



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, March 14, 2018
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
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 – February 14, 2018 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Proposed Budget for FY19 – Eric Larson ([backup](#))
 - B. Special Presentation – Lowcountry Stormwater Partners Presentation – Ellen Comeau, Clemson Extension
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. April 11, 2018 ([backup](#))
9. ADJOURNMENT



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

February 14, 2018 at 2:00 p.m. in Executive Conference Room, Administration Building, Beaufort County Government Robert Smalls Complex, 100 Ribaut Road, Beaufort, South Carolina

Draft Minutes 02/28/2018

Board Members

Present

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

Absent

Beaufort County Staff

Eric Larson
Melissa Allen
Patty Wilson
Andrea Atherton

Ex-Officio Members

Present

Kim Jones

Absent

Van Willis
Andy Kinghorn
Scott Liggett

Visitors

Alan Warren, USCB Lab
Alice Howard, County Council
Ellen Comeau, Clemson Extension
Eric Hoover, Ward Edwards

1. Meeting called to order – Don Smith

- A. Agenda – Approved.
- B. January 10, 2018 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Reports – Mr. Eric Larson and Mr. David Wilhelm provided a written report which is included in the posted 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/2018/021418.pdf>

A. Utility Update – Eric Larson

In reference to item #3, staff reorganization, Mr. Larson explained that regulatory staff will now be reporting directly to him. Plan review (which was handled by the MS4 Coordinator) has been redistributed to a Public Works Engineer and a member in Community Development, allowing the MS4 Coordinator to focus on inspections.

In reference to Mr. Don Smith's question asking if the County is looking for a new Coordinator, Mr. Larson responded that Stormwater is actively advertising for that position and two stormwater inspectors.

Mr. Larson explained that he will not make the deadline for the Management Fee recommendation to the SWIC and has communicated this to them.

Mr. Smith asked how the presentation for regionalization went. Mr. Larson expressed it was well received and it was a priority topic during the County Council retreat; it is gaining momentum. The technical subcommittee will be meeting next week to work on the regional standard and mission statement.

Mr. Marc Feinberg asked about the Northern Regional Committee. Mr. Larson explained there has been Northern and Southern Plan Committees for years, but they are more of planning and zoning function and that the Northern committee has been very active. The SoLoCo committee was not, and this is like a rebirth of the group and they have also expanded their focus.

B. Monitoring Update – Eric Larson

Please reference the report which is included in the posted agenda. No additional updates.

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

The SWIC has not met since the last board meeting.

D. Stormwater Related Projects – Eric Larson

Mr. Larson provided an update on item 1, Okatie West Project, indicating that the contract was awarded and construction will begin soon. An error in the bid amount listed in the report was discovered during the board meeting. Correction to report - R. B. Baker Construction bid was not \$99,305, it was \$993,050.

In reference to item 4, Jenkins Island US278 widening, there is opposition to bioswales, as SCDOT does not want to accept responsibility and maintenance of them. They will be going back to the drawing board for BMP's and will likely do something more mechanical and engineered.

E. Professional Contracts Report – Eric Larson

Please reference the report which is included in the posted agenda. No additional updates.

F. Regional Coordination – Eric Larson

In reference to #5, Mr. Larson mentioned that the SESWA Regional Conference will be held in Hilton Head this fall and the host community will be looking for a field trip opportunity.

In reference to Academy Park, the project will be going to SRT in a few weeks.

G. Municipal Reports – Eric Larson

Ms. Kim Jones indicated the Town of Bluffton is still chasing failing septic systems. USCB came to the Town with a proposal to amend the current water quality contract by \$25,000 for the development of primers for microbial source tracking. This proposal was approved Tuesday night by their Council. This will cut down the turnaround time on source tracking to same day and they will be able to pinpoint failing systems. She expressed this

will be a big benefit to have this technology developed locally; which is handheld through an iPhone.

In response to Mr. Larry Meisner's question asking if the owner is required to repair, Ms. Jones explained it depends on where the system is located (jurisdiction, as well as work with DHEC), the Town would have to work with them to get into compliance, either through remediation or connection to sanitary sewer. The sanitary sewer ordinance requires mandatory hook up if a property owner is within 300 feet of sanitary sewer and has a failing septic system. In response to a question about the cost, Ms. Jones explained it could be several thousand (\$4-\$7k) to hook up, but if a grinder pump is needed because the property is against gravity it could cost possibly be \$30-\$40k. She noted that in the ordinance there are financial hardship allowances and that the watershed advisory committee will be going through and reviewing the ordinance over the next few months.

In response to Mr. Don Smith asking if there are any septic systems near 46, Mr. Larson indicated there are a few along Goethe Road near SC 46 that are still on septic systems.

Mr. Larson shared a report under City of Beaufort's update. The task force (DOT, Town of PR, School, County and City) is doing a watershed wide engineering study to come up with short and long term solutions to solve flooding problems and to prepare for grants later in the year. The County prepared an analysis by impervious area versus gross area, which is what the City proposed, as a method to determine shared costs. The proposals are out of the technical hands into the political hands. Mr. Larson noted that they want this to succeed to prove that regionalization works. The cost estimate for Phase 1, Initial Conceptual, is \$236,000. Cost estimates have not been prepared for Phase 2 Design/Bid, Phase 3 – Construction, or Phase 4 – Consultant Supervision. He expressed that this could potentially be a \$3-\$4 million project, so it is important to establish the methodology of sharing the project early on.

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

Mr. Larson noted that the inspection reports/charts are showing a rolling twelve months and that staff is working on the vertical scales, since the number of inspections exceed enforcement.

Mr. Smith asked about the inspections. Mr. Larson indicated they are for erosion control on issued stormwater permit. A permit is needed for anything over 5,000 square feet, anything within ½ mile of water body or anything that is part of Larger Common Plan. The inspectors try to inspect each permit monthly. Mr. Larson explained the County is in an education phase, which is why violations are low and over time this will shift, as DHEC will expect the County to be more of an enforcement program.

Mr. Marc Feinberg asked about County and DHEC approval. Mr. Larson replied that the County is the first line issuing a local permit, then the applicant submits to DHEC with a copy of the County approved permit. DHEC reserves the right for full review and if they did review a project and found something they didn't like, they would likely send back corrective action to applicant and the County. In South Carolina, DHEC has not allowed the MS4 to be the one and only permitting for their jurisdiction, so there are two permits required for the same project.

Mr. Smith asked if Beaufort County is more stringent with BMP's. Mr. Larson replied that in most cases the County is and explained that DHEC has a different water quality volume standard, so the County has to look for that calculation during their review.

In response to question about inspections, Mr. Larson replied that the County does inspections on both commercial and residential because they are issuing permits for both.

In reference to item #7, the street sweeper is ready to be ordered [pending County Council final approval]. The plan is to use it on Buckwalter and Bluffton Parkway (currently contracted for quarterly sweeps) and use it on facility parking lots, as well as a few other hot spots to remove pollutants before they enter the stormsewer system.

I. Maintenance Projects Report – David Wilhelm

Please reference the report which is included in the posted agenda. No additional updates.

Mr. Larry Meisner commented that the first minor project (Bush Hog) doesn't look like minor. Mr. Larson replied that is because it is considered routine maintenance and they covered a lot of workshelves in that area.

Mr. Smith asked about the VacTruck and if the County has noticed any change in the volume (of material) that is found in the system. Mr. Larson said that truck is used on a lot of systems that have never been maintained since the truck was purchased and some that have been, so it varies.

5. Unfinished Business

A. Update on Bessie Lane Easement Acquisition – Met with Council Member [Mr. Gerald Dawson] and they are actively engaged, working to make contact property owners.

B. Update on Orange Grove Easement Acquisition - Met with Council Member [Mr. York Glover] and they are actively engaged, working to make contact property owners.

C. Mr. Smith asked if Mr. Larson had a chance to look into the Super Fund Sites. Mr. Larson replied that he had not. A brief discussion took place about sites in Gray's Hill and Lobeco between Mr. Smith and Mr. Patrick Mitchell.

6. New Business –

A. Special Presentation - Animal Services Center Stormwater Design – Mr. Eric Hoover, site Engineer, with Ward Edwards Engineering presented the stormwater design of the Beaufort County Animal Services site. He provided an overview of the site, indicating the Animal Services Center is on a 6.3 acre site, which was subdivided from a 97 acre site which is located off of HWY170, Rivers End property. There are wetlands to the North and South of the site, but there will be no impact to them as there is a 50 foot buffer. The elevation of the site was raised from 17 feet to 22 feet to match the elevation of HWY 170.

The Geotechnical engineer for the site indicated the soil was poor; they needed to remove 2 foot of soil from the footprint of the site and brought in about 4 foot of fill. After the site was elevated they had to wait 30 days before installing one thousand earthquake drains (36 foot long) on the site and then installed the slab.

There will be an onsite wet pond which is in the shape of a dog bone. The pond will drain to swale and then into a manmade stormwater pond and from their will outfall into the creek. The impervious run off will drain into gravel parking, gravel fenced-in areas or a swale prior to discharging into the wet pond.

Mr. Hoover explained how the design met the four criteria for the County's stormwater standards. The rate control was met by using the wet pond and outlet control structure, which was designed to meet the 100 year storm event, which exceeded the 25 year requirement at the time. The 95th percentile volume control was accomplished through the wet pond; the weir for the outlet

control volume will be set at 15.4 and will utilize irrigation reuse to get rid of the volume over 1.25 acres of landscape area. The effective impervious was met by including pervious parking, open space and the 25% required natural preserved tree area. The water quality requirement was met through having a wet pond and pervious area.

In response to a question about standards knowing that animals will be on site, Mr. Hoover explained that the each kennel has two floor drains that will tie into the overall sewer system. There is also a hair trap (that will be on a maintenance schedule), so the system doesn't clog. This will all go to a pump station and then into public sewer. The fenced-in area outside will contain four inches of pea gravel on top of a geotextile fabric layer that covers two inches of 57 stone to act as a choker and then 6" plastic edging will extend out 5 feet from the edge of the fence to contain the waste. Anything collected outside will go into a drain field.

Conversation took place following a question about the maintenance of irrigation systems. Mr. Hoover indicated that Animal Services will have to keep a monthly record to log the reuse volume. Ms. Kim Jones shared her experience with a similar system that is part of phase two of the 319 grant in the Pine Ridge Community. Mr. Hoover commented that pumps used for irrigation reuse are a part of the inspection check list, with the County being the MS4 they are looking over them. Mr. Larson commented that the criteria for a pump system is in the BMP manual and then there is also maintenance agreement that would run with the land for the owner(s) to maintain the system.

[The Animal Shelter Services presentation is attached.](#)

7. Public Comment(s) – Dr. Alan Warren from USBC Lab asked Mr. Larson if he briefed the Board on the Okatie West effort they are engaged in. In response, Mr. Larson shared that Stormwater and USCB Lab staff have been conducting monitoring three times a week (M/W/F) before there is disturbance to the project site. They are sampling above and below where they will be diverting into the pond, during the right time in the tide cycle, and doing flow measurements as well. This will give staff a good base line data (pre-construction) and then during the same season post construction will begin sampling again, so they are able to report on the effectiveness of the pond, six months post construction.

8. Next Meeting Agenda – Approved.

Brief discussion took place about Mr. Larson being away for training during the March meeting and future meeting topics that have been proposed to include budget, the annual DHEC report, and facility/convenience center inspection reports.

Additions to March 14, 2018 Agenda

- New Business -
 - Special Presentation – Lowcounty Stormwater Partners Plan (Ellen Comeau)

9. Meeting Adjourned

Beaufort County Animal Services

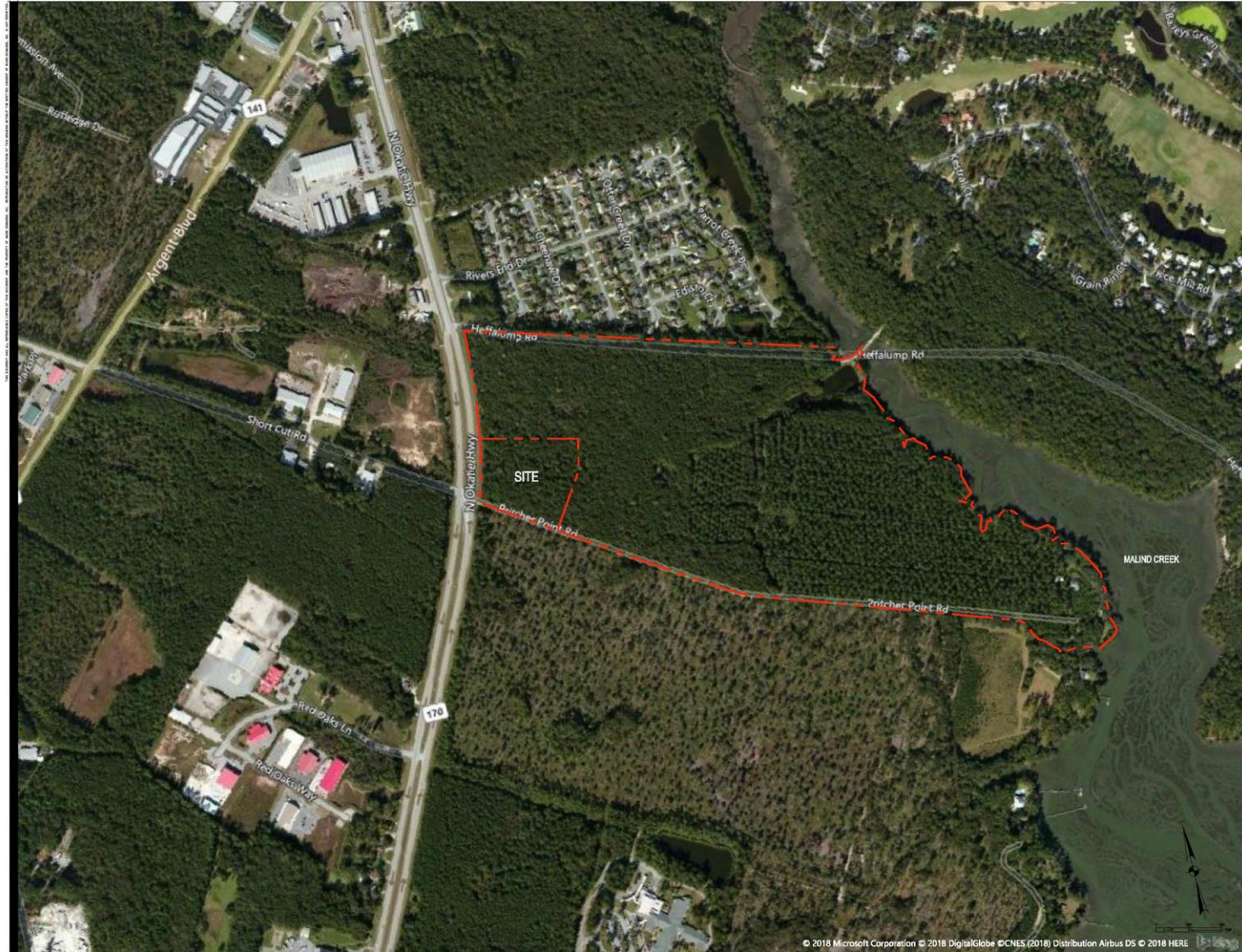
Stormwater



**Ward
Edwards**

E N G I N E E R I N G

Overall Site



GBA
GRUPEN BUILDING ARCHITECTURE

Ward Edwards
ENGINEERING

BCASIHHA ANIMAL SERVICES COMPLEX
COUNTY OF BEAUFORT, SC
10 PRITCHER POINT ROAD, BEAUFORT, SC 29906

DATE: 05/15/18
SCALE: AS SHOWN
PROJECT: BCASIHHA ANIMAL SERVICES COMPLEX
DRAWING NO: 180000
DESIGNED BY: JEM
CHECKED BY: JEM
APPROVED BY: JEM
DATE: 05/15/18
CONTRIBUTOR: W&E

SITE EXHIBIT

C002

Rate Control:

Table 4 -- Pre vs. Post Development Runoff Comparison

Design Storm	Pre-Development Runoff (cfs)	Post-Development Runoff (cfs)
95th Percent	0.83	0.46
2 Year	5.38	3.28
10 Year	10.58	6.97
25 Year	13.97	9.38
50 Year	16.93	11.41
100 Year	19.90	13.62

95th Percentile Storm Irrigation Calculation (WQV):

$$WQV = (95^{th} \text{ POST} - 95^{th} \text{ PRE})$$

$$WQV = (0.38 \text{ af} - 0.23 \text{ af}) \times (43,560 \text{ ft}^2 / 1.0 \text{ ac}) = 6,534 \text{ ft}^3$$

Table 5 -- Pond Stage Volume Relationship

Pond				
Stage (ft)	Elevation (ft)	Area (ft ²)	Volume (ft ³)	∫ Volume (ft ³)
0.0	15.0	22,236	0	0
0.4	15.4	23,400	9,524	9,524
1.0	16.0	25,384	23,810	23,810
2.0	17.0	28,589	26,987	50,797
2.5	17.5	30,213	14,700	65,497

This volume will be retained within 0.27 ft above the normal water level of the proposed pond. The initial weir of the outlet control structure has been set at elevation 15.4 ft, above the volume control elevation, such that the water quality volume will not escape the site. This volume will then be dissipated onsite through the use of evapotranspiration and irrigation. It was assumed a minimum of 1 inch per week will be needed for irrigation with an additional 20% loss during operation due to evapotranspiration, resulting in a total use rate of 1.2 inches per week. In doing so, the complete water quality volume will be used within a 12 ½ day window after a rainfall event.

Irrigation Volume: 9,524 ft³ = 0.219 Ac-Ft
 Irrigation Rate: 1.2 inches per week
 Irrigation Area: 1.25 acres
 Drawdown Time: $(0.219 \text{ Ac-Ft}) / [(1.2 \text{ in/wk}) \times (1.25 \text{ Ac}) \times (1 \text{ ft-wk}/84 \text{ in-days})] = 12.3 \text{ Days}$

Effective Impervious



Beaufort County Animal Services

Proposed Conditions with credits for BMPs

Effective Impervious Analysis Method from BC BMP Handbook

11/29/2016

Item	Site Element	Area (acres)	Volume Control BMP	Effective Imperviousness (%)	Impervious Developed Area (acres)	Pervious Developed Area (acres)	Dedicated Open Space (acres)
1	Woods (D Soils)	1.56		0%	0.000	0.0	1.56
2	Developed Open Space (D Soils)	2.18		0%	0.000	2.2	0
3	Pervious Parking (D Soils)	0.18	Porous pavement	0%	0.000	0.180	0
4	Roof (D Soils)	0.45	Irrigation Reuse (Captured 2-in volume)	40%	0.180	0.270	0
5	Asphalt & Concrete (D Soils)	1.09	Irrigation Reuse (Captured 2-in volume)	40%	0.436	0.654	0
6	Wet Detention Pond	0.77		0%	0.000	0.0	0.77
	Total Area (acres)	6.23			0.616	3.28	2.33
	% Total Area				9.9%	52.7%	37.4%

SITE CHARACTERIZATION:

Total Site Area	= 6.23 acres
Impervious Developed Area	= 0.62 acres
Pervious Developed Area	= 3.28 acres
Dedicated Open Space	= 2.33 acres
Imperviousness of Developed Area (I_{DEV})	= 15.9 %
Effective Imperviousness of Total Site	= 9.9%

PHOSPHORUS:

Base Required Pollutant Removal	= 15.92
Required Total Phosphorus Removal	= 0.0
Primary BMP Type (wet detention)	= 60%
Percent of Developed Area Served	= 72%
Calculated Primary BMP Removal	= 43.2

43.2% > 0.0% so BMPs are adequate for Phosphorus Removal

FECAL COLIFORM:

Base Required Pollutant Removal	= 52.85
Required Total Bacteria Removal	= 24.67
Primary BMP Type (wet detention)	= 80% Fecal Coliform Removal
Percent of Developed Area Served	= 72%
Calculated Primary BMP Removal	= 57.6

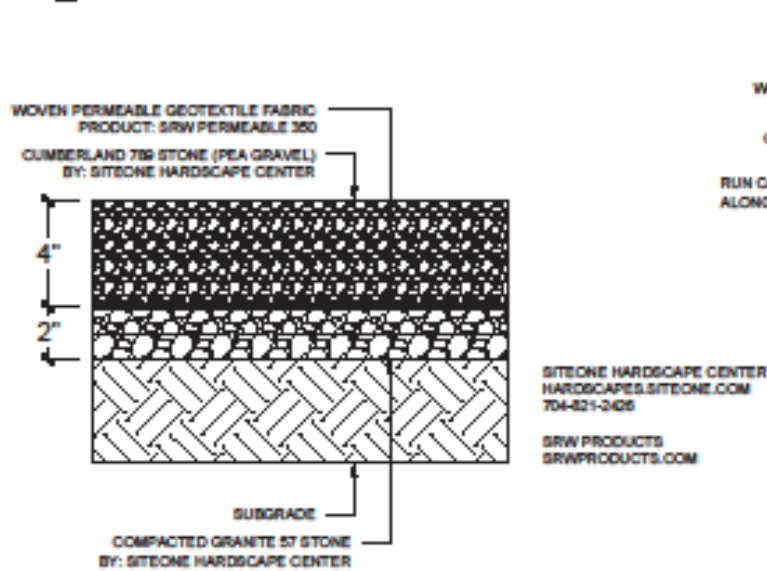
57.6% > 24.67% so BMPs are adequate for Bacteria Removal

