41.73	\$ 41.81	\$ 41.84	\$ 41.82	\$ 41.83
Per Account Fees Paid to County	\$ -	\$ -	\$ -	\$ -	\$ -
Per Impervious Area Unit Fees Paid to County	\$ 10.02	\$ 9.76	\$ 9.68	\$ 9.74	\$ 9.72
Per Gross Area Unit Fees Paid to County	\$ 3.27	\$ 3.19	\$ 3.16	\$ 3.18	\$ 3.17
Revenues					
Anticipated Town Fee Revenue	\$ 5,225,894	\$ 5,346,296	\$ 5,469,017	\$ 5,593,921	\$ 5,663,864
Anticipated funds remitted to County for Utility Admin	\$ (99,919)	\$ (100,815)	\$ (102,204)	\$ (103,435)	\$ (105,200)
Anticipated funds remitted to County for Monitoring & Outreach	\$ (19,402)	\$ (19,956)	\$ (18,571)	\$ (17,185)	\$ (17,185)
Anticipated funds remitted to County for CWI	\$ (283,045)	\$ (276,140)	\$ (277,840)	\$ (285,283)	\$ (287,889)
Anticipated Remaining Town Fee Revenue	\$ 4,823,527	\$ 4,949,385	\$ 5,070,403	\$ 5,188,018	\$ 5,253,591
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ -	\$ 122,224	\$ 252,773	\$ 383,869	\$ 509,098
Total Costs	\$ 4,701,303	\$ 4,818,835	\$ 4,939,306	\$ 5,062,789	\$ 5,189,359
Total Revenues	\$ 4,823,527	\$ 4,949,385	\$ 5,070,403	\$ 5,188,018	\$ 5,253,591
Surplus (Deficit)	\$ 122,224	\$ 130,549	\$ 131,096	\$ 125,229	\$ 64,232
FY End Fund Balance	\$ 122,224	\$ 252,773	\$ 383,869	\$ 509,098	\$ 573,331

Town of Hilton Head Island - Option E

No model run - no CIP identified

Town of Hilton Head Island - Option F

No model run - no CIP identified

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BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD
AGENDA

Wednesday, August 26, 2015
2:00 p.m.

Beaufort Industrial Village, Building 3 Conference Room 104
Industrial Village Road, Beaufort
843.255.2805

In accordance with South Carolina Code of Laws, 1976, as amended, Section 30-4-80(d), all local media was duly notified of the time, date, place and agenda of this meeting.

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – July 15, 2015 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. MS4 Update - Eric Larson, P.E. ([backup](#))
 - C. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - E. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - F. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - G. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - H. Financial Report ([backup](#))
 - I. Maintenance Projects Report – Eddie Bellamy ([backup](#))
5. UNFINISHED BUSINESS
 - A. Update on the Rate Study ([backup](#))
6. NEW BUSINESS
 - A. Selection of Consultant for 2015 Stormwater Management Implementation Guide ([backup](#))
 - B. Public Education Briefing - Beaufort Soil and Water Conservation District ([backup](#))
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. September 30, 2015 ([backup](#))
9. ADJOURNMENT





BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
Voice (843) 255-2801 Facsimile (843) 255-9478



July 15, 2015

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Mr. Eric Larson has reviewed 11 projects for County Staff Review Team.
2. Mr. Larson has reviewed 2 projects for stormwater design for the City of Beaufort as part of an informal agreement. (See regional coordination item #8)
3. Staff is processing a stormwater fee credit application for the HHI Airport.
4. Mr. Larson continues to participate in a South Carolina Coastal Community Stormwater Pond Committee to study pond management in the region. A conference call was held to update the committee on progress on project funding this past month.
5. Mr. Larson attended the Region 1 International Erosion Control Association Conference in Atlanta. He presented on Beaufort County's Volume Control Ordinance.

MS4 Update

1. MS4 Permit Application – DHEC staff has told Mr. Larson that they are reviewing the applications and plan to meet with the County in July to go over their comments. They intend to make public notice in August with an effective date on the permit of September 1, 2015.
2. MS4 program development – Any work on program development is on hold pending comments from DHEC on the NOI (Notice of Intent).
3. MS4 staffing – The County is currently advertising for a new position, MS4 Coordinator. Any interviewing and hiring is on hold pending the results of the rate increase request to County Council.
4. Beaufort County Pond Conference – Planning is ongoing. The date is set for October 22, 2015 at USCB Gateway campus in Bluffton.

Monitoring Update

1. USCB Lab – The lab reports successful SCDHEC laboratory evaluation in June. They will be issued lab state certificates on the first part of July for the following parameters: Dissolved Oxygen-SM 4500-O G-2011, pH-SM 4500-H+ B-2011, SpC-SM2510 B-2011, Turbidity-SM2130 B-2011, Temperature-SM2550 B-2010, Enterolert, and Enzyme Substrate Coliform Test (TC/e.coli)-SM9223B-2004. Lab staff is currently performing Proficiency Testing (PT) for 2015 for the same parameters. (This is a requirement to perform an annual PT to keep certification.) The lab has also been performing PT testing for other parameters in which they are working towards certification. They have finished and passed PT testing for TSS (Total Suspended Solids). They also have been diligently

working on other parameters such as nutrients, Chl-a, etc. to be ready in August to assume the tasks for sampling that have historically been collected and analyzed by GEL Engineering.

2. Effective July 31, 2015, the GEL Engineering contract has been canceled and the USCB lab will perform all needed sampling and testing for the County.
3. Shell Point Area – The monitoring plan for BECY 18 and 19 to source track Fecal Coliform being found at Station 15-25 in Battery Creek is ongoing. No results are available at this time.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC will meet on July 15th prior to the Utility Board meeting. Topics of discussion will include the rate study and the Management Plan update.

Stormwater Related Projects

1. US 278 Retrofit Ponds (\$356,000 budget) – Construction is underway. The Stormwater Infrastructure crews continue to construct the site entrances for the four sites. Our contractor is currently clearing the Buckwalter Spoil Site. The Live Oak timber salvage in cooperation with the Mystic Seaport Group from Boston is underway. The County Channel plans to do a documentary of this work.
2. Turtle Lane Paving on Lady's Island (stormwater add-on) (\$8,940 budget) – Plans are complete and currently submitted for needed construction permits.
3. Okatie West / SC 170 widening retrofit land purchase (land acquisition = \$160,415 budget, design and construction = \$915,000 budget) – Closing of the property still pending. The CWA (Clean Water Act) Section 319 grant was given preliminary award of \$200,000 subject to application revision. With the revisions, we could get an additional \$592,000 for the project. The revisions were submitted July 6 and we are awaiting review by DHEC.
4. Middleton Place subdivision on Hilton Head Island – Work on the easement by the ToHHI is ongoing. The County's portion of maintenance work has not begun.
5. Staff is working with Mr. Mike Zara, a landowner in the Sheldon area, and OCRM (Office of Coastal Resource Management) to resolve a ditch instability problem. Mr. Zara has asked for compensation for the easement. Staff is currently working on construction cost estimates so that we can respond to his attorney with our counteroffer.
6. Shell Point drainage issues. We continue to discuss the issues with stakeholder parties. However, no reportable action since last month.