NITROGEN:

Base Required Pollutant Removal	= 15.92
Required Total Nitrogen Removal	= 0.0
Primary BMP Type (wet detention)	= 35% Nitrogen Removal
Percent of Developed Area Served	= 72%
Calculated Primary BMP Removal	= 25.2

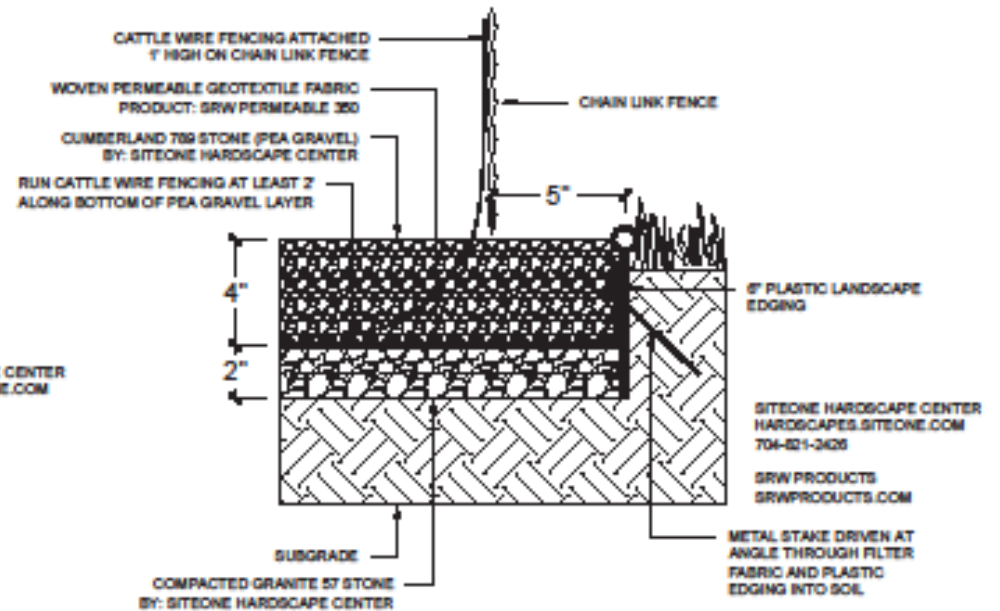
25.2% > 0.0% so BMPs are adequate for Nitrogen Removal

Pea Gravel



NOTES:

1. GEOTEXTILE FABRIC SHEETS TO HAVE AN 18" OVERLAP.
2. GEOTEXTILE FABRIC SHEETS AND OVERLAPPING FABRIC SEAMS TO BE SECURED WITH 8", 11 GAUGE LANDSCAPE STAPLES SPACED 48" O.C.



NOTES:

1. CATTLE WIRE FENCING TO BE ATTACHED BY WIRE TO CHAIN LINK FENCE EVERY 4 LINEAR FEET.
2. CATTLE WIRE FENCING TO BE SECURED TO THE GROUND BY THE SAME LANDSCAPE STAPLES USED FOR THE GEOTEXTILE FABRIC.

5
L201

PEA GRAVEL SURFACING

N.T.S.

6
L201

PEA GRAVEL AT FENCE BORDER

N.T.S.

Aerial View





**BEAUFORT COUNTY
STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
Voice (843) 255-2805 Facsimile (843) 255-9436**

March 14, 2018

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Regional Planning Committee (SoLoCo) – The technical subcommittee for Stormwater met on February 23, 2018 to complete the mission statement and discuss a potential scope of work for a consultant to lead the regional technical standards development. The next meeting is scheduled for March 20, 2018 to prepare for an update presentation to the SoLoCo on March 27.
2. Regionalization - The technical subcommittee set aside work on a draft a mission statement for an exploratory committee. The committee members felt it was more important to get political buy-in on the regional technical standard first and then discuss the regional approach. For the sake of keeping the momentum on the technical standard going, it was agreed to table work on the mission statement until agreement is made on the standards.
3. FY 19 Budget – Staff will present the [draft budget](#) under New Business. Reports on the SWU management fee were sent February 21st to the SWIC. [The proposal is attached to this report.](#) The SWIC members have until April 1st to approve the management fee for TY 18.
4. Promotions and new staff – Mrs. Megan Graham has been promoted into one of our vacant Stormwater Inspector positions. An offer has been made and accepted for the MS4 Coordinator and we intend to have this person start work before the end of the month. We continue to advertise for an additional SW Inspector. Megan's promotion has left a void in the SW Inspection Technician position and we are currently advertising for that position as well.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
 - Beaufort County:
 - Pre-construction sampling regime for Okatie West BMP pond has concluded.
 - USCB WQL concluded sample collection for the 1st quarter of second year for MS4.
 - Town of Bluffton:

- Continue with weekly sample analysis.
 - Analyses for MS4 samples for 1st quarter of 2018.
 - Palmetto Bluff:
 - Revision for new MOU to continue monthly sampling and analyses for wet and dry events.
 - Data reduction/reporting.
 - GEL-HHI:
 - Analysis for Hilton Head Island E. coli samples 4x/Qtr., including data reduction/reporting.
 - USCB Lab:
 - Annual mandatory proficiency testing for all certified methods for 2018 to upkeep certifications.
 - Monthly (and as needed) calibration of equipment and instruments.
 - Certification Upkeep-including review of QA/QC, logbooks, COC's.
 - On-going efforts to obtain additional certification; no new certs obtained during this Qtr.
 - Monthly sterility checks on Lab water for TOC, TRC, HPC, Conductivity, metals.
 - Research on software for laboratory management systems.
 - Account tracking for all accounts-expenditures, deposits, ledgers, PO's
 - Logistics, planning, scheduling of all activities.
 - Procurement of all required materials, supplies and equipment.
2. Post Construction monitoring of special projects – The pre-construction work to sample the Okatie West watershed is complete. Staff will be beginning the post construction monitoring plan for the Bluffton Gateway project next. Later this spring, the 4 stormwater ponds along US 278 will begin. County staff is performing the field work and the lab is analyzing the samples.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC committee has not met in the last month. A meeting is being scheduled for later in March to review the Draft of the Stormwater Management Plan update.

Stormwater Related Projects

1. Okatie West / SC 170 Widening Retrofit (Design and Construction = \$915,000 Budget) – The individual wetland impact permit from the USACE is in process of being finalized, at which time all other pending permits will be issued. Multiple pre-construction meetings have been held with R. B. Baker Construction, County, and Town of Bluffton. The project is on schedule for a July 31, 2018 completion. Staff is considering a design modification to add a new water quality pre-treatment product known as Bold and Gold. It is a filter media used just prior to the outlet structure of the pipe.
2. Easements – Staff is working on numerous easement requests and meets monthly to review status.

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – (\$475,000 Budget; \$239,542 County portion) – ATM delivered a final full draft of the updated plan to the SWIC last Friday. Presentations of the report can be made to the appropriate bodies in late March or April.
2. CIP FY 18 Grouping Stormwater Projects – (Design - Ward Edwards \$202,000, Andrews Engineering \$560,490, Const. est. \$5,512,900) – All projects are in early design phase. Team meetings were held last week to discuss project status and to meet with USCB Lab staff to discuss pre-construction monitoring. An additional meeting is scheduled with Clemson Extension to discuss their expanded plan and support of the Brewer Memorial Park project.
3. Engineering Professional Services Contracts for 2018 – Stormwater Utility Manager Eric Larson participated in review and interviews for proposals to select 3 engineering teams to provide full service Engineering and Architecture services on an indefinite delivery basis. Services will include surveying, environmental, drainage, and MS4 assistance as needed. Awards are pending. The obvious benefit is the ability to quickly approve a task order for services when the need arises. Stormwater has done similar contracts in the past for Stormwater services only. Our current PSC ID/IQ contracts will be allowed to expire.

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase I” & Academy Park Subdivision (Design Cost. \$49,873, Tree Mitigation Cost approx. \$22,120, Construction Cost by the Developer) – County SRT gave final approval of the subdivision plan associated with the project. Final DHEC NPDES permit is pending.
2. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Final stage is under construction.
3. Municipal “County” Infrastructure – No change.
4. Mossy Oaks Task Force – See Municipal Reports.
5. SESWA Fall Conference – October 3-5, 2018 at the Marriott Convention Center, Palmetto Dunes, Hilton Head Island, SC. Staff from all jurisdictions in Beaufort County are preparing to host the annual SESWA conference. We have submitted multiple abstracts to present and showcase our community.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager and Brian Eber, MS4 Coordinator)
 - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. [See attached report.](#)
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. Mossy Oaks Task Force – The County has committed funding for Phase I of the project, \$20,404. \$5,000 will be provided from reallocation of CIP funds in FY 18 and the remainder is budgeted for FY 19.
 - ii. No additional information was available at the time of this report.
4. Town of Port Royal (From Van Willis, Town Manager and Tony Maglione, consultant)
 - i. No information was available at the time of this report.

MS4 Report

1. Plan Review – [See the attached chart](#) for Beaufort County Stormwater staff plan review workload for the past 12 months.
2. Stormwater Permits – [See the attached chart](#) for Beaufort County Stormwater permits issued for the past 12 months.
3. Monthly Inspection summary - [See the attached chart](#) for Beaufort County Stormwater staff inspection, complaint, IDDE, and violations summary for the past 12 months.
4. Public Education – Lowcountry Stormwater Partners (LSP), via Carolina Clear, continues to work on several initiatives towards public education and outreach.
 - a) SWIC members met with Ellen to review the 2018 work plan based on the current strategic plan. The Plan is due for update in 2018
 - b) Ms. Ellen Comeau will be presenting on the current work plan for LSP during New Business.
 - c) The LSP consortium members met on February 20, 2018. Beaufort County Solid Waste and Recycling and Keep Beaufort County Beautiful made a presentation.
 - d) No additional updates were available at the time of this report.
5. MS4 Annual report – The report was submitted to DHEC on February 15, 2018. A copy of the report and the revised Stormwater Management Plan (SWMP) for 2018 is [attached to this report.](#)
6. MS4 Statewide General permit – The State GP for MS4 expires on December 31, 2018. DHEC is in the process of requesting Notice of Intent (NOI) for continued coverage under

the GP for 2019. NOIs are due June 30, 2018. DHEC will be issuing a draft permit later this year.

**Beaufort County Stormwater Utility
Proposed Budget for FY2019**

Unaudited Projected Revenue

	FY2018 Budget	FY2019 Proposed Budget
Revenue		
Admin SWU Fees	565,297	777,672
Unincorp/CWI SWU Fees	5,112,155	5,092,859
Total Revenue from SWU Fees	5,677,452	5,870,531
Reimbursable Projects	-	-
Interest	2,500	2,500
Gain on Sale of Capital Assets	-	-
Cost-Share for Joint Efforts	92,200	27,694
Reserve Utilization		
Capital Improvement Fund	2,140,274	2,145,569
Stormwater Utility	-	469,070
Projected Revenue Total	8,889,110	8,515,364

\$367,672 - Admin budget
C/S for monitoring (\$120K), PE/O (\$90K) & Regional SW Std (\$200K)
COB - \$27,910
ToB - \$25,991
ToHHI - \$65,992
ToPR - \$21,024
Unincorp BC \$269,083

County's SW Admin Fees + SWU Fees - \$4,958,792
CWI Fees - \$563,576
Admin fees from municipalities - \$207,246
C/S Regulatory Compliance - \$140,917

Regional SW Std Development
City of Hardeeville - \$5,382
Jasper County - \$17,502
Town of Ridgeland - \$3,896
Town of Yemassee - \$914

Personnel
Director of Env Engr - .8 FTE; Business Mngr; GIS/MS4 Data Mngr; Admin Tech - .5 FTE; Fiscal Tech - .1 FTE

Personnel
Superintendent; (2) Foremen; (35) crew & support; (2) Infrastruc Inspec Tech; Fiscal Tech - .2 FTE
New - Sweeper Operator (EO II)
Professional Services
\$23K - Survey
\$6K - Engineering Services
\$3K - Easement Acquisition
\$3K - Wetland Delineation/Restoration

Contingency

Contingency

Personnel
MS4 Coord; (3) Inspector; Admin Tech- .5 FTE; Fiscal Tech- .1 FTE
SW Inspector #4
Professional Services
\$200k - Regional SW Std Development
\$45K - MS4 Permit Update
\$50K - May River Watershed Plan Update
\$15K - USCB Grant Watershed Study (Partner w/ ToB)

\$120K - USCB Lab
\$60K - Post Construction Monitoring

\$90K - Carolina Clear

\$418K County share
\$792K Grant

Construction delayed b/c other parties have not found the revenue for the cost share.

\$450K - Construction in FY2020

ROW

ROW

Construction

\$15K - Phase I Design
\$205K - Phase 2 - 4

Regulatory
\$33K - Pickup for SW Inspector #4
\$10K - MS4 Data Mgmt Software Upgrade
\$4.5K - Plotter replacement (.5 of \$9K)
\$6,129 - Radio for SW Inspector #4
Infrastructure
\$46K - Replace Labor Truck
\$420K - Replace Vacuum Truck
\$4.5K - Plotter replacement (.5 of \$9K)
\$6,129 - Radio for Sweeper Operator
\$150K - Dozer Replacement
\$125K - Bush Hog Replacement
\$250K - 330 Volvo Replacment
\$33K - Hydroseeder replacement
\$75K - Wash facility
\$50K - Land Acquisition

4th year

Efforts (Expenditures)

	FY2018	FY2019
Administration	391,466	367,672
Utility Activities		
UA/Annual Maintenance	3,189,716	3,398,972
UA/Drainage Enhancement	14,000	14,000
UA/Additional Studies	123,050	15,000
<i>Utility Activities Subtotal</i>	3,326,766	3,427,972
Regulation		
UA/Control Reg	426,321	840,893
UA/WQ Monitoring	120,000	180,000
UA/Public Information/Outreach	90,000	90,000
<i>Regulation Subtotal</i>	636,321	1,110,893
Reserve Utilization		
Capital Improvement Fund		
Okatie West/SC 170 Retrofit	1,210,000	5,000
Buckingham Plantation	276,450	276,247
Brewer Memorial Demo Pond	29,500	-
Factory Creek Phase I	100,000	-
Factory Creek Phase II	-	-
Salt Creek South	245,000	444,774
Shanklin Road	330,000	639,144
Grober Hill	225,000	-
Sawmill Creek/Forby	N/A	560,000
Mossy Oaks	N/A	220,404
<i>Reserve Utilization Subtotal</i>	2,415,950	2,145,569
Capital Improvement Fund		
Surplus (Deficit)	904,957	-
Utility Operating Fund		
Capital Assets New Purchases	963,650	1,213,258
Reserve Fund	250,000	250,000
Surplus (Deficit)		
Efforts Total	8,889,110	8,515,364



BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
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MEMORANDUM

TO: Stormwater Implementation Committee (SWIC) Members

FROM: Eric W. Larson, Beaufort County Stormwater Utility Manager *Eric W. Larson*

SUBJECT: FY 18-19 (TY 18) Utility Management fee proposed budget and rates

DATE: February 21, 2018

This is the second year for the revised annual management fee budget proposal format. If you desire, you can compare the two years by reviewing the FY 17-18 (TY 17) budget proposal. The updated rate model, attached by reference to this memo, is intended to replace this analysis by presenting previous year's actual numbers and projecting the Management fee annually once the actuals are added to the spreadsheet. Please note only the billable units have been updated in the model; the individual City and Town budgets were not provided to the County and therefore the Summary Tabs for each jurisdiction will not be a valid representation of your revenue and expenses. Of significant note for TY 17 was the change to Option E by the Town of Hilton Head Island. This change redistributed the management fee and cost shares to all jurisdictions within the County.

The scope of services to be provided by the Utility are defined by the IGA, specifically Section 5.04. Those services have been provided by the County staff to the municipalities for many years and will continue in fiscal year (FY) 19.

The final but unaudited collections for tax year (TY) 2016 have been inputted into the model along with the final billed units for TY 17. With this information input in the model, the distribution of cost shares and "percent of the whole" has shifted to reflect the most equitable method of cost sharing going into FY 18/19.

	TY 2016 Total Billed	TY 2016 Total Collected	TY 2016 Billed Units (actual)	TY 2016 Collected Units	Collection Rates
Port Royal	\$ 324,055	\$ 187,639	7,035 IA 3,903 Acct.	# 3,739 Acct.	57.9% 95.8%
Beaufort, City	\$ 1,283,879	\$ 876,134	13,593 IA 6,545 Acct.	# 6,341 Acct.	68.2% 96.9%
HHI	\$ 3,577,019	\$ 3,557,318	33,099 SFU* 39,351 Acct.	32,726 SFU* 37,369 Acct.	98.9% 95.0%
Bluffton	\$ 1,341,918	\$ 1,326,368	13,693 SFU* 11,901 Acct.	13,534 SFU* 11,001 Acct.	98.8% 92.4%
Unincorp. BC	\$ 4,772,682	\$ 4,569,736	52,638 IA 65,833 Acct.	# 62,131 Acct.	95.7% 94.4%
Total	\$11,299,553	\$ 10,517,196			

*Under Option A, the SFU are based on total dollar amount billed/collected divided by the SFU rate, not from the analysis of the Impervious Layer.

Under Option E, our current accounting system and SWU fee reporting software will not easily determine the exact collected billable units for IA and GA. Much like Option A, a percentage based on dollar amounts collected is assumed for projection of collection rates for billable units for the upcoming year.

	Billable Unit in TY 2017 (actual)	Calculated Growth Rate (TY16 to TY17)	Billable Units for TY 2018	Distribution for FY 18/19 – B.C. only ^	Distribution for FY 18/19 – NoB only ^
Port Royal	3,936 Acct.	1.008%	3,969 Acct.	3.1%	5.2%
Beaufort, City	6,564 Acct.	1.003%	6,583 Acct.	5.3%	8.8%
HHI	39,429 Acct.	1.002%	39,507 Acct.	31.0%	N/A
Bluffton	14,570 SFU*	1.064%	15,503 SFU*		
	12,677 Acct.	1.065%	13,504 Acct.	9.1%	N/A
Unincorp. BC	65,912 Acct.	1.001%	65,991 Acct.	51.5%	86.0%
Total				100 %	100 %

*Under Option A, the SFU are based on total dollar amount billed/collected divided by the SFU rate, not from the analysis of the Impervious Layer.

^ Based on TY 2016 actual collected acct. units for all jurisdictions within Beaufort County only.

The following cost shares are proposed for FY 19:

- 1) Public Education and Outreach - \$90,000. This is a continuation of the MOA for PE/PO and our contract with Clemson University. Distribution will be by the FY 18/19 percentages. Those jurisdictions using the Option E rate structure will pay this cost share as part of the Management fee. Option A jurisdictions will continue to be billed for the expenses and it will not be included in the Management fee.
- 2) Water Quality Monitoring North of the Broad River – \$120,000. This cost share is only for the County, Port Royal, and City of Beaufort. This is a continuation of the MOA for monitoring and our contract with USCB Lab. Distribution will be by the FY 18/19 percentages. These jurisdictions are using the Option E rate structure and will pay this cost share as part of the Management fee.
- 3) Regional Stormwater Standards Development – \$200,000 (estimate). There is regional effort to standardize development standards throughout Beaufort County and Jasper County. With the cooperation of all political entities involved, a consultant will be hired to study our region and provide recommendation for guidelines in future development and redevelopment standards. This cost will be shared with the counties of Beaufort and Jasper, the cities of Beaufort and Hardeeville, and the towns of Bluffton, Hardeeville, Hilton Head Island, Port Royal, and Yemassee (potentially) and the cost-share will be based on population. Those jurisdictions using the Option E rate structure will pay this cost share as part of the Management fee. Option A jurisdictions will continue to be billed for the expenses and it will not be included in the Management fee. Jasper County jurisdictions will be billed for the expenses.

Cost Shares	PE/PO	Monitoring	Regional Development
Port Royal	\$2,789	\$6,213	\$12,028
Beaufort, City	\$4,734	\$10,537	\$12,649
HHI	\$27,891	N/A	\$38,102
Bluffton	\$8,208	N/A	\$17,778
Unincorp. BC	\$46,377	\$103,249	\$91,748
Yemassee ⁽¹⁾	N/A	N/A	\$914
Unincorp, Jasper	N/A	N/A	\$17,502
Hardeeville	N/A	N/A	\$5,382
Ridgeland	N/A	N/A	\$3,896
Total	\$90,000	\$120,000	\$200,000

⁽¹⁾ Should Yemassee choose not to participate in the regional effort, the County will assume this cost wholly.

The proposed Management budget for FY 18-19 is \$367,673. The following is a breakdown summary of major budget categories:

- Salaries, Fringe, Training = \$337,355
- Capital Equipment, Depreciation, Insurance, Repairs = \$7,999
- Cost Shares = \$410,000 (not included in Management budget)
- Office Supplies, Operational Expenses = \$9,469
- Professional & Non-Prof. Services = \$600
- Aerial Photography (budgeted annually, expended every 2 years) = \$12,250

Based upon the number of billable units, distribution percentages, and the Management budget, the following Management fee per billable unit and total Management fee has been estimated. The proposal assumed that the Town of Bluffton remains with Option A for TY 18.

Mgt. Fee	Billable Units For TY 2018	Rate	Total Mgt. Budget	Total Mgt. Budget w/ PE/PO & Monitoring Cost Shares (\$)	Rate (w/o Regional SW Std. cost share added) ⁽⁴⁾
Port Royal	3,969 Acct.	\$ 8.49 / Acct.	\$11,218	\$32,249	\$ 5.32 / Acct.
Beaufort, City	6,583 Acct.	\$7.36 / Acct.	\$19,026	\$46,946	\$5.38 / Acct.
HHI	39,507 Acct.	\$4.75 / Acct.	\$112,122	\$178,115	\$3.74 / Acct.
Bluffton	15,503 SFU	\$4.24 / SFU ⁽²⁾	\$38,889	\$64,875	\$3.07 / SFU ⁽²⁾
Unincorp. BC	65,991 Acct.	\$12.00/Acct. ⁽³⁾	\$186,418	\$427,792	\$12.00 / Acct. ⁽³⁾
Total			\$367,673	\$749,978	

\$ - Note that due to the lack of rounding within the Excel Spreadsheet “rate model” these values do differ slightly (\$10 or less) from the model.

- ⁽²⁾ The rate assumes the Town of Bluffton elects to have the County collect cost shares via the billable unit rather than separate billing. The Mgt. fee rate for Town of Bluffton w/o any cost shares included is \$2.54 / SFU.
- ⁽³⁾ Beaufort County has elected to fund its Regulatory program on a per account basis, therefore, the cost share amounts do not change the account fixed fee being proposed like it does other jurisdictions.
- ⁽⁴⁾ Mgt. fee rates w/o the regional stormwater standard cost share are shown for illustrative purposes.

Per Section 4.01 of the IGA, prior to April 1, 2018, please submit in writing your jurisdiction’s approval of the Management fee for TY 18 within FY 18-19.

END



BEAUFORT COUNTY STORMWATER UTILITY
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MEMORANDUM

TO: Stormwater Implementation Committee (SWIC) Members

FROM: Eric W. Larson, Beaufort County Stormwater Utility Manager

SUBJECT: FY 16-17 Stormwater Utility Financial Summary

DATE: February 21, 2018

The following analysis serves as the end of year financial report provided each year as required by IGA Section 5.04(e). At the time of this report, our Administration has not issued the final, audited Comprehensive Annual Financial Report (CAFR) for fiscal year (FY) 17. While no change is anticipated, this report includes un-audited values.

In Tax Year (TY) 2016, Beaufort County, the Town of Port Royal, and the City of Beaufort continued their method of billing to “option E” as defined in the 2015 Rate Study. The Towns of Hilton Head Island and Bluffton elected to remain with the previous rate structure, option A. The Town of Hilton Head Island elected to switch to option E in TY 2017 so the method of reporting for the Town will change next year. The 2015 Rate Study explains how GIS information for impervious area and parcel acreage is used to determine billable units, based on the standard of 4,906 sq. ft. per single family unit (SFU) or impervious area (IA). Stormwater Utility (SWU) fees are determined by Utility staff and reported to the County Auditor’s office for inclusion in the annual property tax notice.

A spreadsheet is attached providing detailed information per account:

	TY 2016 Total Billed	TY 2016 Total Collected	TY 2016 Billed Units	TY 2016 Collected Units	Collection Rates	TY 2016 Mgt. fees paid
Port Royal	\$ 324,055	\$ 187,639	7,035 IA 3,903 Acct.	# 3,739 Acct.	57.9% 95.8%	\$ 20,754
Beaufort, City	\$ 1,283,879	\$ 876,134	13,593 IA 6,545 Acct.	# 6,341 Acct.	68.2% 96.9%	\$ 35,241
HHI	\$ 3,577,019	\$ 3,557,318	33,099 IA 39,351 Acct.	32,726 SFU* 37,369 Acct.	98.9% 95.0%	\$ 105,888
Bluffton	\$ 1,341,918	\$ 1,326,368	13,693 SFU* 11,901 Acct.	13,534 SFU* 11,001 Acct.	98.8% 92.4%	\$ 45,681
Unincorp. BC	\$ 4,772,682	\$ 4,569,736	52,638 IA 65,833 Acct.	# 62,131 Acct.	95.7% 94.4%	\$ 745,572
Total	\$11,299,553	\$ 10,517,196				\$ 953,136

*Under Option A, the SFU are based on total dollar amount billed/collected divided by the SFU rate, not from the analysis of the Impervious Layer.

Under Option E, our current accounting system and SWU fee reporting software will not easily determine the exact billable units for IA and GA. Much like Option A, a percentage based on dollar amounts collected is assumed for projection of collection rates for billable units for the upcoming year.

In Arrears

A spreadsheet is attached which provides a complete accounting of all accounts in arrears, including a summary of actions taken to attempt collection. The following table summarizes the total number of accounts and fees in arrears for each jurisdiction.

	Accounts in arrears	Fees in arrears
Port Royal	103	\$135,964.75
Beaufort, City	85	\$409,466.60
HHI	423	\$17,108.65
Bluffton	138	\$6,071.63
Unincorp. BC	2,231	\$155,431.72
Total	2,980	\$724,043.35

Credits

A spreadsheet is attached which provides a complete accounting of all accounts receiving credits on SWU fees. The following table summarizes the total number of accounts and amount of credits given for each jurisdiction.

	Accounts with credits	Credit Amount
Port Royal	0	\$0.00
Beaufort, City	1	\$873.00
HHI	1	\$25,389.41
Bluffton	7	\$2,909.94
Unincorp. BC	498	\$117,035.61
Total	507	\$146,207.96

Adjustments

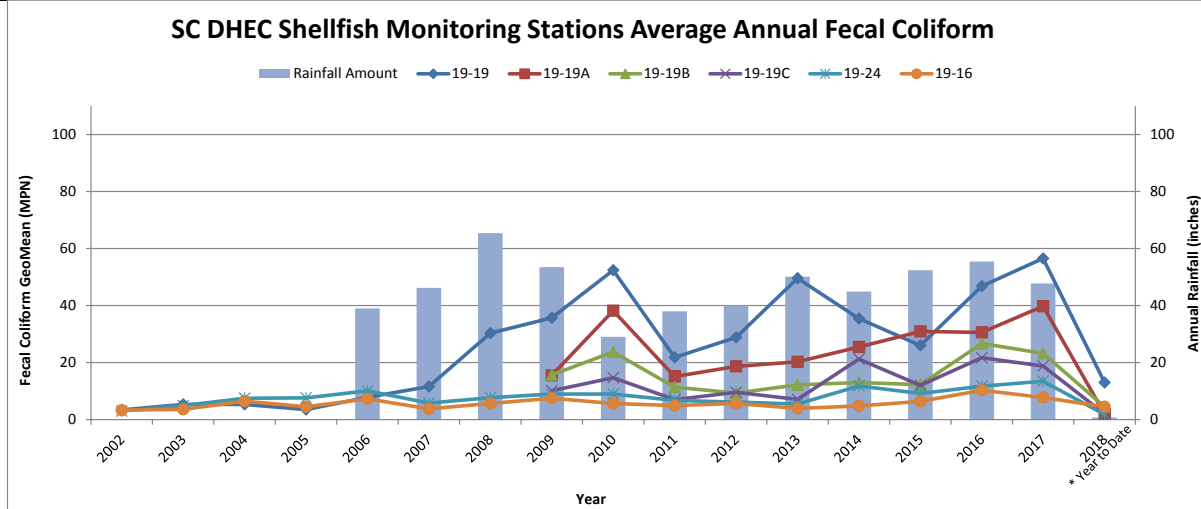
A spreadsheet is attached which provides a complete accounting of all accounts receiving adjustments on SWU fees after the initial billing for TY 16. The following table summarizes the total number of accounts for each jurisdiction.

	Accounts with adjustments
Port Royal	10
Beaufort, City	9
HHI	31
Bluffton	16
Unincorp. BC	162
Total	228

END

	19-19				19-19A				19-19B				19-19C				19-24				19-16							
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)
December	110.0	79.0	1600.0		33.0	23.0	920.0		27.0	49.0	540.0		7.8	33.0	240.0		6.8	7.8	220.0		4.5	23.0	49.0		4.5	23.0	49.0	
November	NS	33.0	49.0		NS	13.0	33.0		NS	7.8	7.8		NS	14.0	31.0		NS	13.0	2.0		NS	33.0	2.0		NS	33.0	2.0	
October	23.0	NS	22.0		49.0	NS	49.0		4.5	NS	33.0		23.0	NS	23.0		7.8	NS	6.8		4.5	NS	2.0		4.5	NS	2.0	
September	46.0	23.0	17.0		17.0	110.0	7.8		9.3	23.0	11.0		17.0	13.0	4.5		23.0	4.5	2.0		4.5	7.8	1.8		4.5	7.8	1.8	
August	6.8	NS	79.0		17.0	NS	70.0		13.0	NS	21.0		13.0	NS	33.0		24.0	NS	33.0		4.0	NS	33.0		4.0	NS	33.0	
July	17.0	79.0	350.0		7.8	17.0	110.0		6.8	22.0	130.0		11.0	17.0	49.0		2.0	49.0	49.0		4.5	13.0	22.0		4.5	13.0	22.0	
June	33.0	79.0	23.0		46.0	130.0	49.0		11.0	70.0	13.0		14.0	110.0	17.0		4.5	33.0	7.8		11.0	23.0	4.5		11.0	23.0	4.5	
May	NS	70.0	17.0		NS	23.0	23.0		NS	49.0	7.8		6.8	49.0	2.0		6.8	14.0	23.0		23.0	17.0	4.5		23.0	17.0	4.5	
April	1.8	23.0	7.8		33.0	23.0	23.0		17.0	13.0	4.5		17.0	13.0	7.8		13.0	7.8	13.0		17.0	1.8	4.5		17.0	1.8	4.5	
March	170.0	33.0	350.0		130.0	33.0	11.0		49.0	33.0	33.0		17.0	17.0	13.0		13.0	11.0	13.0		6.8	7.8	33.0		6.8	7.8	33.0	
February	13.0	23.0	13.0		14.0	17.0	7.8		1.8	13.0	13.0		1.8	11.0	9.3		7.8	6.8	4.5		2.0	1.8	1.8		2.0	1.8	1.8	
January	79.0	110.0	95.0	13.0	79.0	33.0	79.0	2.0	49.0	49.0	31.0	4.5	33.0	17.0	49.0	2.0	17.0	7.8	27.0	1.8	7.8	17.0	33.0	4.5	7.8	17.0	33.0	4.5
Additional Samples																												
Average Annual GeoMean	26.0	46.8	56.5	13.0	30.9	30.6	39.8	2.0	12.3	26.7	23.3	4.5	12.0	21.7	18.8	2.0	9.2	11.7	13.5	1.8	6.4	10.3	7.7	4.5	6.4	10.3	7.7	4.5
** Truncated GeoMetric Mean	37.0	37.0	44.0	142.0	21.0	30.0	36.0	34.0	11.0	16.0	20.0	24.0	11.0	16.0	16.0	17.0	7.0	9.0	10.0	10.0	4.0	6.0	7.0	7.0	4.0	6.0	7.0	7.0
** Truncated 90th Percentile	205.0	105.0	203.0	712.0	95.0	89.0	133.0	166.0	51.0	69.0	83.0	97.0	55.0	65.0	57.0	75.0	30.0	29.0	37.0	49.0	13.0	21.0	29.0	33.0	13.0	21.0	29.0	33.0

NS = No Sample
 AS = Additional Samples
 ** Town staff calculations utilizing DHEC statistics

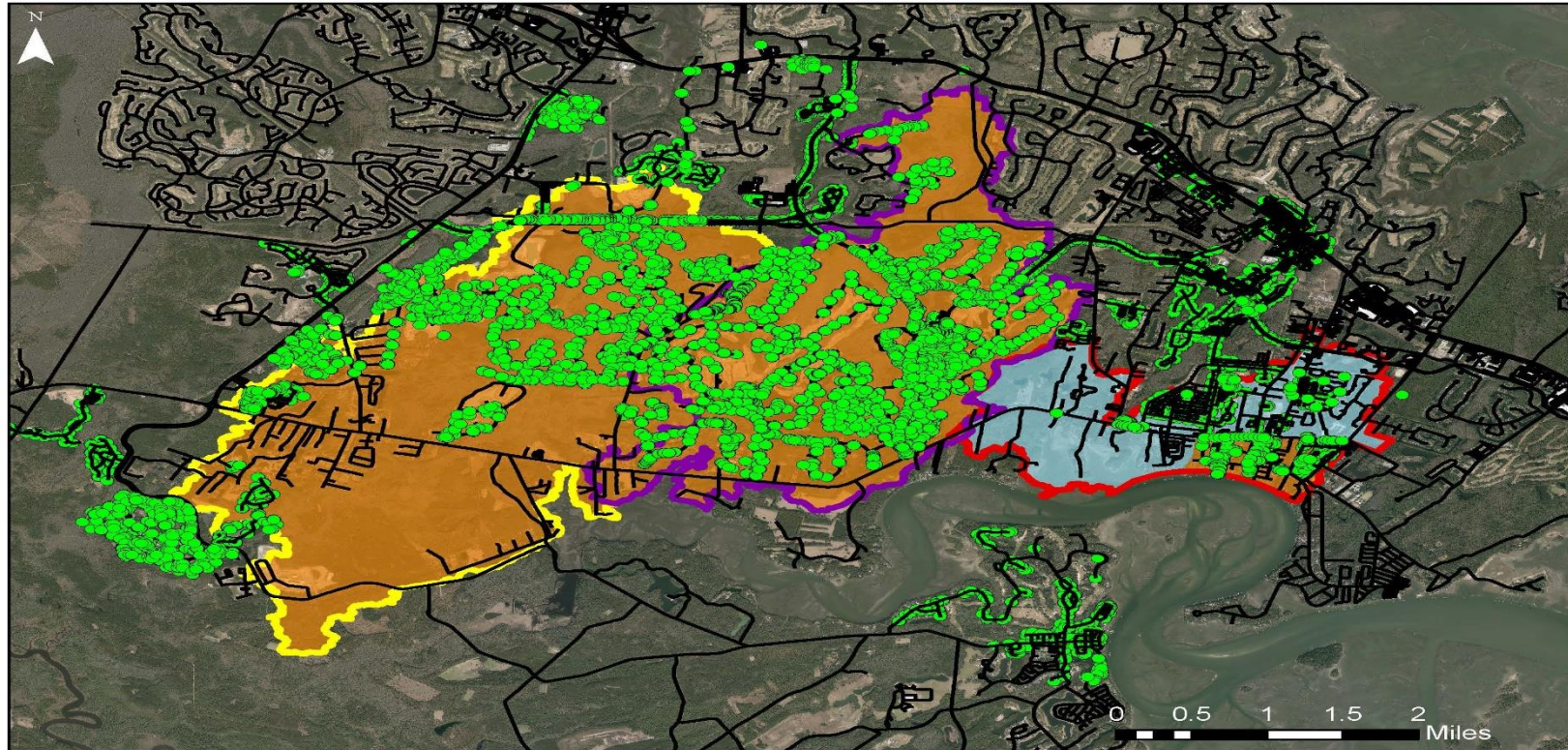


ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update (Grant award of \$55,000 in 2017)	To be completed with direction and input from staff, the public, Water Quality Technical Advisory Committee, May River Watershed Advisory Committee, and Town Council. Notified verbally on 4/7/17 that due to anticipated Federal Budget cuts to the EPA, SCDHEC rescinded the grant. Action Plan Update is identified as a FY19-20 priority by the WAPAC. WAPAC is considering scope of Action Plan Update 2/22/18.
Sewer Connection & Extension Policy	Council adopted the Sewer Connection & Extension Policy at 9/26/17 meeting. Staff commenced implementation with BJWSA coordination for prioritization of sewer extension in Old Town, currently revising Sewer Connection Ordinance, and initiating septic system maintenance education via staff & Lowcountry Stormwater Partners.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Buck Island/Simmonsville Road (BIS) Phases I, II, III and IV are completed. Toy Fields is completed. Sewer Extension & Connection is identified as a FY19-20 priority by the WAPAC. Current project updates are included in Engineering Consent Agenda under "Sewer & Water."
May River 319 Grant Phase 1 - New Riverside Pond (Grant award of \$483,500 in 2009)	Completed in 2013. Per water quality tests, a statistically significant reduction in fecal coliform bacteria concentration exists pre-pond versus post-pond. However, bacteria levels re-load prior to discharging into the May River, leading to additional BMP installation of Filtrexx proprietary filter socks. Installed 12/12/17 to maintain bacteria reduction.
May River 319 Grant Phase 2 - Pine Ridge (Grant award of \$290,000 in 2011)	Completed in 2016. In post-construction monitoring phase to assess project efficacy.
May River 319 Grant Phase 3 - Town Hall Parking Retrofit (Grant award of \$231,350 in 2016)	Staff submitted a workplan amendment to SCDHEC & EPA for this grant award to include stormwater retrofits at Town Hall. Current project updates are included in Engineering Consent Agenda.
Stoney Creek Wetlands Restoration: Preliminary Design Phase	Wetlands restoration project with the goal to reduce stormwater volume reaching the May River. Current project updates are included in Engineering Consent Agenda.
May River Watershed Water Quality Model	Preliminary 2002 Palmetto Bluff Duck Pond Drainage area watershed model complete. Completed New Riverside BMP model for comparison to field observations. Rose Dhu Creek sub-watershed "Existing Conditions" portion of the Headwaters Water Quality Model is underway. Currently proposed for a future fiscal year following completion of the Beaufort County Stormwater Master Plan and the Action Plan Update. Staff is re-initiating this project in anticipation of County Master Plan completion in March 2018.
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Exploring partnership opportunities with BJWSA.

ACTIVITY - PROGRAMS	STATUS
Public Outreach/Participation/Involvement (MS4 Minimum Control Measure #1 & 2)	Outreach and involvement efforts continue through county-wide partnership with Carolina Clear as Lowcountry Stormwater Partners - Neighbors for Clean Water and through local cleanups and civic engagements and the May River Watershed Action Plan Advisory Committee. Current updates are included in Engineering Consent Agenda and Attachment 4.
Infrastructure Mapping/GIS (MS4 Minimum Control Measure #3)	Data points continue to be collected with new development to meet MS4 requirements & populate water quality model. Current updates are included in Engineering Consent Agenda Attachment 5a.
Water Quality Monitoring Program (MS4 Minimum Control Measure #3)	<ol style="list-style-type: none"> 1. SCDHEC Shellfish monitoring results 2. Fecal coliform bacteria "hot spot" concentrations 3. Microbial Source Tracking of human sources of bacteria 4. Illicit Discharge investigation and monitoring 5. BMP efficacy monitoring 6. MS4 monitoring Current updates are included in Engineering Consent Agenda Attachments 2, 5b, 5c, and 5d.
Construction Site Stormwater Runoff Control Program (MS4 Minimum Control Measure #4)	Sediment and erosion control inspections with escalating enforcement response. Current updates are included in Engineering Consent Agenda Attachment 6.
Stormwater Plan Review & Related Activity Program (MS4 Minimum Control Measure #5)	SCDHEC delegated plan review-related activities. Current updates are included in Engineering Consent Agenda Attachment 7.
Ditch Inspection/Maintenance Program (MS4 Minimum Control Measure #6)	Continued coordination with SCDOT, Beaufort County and Town Public Works to inspect and maintain ditches within the Town's jurisdiction. Town is initiating an easement acquisition program. Current updates are included in Engineering Consent Agenda Attachment 8 and under "Public Works."
Septic System Maintenance Program	FY18 funding is \$10,000 and administered by Growth Management via the Neighborhood Assistance Program (NAP). On-going assistance offered to Town residents regardless of financial status through Neighborhood Assistance Program. Current updates, as reported by NAP, are included in Engineering Consent Agenda Attachment 9.
Sewer Connection Program	In FY18 Council allocated \$200,000 for a Sewer Connection Program as well as \$10,000 for assistance to connect income-qualified individuals to existing sanitary sewer as part of the Neighborhood Assistance Program. Council adopted the Sewer Connection & Extension Policy at 9/26/17 meeting. CIP projects will be prioritized as part of FY19 Budgeting Process. Sewer Connection Ordinance changes anticipated 1st quarter 2018. Sewer Connection Policy is under development and anticipated for WAPAC review in 2nd quarter 2018.

MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory

Stormwater Inventory Collection



Collection Status

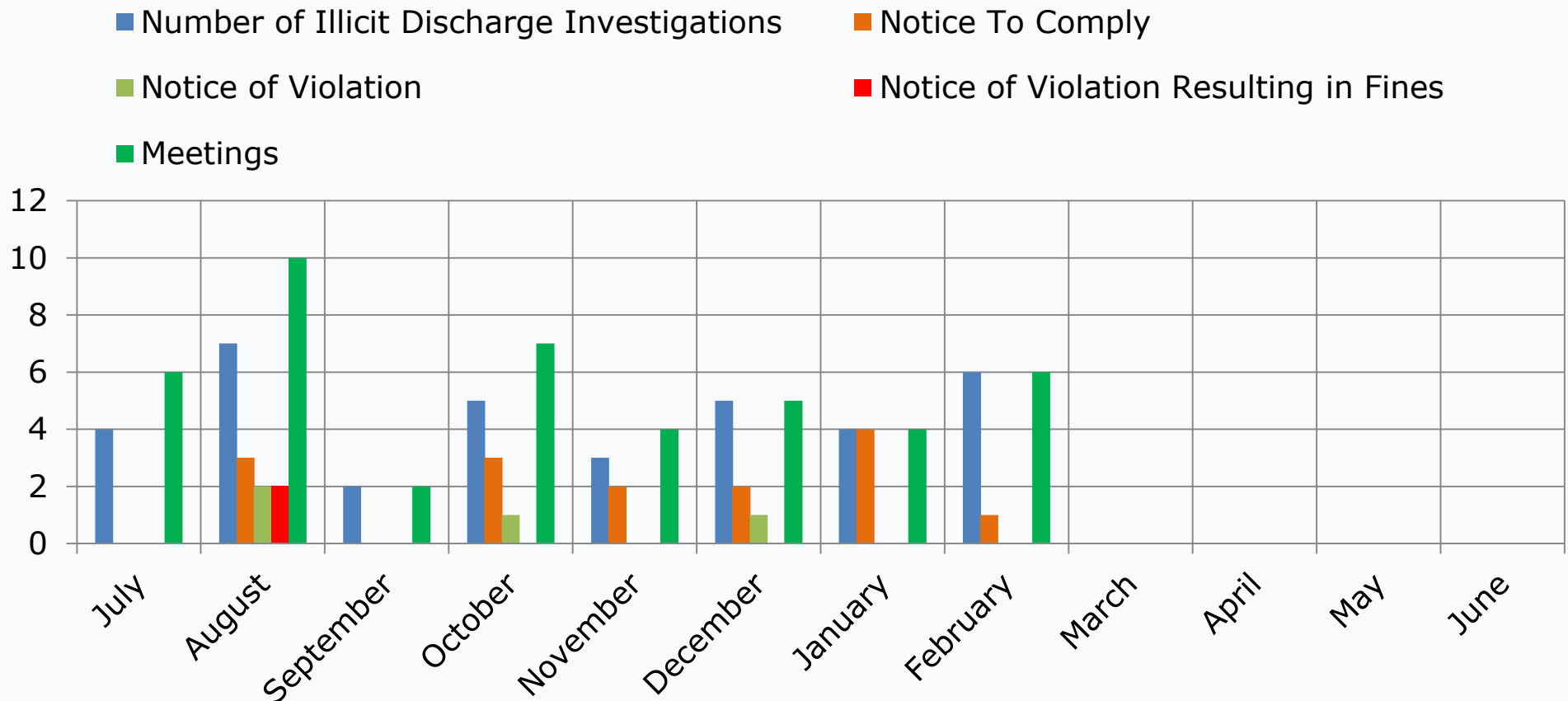
- Completed
- In Progress
- Inventoried SW Utilities
- Mid River/Old Town
- Rose Dhu Watershed
- Stoney Creek Watershed

UNSCA, INC.
This map was created for the Town of Bluffton as part of a contract for the purpose of providing information to the Town of Bluffton. The data and information on this map were obtained from the Town of Bluffton and are provided as is. UNSCA, INC. does not warrant the accuracy, completeness, or timeliness of the information on this map. The Town of Bluffton is not responsible for any errors or omissions on this map. The Town of Bluffton is not responsible for any damages or liabilities arising from the use of this map. The Town of Bluffton is not responsible for any damages or liabilities arising from the use of this map.

Stormwater Infrastructure Inventory Collection Status

FY 2018 YTD Collection Totals	3,324
FY 2017 Collection Totals	3,874

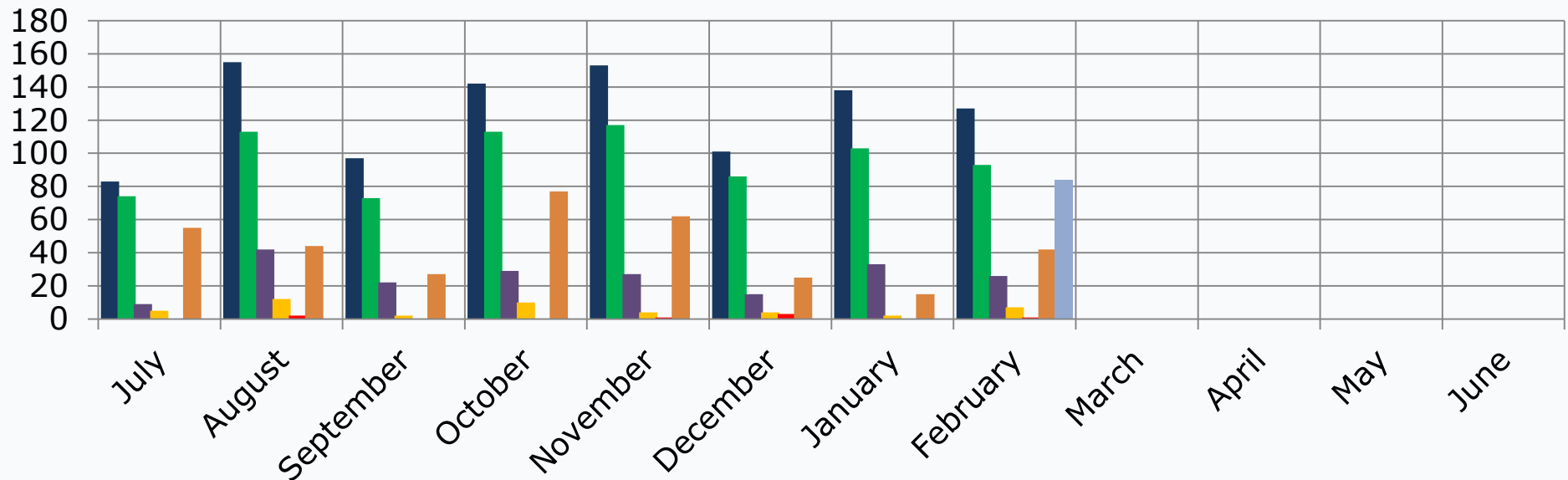
MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2018 YTD Totals	36	15	4	2	44
FY 2017 Totals	50	19	8	13	67

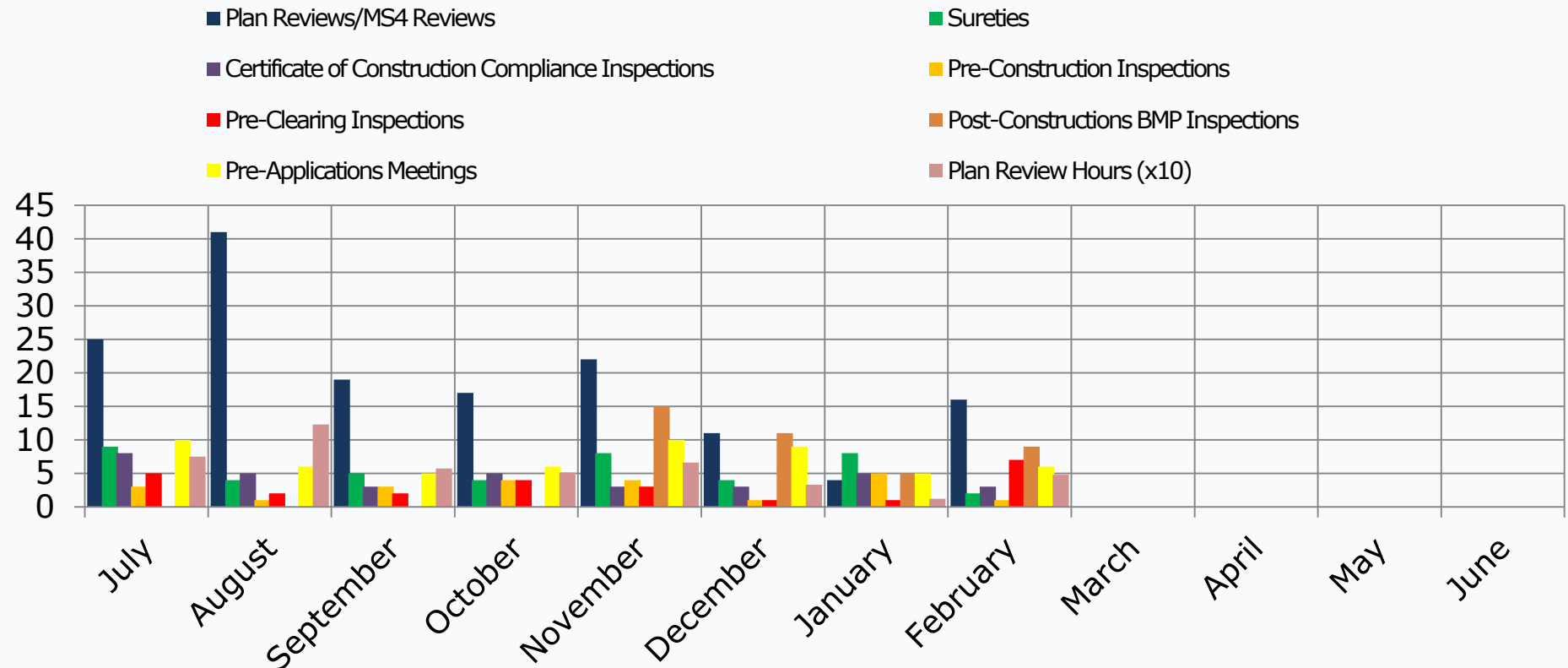
MS4 Minimum Control Measure #6 - Construction Site Stormwater Runoff Control

- Erosion & Sediment Control Inspections (E&SC)
- Number of Inspections Passed
- Number of Notice To Comply (NTC)
- Number of Notice of Violation (NOV)



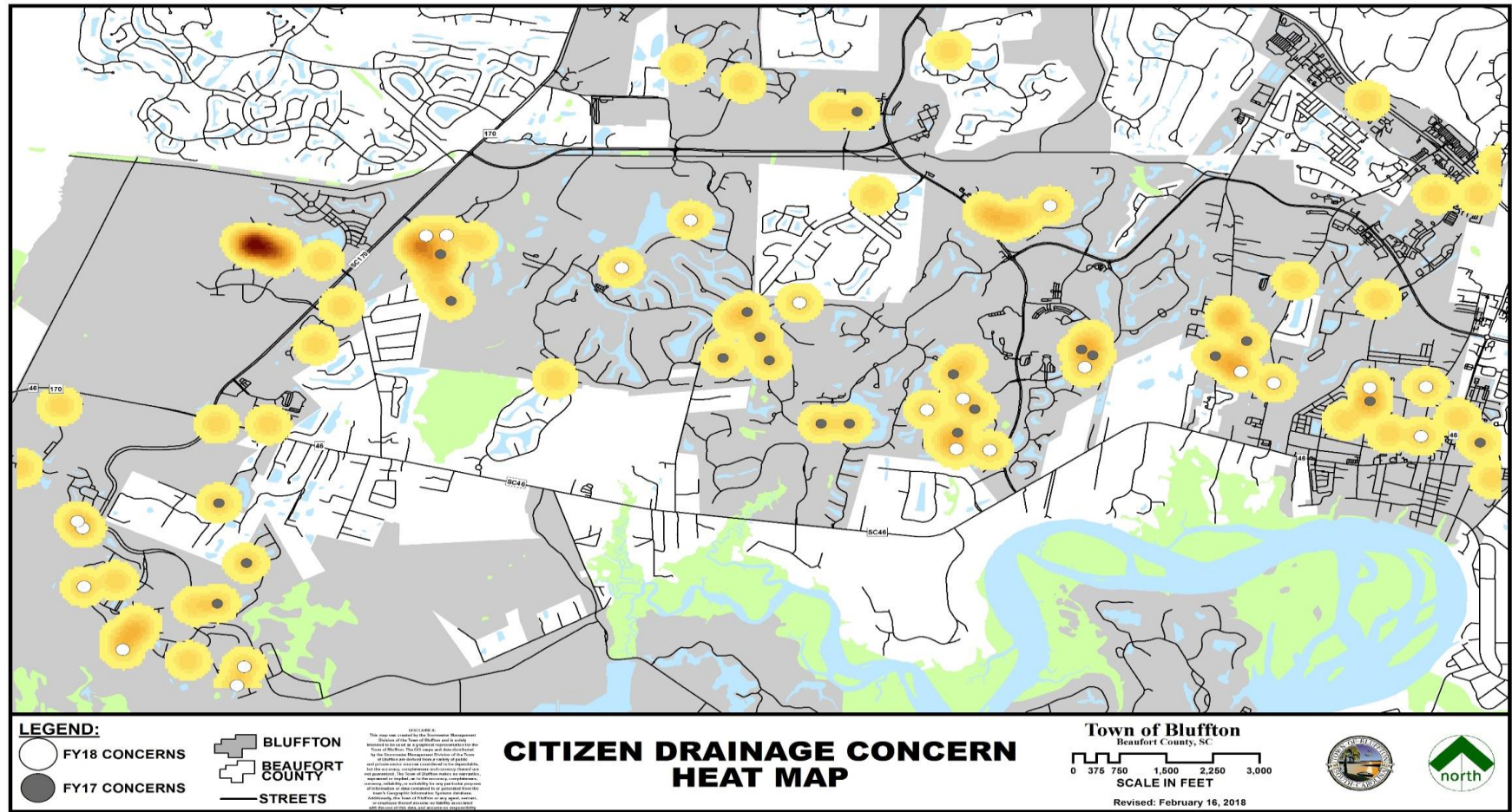
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2018 YTD Totals	996	772	203	46	7	347
FY 2017 Totals	1,219	862	233	58	10	237

MS4 Minimum Control Measure #7 Stormwater Plan Review & Related Activity



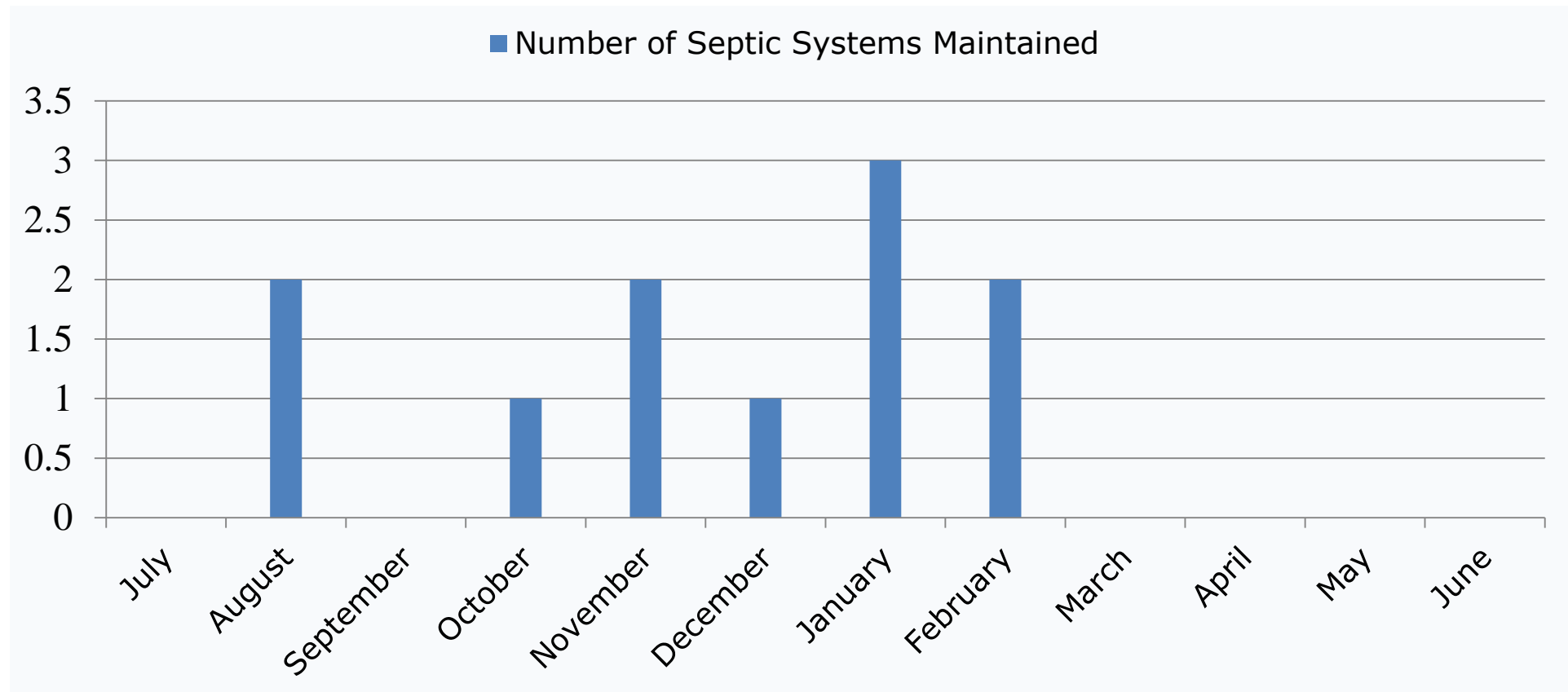
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2018 YTD Totals	155	44	35	22	25	40	57	775 Hrs.
FY 2017 Totals	253	62	96	47	45	7	23	1,265 Hrs.