Professional Contracts Report

1. Utility Rate Study – Work on the study is complete as of July 10th. During today's meeting, ATM will present to the Board the results of the rate study. Following this presentation, the staff and ATM team will be recommending a rate structure going forward for TY2015. Any change to the current rate structure will require a revision to the Stormwater Utility Ordinance and the proposed FY 16 budget. These readings will occur with the County Council in July and August, in time for the beginning of the yearly tax run.

2. Stormwater Management Plan (Master Plan) Update – The statements of qualifications were due July 2. We had 4 firms submit. The selection process will continue into August with a recommendation for approval coming to the Board during the August meeting.

Regional Coordination

1. Battery Creek Pond Funded by an EPA 319 Grant (\$132,609 budget – County Portion) – On going. DHEC and USACE (United States Army Corps of Engineers) permits are pending. Comments from USACE need to be addressed and may delay the project schedule if we cannot work through the issues. Our consultant is preparing a response with alternatives to be considered by the Corps.
2. May River Watershed Action Plan – The Pine Grove volume reduction project using CWA Section 319 grant dollars is on-going. The Stoney Creek watershed plan is on-going. The Town also applied for another EPA 319 grant as Phase III of their May River efforts. The initial grant application was declined and DHEC requested the Town revise the application and resubmit during the next round of grant funding later this year.
3. Salinity Study (\$25,000 budget – County Portion) - On going. Work will be wrapping up soon and a report will be delivered to the County later this year.
4. Sea Level Rise and Future Planning – Planning staff has presented the report to Administration for consideration. Mr. Kubic has asked staff to share the report with our municipal partners and discuss the study conclusions so that when the report is presented to the County Council, we can report on all county efforts and thoughts, not just the County Government's position.
5. Buckingham Plantation Drive Innovation District Conceptual Design Study (\$25,000 budget – SWU Portion) – Project is on hold pending funding to match the SWU portion.
6. Old Woodland Plantation Stormsewer System Repairs – (\$65,997) County's work is complete. The Town of Hilton Head Island is doing some additional work in the area. The County is assisting with an access easement acquisition. That easement was signed July 2.
7. SC 170 Widening – This project involves the widening to 4 lanes from US 278 south to SC 46 (May River Road). The project has an extensive stormwater infrastructure being built as part of the project. The Board will recall we conducted a conceptual study for the corridor last summer to determine locations for best management practices that could be built to compliment the project and improve water quality and reduce volume of runoff. An adjacent property owner has raised multiple concerns with the design and construction of the stormsewer system. The property owner has involved members of the County Council with his issues and asked them for assistance as well. Mr. Larson is working with the engineering staff, the consultant(s), utility providers having easements in the area, and the property owner to attempt to resolve the concerns.
8. City of Beaufort Stormwater Assistance MOU – The County Attorney is working with staff with the CoB to formalize the agreement to provide stormwater plan review to the City at no cost. The goal is to provide an understanding of workload time and cost, as well as provide some legal protection to the County when acting on behalf of the City.
9. Mr. Larson was asked by two different academic research teams to participate in Sea Level Rise grant projects being advertised by SeaGrant. After a discussion with Mr. Gary Kubic and Mr. Tony Criscitiello, it was decided that the County should not

participate in studies that might document a negative impact to our property values or infrastructure needs.

10. Whitehall Plantation Park and Regional Basin – Mr. Larson met with Mr. Steve Tulley, developer, and Mr. Andy Kinghorn representing the City of Beaufort. They want the County to consider supporting a regional stormwater basin for the project, the park, and the adjacent existing county development. Mr. Larson contacted Mr. Lamar Taylor with the City and advised him of the same. No action has been taken at this time. Mr. Larson will provide more updates in the future.



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July 6, 2015

May 2015 Stormwater Financials Narrative and Analysis

Since May is the 11th month of the fiscal year, one might expect expenses to be at 92% of budget based on consistent and recurring expenses and Stormwater is currently below this budget level at 79%.

The main source of revenues is from Stormwater Utility fees in property tax bills and this is about \$45,000 higher than in May 2014. It appears that more tax payments are being paid on time before the March 17th deadline as compared to this time last year.

With the recent addition of the Capital Improvement Fund, some Stormwater Utility Funds have been transferred for larger retrofit projects that might take several years to fund and to finish. Therefore, the Stormwater cash balance is now comprised of two cash balances. The Stormwater cash balance has decreased by about \$137,000 compared to last year, along with a decrease in fund balance by about \$214,000. The new Capital Improvement Fund was just getting started in Spring 2014.

Respectively submitted,

Alan R. Eisenman, CPA

102 Industrial Village Road, Building 2, Beaufort, SC 29906

"Professionally we serve; Personally we care!"

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF NET ASSETS
Stormwater Utility and Capital Improvement Funds
May 31, 2015 & May 31, 2014

	Stormwater Utility Fund May 31, 2015	Capital Improvements Fund May 31, 2015	Stormwater Utility Fund May 31, 2014	Capital Improvements Fund May 31, 2014
ASSETS				
Current Assets				
Cash and Investments with Trustee	\$ 2,294,840	\$ 435,564	\$ 2,058,200	\$ 809,813
Receivables, Net	24,934	-	79,823	-
Inventories	113,850	-	92,511	-
Prepayments	22,259	-	20,673	-
Total Current Assets	<u>2,455,883</u>	<u>435,564</u>	<u>2,251,207</u>	<u>809,813</u>
Capital Assets	3,140,834	-	2,855,317	-
Accumulated Depreciation	<u>(2,216,151)</u>	<u>-</u>	<u>(2,062,721)</u>	<u>-</u>
	924,683	-	792,596	-
Total Assets	<u>\$ 3,380,566</u>	<u>\$ 435,564</u>	<u>\$ 3,043,803</u>	<u>\$ 809,813</u>
LIABILITIES				
Liabilities				
Account Payable	95,655	423	56,975	-
Accrued Payroll	49,389	-	66,239	-
Accrued Compensated Absences	7,823	-	6,247	-
Total Current Liabilities	<u>152,867</u>	<u>423</u>	<u>129,461</u>	<u>-</u>
Long Term Liabilities				
Accrued Compensated Absences	65,978	-	55,379	-
Net Other Postemployment Benefits Obligation	<u>982,485</u>	<u>-</u>	<u>839,890</u>	<u>-</u>
Total Long Term Liabilities	1,048,463	-	895,269	-
Total Liabilities	1,201,330	423	1,024,730	-
NET ASSETS				
Invested in Capital Assets, Net of Related Debt	924,683	-	792,596	-
Reserved for Encumbrances	239,415	177,471	92,563	-
Reserved for Capital Improvements	-	257,670	-	809,813
Unrestricted	<u>1,015,138</u>	<u>-</u>	<u>1,133,914</u>	<u>-</u>
Total Net Assets	<u>\$ 2,179,236</u>	<u>\$ 435,141</u>	<u>\$ 2,019,073</u>	<u>\$ 809,813</u>