Citizen Drainage Concern Heat Map (Drainage, Maintenance and Inspections)



	Number of Drainage Concerns Investigated	Number of Meetings
FY 2018 YTD Totals	42	58
FY 2017 Totals	72	80

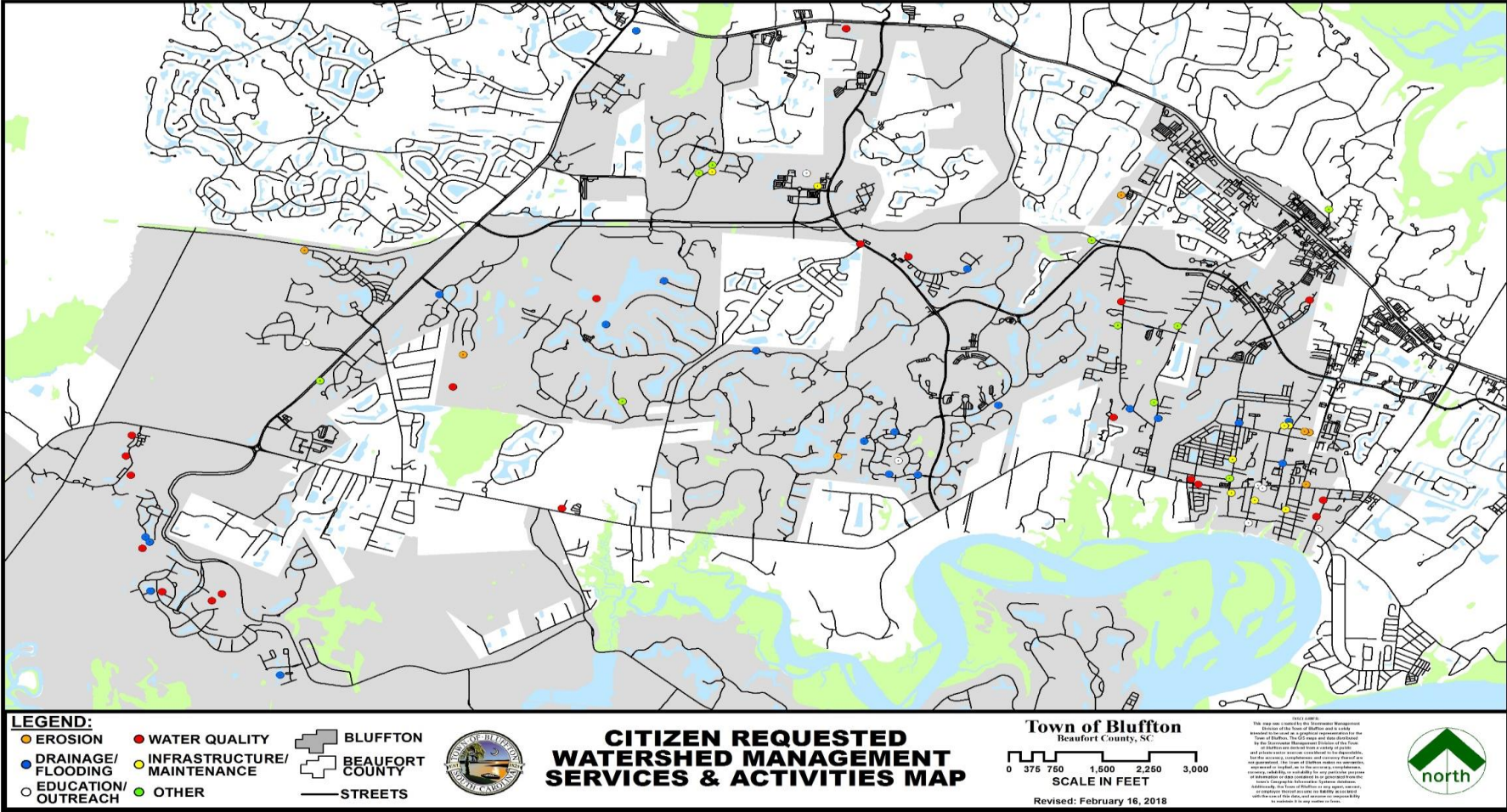
Septic System Maintenance Assistance



	Number of Septic Systems Maintained
FY 2018 YTD Totals	11
FY 2017 Totals	18

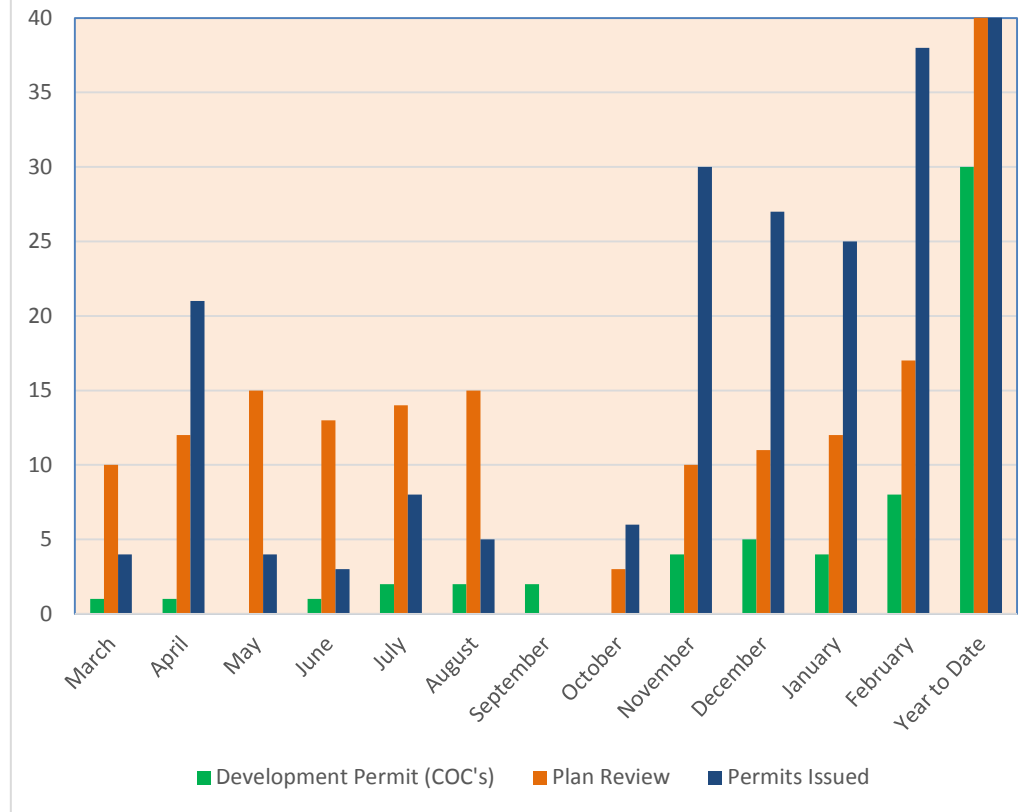
Requests for septic system maintenance are down due to completed connections along Jason St., Buck Island Road and Simmonsville Road as part of the Phase #3/4 BIS Sewer projects.

Citizen Request for Watershed Mngt. Services & Activities Map



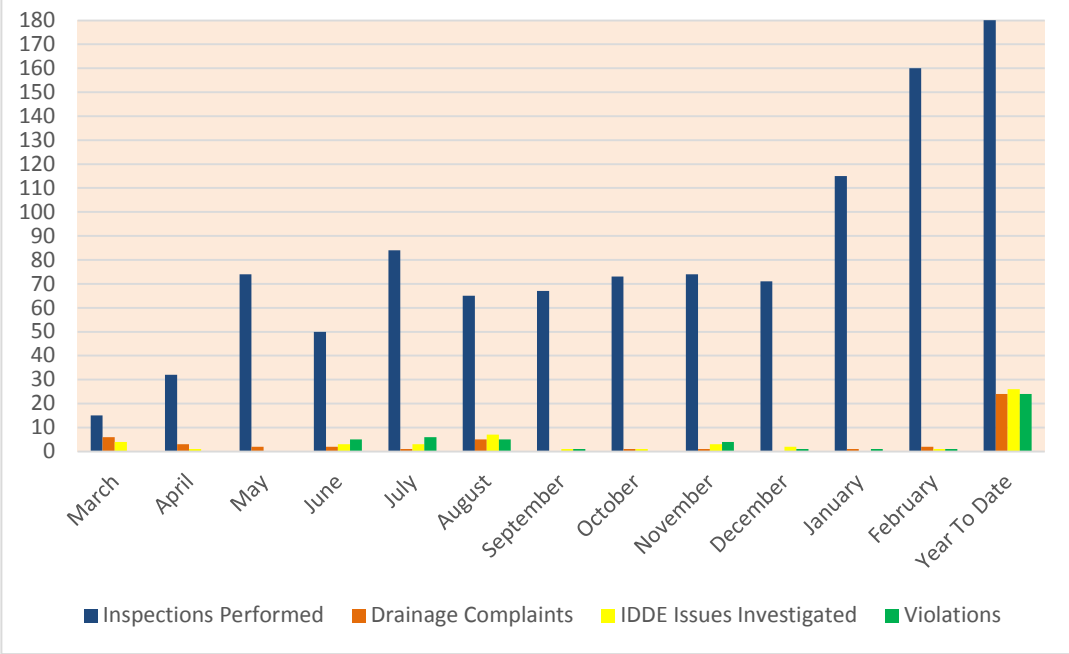
	Number of Citizen Requests Investigated	Number of Meetings
FY 2018 YTD Totals	51	59
FY 2017 Totals	53	82

MS4 Minimum Control Measure #5 Stormwater Plan Review



TYPE	March	April	May	June	July	August	September	October	November	December	January	February	Year to Date
Development Permit (COC's)	1	1	0	1	2	2	2	0	4	5	4	8	30
Plan Review	10	12	15	13	14	15	0	3	10	11	12	17	132
Permits Issued	4	21	4	3	8	5	0	6	30	27	25	38	171

MS4 Minimum Control Measure #4 Erosion Sediment Control Inspections



TYPE	March	April	May	June	July	August	September	October	November	December	January	February	Year To Date
Inspections Performed	15	32	74	50	84	65	67	73	74	71	115	160	880
Drainage Complaints	6	3	2	2	1	5	0	1	1	0	1	2	24
IDDE Issues Investigated	4	1	0	3	3	7	1	1	3	2	0	1	26
Violations	0	0	0	5	6	5	1	0	4	1	1	1	24

South Carolina NPDES Permit # SCR030000
Small Municipal Separate Storm Sewer System (SMS4)
Annual Report Template

South Carolina NPDES Permit # SCR030000
Small Municipal Separate Storm Sewer System (SMS4)
Annual Report Template

Permit Coverage #SCR 030000 Reporting Period: 12/01/2016 to 12/01/2017

Permittee: Beaufort County

Program Name: Beaufort County MS4

Reporting for more than one Program:

(Prepare copies of this page for each Program and attach to this report.)

Responsible Official Information

(Enter the information of the principal executive officer, mayor, or other duly authorized employee/elected official.)

Name: Joshua Gruber Title: Interim County Administrator

Telephone Number: 843-255-2026 E-mail Address: JGruber@bcgov.net

Mailing Address: 100 Ribaut Road Beaufort, SC 29902

Program Manager Information

(Enter the information of the person who is responsible for daily implementation of the program.)

Name: Eric Larson Title: Stormwater Manager

Telephone Number: 843-255-2805 E-mail Address: Elarson@bcgov.net

Mailing Address: 120 Shanklin Road, Beaufort SC 29902

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Responsible Official Signature: _____ Date: _____

(The responsible official may authorize another person or person occupying a specific position to certify this report if this authorization is made in writing and submitted to the Department. Please attach a copy of the authorization with this report, if applicable)

Submit the annual report to:
South Carolina Department of Health and Environmental Control
Bureau of Water, Water Pollution Compliance Section
2600 Bull Street
Columbia, SC 29201-1708

Questions? Contact (803) 898-4300

I. Special Conditions Applicable to Stormwater Discharges to Sensitive Waters

A. General (3.1)

1. Has an assessment been conducted to determine if the MS4 discharges to sensitive waters as described in the Permit Part 3? Yes No (what is the target date of completion of the assessment?) _____

2. Does the SWMP specifically address these sensitive waters through BMP, system design, etc.? Yes No

3. Does the MS4 discharge to waters classified as Outstanding Resource, Trout, or Shellfish Harvesting? If so, list the waters (3.5): No Yes May River, Colleton (Okatie) River, New River, Whale Branch West, Coosaw River, Beaufort River, Morgan River, Broad River, Calibogue Sound, and Coastal waters of St. Helena Island.

B. TMDL Monitoring and Assessment Plan (3.2)

1. Does the MS4 discharge to receiving waters within a TMDL watershed? If yes, list the water body and the pollutant(s) of concern. No Yes (Watershed) – Okatie River (Use) Shell Fish – (Cause) Fecal Coliform; (Watershed) – Beaufort River (Use) Aquatic Life – (Cause) Dissolved Oxygen; (Watershed) – Chechessee Creek River (Use) Shell Fish – (Cause) Fecal Coliform

2. Which of the TMDL pollutant(s) of concern listed above have the potential to occur within the MS4? Fecal Coliform, Dissolved Oxygen

3. Report the current stage of development of a monitoring and assessment plan. Mark one or more that most accurately reflects the current status of the program as a whole:

Not started Research/Development Implementation

4. Has the plan been submitted to the Department?

Yes No, target date for submission: A Dec. 1, 2018 update will include the additional TMDLs added as a result of “permit by rule” change in 2017.

5. Has monitoring been conducted for the pollutant(s) of concern in the past reporting year?

Yes (SEE ATTACHED EXHIBIT A) No, target date to begin monitoring: _____

6. Are there any updates to the plan for this reporting year?

No Yes

MCM6 has been modified to combine BMPs A and D and to clarify the intent of those activities in a new BMP A.

7. Provide a brief description of the progress made on the plan in this reporting year and evaluate its effectiveness. The County began sampling based on the Stormwater Master plan recommendations in 2015. Attached are the results of the monitoring (EXHIBIT A). Monitoring at these locations will continue through 2018 at which time the County will analyze the results and determine if there is a possible connection to local land use and the pollutant of concern. At that time a decision will be made with regard to monitoring point locations per the Stormwater Management Plan recommendations. If the source of the pollutant of concern is identified, the County will take appropriate action. The change in the jurisdictional boundary from UA to countywide in 2017 has resulted in a need to update the SWMP and Monitoring Plan in Permit year 3. In

addition, a new capital improvement project is scheduled to begin in 2018 which will redirect stormwater flow from the Okatie River into a water quality pond to assist in meeting the County's requirement to reduce fecal coliform concentrations by 51%. Also, a standard nutrient plan for all Equestrian centers is being added to the BMP manual to provide a standard for spreading and disposing of manure to eliminate a potential IDDE to discharge off site. In 2017 the County performed facility inspections on the Oldfield Equestrian Center and is providing additional education and courtesy inspections to assist in training staff on the correct way to dispose of manure.

C. Discharges to Impaired Water Bodies (3.4)

1. Does the MS4 discharge to receiving waters on the 303(d) list of impaired waters? If yes, list the water body and the pollutant(s) of concern. No Yes _____

BASIN	HUC_12	DESCRIPTION	STATION	USE	CAUSE(S)
SALKEHATCHIE	030502070704	COMBAHEE RVR AT US 17 10 MI ESE YEMASSEE	CSTL-098	AL	DO
SALKEHATCHIE	030502070704	COMBAHEE RVR AT US 17 10 MI ESE YEMASSEE	CSTL-098	FISH	HG
SALKEHATCHIE	030502071101	COOSAW RVR NEAR MOUTH OF BULL RVR	RO-02005	AL	CU, TURBIDITY
SALKEHATCHIE	030502071101	BULL RIVER WHERE WILLIMAN CREEK AND WIMBEE CREEK MEET WITH THE BULL RIVER BETWEEN CHISOLM AND BUZZARD ISLANDS CLOSE TO THE CHISOLM ISLAND SIDE OF BULL RIVER.	RO-09367	AL	TURBIDITY
SALKEHATCHIE	030502071101	TRIBUTARY TO BULL RIVER, 7.5 M NE OF BEAUFORT	RT-01643	AL	TURBIDITY
SALKEHATCHIE	030502071101	WIMBEE CK 0.7 MI SE OF MOUTH OF S WIMBEE CK	RO-036037	AL	TURBIDITY
SALKEHATCHIE	030502071102	TIDAL CK NEAR CONFL OF COOSAW AND BULL RVR'S CHISOLM ISL	RT-02015	AL	CU, TURBIDITY
SALKEHATCHIE	030502071102	CAMPBELL CREEK AT WHALE BRANCH	14-02	SHELLFISH	FC
SALKEHATCHIE	030502071102	FIRST SPLIT ON HALFMOON CREEK ON SOUTHERN SIDE OF BROWNS ISLAND	14-13A	SHELLFISH	FC
SALKEHATCHIE	030502071102	MCCALLEYS CREEK 2.4 MILES UPSTREAM OF SHELLFISH SITE 15-33	RT-11015	AL	TURBIDITY
SALKEHATCHIE	030502071103	TRIB TO SPARROW NEST CK NEAR DATHA ISLAND	RT-02027	AL	CU
SALKEHATCHIE	030502071103	COFFIN CREEK MOUTH AT MORGAN RIVER	16A-27	SHELLFISH	FC
SALKEHATCHIE	030502071103	COFFIN CREEK, HEADWATERS AT SHRIMP DOCKS	16A-28	SHELLFISH	FC
SALKEHATCHIE	030502071103	EDDING CR AT SMALL TRIBUTARY BETWEEN STATIONS 9 AND 18	16A-23	SHELLFISH	FC
SALKEHATCHIE	030502071103	EDDING CREEK AT SHRIMP DOCK	16A-18	SHELLFISH	FC
SALKEHATCHIE	030502071103	JENKINS CREEK, 500FT. NORTH OF STORMWATER AT DAWTAW ISLAND GOLF COURSE,	16A-30	SHELLFISH	FC
SALKEHATCHIE	030502071103	PINE ISLAND CREEK NEAR CONFL VILLAGE CREEK	16A-38	SHELLFISH	FC
SALKEHATCHIE	030502071103	ROCK SPRINGS CREEK, UPPER REACHES	16A-19	SHELLFISH	FC
SALKEHATCHIE	030502071103	COFFIN CK 0.7 MI SE OF CONFL W/ MORGAN RVR	RT-032033	AL	TURBIDITY
SALKEHATCHIE	030502071104	COOSAW RIVER, MIDCHANNEL BETWEEN BULL RIVER AND COMBAHEE RIVER, 1 MILE EAST OF SHELLFISH SITE 14-04	RO-11314	AL	TURBIDITY
SALKEHATCHIE	030502071104	COOSAW RVR NEAR MOUTH OF COMBAHEE RVR	RO-02001	AL	TURBIDITY
SALKEHATCHIE	030502071104	PARROT CREEK AND COOSAW RIVER MARKER #1 SHELLFISH 14-10	MD-281	AL	TURBIDITY
SALKEHATCHIE	030502071104	SAINT HELENA SOUND, 7 M SW OF EDISTO BEACH	RO-01163	AL	TURBIDITY

SALKEHATCHIE	030502071104	ST. HELENA SOUND BELOW THE CONFLUENCE OF THE MORGAN RIVER AND THE COOSAW RIVER BETWEEN THE TIPS OF ST. HELENA ISLAND AND OTTER ISLAND.	RO-09371	AL	TURBIDITY
SALKEHATCHIE	030502080501	BATTERY CREEK - DOWLINGWOOD TRIBUTARY (C6-97)	15-25	SHELLFISH	FC
SALKEHATCHIE	030502080601	POCOTALIGO RVR AT US 17 AT POCOTALIGO	MD-007	REC	ENTERO
SALKEHATCHIE	030502080601	POCOTALIGO RVR AT US 17 AT POCOTALIGO	MD-007	AL	TURBIDITY
SALKEHATCHIE	030502080602	HUSPAH CREEK AT BULL POINT - WHALE BRANCH POG	14-18	SHELLFISH	FC
SALKEHATCHIE	030502080602	HUSPAH CREEK AT RAILROAD TRESTLE	14-14	SHELLFISH	FC
SALKEHATCHIE	030502080605	HABERSHAM CREEK ABOVE STATION #16, FIRST SPLIT	17-16A	SHELLFISH	FC
SALKEHATCHIE	030502080606	COLLETON RIVER AT MOUTH OF CALLAWASSIE CREEK, 4.5 M N OF BLUFFTON	RO-01125	AL	DO
SALKEHATCHIE	030502080607	CHECHESSEE RVR 1.4 MI SE CONFL W/ COLLETON RVR	RO-036032	AL	DO
SALKEHATCHIE	030502080607	CHECHESSEE RIVER, 6.5 M WEST OF PORT ROYAL	RO-01146	AL	DO
SALKEHATCHIE	030502100101	JOHNSON CK WEST OF HARBOR ISLAND 1.75MI SW OF WEST END OF US 21 BRIDGE OVER JOHNSON CK	RT-10115	AL	TURBIDITY
SAVANNAH	030601100202	NEW RIVER 3.4 MI SSE OF SC 170 BRIDGE OVER NEW RIVER	RT-06021	REC	ENTERO
SAVANNAH	030601100301	BEND IN MAY RIVER NEAREST HIGH BLUFF OF PALMETTO BLUFF	19-19B	SHELLFISH	FC
SAVANNAH	030601100301	FIRST UNNAMED TRIBUTARY LEADING FROM GASCIOGNE BLUFF	19-19C	SHELLFISH	FC
SAVANNAH	030601100301	MAY RIVER AT FIRST DOCK IN HEADWATERS PAST BLUFF	19-19	SHELLFISH	FC
SAVANNAH	030601100301	UNNAMED TRIBUTARY NEAR SW CORNER OF CASCIOGNE BLUFF	19-19A	SHELLFISH	FC
SAVANNAH	030601100304	HILTON HEAD ISLAND LANSEND DRIVE	LC-111	REC	ENTERO
SALKEHATCHIE	030502080608	PORT ROYAL SOUND 1.8 MI SW OF TIP OF PARRIS ISLAND	RO-036034	AL	CU

2. Which of the 303(d) pollutant(s) of concern listed above have the potential to occur within the MS4? Fecal Coliform, Enterococcus, Mercury, Turbidity, Dissolved Oxygen, Copper

II. Storm Water Management Program

A. Ordinance Information (4.1)

(Insert your website address if the ordinance is posted online. If your ordinance is not posted online, please submit a hard copy with this report.)

Website:<http://www.co.beaufort.sc.us/departments/Engineering-and-Infrastructure/stormwater-management/documents/Manuals--Plans-page/Beaufort%20County%20BMP%20Manual%20Updated%202012.01.16.pdf> **Hard copy attached:**

B. Storm Water Management Plan (SWMP) (4.1, 4.5)

(Answer the questions below about the SWMP for the current reporting year.)

1. Have there been any changes to the area covered by the MS4? If yes, is this reflected by updates to the SWMP?

No Yes (*explain*): On June 26, 2017, Beaufort County Council took action by resolution to authorize administration to submit a request to amend our Municipal Separate Storm Sewer System (MS4) permit to reflect the County’s desire to be regulated as “permit by rule”, also referred to as “countywide” which includes unincorporated areas (excluding the incorporated), (SEE ATTACHED EXHIBIT B).

2. Are there any proposed changes to the goals or BMP (best management practices) in the SWMP?

No Yes (*explain*): Due to extending the MS4 Boundary area the County has increased monitoring for areas throughout the entire MS4 area. In addition, MCM6 has been modified to clarify and combine the original BMPs A and D into one BMP.

3. Do you have adequate resources to implement your SWMP?

Yes No (*explain*): While the stormwater program has an adequate number of positions to implement the SWMP, staff turnover has impacted implementation timelines.

4. Provide information below about staffing levels for each Minimum Control Measure (MCM). This information should be presented as the amount of individuals performing duties directly related to each MCM and the estimated percentage of their time spent doing so. If you share responsibility for the MCM with another entity, indicate that in the corresponding spaces. All of the municipalities located within the County share the responsibility of inspections, sampling and the Beaufort County Connect app which is used to track complaints.

- MCM 1: (2) 1 at 30% and 1 at 10% - Clemson University Carolina Clear
(5) 1 at 25% and 4 at 10% - Beaufort County Staff
- MCM 2: (2) 1 at 30% and 1 at 10% - Clemson University Carolina Clear
(5) 1 at 25% and 4 at 10% - Beaufort County Staff
- MCM 3: (4) 1 at 25% and 3 at 10% - Beaufort County Staff
(1) 1 at 5% - Bluffton Stormwater Staff
- MCM 4: (4) 1 at 25% and 3 at 10% - Beaufort County Staff
(1) 1 at 5% - Bluffton Stormwater Staff
- MCM 5: (10) 10 at 5% - Beaufort County Staff
(1) 1 at 5% - Bluffton Stormwater Staff
- MCM 6: (6) 1 at 25% and 5 at 10% - Beaufort County Staff

5. Has training been provided to staff as required by the permit in the last reporting year?

Yes (*fill in the table below*) No (*explain, and provide implementation dates*): _____

Date	Topics Covered
01/31/17	Illicit Discharge, Construction site management, dry weather, sediment removal, site restoration (55).
01/19/17	Illicit Discharge Detection and Elimination.
02/06/17	Intro to Hazardous Waste Generation and Handling
03/02/17	SCASM Stormwater Best Management Practices and Water Quality

03/31/17	SESWA Emerging Trends in Stormwater BMP's
04/27/17	International Erosion Control Association "Long Term Maintenance Operation Success"
06/08/17	SCASM Stormwater Enforcement Process. SCASM
07/20/17	SESWA Good Housekeeping Measures
09/7/17	SESWA Clean Water Act
10/19/17	Stormwater Pond Management

III. Minimum Control Measures (MCM)

A. Sharing Responsibility (4.4)

1. Is responsibility shared for any minimum measures through an agreement with another entity?

No Yes (name the entity in the chart below)

MCM 1	Clemson University Carolina Clear
MCM 2	Clemson University Carolina Clear
MCM 3	Town of Bluffton
MCM 4	Town of Bluffton
MCM 5	Town of Bluffton
MCM 6	USC Beaufort (sample collection and analysis)

If you have indicated that you are sharing responsibility above in any MCM, answer the questions below:

2. Have you submitted notice to the Department that you are relying on another entity?

Yes No (submit a copy of any agreements that have not previously been sent to the Department) (SEE ATTACHED EXHIBIT C & K for agreements with Town of Bluffton and USC Beaufort.)

3. If applicable, provide the date of submission of the agreement(s) to the Department: Clemson Agreement was submitted Dec. 1, 2016 with the Year 1 annual report.

4. Are all control measures as stringent as the permit requires?

Yes No (if no, provide an explanation) _____

5. Did the other entity agree in writing to implement the measure on your behalf?

Yes No (if no, provide an explanation) _____

6. Did the other entity implement the measure and agree to report on your behalf?

Yes No (if no, provide an explanation) Clemson report and Bluffton data incorporated into this report.

7. Is the agreement maintained as part of the SWMP?

Yes No (if no, provide an explanation) _____

8. Have you dissolved any agreements with entities this reporting year?

X No Yes (if yes, who?)

III. Minimum Control Measures (MCM)

B. Minimum Control Measure 1: Public Education and Outreach on Storm Water Impacts (4.2.1, 5.3)

1. Use the table below to summarize outreach strategies, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Add rows where needed and attach additional sheets if necessary.

SEE ATTACHED CLEMSON REPORT IN EXHIBIT D

C. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: SEE ATTACHED CLEMSON REPORT IN EXHIBIT D

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: SEE ATTACHED CLEMSON REPORT IN EXHIBIT D. The SWMP MCM 1 BMP Measurable Goals and Implementation Milestones for Years 3 through 5 have been updated to more closely align with the outreach strategies of the Lowcountry Stormwater Partners 2016-2018 Strategic Stormwater Outreach Plan.

III. Minimum Control Measures (MCM)

D. Minimum Control Measure 2: Public Involvement/Participation (4.2.2, 5.3)

1. How can the public find information about the SWMP? The SWMP is published on the County’s website, www.bcgov.net, and located within Appendix G of the County’s BMP Manual.

2. Use the table below to summarize public involvement opportunities, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Add rows where needed and attach additional sheets if necessary.

SEE ATTACHED CLEMSON REPORT IN EXHIBIT D

E. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: SEE ATTACHED CLEMSON REPORT IN EXHIBIT D

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: SEE ATTACHED CLEMSON REPORT IN EXHIBIT D. The SWMP MCM 2 BMP Measurable Goals and Implementation Milestones for Years 3 through 5 have been updated to more closely

align with the outreach strategies of the Lowcountry Stormwater Partners 2016-2018 Strategic Stormwater Outreach Plan.

III. Minimum Control Measures (MCM)

F. Minimum Control Measure 3: Illicit Discharge Detection and Elimination (IDDE) (4.2.3, 5.3)

1. How can the public notify the MS4 of suspected illicit discharges? They can contact the Beaufort County Stormwater Utility to file a complaint or inquiry about a stormwater related issue. Complaints can also be filed through the existing links on the Beaufort County Website. Effective 12/1/2016 the General Public, municipalities and in house staff can submit a complaint through a new app. (Beaufort County Connect) that was created to assist in reporting non-stormwater discharges. The app. will allow the complaints to be identified by type of discharge such as: automobile fluids, chemicals, construction site runoff, restaurant grease trap, SSO, yard clippings etc. The County disburses the complaint to the appointed staff members to investigate complaint. A summary of complaints received through the Connect app. is found in **EXHIBIT I.**

2. Complete the list below for the last reporting year:

- Total number of suspected illicit discharges: SEE ATTACHED EXHIBIT E **
- Total number of illicit discharges found: SEE ATTACHED EXHIBIT E **
- Number of illicit discharges with enforcement escalation (action taken beyond written warning): SEE ATTACHED EXHIBIT E ** Current permitting software reporting functions are limited and do not allow differentiating between types of Stormwater enforcement. The chart in Exhibit E has summary information for all Stormwater enforcement actions. This is an issue the County plans to resolve with the implementation of a new software package in Year 3.
- Total number of illicit discharges eliminated: SEE ATTACHED EXHIBIT E **

** Based on the County’s permit we have developed a data base to track new Stormwater permits which will assist in inspection of construction sites effective 12/1/2017. Exhibit E contains a summary of illicit discharge activity.

3. Use the table below to summarize priority areas (and associated rationale for selection) for screening. If these areas have changed since the last reporting year, provide a brief explanation. Add rows where needed and attach additional sheets if necessary.

Priority Areas	Rationale for Selection	Changed within last reporting year? (If so, provide an explanation.)
Construction Sites	The County has prioritized construction sites due to the increase in development.	The survey results determined that this construction site management could be the cause of sediment runoff.
TMDL and Impaired Water Body	The County has prioritized the illicit discharge screening schedule based on the last year’s monitoring results, septic tank locations, current land use and the most recent survey results.	The County has developed a wet and dry weather screening program and standard operating procedures in Year 1. During the first quarter of 2017, staff defined the sampling locations to complement the monitoring plan

		found in the BMP Manual. SEE ATTACHED EXHIBIT F.
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4. Use the table below to summarize IDDE action items, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Add rows where needed and attach additional sheets if necessary.

IDDE Action Item	Measurable Goal(s)	Progress on Goal(s)	Activities Conducted and Planned <i>(specific implementation dates)</i>
Adequate Legal Authority	Develop an Ordinance, establish authority	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Evaluation	For Year 3, continue implementation.
Outfall Inventory Map Collection	Map outfalls for screening and inspection.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	By Milestone Year 2, 50% of all County owned outfalls were to be inspected. During 2017, post-Hurricane Matthew we visually inspected 100% of the system, but did not map. By 12/01/18 the County will have 75% of all outfalls inventoried and mapped.
Outfall Screening for Illicit Discharge	Develop a citizen reporting tool. Conduct dry weather screening of outfalls.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The BC Connect app was designed to allow residents to communicate with the County regarding IDDE and complaints. The app. is live with 300 Active members, and we anticipate a media outreach to increase members to 1000.
Prioritize Other potential Illicit discharges and non-stormwater discharges	Prioritize screening based on complaints, monitoring results, land use, and survey results.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	In Year 3, we will revisit the “hot spot” list based on history of complaints and recent monitoring results to determine if priority areas need to be adjusted.
Education on IDDE	Educate the Public on IDDE	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Carolina Clear will continue to provide this MCM. SEE ATTACHED EXHIBIT D.
Enforcement	Establish authority to inspect and enforce	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The IDDE ordinance has been adopted and enforcement continues. In Year 2 we began using MUNIS to track IDDE activities. In Year 3, we will be switching to another software with expanded capabilities.
Monitoring Plan	Establish a program to track and sample POCs	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The County is ahead of schedule on implementation of the plan. Trend analysis was performed on Okatie River watershed and presented to the elected officials and public. SEE ATTACHED EXHIBIT G. In Year 3, we will be expanding the monitoring plan due to expanding the permitted area (Permit by Rule) in 2017.

Staff Training	Train applicable staff on IDDE	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	During MCM evaluation, the need to report and document public and staff training separately was identified. A BMP to focus education on staff for the IDDE program was added for Year 3. However, in Year 2, applicable staff was trained using training opportunities through SESWA. Training will continue annually.
Asset Mapping	Map the storm sewer system and assess condition	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Upon evaluation of program needs, it was determined that storm sewer system inventory and inspection should be documented in MCM3 rather than MCM 6. Staff continues to map the system. We are approx. 50% complete.

G. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: All goals were obtained by implementing an IDDE violation data base and obtaining authority to enforcement all non-stormwater discharges. We are active in response to complaints. We have established MOA with other MS4s for monitoring and written understandings with local DHEC staff on responses to failing septic tanks.

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: Overall the IDDE program was a success. Training of in-house staff is required for all staff for the IDDE program. The new Beaufort County Connect App to help track IDDEs has been a success. Residents are now using this app to report IDDE, litter, flooding and maintenance requests. We can improve on advertising the app to improve on number of members. The BC Connect App is also helping guide IDDE activities by clearly identifying areas with a higher than normal density of complaints. Expanding our jurisdiction to Permit by Rule will require updating our monitoring plan.

III. Minimum Control Measures (MCM)

H. Minimum Control Measure 4: Construction Site Storm Water Runoff Control (4.2.4, 5.3)

1. How can the public notify the MS4 of possible noncompliance at construction sites? The public can contact the Beaufort County Stormwater Utility to file a complaint or inquiry about a construction site runoff. Complaints can also be filed through the existing links on the Beaufort County Website. Effective 12/1/2016 the General Public, municipalities and in house staff can submit a complaint through a new app. that was created to assist in reporting non-stormwater discharges. A summary of complaints received through the Connect app. is found in **EXHIBIT I.**

2. How does the MS4 communicate with construction operators to ensure understanding of requirements and improvements that may be needed? A pre-construction meeting is held for all new construction and BMP's are inspected every 30 days at a minimum.

3. Has an enforcement response plan (ERP) been developed and utilized?

X Yes No (*explain*): _____

4. Complete the list below for the last reporting year:

- Number of new construction sites: SEE ATTACHED EXHIBIT E **
- Total number of active construction sites: SEE ATTACHED EXHIBIT E **
- Total number of inspections performed: SEE ATTACHED EXHIBIT E **
- Number of sites with unsatisfactory/noncompliant inspection results: SEE ATTACHED EXHIBIT E **
- Number of sites with enforcement escalation (action taken beyond written warning): SEE ATTACHED EXHIBIT E **. Current permitting software reporting functions are limited and do not allow differentiating between types of Stormwater enforcement. The chart in Exhibit E has summary information for all Stormwater enforcement actions. This is an issue the County plans to resolve with the implementation of a new software package in Year 3.
- Number of sites inspected past the deadline specified in the permit: SEE ATTACHED EXHIBIT E **

**** Based on the County’s permit we have developed a data base to track new Stormwater permits which will assist in inspection of construction sites effective 12/1/2017. Exhibit E contains a summary of plans reviewed and construction site inspections completed.**

5. Use the table below to summarize construction site action items, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Add rows where needed and attach additional sheets if necessary.

Construction Site Action Item	Measurable Goal(s)	Progress on Goal(s)	Activities Conducted and Planned <i>(specific implementation dates)</i>
Plan Review and Permitting	The BC BMP Manual contains plan review and permitting requirements and is reviewed and updated annually to assist applicants in the permitting process.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The plan review process requires applicants to provide BMP’s on all construction plans and provide drainage calculations to ensure sediment is controlled on site.
Stormwater Permit	Educate the community regarding when a SW permit is required for all land disturbance greater than 5000 square feet.	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Issue press release to notify all applicants of new permit procedures. BMP Manual content needs to be updated to reflect DHEC permitting requirements as well to clarify the need for local permits when the 5,000 sq. ft. isn’t the only permitting threshold.
Enforcement	Continue to educate the contractors and public regarding construction site permitting and enforcement.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Increase inspection and training for contractors. In Year 3, we will be switching to another software with expanded capabilities.

I. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: All goals were achieved prior to projected year and are currently being implemented through the ordinance and new BMP manual. Additionally, Preconstruction meetings are held to ensure that initial BMPs are installed prior to grading. A new certificate of completion check list was created to ensure all pipes, ditches, and ponds are built per design and free of debris and sediment.

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: The Construction Inspection program was a success in tracking projects via the Stormwater permit data base. Site Plan review has required a more detailed check list to ensure all aspects of the SWPPP are addressed. The County will be changing to a new data base to track plan review, inspections and enforcement which will link to the close out of permits.

III. Minimum Control Measures (MCM)

J. Minimum Control Measure 5: Post-Construction Storm Water Management (4.2.5, 5.3)

1. Complete the list below for the last reporting year:

- Number of newly completed construction sites: SEE ATTACHED EXHIBIT E **
- Number of inspections performed within 30 days of construction completion: SEE ATTACHED EXHIBIT E **
- Total number of inspections performed: SEE ATTACHED EXHIBIT E **
- Number of sites with unsatisfactory/noncompliant inspection results: SEE ATTACHED EXHIBIT E **
- Number of sites with enforcement escalation (action taken beyond written warning): SEE ATTACHED EXHIBIT E **. Current permitting software reporting functions are limited and do not allow differentiating between types of Stormwater enforcement. The chart in Exhibit E has summary information for all Stormwater enforcement actions. This is an issue the County plans to resolve with the implementation of a new software package in Year 3.

** Based on the County’s permit requirements we have developed a data base to track new Stormwater permits which will assist in inspection of post construction sites effective 12/1/2017.

2. Use the table below to summarize post-construction action items, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Add rows where needed and attach additional sheets if necessary.

Post-Construction Action Item	Measurable Goal(s)	Progress on Goal(s)	Activities Conducted and Planned <i>(specific implementation dates)</i>
Ordinance	Develop an ordinance, or other regulatory mechanism, adequate legal authorities to meet the objectives of the Post-Construction Site Runoff Controls program.	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Ordinance is reviewed on an annual basis and modified when necessary to ensure that all site design review and approval, inspection, and monitoring are implemented and maintained.
Maintenance Agreement	To ensure that all stormwater control measures meet the County’s performance	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Completed	The County has begun recording maintenance easements. Easements are also connected to the inspection data base to allow better tracking of annual

	standards and are being maintained pursuant to the maintenance agreement.	<input type="checkbox"/> Evaluation	inspections.
Enforcement	The County has authority to enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance the Post-Construction Stormwater Management Program. Also, the County has an agreement with the Town of Bluffton to allow each municipality to access each other's jurisdiction.	<input type="checkbox"/> In Planning X Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The County tracks all enforcement through the inspection database, which allows reports to be created and violations issued. The data base also has the ability to schedule re-inspection to ensure compliance. In Year 3, we will be switching to another software with expanded capabilities.
Reporting and Inspection	A Stormwater Permitting database and inspection program was developed to provide structural stormwater controls to be installed pursuant to the County's post-construction program.	<input type="checkbox"/> In Planning X Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	The County tracks inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program.

K. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: All goals were achieved and implemented ahead of projected time line.

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: The County will continue to improve the data base and continue educating BMP owners during the annual inspection.

III. Minimum Control Measures (MCM)

L. Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations (4.2.6, 5.3)

1. Has a comprehensive assessment of the pollutant discharge potential for all municipally owned facilities been conducted? If not, indicate a status and planned completion date in the chart below.

X Yes No In Progress (*explain*): All County owned facilities were reviewed for notable potential for pollution. Those deemed to not have such potential will be removed from consideration in the future.
SEE ATTACHED EXHIBIT H

2. Have yearly comprehensive inspections been conducted at high priority facilities? If not, indicate a status and planned completion date in the chart below.

Yes No In Progress (*explain*): A desktop audit / evaluation of all facilities was completed by 12/1/2017. Follow up inspections will occur in Year 3.

3. Has training been conducted for employees? If not, indicate a status and planned completion date in the chart below.

Yes No In Progress (*explain*): All staff have been trained using a SESWA webinar on IDDE and Good Housekeeping. Two staff members obtained the Hazardous Waste Generation and Handling certification.

4. Use the table below to summarize municipal facility pollution prevention action items, goals, and progress for the current reporting year. In the “activities conducted and planned” section, focus on activities that were conducted in the last reporting year and those that are planned for the upcoming reporting year, providing implementation dates. Ensure that the maintenance and inspection of MS4 catch basins and structural storm water controls are addressed in the chart. Add rows where needed and attach additional sheets if necessary.

Pollution Prevention Action Item	Measurable Goal(s)	Progress on Goal(s)	Activities Conducted and Planned <i>(specific implementation dates)</i>
SPPC Plans	Develop Spill Prevention plans for County Facilities	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input checked="" type="checkbox"/> Evaluation	SPCC is a specific EPA program not entirely related to Stormwater and MS4. It was determined this BMP should be removed and replaced with a revised BMP A below.
Facilities SWPPP Development	Identify priority facilities and develop SWPPPs, SOPs, etc.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	All High Priority facilities were prioritized based on chemicals stored and potential hazardous materials. Audit / Evaluation of facilities was completed and follow up inspections will be completed by 12/1/2018. SEE ATTACHED EXHIBIT H
Training	Provide training program for grounds maintenance, landscaping crews, and roadway and drainage staff.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Continue to train staff for grounds maintenance, landscaping crews, and roadway and drainage staff.
Parking Lot and Street Cleaning	Inventory and prioritize roads for cleaning.	<input type="checkbox"/> In Planning <input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input type="checkbox"/> Evaluation	Due to the increase in development in certain areas of the County the road inventory prioritization has not changed and the County will continue to maintain on an as needed basis. The County has used a contract sweeper. SEE ATTACHED EXHIBIT J. In the remainder of FY 18, the County will consider purchasing a sweeper and hiring an operator in efforts to expand the program.
Asset Management	Asset management of facilities and high priority areas	<input type="checkbox"/> In Planning <input type="checkbox"/> Ongoing <input type="checkbox"/> Completed <input checked="" type="checkbox"/> Evaluation	Upon evaluation of program needs, it was determined that storm sewer system inventory and inspection should be documented in MCM3. Further, facility inventory should be linked with priority assessment and SWPPP development; Facilities were added to a revised BMP A above.

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M. Control Measure Evaluation (5.3)

1. Evaluate the success of this MCM. Refer to goals implemented and achieved, and adherence to the implementation schedule: Training was well received. Additional training will be designed particularly for the potential pollutants of each facility. Additional monitoring at several of the facilities needs to be completed to ensure that there are no IDDE off site. Expanding our street sweeping practices will decrease debris and pollutant loading into our system.