Unaudited and Preliminary
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
Stormwater Utility Fund
For the Period Ended May 31, 2015

	Budget FY 2015	May 31, 2015	Budget to Actual	Percent of Budget
Operating Revenues				
Stormwater Utility Fees	\$ 3,132,205	\$ 3,008,566	(123,639)	96%
Stormwater Utility Project Billings	44,189	70,484	26,295	160%
Total Operating Revenues	<u>3,176,394</u>	<u>3,079,050</u>	<u>(97,344)</u>	<u>97%</u>
Operating Expenses				
Personnel	2,261,074	1,876,757	(384,317)	83%
Purchased Services	684,864	462,067	(222,797)	67%
Supplies	362,409	234,539	(127,870)	65%
Depreciation	182,523	167,321	(15,202)	92%
Total Operating Expenses	<u>3,490,870</u>	<u>2,740,684</u>	<u>(750,186)</u>	<u>79%</u>
Operating Income (Loss)	(314,476)	338,366	652,842	-108%
Non-Operating Revenues (Expenses)				
Interest Earned	2,955	-	(2,955)	0%
Total Non-Operating Revenues (Expenses)	<u>2,955</u>	<u>-</u>	<u>(2,955)</u>	<u>0%</u>
Transfers Out To Capital Improvement Fund	-	12,365	12,365	100%
Change in Net Assets	(311,521)	326,001	637,522	-105%
Net Assets, Beginning	<u>1,853,235</u>	<u>1,853,235</u>		
Net Assets, Ending	<u>\$ 1,541,714</u>	<u>\$ 2,179,236</u>	637,522	141%

Unaudited and Preliminary
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
Stormwater Capital Improvements Fund
For the Period Ended May 31, 2015

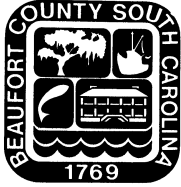
	Budget FY 2015	May 31, 2015	Budget to Actual	Percent of Budget
Transfers In from Stormwater Utility Fund				
Administration Complex Parking Lot Retrofit	\$ -	\$ -	-	0%
Okatie East Retrofit	-	-	-	0%
Highway 278 Retrofit	-	-	-	0%
Okatie West Retrofit	-	-	-	0%
Buckingham Plantation Retrofit	-	12,364	12,364	100%
Upper Battery Creek Retrofit	-	-	-	0%
Total Transfers In	<u>-</u>	<u>12,364</u>	<u>12,364</u>	<u>0%</u>
Capital Improvement Expenses				
Administration Complex Parking Lot Retrofit	-	302,250	302,250	100%
Okatie East Retrofit	-	5,337	5,337	100%
Highway 278 Retrofit	-	23,082	23,082	100%
Okatie West Retrofit	-	37,715	37,715	100%
Buckingham Plantation Retrofit	-	9,865	9,865	100%
Upper Battery Creek Retrofit	-	7,367	7,367	100%
Total Operating Expenses	<u>-</u>	<u>385,616</u>	<u>385,616</u>	<u>100%</u>
Change in Net Assets by Project				
Administration Complex Parking Lot Retrofit		(302,250)	(302,250)	
Okatie East Retrofit		(5,337)	(5,337)	
Highway 278 Retrofit		(23,082)	(23,082)	
Okatie West Retrofit		(37,715)	(37,715)	
Buckingham Plantation Retrofit		2,499	2,499	
Upper Battery Creek Retrofit		(7,367)	(7,367)	
Total Change in Net Assets by Project		<u>(373,252)</u>	<u>(373,252)</u>	
Net Assets, Beginning				
Administration Complex Parking Lot Retrofit		327,169		
Okatie East Retrofit		40,892		
Highway 278 Retrofit		207,722		
Okatie West Retrofit		100,000		
Buckingham Plantation Retrofit		-		
Upper Battery Creek Retrofit		132,610		
Total Net Assets, Beginning		<u>808,393</u>		
Net Assets, Ending				
Administration Complex Parking Lot Retrofit		24,919		
Okatie East Retrofit		35,555		
Highway 278 Retrofit		184,640		
Okatie West Retrofit		62,285		
Buckingham Plantation Retrofit		2,499		
Upper Battery Creek Retrofit		125,243		
Total Net Assets, Ending	<u>\$ -</u>	<u>\$ 435,141</u>		

Unaudited and Preliminary
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
Stormwater Utility Fund
For the Period Ended May 31, 2014

	Budget FY 2014	May 31, 2014	Budget to Actual	Percent of Budget
Operating Revenues				
Stormwater Utility Fees	\$ 3,475,000	\$ 2,963,097	(511,903)	85%
Stormwater Utility Project Billings	60,023	110,272	50,249	184%
Total Operating Revenues	<u>3,535,023</u>	<u>3,073,369</u>	<u>(461,654)</u>	<u>87%</u>
Operating Expenses				
Personnel	2,166,552	1,745,762	(420,790)	81%
Purchased Services	956,828	526,993	(429,835)	55%
Supplies	380,405	300,501	(79,904)	79%
Depreciation	242,119	228,369	(13,750)	94%
Total Operating Expenses	<u>3,745,904</u>	<u>2,801,625</u>	<u>(944,279)</u>	<u>75%</u>
Operating Income (Loss)	(210,881)	271,744	482,625	-129%
Non-Operating Revenues (Expenses)				
Gain (Loss) on Sale of Capital Assets	-	(35,627)	(35,627)	-100%
Interest Earned	6,922	-	(6,922)	0%
Total Non-Operating Revenues (Expenses)	<u>6,922</u>	<u>(35,627)</u>	<u>(42,549)</u>	<u>0%</u>
Transfers Out To Capital Improvement Fund	-	859,705	859,705	0%
Change in Net Assets	(203,959)	(623,588)	(419,629)	306%
Net Assets, Beginning	<u>2,642,661</u>	<u>2,642,661</u>		
Net Assets, Ending	<u>\$ 2,438,702</u>	<u>\$ 2,019,073</u>	(419,629)	83%