2. Provide an evaluation of where the program needs improvement and explain any actions that will be taken to achieve objectives: Facility operators need to have more of a hands on approach to training for their particular facility. Training of those staff members is a priority. Several County facilities will require extensive upgrades to reach compliance. The County will be performing inspections and monitoring, as needed, to ensure compliance. This should be completed by 12/1/2018.

STORMWATER MANAGEMENT PLAN (SWMP)

Prepared in accordance with SCDHEC Permit (SCR030000)



December 1, 2017

**Beaufort County
120 Shanklin Road
Beaufort, South Carolina
843-255-2805**

Introduction

This Stormwater Management Plan (SWMP) is designed to reduce the discharge of pollutants from Beaufort County, South Carolina Small Separate Storm Sewer System (SMS4) to the maximum extent practicable, to protect water quality and to satisfy the appropriate requirements of the Clean Water Act. The contents are expected to change with time due to the interactive process of developing the SWMP recognized by the Environmental Protection Agency (EPA). EPA permit cycle is over a 5-year term. The first permit term focused highly on data collection, organization, development of programs and public education. During the current cycle the County is required to update the SWMP. This document is a living document and will be updated on an annual basis to reflect accomplishment, potential revisions to program and additions if deemed necessary based on the previous year's program. Revisions made during the permit year are reflected as **Highlighted** Text and/or ~~Strikethrough~~ Text.

This SWMP meets the requirements of the NPDES General Permit for discharges from regulated SMS4's; Permit No. SCR030000, effective December 1, 2015.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Interim County Administrator

Signature

Title/MS4

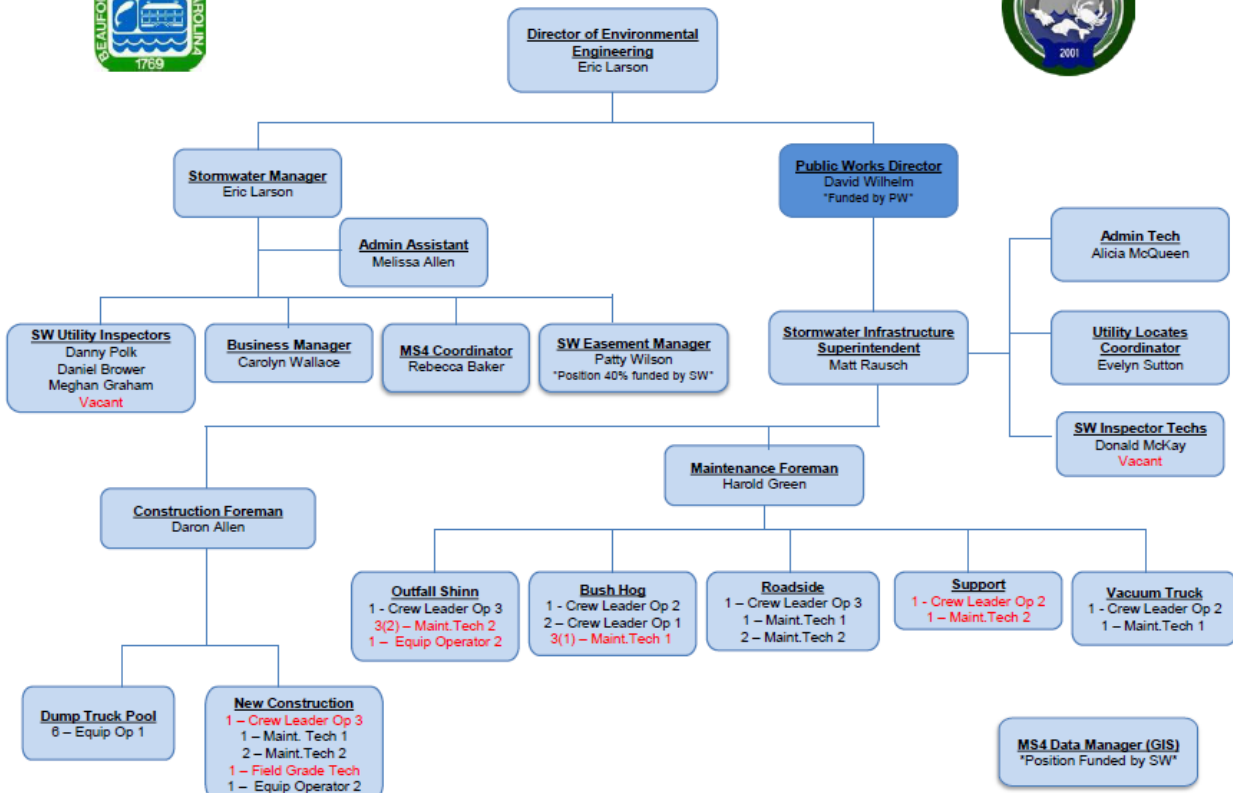
Date

**South Carolina Department of Health and Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201-1708**

Organizational Chart



Beaufort County Stormwater



Updated 1/28/18

() Indicates Vacancies Over 1

**PART I
ADMINISTRATIVE INFORMATION**

Name of municipal entity / tribe / state agency / federal agency / or public institution that owns / operates a small MS4:

Beaufort County
MS4

N/A
NPDES Small MS4 Permit Coverage Number

Joshua Gruber
Responsible Elected Official or Officer

Interim County Administrator
Title

100 Ribaut Road
Street Address

Beaufort
City

SC
State

29902
Zip Code

Indicate whether the SMS4 is a:

- Municipal Entity
- Tribe
- State Agency
- Federal Agency
- Other Public Institution: _____

PROGRAM CONTACT

TECHNICAL CONTACT

Eric Larson
Name

Eric Larson
Name

elarson@bcgov.net
Email Address

elarson@bcgov.net
Email Address

(843) 255-2805
Phone Number

(843) 255-2805
Phone Number

**PART II
SMS4 INFORMATION**

**ITEM A
MS4 SYSTEM**

Urbanized Area (UA), or Core Municipality (if the SMS4 is not located in an UA)	Beaufort County, SC
Latitude and Longitude of the center of the SMS4	32° 14' 50" N, 80° 50' 19" W
Jurisdiction in square miles within current corporate boundaries:	≈ 71 sq miles (Black Outline)
Area of additional urban growth boundary:	≈ 51 sq miles (Orange Outline)
The permit will be used to regulate the:	<input type="checkbox"/> UA portions, as follows (Counties only):
<input checked="" type="checkbox"/> Entire Jurisdiction	Unincorporated Area ≈ 596 sq miles
Total Area: <u>596 sq. miles</u>	Unincorporated, Urbanized Area ≈ 71 sq miles (Black Outline)

Other potential MS4s adjacent to Urbanized Area within Beaufort County:

1. Town of Hilton Head Island, SC
2. Town of Bluffton, SC
3. SCDOT
4. University of SC, Beaufort New River Campus
5. Parris Island

6. MCAS

**ITEM B
STORM DRAINAGE INFRASTRUCTURE**

Give figures for the following features of stormwater drainage infrastructure. For a county government, indicate whether the figures represent the entire county or only the urbanized area. Figures for length and number of culverts and catch basins may be rough estimates. **Figures represent the entire County**

Entire Jurisdiction	≈ 732 596 sq. miles (Beaufort Co. is 732 sq. miles including other MS4 jurisdictions including military bases, Towns, and City.) (Beaufort County)	Urbanized Area(s)	≈ 71 sq miles	COUNTIES ONLY
Storm Sewers	≈ 528,000 Feet	Open Ditches	≈ 10,560,000 Feet	
Culverts	Included in Storm Sewers	Catch Basins	≈ 12,000	
Retention and / or Detention Basins	≈ 1,000			

**ITEM C
STATE THE FOLLOWING, INCLUDE ITEMS IN A COPY OF THE SMS4 MOST CURRENT MAP AS POSSIBLE**

Zoned areas for commercial or industrial activity	No Change	State vocational, technical, college or universities	No Change
Actual areas of commercial or industrial activity	No Change	Federal vocational, technical, college or universities	No Change
Other municipally owned/operated industrial activities	No Change	City Roads	No Change
Municipal or County Wastewater Treatment Plants	No Change	County Roads	No Change
Vehicle Fleet Maintenance Centers	No Change	Perennial and intermittent streams	No Change
Power Plants	No Change	Topography or Drainage Patterns	No Change
Airports	No Change	Landfills (Garbage Convenience Stations)	No Change
Military Installations	No Change	Indian Country lands, if any	No Change
	No Change	Drainage Pipe and Structures	No Change

**ITEM D
IDENTIFYING IMPAIRED STREAMS AND ALL SENSITIVE WATER BODIES**

Identify water bodies (located throughout the SMS4 jurisdiction, or extending one mile beyond the SMS4 service boundaries if cost effective) listed in Part 3 of the permit. Impairments, indicating the nature of pollution (cause) and their sources should be listed below. Visit: <http://www.scdhec.gov/tmdl>

STREAM NAME	WQMS	Impairment(s)
See list of water bodies on the 2016 303(d) List for Beaufort County, located in the 2017 Annual MS4 report, Section 1.C.		

ITEM E		
HAS THE STATE OR EPA ISSUED A TDML FOR ANY STREAMS LOCATED THROUGHOUT THE SMS4 JURISDICTION OR EXTENDING ONE MILE BEYOND THE SMS4 SERVICE BOUNDARY?		

Yes No If yes, list stream, WQMS, and parameter(s) of concern, visit: <http://www.scdhec.gov/tmdl>:

STREAM	WQMS and PARAMETERS OF CONCERN
Okatie River	Shellfish Sites: 18-07, 18-08, 18-16, 18-17; Fecal Coliform
Chechessee Creek	Shellfish Sites: 18-03, 18-09, 18-10, 18-11: Fecal Coliform
Beaufort River	Sites: MD-001, MD-002, MD-003, MD-004, RO-02003; Dissolved Oxygen

**PART 3
STORMWATER MASTER PLAN**

**SECTION 1
PUBLIC EDUCATION**

SECTION ONE

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	Identify Target Pollutants & Audience Messages	Beaufort County POC are; Bacteria, sediment, nutrients, litter, metals, hydrocarbons, pesticides and other that may be identified.
B.	Brochures	Create and distribute target audience based brochures on SW management & pollution protection
C.	Website	Create a standalone SW Website that provided all audiences with quick access to SW pollution prevention information. Update current "SW Kiosks"
D.	Event Participation	Trained staff will attend local events (e.g. Water Festival), will have a display station for face to face contact with public on SW quality goals and objectives and will have information for distribution
E.	School SW Programs	Develop various school curriculum for Elementary, Middle and High School level science programs that can be presented by teachers and/or County SW staff
F.	Community Surveys	Conduct Community wide surveys to gauge the public's knowledge of Stormwater issues
G.	Public Input	Provide opportunities via website or public meetings to citizen input on Stormwater issues
H.	LSP Strategic Plan	Support and implement the Lowcountry Stormwater Partners (LSP) regional stormwater outreach plan through Carolina Clear/Clemson. The outreach plan encompasses the activities and audiences identified in BMPs A-G above. Beginning in year 3, the County will implement public education and outreach primarily through the LSP initiative to be consistent with other MS4s in Beaufort County, to streamline reporting and to adapt to local needs more effectively.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
GOVERNMENT ENTITY	ROLE
Beaufort County SW Utility	Primary Responsible Party

OTHER INSTITUTION	ROLE
Carolina Clear/Clemson	Primary provider of Public Education services as a contractor to the County
County	Events

EQUIPMENT NEEDS (IF APPLICABLE)	
NA	

GROUP	TARGET DESCRIPTION
Carolina Clear/Clemson	Carolina Clear will assist in educating citizens about the impacts of stormwater and means to improve stormwater management and since this program provides outreach opportunities to address a broad range of water quality issues including the impact of stormwater on natural resources, Clemson and the County will collaborate to address stormwater public education and outreach and public involvement/participation. Carolina Clear is a comprehensive approach developed by Clemson University Cooperative Extension Service (CUCES) to inform and educate communities about, among other issues, water quality, water quantity, and the cumulative effects of stormwater. Carolina Clear addresses the special significance of South Carolina's water resources and the role these resources play in enhancing the state's economy, environmental health, and overall quality of life.

**ADDENDUM
TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**
These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION ONE

TABLE 3: BEST MANAGEMENT PRACTICES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Identify Target Pollutants & Audience Messages
Milestone Year 1	Clemson will lead a regional effort that includes strategic identification of behaviors and pollutants that can be addressed through stormwater education programming; implementation of an outreach campaign that seeks to address target behaviors, pollutants, and audiences; website presence and information made available to the public about pollution prevention; annual data report regarding program activities.
Milestone Year 2	Identified possible causes and sources of pollutants.
Milestone Year 3	Continue to identify possible causes and sources of pollutants and develop target audiences to reach with stormwater pollution messages and educational materials.
Milestone Year 4	Continue to identify possible causes and sources of pollutants and develop target audiences to reach with stormwater pollution messages and educational materials.
Milestone Year 5	Continue to identify possible causes and sources of pollutants and develop target audiences to reach with stormwater pollution messages and educational materials – Review and assess success of program and modify as needed

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Distribution of SW Pollution Prevention Brochures to the public
Milestone Year 1	Created SW Pollution Prevention target audience brochures (e.g. general public, sportsmen, etc.). Develop a portable SW display booth

Milestone Year 2	Participated ed as a partner when possible at public events (festivals, etc.), set up booth and man, distribute audience specific brochures- Goal to reach an additional 1,000 people with SW education.
Milestone Year 3	Continue year 2 goals, add more events participation as opportunities become available, Goal – to reach an additional 2,000 people per year
Milestone Year 4	Continue program Goal – Reach 4,000 people per year
Milestone Year 5	Continue program Goal – Reach 5,000 people per year – Assess BMP results and adjust program as necessary

BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Create an interactive Website, with standalone citizen report and complaint link and continue to use the existing stormwater educational kiosks
Milestone Year 1	Clemson University/Carolina Clear and Consortium utilizes their website, facebook and blogs to provide Stormwater Information and Education Website, with links to other programs (both public and private) that promote water quality and preservation practices. Utilize mass media outlets to provide statewide education at an increased cost-effectiveness; as needed, locally utilize mass media such as newspapers, radio, interviews and advertisements to address specific needs. Created billboards banners and promotional giveaways to provide education on POC which served as a way to attract audiences and increase regional consortium visibility. Reached approximately 42000 citizens with the billboards.
Milestone Year 2	Maintained and Updated Website based on customer input, availability of new information and input from both the development and environmental community.
Milestone Year 3	Update Website based on customer input, availability of new information and input from both the development and environmental community
Milestone Year 4	Update Website based on customer input, availability of new information and input from both the development and environmental community
Milestone Year 5	Update Website based on customer input, availability of new information and input from both the development and environmental community

BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Event Participation
Milestone Year 1	Attended 32 events and reached 555 citizens with 6400 participants.
Milestone Year 2	Clemson University/Carolina Clear will delivered ed public education and outreach and public involvement/participation with a goal to influence a more aware and involved public in regards to stormwater management decisions. The educational programs will included d components designed for various residential and commercial audiences and others targeted for their impact to stormwater and nonpoint source pollution. Events will be were held at available facilities in such a way to reach diverse and regionally distributed audiences. Such instruction may included d the furnishing of informational handouts, instructional manuals, promotional materials, webpages, logos, slogan, symbols, and similar such materials, as deemed appropriate by Clemson and the County.
Milestone Year 3	Present at least one (1) program per year that addresses pollution prevention and alternatives for a target audience, as per the region's priorities.
Milestone Year 4	Present at least one (1) program per year that addresses pollution prevention and alternatives for a target audience, as per the region's priorities.
Milestone Year 5	Present at least one (1) program per year that addresses pollution prevention and alternatives for a target audience, as per the region's priorities.

BMP E	MEASURABLE GOALS AND MILESTONES
Goals	School Stormwater Programs
Milestone Year 1	Presented Envirosapes at 16 schools and reached over 1400 students. Created a portable SW display and train staff to man the display for major local events. Goal – Have ready for 2015 Beaufort Water Festival.
Milestone Year 2	Provided d at least one (1) youth program per year within the region such as Adopt-A-Watershed which uses a local watershed, Storm Drain Marking, 4-H Wetlands Project explores estuaries, marshes, and swamps, 4H ₂ O Pontoon Classroom, Engaging teachers in new watershed and stormwater curriculum meeting SC Standards, and EnviroScape.

Milestone Year 3	Provide at least one (1) youth program per year within the region such as Adopt-A-Watershed which uses a local watershed, Storm Drain Marking, 4-H Wetlands Project explores estuaries, marshes, and swamps, 4H ₂ O Pontoon Classroom, Engaging teachers in new watershed and stormwater curriculum meeting SC Standards, and EnviroScape-
Milestone Year 4	Provide at least one (1) youth program per year within the region such as Adopt-A-Watershed which uses a local watershed, Storm Drain Marking, 4-H Wetlands Project explores estuaries, marshes, and swamps, 4H ₂ O Pontoon Classroom, Engaging teachers in new watershed and stormwater curriculum meeting SC Standards, and EnviroScape-
Milestone Year 5	Provide at least one (1) youth program per year within the region such as Adopt-A-Watershed which uses a local watershed, Storm Drain Marking, 4-H Wetlands Project explores estuaries, marshes, and swamps, 4H ₂ O Pontoon Classroom, Engaging teachers in new watershed and stormwater curriculum meeting SC Standards, and EnviroScape-
BMP F	MEASURABLE GOALS AND MILESTONES
Goals	Community Surveys
Milestone Year 1	Created community wide stormwater public knowledge on line survey to integrate which was advertised on television, radio, internet and hard copies at the libraries. Received over 600 responses which will be used to create the Counties. The County will use the results to assist in the POC.
Milestone Year 2	At a minimum of <i>once per permit cycle</i> (anticipated as no less than 3 years and no more than 5 years), and on the Carolina Clear statewide schedule so as to gain regional comparison information, implement statistically relevant survey instruments to gain insight on the awareness, knowledge and behaviors of the general public related to stormwater and watershed management, as well as regional effort awareness. None
Milestone Year 3	None.
Milestone Year 4	Implement second stormwater public knowledge survey, gather and correlate results to compare to measurable baseline data to gauge the public's increase in knowledge of stormwater issues.
Milestone Year 5	Assess two survey results and adjust survey program based upon survey results.
BMP G	MEASURABLE GOALS AND MILESTONES
Goals	Public Input Opportunities
Milestone Year 1	Held 7 town hall meetings in various locations within the County in order to receive input on the BMP manual, stormwater master plan and ordinance. We had 83 citizens attend town hall meetings and received 60 comments from residences within all areas of the County. We have monthly Stormwater Utility Board meetings that allow the Public to present their concerns or suggestions.
Milestone Year 2	Plan ned , develop ed , present ed , and be a participant participated in more than 10 at least three (3) community and public programs per year with emphasis on stormwater education. Provid ed resources to encourage continued learning and practice adoption. Present ed at least one (1) programs per year that addresses addressed pollution prevention and alternatives for a target audience, as per the region's priorities. Develop ed and provid ed for the general public, within means, items such as banners and promotional giveaways to serve as a way to attract audiences and increase regional consortium visibility. At a minimum of <i>once per permit cycle</i> (anticipated as no less than 3 years and no more than 5 years), and on the Carolina Clear statewide schedule so as to gain regional comparison information, implement statistically relevant survey instruments to gain insight on the awareness, knowledge and behaviors of the general public related to stormwater and watershed management, as well as regional effort awareness. [Note that the survey activity is captured in the BMP above.]
Milestone Year 3	Develop and provide for the general public various items such as banners and promotional giveaways to serve as a way to attract audiences and increase regional consortium visibility.
Milestone Year 4	Conduct second public meeting in all areas of the County. Compare results to input received from surveys.
Milestone Year 5	Based on survey results, promote and expand web-based tools to encourage learning about and pollutant of concerns.
BMP H	MEASURABLE GOALS AND MILESTONES
Goals	Support and implement the Lowcountry Stormwater Partners regional stormwater outreach plan through Carolina Clear/Clemson.
Milestone Year 1	
Milestone Year 2	

Milestone Year 3	Implement the activities identified in the LSP 2016-2018 Strategic Regional Stormwater Outreach Plan. Work with the LSPs to develop the strategic plan for 2018 – 2020.
Milestone Year 4	Implement the LSP Strategic Stormwater Outreach Plan.
Milestone Year 5	Implement the LSP Strategic Stormwater Outreach Plan.

**SECTION 2
PUBLIC INVOLVEMENT AND PUBLIC PARTICIPATION**

1. Have (or will, within the first year of permit coverage,) the public been invited to participate in the development and implementation of all parts of the community's SWMP?