Unaudited and Preliminary
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
Stormwater Capital Improvements Fund
For the Period Ended May 31, 2014

	Budget FY 2014	May 31, 2014	Budget to Actual	Percent of Budget
Transfers In from Stormwater Utility Fund				
Administration Complex Parking Lot Retrofit	\$ -	\$ 329,650	329,650	100%
Okatie East Retrofit	-	60,237	60,237	100%
Highway 278 Retrofit	-	222,600	222,600	100%
Okatie West Retrofit	-	100,000	100,000	100%
Buckingham Plantation Retrofit	-	-	-	0%
Upper Battery Creek Retrofit	-	147,218	147,218	100%
Total Transfers In	-	859,705	859,705	0%
Capital Improvement Expenses				
Administration Complex Parking Lot Retrofit	-	2,481	2,481	100%
Okatie East Retrofit	-	17,925	17,925	100%
Highway 278 Retrofit	-	14,878	14,878	100%
Okatie West Retrofit	-	-	-	0%
Buckingham Plantation Retrofit	-	-	-	0%
Upper Battery Creek Retrofit	-	14,608	14,608	100%
Total Operating Expenses	-	49,892	49,892	100%
Change in Net Assets by Project				
Administration Complex Parking Lot Retrofit		327,169	327,169	
Okatie East Retrofit		42,312	42,312	
Highway 278 Retrofit		207,722	207,722	
Okatie West Retrofit		100,000	100,000	
Buckingham Plantation Retrofit		-	-	
Upper Battery Creek Retrofit		132,610	132,610	
Total Change in Net Assets by Project		809,813	809,813	
Net Assets, Beginning				
Administration Complex Parking Lot Retrofit		-		
Okatie East Retrofit		-		
Highway 278 Retrofit		-		
Okatie West Retrofit		-		
Buckingham Plantation Retrofit		-		
Upper Battery Creek Retrofit		-		
Total Net Assets, Beginning		-		
Net Assets, Ending				
Administration Complex Parking Lot Retrofit		327,169		
Okatie East Retrofit		42,312		
Highway 278 Retrofit		207,722		
Okatie West Retrofit		100,000		
Buckingham Plantation Retrofit		-		
Upper Battery Creek Retrofit		132,610		
Total Net Assets, Ending	\$ -	\$ 809,813		



MEMORANDUM

Date: July 15, 2015

To: Stormwater Management Utility Board

From: Eddie Bellamy, Public Works Director

Re: **Maintenance Project Report for July 2015**

1. This report will cover 12 minor or routine projects. The Project Summary Reports are attached.

2. Minor or Routine Projects:

- A. **Rose Island Drive**, completed in April on St. Helena Island, District 8; we cleaned out 1,258 feet of roadside ditch and jetted two crossline pipes and four driveway pipes.
- B. **Johnson Landing Road**, completed in April in District 7; we installed a driveway pipe.
- C. **Rue Du Bois, Channel #1**, completed in April in District 7; we cleaned out 140 feet of channel.
- D. **Storyteller Road Channel**, completed in April in District 8, we reconstructed 280 feet of swale and installed a bleeder pipe.
- E. **Oak View Drive Channel #1**, completed in April in the Burton area of District 6; we Shinn Cut and reconstructed 600 feet of channel and workshelf. We also removed 20 feet of damaged channel pipe and jetted another 40 feet. We hydroseeded for erosion control.
- F. **Sheldon Bush Hog**, completed in May in District 5; we bush hogged 128,873 feet of channel and associated workshelves. Total cost was **\$69,298** or **\$.54** per foot.
- G. **Cherokee Farms Road Channel #1**, completed in May in District 6; we cleaned out 490 feet of channel.
- H. **Clydesdale Circle**, completed in May in the Burton area of District 6; we cleaned out one catch basin and 50 feet of roadside ditch, repaired a sinkhole, and jetted one driveway pipe, one crossline pipe, and 140 feet of channel pipe.
- I. **Laurel Street West**, completed in May in District 6; we cleaned out 1,201 feet of roadside ditch.
- J. **View Point Circle**, completed in May in District 8; we replaced a driveway pipe.
- K. **Orange Grove Road**, completed in May in District 8; we installed one access pipe and rip rap for erosion control.
- L. **Patchwork Lane**, completed in May on Warsaw Island in District 8; we cleaned out 600 feet of channel and constructed a flume for runoff.



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Rose Island Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 1,258 L.F. of drainage system. Cleaned out 1,258 L.F. of roadside ditch. Jetted (2) crossline pipes and (4) driveway pipes.

Completion: May-15

2015-574 / Rose Island Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
CCO / Channel - cleaned out	24.0	\$526.20	\$71.13	\$16.52	\$0.00	\$350.22	\$964.07
DPJT / Driveway Pipe - Jetted	14.0	\$307.08	\$78.12	\$35.49	\$0.00	\$204.45	\$625.14
HAUL / Hauling	26.0	\$562.38	\$207.74	\$129.39	\$0.00	\$374.92	\$1,274.43
ONJV / Onsite Job Visit	11.0	\$398.25	\$39.18	\$21.23	\$0.00	\$297.64	\$756.30
RSDCL / Roadside Ditch - Cleanout	70.0	\$1,537.80	\$253.73	\$52.28	\$0.00	\$1,021.50	\$2,865.31
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-574 / Rose Island Drive Sub Total	146.0	\$3,353.34	\$649.90	\$254.90	\$0.00	\$2,261.96	\$6,520.10
Grand Total	146.0	\$3,353.34	\$649.90	\$254.90	\$0.00	\$2,261.96	\$6,520.10

Before



During



After





Project: Rose Island Road Map 1

Activity: Routine/
Preventive
Maintenance

Project #:
2015-574

Township: St.
Helena Island

Completed:
May 2015

Cleaned out 1,163
LF of roadside ditch.

Cleaned out 95 LF
of roadside ditch.

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 145 feet

Project: Rose Island Road Map 2

Activity: Vacuum Truck

**Project #:
2015-574**

Township: St. Helena Island

**Completed:
May 2015**



Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 145 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Johnson Landing Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Installed (1) driveway pipe.

Completion: Apr-15

2015-602 / Johnson Landing Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
DPINS / Driveway Pipe - Installed	25.0	\$530.30	\$68.66	\$251.26	\$0.00	\$348.00	\$1,198.22
HAUL / Hauling	10.0	\$216.30	\$79.90	\$89.31	\$0.00	\$144.20	\$529.71
ONJV / Onsite Job Visit	3.0	\$99.54	\$10.62	\$7.72	\$0.00	\$73.41	\$191.29
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-602 / Johnson Landing Road Sub Total	39.0	\$867.77	\$159.18	\$348.29	\$0.00	\$578.84	\$1,954.08
Grand Total	39.0	\$867.77	\$159.18	\$348.29	\$0.00	\$578.84	\$1,954.08

Before



During



After



**Project: Johnson
Landing Road**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-602**

**Township: Lady's
Island**

**Completed:
April 2015**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

Installed (1)
driveway pipe.

JOHNSON LANDING RD



1 inch = 84 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Rue Du Bois Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 140 L.F. of drainage system. Cleaned out 140 L.F. of channel.

Completion: Apr-15

2015-608 / Rue Du Bois Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
CCO / Channel - cleaned out	20.0	\$456.15	\$50.96	\$11.35	\$0.00	\$292.05	\$810.51
DEBREM / Debris Removal - Jobsite	4.0	\$89.36	\$7.08	\$13.51	\$0.00	\$59.82	\$169.77
HAUL / Hauling	20.0	\$432.60	\$119.85	\$110.18	\$0.00	\$288.40	\$951.03
ONJV / Onsite Job Visit	5.0	\$132.90	\$17.70	\$7.72	\$0.00	\$93.60	\$251.92
2015-608 / Rue Du Bois Channel #1 Sub Total	49.5	\$1,122.41	\$195.59	\$142.76	\$0.00	\$740.48	\$2,201.24
Grand Total	49.5	\$1,122.41	\$195.59	\$142.76	\$0.00	\$740.48	\$2,201.24

Before



During



After



Project: Rue Du Bois Channel #1

**Activity: Routine/
Preventive
Maintenance**





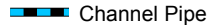



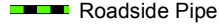

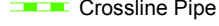

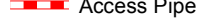

**Project #:
2015-608**

**Township: Lady's
Island**

**Completed:
April 2015**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 93 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Storyteller Road Channel

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 280 L.F. of drainage system. Reconstructed 280 L.F. of swale. Installed (1) bleeder pipe.

Completion: Apr-15

2015-612 / Storyteller Road Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
HAUL / Hauling	7.0	\$151.41	\$55.93	\$68.90	\$0.00	\$100.94	\$377.18
ONJV / Onsite Job Visit	2.0	\$66.36	\$7.08	\$7.72	\$0.00	\$48.94	\$130.10
SREC / Swale - Reconstructed	40.0	\$879.50	\$157.04	\$136.39	\$0.00	\$585.80	\$1,758.73
2015-612 / Storyteller Road Channel Sub Total	49.5	\$1,108.67	\$220.05	\$213.01	\$0.00	\$742.30	\$2,284.02
Grand Total	49.5	\$1,108.67	\$220.05	\$213.01	\$0.00	\$742.30	\$2,284.02

Before



During



After



Project: Storyteller Road Channel

Activity: Routine/ Preventive Maintenance










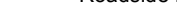
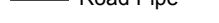
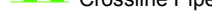
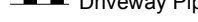

Project #: 2015-612

Township: St. Helena Island

Completed: April 2015

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Installed (1) bleeder pipe.

Reconstructed 280 LF of swale.

JACK JOHNSON DR

ROSA CIR

STORYTELLER RD



1 inch = 166 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Oak View Drive Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 600 L.F. of drainage system. Shinn cut and reconstructed 600 L.F. of channel and workshelf. Removed 20 L.F. of damaged channel pipe. Jetted 40 L.F. channel pipe. Hydroseeded for erosion control.

Completion: Apr-15

2015-614 / Oak View Drive Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
BW / Bobcat Work	9.0	\$195.48	\$59.05	\$4.54	\$0.00	\$129.42	\$388.49
CCO / Channel - cleaned out	82.0	\$1,771.56	\$575.80	\$102.08	\$0.00	\$1,013.24	\$3,462.68
CPJ / Channel Pipe - Jetted	4.0	\$89.36	\$17.36	\$18.66	\$0.00	\$59.82	\$185.20
HAUL / Hauling	38.0	\$821.94	\$303.62	\$157.40	\$0.00	\$547.96	\$1,830.92
HYDR / Hydroseeding	30.0	\$663.20	\$90.69	\$176.99	\$0.00	\$441.60	\$1,372.48
ONJV / Onsite Job Visit	17.0	\$523.98	\$60.18	\$27.02	\$0.00	\$341.11	\$952.29
PL / Project Layout	1.0	\$44.27	\$3.62	\$1.93	\$0.00	\$33.96	\$83.78
STAGING / Staging Materials	11.5	\$258.91	\$97.22	\$38.60	\$0.00	\$173.66	\$568.39
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
WSDR / Workshelf - Dressed	8.0	\$178.80	\$56.56	\$27.24	\$0.00	\$119.64	\$382.24
WSSHN / Workshelf - Shinn cut	29.0	\$636.62	\$247.35	\$86.26	\$0.00	\$422.88	\$1,393.11
2015-614 / Oak View Road Channel #1 Sub Total	230.5	\$5,205.75	\$1,511.45	\$640.72	\$0.00	\$3,296.52	\$10,654.43
Grand Total	230.5	\$5,205.75	\$1,511.45	\$640.72	\$0.00	\$3,296.52	\$10,654.43

Before



During



After



**Project: Oak View Drive Channel #1
Map 1**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-614**

**Township: Port
Royal Island**

**Completed:
May 2015**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 127 feet

**Project: Oak View Drive Channel #1
Map 2**

Activity: Vacuum Truck















**Project #:
2015-614**

**Township: Port
Royal Island**

**Completed:
May 2015**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Removed 20 LF of
damaged channel
pipe.

Jetted 40 LF of
channel pipe.



1 inch = 127 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Sheldon Bush Hog

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: May-15

3rd Rotation from January 2015 to May 2015. Project improved 128,873 L.F. of drainage system.

Bush hogged 128,873 L.F. of channel. This project consisted the following areas: Sheldon Drop Off Center (480 L.F.), Johnson Road (2,245 L.F.), Archie Sumpter Road (2,943 L.F.), Cuthbert Farm Road (890 L.F.), Fire Station Lane (939 L.F.), George Williams Lane (3,121 L.F.), William Campbell Road (1,625 L.F.), Paige Point Road (577 L.F.), Mitchell Road (4,868 L.F.), Priester Road (1,470 L.F.), Robinson Hill Road (672 L.F.), Huspah Court South (2,313 L.F.), Huspah Court North (784 L.F.), Huspah Drive (885 L.F.), Nix Road (1,076 L.F.), Bailey Road (1,147 L.F.), Prescott Road (1,271 L.F.), African Baptist Church Road (2,499 L.F.), 2,499 L.F.), Horse Tail Road (3,261 L.F.), Joseph Lane (1,459 L.F.), Newberry Circle (1,050 L.F.), Big Estate Road (2,022 L.F.), Albertha Fields Circle (2,073 L.F.), Swallowtail Lane (1,000 L.F.), Gray Road (1,332 L.F.), Big Estate Circle (1,692 L.F.), Jenkins Road (635 L.F.), Stroban Road (2,982 L.F.), Horace Dawson Lane (6,961 L.F.), Dean Hall Road (348 L.F.), River Oaks Road (4,890 L.F.), Seigler Road (475 L.F.), Jasmine Hall Road (16,782 L.F.), Lightsey Road (4,431 L.F.), Spann Circle (1,790 L.F.), Oakhurst Road (1,760 L.F.), Coakley Drive (684 L.F.), Coker Lane (1,296 L.F.), Keans Neck Road (845 L.F.), Middlefield Circle (2,723 L.F.), Hunt Ter (2,719 L.F.), Gum Tree Lane (4,704 L.F.) Browns Island Road (3,347 L.F.), Stroup Road (1,838 L.F.), Mount Pisgah Church Road (650 L.F.), Honeybee Island Road (816 L.F.), Wimbee Landing Road (18,770 L.F.) and Old Dawson Acres (5,733 L.F.)

2015-303B / Sheldon Bush Hog	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$22.79	\$0.00	\$0.00	\$0.00	\$13.23	\$36.02
CBH / Channel- bushhogged	1,224.5	\$25,340.65	\$23,253.54	\$2,981.80	\$0.00	\$17,366.77	\$68,942.76
ONJV / Onsite Job Visit	5.0	\$165.90	\$17.94	\$13.51	\$0.00	\$122.35	\$319.70
2015-303B / Sheldon Bush Hog Sub Total	1,230.5	\$25,529.34	\$23,271.48	\$2,995.31	\$0.00	\$17,502.35	\$69,298.48
Grand Total	1,230.5	\$25,529.34	\$23,271.48	\$2,995.31	\$0.00	\$17,502.35	\$69,298.48

Before



During



After





Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Cherokee Farms Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 490 L.F. of drainage system. Cleaned out 490 L.F. of channel.

Completion: May-15

2015-555 / Cherokee Farms Rd Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
CCO / Channel - cleaned out	30.0	\$708.90	\$154.68	\$22.93	\$0.00	\$452.85	\$1,339.36
HAUL / Hauling	8.5	\$183.86	\$67.92	\$38.59	\$0.00	\$122.57	\$412.93
ONJV / Onsite Job Visit	4.0	\$132.72	\$14.16	\$9.65	\$0.00	\$97.88	\$254.41
2015-555 / Cherokee Farms Rd Ch #1	43.0	\$1,036.87	\$236.76	\$71.17	\$0.00	\$679.91	\$2,024.71
Sub Total							
Grand Total	43.0	\$1,036.87	\$236.76	\$71.17	\$0.00	\$679.91	\$2,024.71

Before



After



Project: Cherokee Farms Road

Activity: Routine/ Preventive Maintenance

Project #: 2015-555

Township: Port Royal Island

Completed: May 2015



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 95 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Clydesdale Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: May-15

Project improved 190 L.F. of drainage system. Cleaned out (1) catch basin and 50 L.F. of roadside ditch. Repaired sinkhole. Jetted (1) driveway pipe, (1) crossline pipe and 140 L.F. of channel pipe.

2015-586 / Clydesdale Circle	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
BKFILL / Back Fill	9.0	\$198.96	\$90.14	\$4.54	\$0.00	\$132.48	\$426.12
CBCO / Catch basin - clean out	6.0	\$134.04	\$26.04	\$23.62	\$0.00	\$89.73	\$273.43
CBREP / Catch basin - repaired	35.0	\$777.20	\$75.16	\$40.19	\$0.00	\$519.65	\$1,412.20
DPJT / Driveway Pipe - Jetted	12.0	\$268.08	\$52.08	\$26.35	\$0.00	\$179.46	\$525.97
HAUL / Hauling	15.0	\$324.45	\$119.85	\$67.75	\$0.00	\$216.30	\$728.35
ONJV / Onsite Job Visit	5.0	\$170.31	\$17.78	\$15.44	\$0.00	\$119.36	\$322.89
PRRECON / Project Reconnaissance	3.0	\$110.63	\$10.70	\$5.79	\$0.00	\$82.90	\$210.02
SR / Sinkhole repair	12.0	\$260.64	\$35.36	\$13.62	\$0.00	\$172.56	\$482.18
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-586 / Clydesdale Circle Sub Total	98.0	\$2,265.94	\$427.11	\$197.30	\$0.00	\$1,525.67	\$4,416.01
Grand Total	98.0	\$2,265.94	\$427.11	\$197.30	\$0.00	\$1,525.67	\$4,416.01

Before



During



After



Project: Clydesdale Circle Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2015-586

Township: Port Royal Island

Completed: April 2015



1 inch = 83 feet

Project: Clydesdale Circle Map 2

Activity: Vacuum Truck

Project #: 2015-586

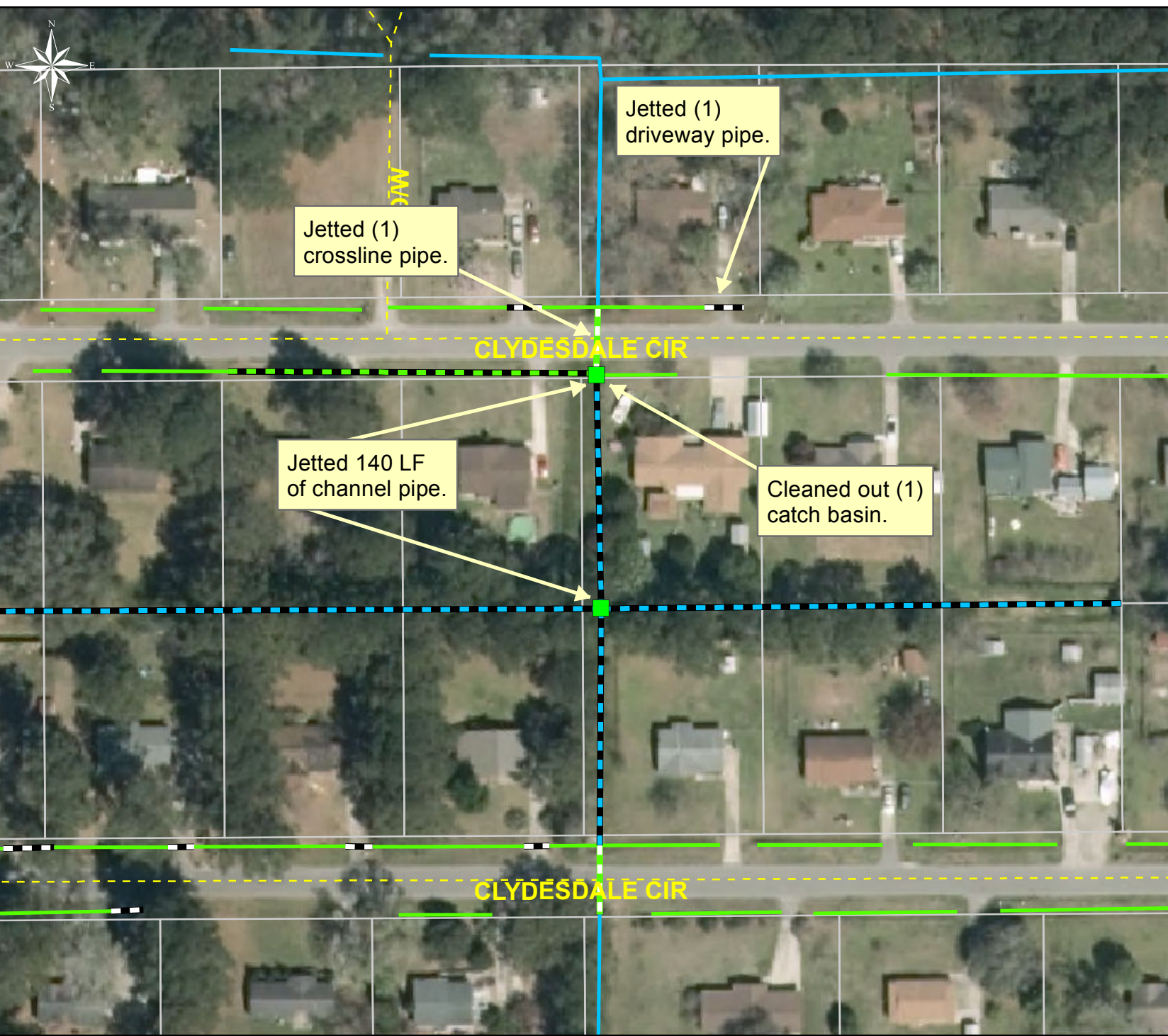
Township: Port Royal Island

Completed: April 2015

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 83 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Laurel Street West

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 1,201 L.F. of drainage system. Cleaned out 1,201 L.F. of roadside ditch.

Completion: May-15

2015-600 / Laurel Street West	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
DPJT / Driveway Pipe - Jetted	4.0	\$89.36	\$17.36	\$14.37	\$0.00	\$59.82	\$180.91
HAUL / Hauling	18.0	\$389.34	\$143.82	\$36.32	\$0.00	\$259.56	\$829.04
ONJV / Onsite Job Visit	6.0	\$196.81	\$21.32	\$13.51	\$0.00	\$131.35	\$362.99
RSDCL / Roadside Ditch - Cleanout	73.0	\$1,582.69	\$233.56	\$90.12	\$0.00	\$1,046.73	\$2,953.09
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-600 / Laurel Street West Sub Total	102.0	\$2,279.83	\$416.06	\$154.32	\$0.00	\$1,510.69	\$4,360.89
Grand Total	102.0	\$2,279.83	\$416.06	\$154.32	\$0.00	\$1,510.69	\$4,360.89

Before



During



After



Project: Laurel Street West Map 1

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-600**

**Township: Port
Royal Island**

**Completed:
May 2015**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 125 feet

Project: Laurel Street West Map 2

Activity: Vacuum Truck















Project #: 2015-600

Township: Port Royal Island

Completed: May 2015

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 125 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: View Point Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Replaced (1) driveway pipe.

Completion: May-15

2015-613 / View Point Circle	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
DPRPL / Driveway Pipe - Replaced	40.0	\$865.30	\$85.29	\$268.14	\$0.00	\$571.80	\$1,790.53
DWASPH / Driveway - Asphalt	24.0	\$543.72	\$28.32	\$27.24	\$0.00	\$353.28	\$952.56
HAUL / Hauling	14.0	\$302.82	\$111.86	\$830.88	\$0.00	\$201.88	\$1,447.44
ONJV / Onsite Job Visit	12.0	\$442.52	\$42.80	\$21.23	\$0.00	\$331.60	\$838.15
PI / Project Inspection	2.0	\$88.54	\$7.24	\$5.79	\$0.00	\$67.92	\$169.49
PL / Project Layout	1.0	\$44.27	\$3.62	\$3.86	\$0.00	\$33.96	\$85.71
PP / Project Preparation	26.0	\$564.79	\$24.78	\$13.51	\$0.00	\$373.80	\$976.88
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-613 / View Point Circle Sub Total	120.0	\$2,873.59	\$303.91	\$1,170.65	\$0.00	\$1,947.47	\$6,295.61
Grand Total	120.0	\$2,873.59	\$303.91	\$1,170.65	\$0.00	\$1,947.47	\$6,295.61

Before



During



After



SPRIT ISLAND DR



Project: View Point Circle

Activity: Routine/ Preventive Maintenance

Project #: 2015-613

Township: St. Helena Island















Completed: May 2015

VIEW POINT CIR

Replaced (1) driveway pipe.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 77 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Orange Grove Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Installed (1) access pipe and rip rap for erosion control.

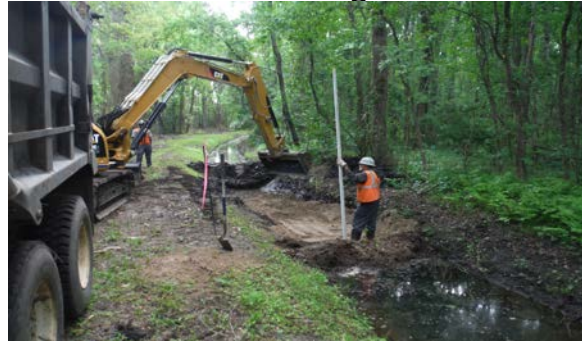
Completion: May-15

2015-617 / Orange Grove Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	50.0	\$1,154.70	\$96.22	\$430.22	\$0.00	\$750.90	\$2,432.04
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
HAUL / Hauling	20.0	\$432.60	\$159.80	\$491.20	\$0.00	\$288.40	\$1,372.00
ONJV / Onsite Job Visit	11.0	\$328.24	\$38.94	\$17.37	\$0.00	\$200.53	\$585.08
2015-617 / Orange Grove Road Sub Total	81.5	\$1,926.94	\$294.96	\$938.80	\$0.00	\$1,246.45	\$4,407.14
Grand Total	81.5	\$1,926.94	\$294.96	\$938.80	\$0.00	\$1,246.45	\$4,407.14

Before



During



After



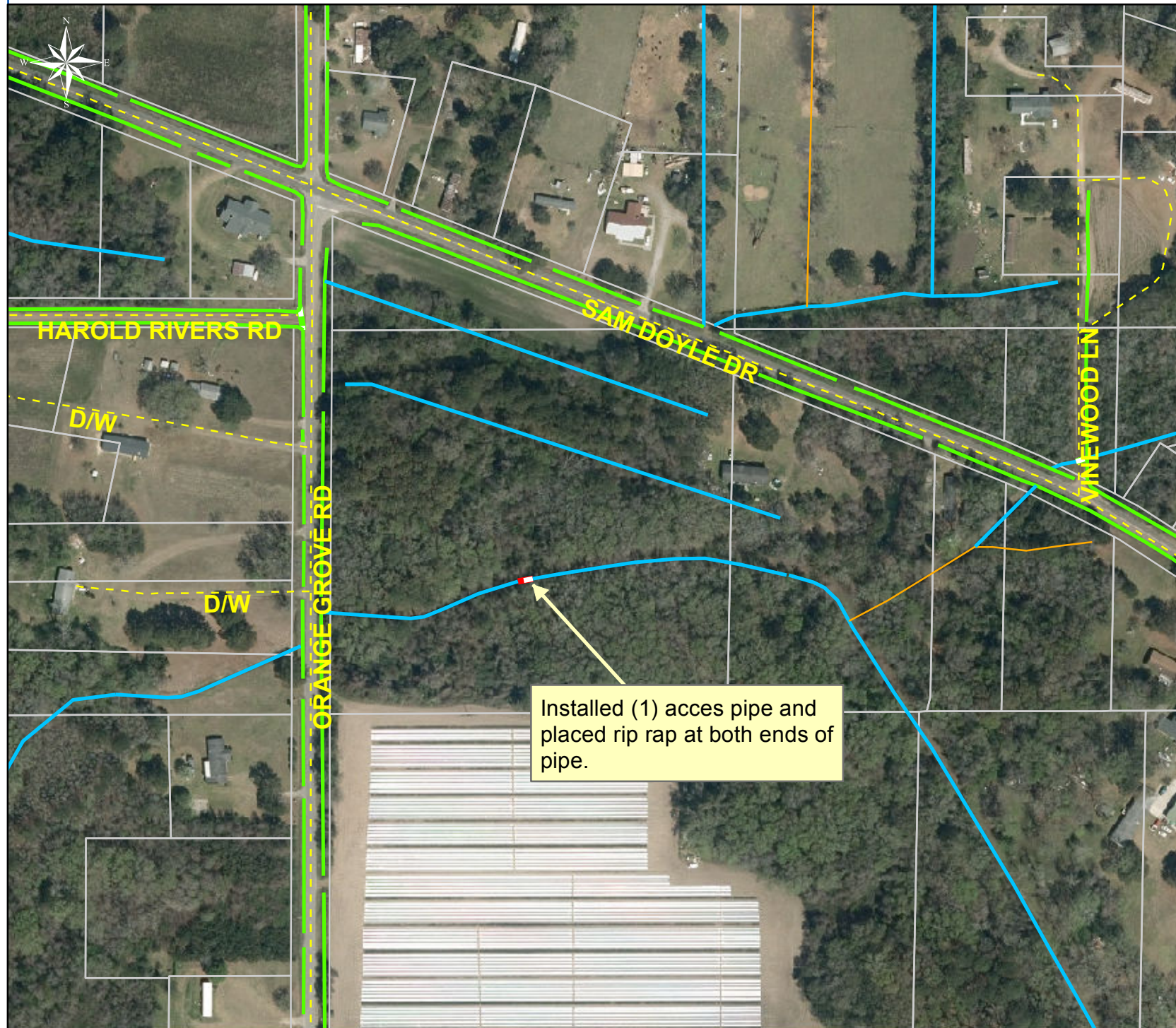
Project: Orange Grove Road

Activity: Routine/ Preventive Maintenance

Project #: 2015-617

Township: St. Helena Island

Completed: May 2015



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 233 feet

Prepared By: BC Stormwater Management Utility

Date Print: 6/17/15

File:C:/sethdata/projects/projectmaps/Orange Grove Rd 2015-617



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Patchwork Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 600 L.F. of drainage system. Cleaned out 600 L.F. of channel. Constructed a flume for runoff.

Completion: May-15

2015-621 / Patchwork Lane	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.40	\$0.00	\$0.00	\$0.00	\$6.62	\$18.01
CCO / Channel - cleaned out	39.0	\$834.58	\$277.50	\$60.51	\$0.00	\$563.08	\$1,735.66
FC / Flume - Constructed	12.0	\$271.86	\$14.16	\$27.24	\$0.00	\$176.64	\$489.90
HAUL / Hauling	14.0	\$302.82	\$111.86	\$149.10	\$0.00	\$201.88	\$765.66
ONJV / Onsite Job Visit	2.0	\$63.02	\$7.08	\$7.72	\$0.00	\$42.70	\$120.52
TRAIN / Training	6.0	\$159.48	\$21.24	\$7.72	\$0.00	\$112.32	\$300.76
2015-621 / Patchwork Lane Sub Total	73.5	\$1,643.15	\$431.84	\$252.29	\$0.00	\$1,103.23	\$3,430.51
Grand Total	73.5	\$1,643.15	\$431.84	\$252.29	\$0.00	\$1,103.23	\$3,430.51

Before



During



After





Project: Patchwork Lane

Activity: Routine/ Preventive Maintenance

Project #: 2015-621

Township: St. Helena Island

Completed: May 2015



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 125 feet