Yes If no, explain
 No

2. Are (or will, during the permit term) opportunities created for citizens to participate in the implementation of stormwater controls (e.g., stream clean-ups, storm drain stenciling, volunteer monitoring, and educational activities)?

Yes If no, explain
 No

3. Has the permittee (or will, during the permit term,) ensured that the public can easily find information about the SMS4 SWMP? If available in the web, provide link

Yes <http://www.clemson.edu/public/carolinaclear>
 No

4. Are (or will) written procedures for implementing the **Public Involvement / Participation** MCM incorporated into the SWMP?

Yes If no, explain
 No

Complete Tables 1, 2, and 3 (BMP Measurable Goals and Milestones) in the addendum of this NOI. Identify and outline measurable goals and milestones. Attach completed Section 2 tables to this NOI.

ADDENDUM

**TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**

These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION TWO

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	Storm Drain Stenciling	Install new drain markers via volunteers by advertising at events, community meetings.
B.	Public Meetings/Citizen Panels	Set up formal advertised meetings in various areas of the County to that the County can present SW information and gain citizen input and can raise concerns and/or problems
C.	Community Clean Ups	Set up formal community clean up days for cleaning trash and debris for roadsides, ditches, etc. in the watershed areas
D.	<u>LSP Strategic Plan</u>	<u>Support and implement the Lowcountry Stormwater Partners (LSP) regional stormwater outreach plan through Carolina Clear/Clemson. The outreach plan encompasses many of the activities and audiences identified in BMPs A-C above. Beginning in year 3, the County will implement public education and outreach primarily through the LSP initiative to be consistent other MS4s in Beaufort County, to streamline reporting and to adapt to local needs more effectively.</u>

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
Clemson	Clemson University will assist County staff with various levels of expertise concerning stormwater compliance requirements as promulgated by SC DHEC and USEPA; and PUBLIC awareness and

University/Carolina Clear	education about natural resources is crucial to the process of protecting and restoring water quality.

BEST MANAGEMENT PRACTICES (BMPs) MEASURABLE GOALS AND IMPLEMENTATION MILESTONES (Continued)

GOVERNMENT ENTITY	ROLE
Beaufort County SW Utility	Primary responsible party

OTHER INSTITUTION	ROLE
Clemson University/Carolina Clear	<p>Clemson University will assist County staff with various levels of expertise concerning stormwater compliance requirements as promulgated by SC DHEC and USEPA; and PUBLIC awareness and education about natural resources, as public education is crucial to the process of protecting and restoring water quality.</p> <p>Clemson will deliver public education and outreach and public involvement/participation with a goal to influence a more aware and involved public in regards to stormwater management decisions. The educational programs will include components designed for various residential and commercial audiences and others targeted for their impact to stormwater and nonpoint source pollution. This effort will be delivered through various means., as detailed below in items 4 and 5. Events will be held at available facilities in such a way to reach diverse and regionally distributed audiences. Such instruction may include the furnishing of informational handouts, instructional manuals, promotional materials, webpages, logos, slogan, symbols, and similar such materials, as deemed appropriate by Clemson and the County.</p>

EQUIPMENT NEEDS (IF APPLICABLE)

Storm drain markings

GROUP	TARGET DESCRIPTION
County	Organize and promote marker installation events

**ADDENDUM
TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**
[These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent \(NOI\)](#)

SECTION TWO

TABLE 3: BEST MANAGEMENT PRACTICES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Storm Drain Marker Program
Milestone Year 1	Installed 244 storm drain markers and reached 412 residences.
Milestone Year 2	Identify groups (e.g. Boy & Girl Scouts, Service clubs, etc.) that can provide volunteers to place markers

	on SW structures. Goal – Complete 25% of SW structures in the County. 58 drain markers were installed. Additional advertisement to encourage public involvement is needed to achieve better public participation. To ensure all drains are marked the County may allow in house staff to place markers since public involvement for this task has been very limited.
Milestone Year 3	Continue program and cover another 25% of SW structures.
Milestone Year 4	Continue program and cover another 25% of SW structures
Milestone Year 5	Complete remaining 25% of SW structures
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Public Meeting Citizen Participation Panels
Milestone Year 1	Held 7 town hall meetings in various locations within the County in order to receive input on the BMP manual, stormwater master plan and ordinance. We had 83 citizens attend town hall meetings and received 60 comments from residences within all areas of the County. We have monthly Stormwater Utility Board meetings that allow the Public to present their concerns or suggestions. Established and documented procedures for advertising Citizen Input meeting, conducting such meeting, areas to be targeted, program for such event Goal – Conduct first event.
Milestone Year 2	The County has quarterly <u>monthly</u> Stormwater Utility Board meetings and <u>quarterly</u> Lowcountry Stormwater Partners (Clemson) meetings. The meetings are open to the public and televised to allow citizen input.
Milestone Year 3	Conduct four additional SW Citizen Input meetings in various areas of the County
Milestone Year 4	Conduct four additional SW Citizen Input meetings in various areas of the County. Evaluate effectiveness of the program, adjust program as may be needed.
Milestone Year 5	Conduct four additional SW Citizen Input Meetings in various areas of the County.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Community Clean Up Days
Milestone Year 1	Create and document a Community Cleanup program, identify liabilities and responsibilities, insurance requirement, areas to be targeted, traffic and pedestrian protection procedures, collection and disposal of bags, etc. Goal – Written program in year one.
Milestone Year 2	Organized teams in targeted areas, advertised and promoted cleanup days, provided on-site program management, arranged for collection and disposal, etc. Goal – two cleanup program trials, assess results and modify program as may be necessary. Clemson prepared an annual report detailing milestones achieved in Year 2.
Milestone Year 3	Continue to identify cleanup areas, organize teams and advertise programs Goal – Four cleanup programs
Milestone Year 4	Continue to identify cleanup areas, organize teams and advertise programs Goal – Four cleanup programs
Milestone Year 5	Continue to identify cleanup areas, organize teams and advertise programs Goal – Four cleanup programs
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Support and implement the Lowcountry Stormwater Partners regional stormwater outreach plan through Carolina Clear/Clemson.
Milestone Year 1	
Milestone Year 2	
Milestone Year 3	Implement the activities identified in the LSP 2016-2018 Strategic Regional Stormwater Outreach Plan. Work with the LSPs to develop the strategic plan for 2018 – 2020.
Milestone Year 4	Implement the LSP Strategic Stormwater Outreach Plan.
Milestone Year 5	Implement the LSP Strategic Stormwater Outreach Plan.

SECTION 3
ILLICIT DISCHARGE DETECTION AND ELIMINATION

The following are common sources of illicit discharges to an MS4:

- Sanitary Wastewater
- Car wash wastewaters
- Radiator flushing disposal
- Spills from roadway accidents
- Carpet cleaning wastewaters
- Effluent from septic tanks
- Improper oil disposal
- Laundry Wastewaters/gray water
- Improper disposal of auto and household toxics

STORM SEWER SYSTEM MAP

Does the MS4 currently have a storm sewer system map completed for the entire regulated municipal separate storm sewer system? The map must depict, at a minimum: city streets, topography or drainage patterns, streams, and outfalls (points where the city or county-operated MS4 discharges into the streams or adjacent MS4s).

Yes

No If no, explain

Beaufort County has a working map that has storm structures identified. The map is constantly being updated to capture new stormwater structures and address all parameters mentioned above.

PRIORITY AREAS, FIELD SCREENING, TRACING AND ELIMINATION OF ILLICIT DISCHARGES

Has (or will, within the first year of permit coverage,) the MS4 identified priority areas documenting its basis for the selection?

Yes

No If no, explain

Does the MS4 currently have (or will have) written field screening and analytical protocol to detect and eliminate illicit discharges to the MS4 within one year from the effective date of coverage?

Yes

No If no, explain

See BMP Manual Appendix C.

Does the MS4 currently have procedures for tracing the source of an illicit discharge?

Yes

No If no, explain

See BMP Manual Appendix C.

INSPECTION/SCREENING AND ENFORCEMENT PROCEDURES

1. Does the MS4 presently have personnel and procedures in place for inspection and/or screening for non-stormwater discharges? If yes, please describe and indicated percentage of system inspected and/or screened.

Yes

No

As of Dec. 1, 2017, It is estimated that 50% of the system has been mapped, inventoried, and inspection for condition assessment.

2. Does the MS4 presently have procedures and personnel in place for enforcement of violations of the illicit discharge ordinance? If yes, please describe.

Yes

No

See the Stormwater Ordinance in BMP Manual Appendix G. There have been no changes since Year 1.

3. How are enforcement actions documented?

Enforcement actions are documented through the new stormwater data base.

4. Has the MS4 defined "hot spots" for non-stormwater discharge screening and inspections? If yes, please describe and provide a map of illicit discharge screening priority areas.

Yes

No

Mapped in Year 1. To be evaluated in Year 3 based on change in permitted

boundary due to Permit by Rule status and evaluation of historical complaints received in Years 1 and 2.

PUBLIC INPUT AND COMPLAINTS

1. Does the MS4 presently have procedures in place to receive and consider information and complaints about non-stormwater discharges that are submitted by the public? If so, provide brief description: responsible departments, personnel, steps followed.

Yes

No

The General Public, municipalities and in house staff can submit a complaint through a new citizen “connect” app. that was created to assist in reporting non-stormwater discharges. The app. will allow the complaints to be identified by type of discharge such as: automobile fluids, chemicals, construction site runoff, restaurant grease trap, SSO, yard clippings etc. The County will disburse the complaint to the appointed staff members to investigate complaint. The application will allow the County to run reports to track complaints.

EDUCATION

1. Has the MS4 educated the public and businesses including, but not limited to, auto parts supply, auto repair shop and restaurants, regarding ways to detect, prevent and eliminate illicit discharges? If yes, briefly describe the educational materials, including media used (e.g., written brochures, public service announcements, etc.), the topic(s) covered, intended target audience(s), and the distribution method.

Yes

No

Clemson University/Carolina Clear and Consortium utilizes their website, facebook and blogs to provide Stormwater Information and Education Website, with links to other programs (both public and private) that promote water quality and preservation practices. Utilize mass media outlets to provide statewide education at an increased cost-effectiveness; as needed, locally utilize mass media such as newspapers, radio, interviews and advertisements to address specific needs. Created billboards banners and promotional giveaways to provide education on POC which served as a way to attract audiences and increase regional consortium visibility. New brochures were created for distribution at the landfills to increase education on how to properly dispose of household chemicals.

ILLICIT DISCHARGE ORDINANCES

1. Does the MS4 currently have an ordinance or regulatory mechanism that prohibits non-stormwater discharges into the storm sewer system? If yes, please attach a copy of the ordinance and give page number(s) of this section of ordinance. If No, proceed to the next section (inspections and enforcement).

Yes

No

BMP Manual App.G, Page Number
Pg. G-19

99-202

Ordinance Section Number

2. Does the ordinance or regulatory mechanism clearly define non-stormwater discharges, either through a written description of a non-stormwater discharge or through a listing of unallowable or allowable non-stormwater discharges?

Yes

No If no, explain

3. Does the ordinance or regulatory mechanism allow right-of-entry on private property for inspection of suspected discharges?

Yes

No If no, explain

4. Does the ordinance or regulatory mechanism prohibit dumping?

Yes

No If no, explain

5. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to eliminate non-stormwater discharges in the event of violations? If yes, please note page number and paragraph number.

Yes No BMP Manual G-32 Page Number 32 Sec. 99-502 Paragraph Number

6. What is maximum penalty in ordinance or regulatory? Please note maximum penalty, page number and paragraph number.

Yes No Criminal Max. Penalty \$1000.00 BMP Manual G-13 Page Number G-13 Sec.99-113 Paragraph Number

7. Does the MS4 have ordinance or other regulatory mechanism that prohibits contamination of stormwater runoff from "hot spots" including industrial and commercial properties, restaurants, auto repair shops, auto supply shops, and large commercial parking areas?

Yes No If no, explain

Complete Tables 1, 2, and 3 (BMP Measurable Goals and Milestones) in the addendum of this NOI. Identify and outline measurable goals and milestones. Attach completed Section 1 tables to this NOI.

ADDENDUM
TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES
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SECTION THREE

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	Adequate Legal Authorities	An ordinance was adopted and the current BMP manual was approved and meets all sections of 4.1.4.2 and was attached to the NOI.
B.	Develop Outfall Inventory Map	The County has completed 25-50% of the outfall inventory map. stormwater infrastructure inventory along with revising the current BMP manual that requires new and redevelopment to provide as built prior to receiving certificate of completion. Map and inspect 25% per year until complete.
C.	Outfall Screening for Illicit Discharges	The General Public, municipalities and in house staff can submit a complaint through a new citizen "connect" app. that was created to assist in reporting non-stormwater discharges. The app. will allow the complaints to be identified by type of discharge such as: automobile fluids, chemicals, construction site runoff, restaurant grease trap, SSO, yard clippings etc. The County will disburse the complaint to the appointed staff members to investigate complaint. The County has developed a dry weather screening program and have attached the standard operating procedures in accordance with 4.2.3.2.3.a ii. In addition, we have included the proposed locations for dry weather screening and how we determined location and equipment used. Also, include is the proposed locations of the dry weather screening, explanation on how we determined the location and equipment used.
D.	Prioritize Other Potential Illicit Discharges and Non-storm Water Discharges	The County has prioritized the illicit discharge screening schedule based on the last years monitoring results, septic tank locations, current land use and the most recent survey results. Prioritization will be updated based on revised permit boundary and complaint history. The County has developed an illicit discharge detection elimination program that addresses section 4.2.3.2.3.a ii and was attached with the NOI.
E.	Education on Illicit Discharges	Clemson University/Carolina Clear and Consortium utilizes their website, facebook and blogs to provide Stormwater Information and Education Website, with links to other programs (both public and private) that promote water quality and preservation practices. Utilize mass media outlets to provide statewide education at an increased cost-effectiveness; as needed, locally utilize mass media such as newspapers, radio, interviews and advertisements to address specific needs. Created billboards banners and promotional giveaways to

		provide education on POC which served as a way to attract audiences and increase regional consortium visibility. New brochures were created for distribution at the landfills to increase education on how to properly dispose of household chemicals.
F.	Enforcement	Enforcement policy has been adopted as part of our new stormwater ordinance section 99-501 to 99-504 - Requirements for on-site stormwater systems: enforcement, methods and inspections.
G.	Monitoring Plan	The County has developed a monitoring plan based on the findings from several methods. See Appendix C BMP Manual. We have completed a survey, compiled historical monitoring data, compared last 10 years of land use, location of septic tanks, TMDL and impaired water bodies as the basis of our monitoring program. The monitoring plan will be updated to include the TMDLs in the expanded permit boundaries.
H.	Staff Training on IDDE	Educate staff about IDDE protocols found in BMP Manual to all applicable staff, including inspectors, field personnel, and facility operators.
I.	Stormwater System Asset Mapping	Map the stormwater system throughout the County's unincorporated area. Map and inspect at least 25% of the system per year. The current BMP manual requires new and redevelopment to provide as-builts prior to receiving certificate of completion. This stormwater information will be included in the overall stormwater system asset map to better manage the system and track IDDEs.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
Stormwater Regulatory	MS4 Coordinator and Stormwater Inspectors
BEST MANAGEMENT PRACTICES (BMPs) MEASURABLE GOALS AND IMPLEMENTATION MILESTONES (Continued)	
GOVERNMENT ENTITY	ROLE
Beaufort County SW Regulatory	Eric Larson, Stormwater Manager
OTHER INSTITUTION	ROLE
Carolina Clear Clemson University	Ellen, Comeau Coordinator working with all Municipalities in Beaufort County
EQUIPMENT NEEDS (IF APPLICABLE)	
Sampling Equipment	
GROUP	TARGET DESCRIPTION
Beaufort County Stormwater Utility	Equipment necessary for sampling
USCB	Routine and special projects water quality sample collection, Lab services

**ADDENDUM
TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**

These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION THREE

TABLE 3: BEST MANAGEMENT PRACTICES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	<p>Within 24 months of the effective date of this permit, develop an ordinance, or other regulatory mechanism, adequate legal authorities to meet the objectives of the Illicit Discharge Stormwater Management Program consistent with Sections 4.2.3.2.5 and 4.2.3.2.7 of SCRO300000</p> <p>Establish the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Illicit Discharge Stormwater Management Program.</p> <p>Establish the authority to enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater illicit discharges to determine whether there is compliance of the Illicit Discharge Stormwater Management Program.</p> <p>Establish the authority to issue violations to determined establishments and/or owners when illicit discharges and/or non-storm water discharges are determined.</p>
Milestone Year 1	Developed and adopted a new stormwater ordinance setting forth the illicit discharge program, requiring implementation and continued maintenance of outfall inventory data collection. The ordinance included necessary authorities for determining illicit discharges and non-storm water discharges, outfall screening, authority to enter public or private property with outfalls, trace illicit discharges to source, and enforcement.
Milestone Year 2	Complete development of ordinance setting forth the illicit discharge program, requiring implementation and continued maintenance of outfall inventory data collection. Implemented ordinance and continued progress with programs authorized in the ordinance.
Milestone Year 3	Implement ordinance setting forth the illicit discharge program, requiring implementation and continued maintenance of outfall inventory data collection.
Milestone Year 4	Continue implementation of ordinance setting forth the illicit discharge program, requiring implementation and continued maintenance of outfall inventory data collection.
Milestone Year 5	Review and reassess ordinance setting forth the illicit discharge program, requiring implementation and continued maintenance of outfall inventory data collection.

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Develop procedures for field data collection activities and administration tasks for new development. Implement inventory collection of County owned stormwater structures and outfalls. Complete overall inventory map and continue to update map as construction plans are approved and developments are constructed.
Milestone Year 1	Inspected 25% off all outfalls. Developed procedures for field data collection activities and administration tasks for data collection of new development. All development will be required to submit as-builts prior to issuance of the certificate of completion. The new stormwater permit data base will allow the staff to track new BMP's that are constructed during monthly or annual inspection. The Stormwater Department also purchased a video camera that will be able to provide field data on possible stormwater pipe failures. All BMP's will be required to record a maintenance agreement.
Milestone Year 2	Implement inventory of 25% of County owned outfalls. Inspected 100% of the known storm sewer system within the County after Hurricane Matthew including stormwater infrastructure pipes and outfalls.
Milestone Year 3	Implement inventory of another 25% of County owned outfalls. Continue to update map as new development and/or changes occur.

Milestone Year 4	Implement inventory of another 25% of County owned outfalls. Continue to update map as new development and/or changes occur.
Milestone Year 5	Complete inventory map by implementing inventory of remaining 25% of County owned outfalls. Continue to update map as new development and/or changes occur.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Determine a list of significant illicit discharges. Develop and implement procedures for conducting outfall screening with scheduled visits of all outfalls to locate the problem, determine the source of the problem, remove/correct the illicit discharge, organize data collected, and report illicit discharges determined.
Milestone Year 1	Participated in a survey to determine list of significant illicit discharges. Developed procedures for conducting outfall screening with scheduled visits of all outfalls. Report illicit discharges in annual report.
Milestone Year 2	Implemented conducting outfall screening and inspections of reported violations to determine source of illicit discharge. Performed 23 inspections and created documentation in Munis. Results are reported in annual report.
Milestone Year 3	Continue to implement conducting outfall screening and determine source of illicit discharge.
Milestone Year 4	Continue to implement conducting outfall screening and determine source of illicit discharge.
Milestone Year 5	(60 months) Conduct outfall screening with a schedule to visit all outfalls during the permit term. Maintain records of all data collected.
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Determine a list of other potential illicit discharges, non-storm water discharges and incidental non-storm water discharges. Prioritize and establish procedures to evaluate the list of other potential illicit discharges and non-storm water discharges.
Milestone Year 1	Completed survey and held a strategic planning meeting with all local municipalities to identify behaviors that contribute to stormwater pollution as well as audiences that need additional education about stormwater pollution and particular areas of concerns.
Milestone Year 2	Implement procedures for determining list of other potential illicit discharges, non-storm water discharges and incidental non-storm water discharges.
Milestone Year 3	Prioritize investigations for the other potential illicit discharges, non-storm water discharges, and incidental non-storm water discharges.
Milestone Year 4	Begin investigating for other potential illicit discharges, non-storm water discharges, and incidental non-storm water discharges.
Milestone Year 5	Continue investigating for other potential illicit discharges, non-storm water discharges, and incidental non-storm water discharges.
BMP E	MEASURABLE GOALS AND MILESTONES
Goals	Establish education and training to the public on illicit discharges.
Milestone Year 1	The five major pollutants based on the strategic planning effort with Carolina Clear are the following: Post Construction, run off volume, littering, bacteria (septic tanks and SSO) and fertilizer. We have determined the target audience for each pollutant of concern and will continue education and training of the public.
Milestone Year 2	Continued education and training to the public.
Milestone Year 3	Continue education and training to the public.
Milestone Year 4	Continue education and training to the public.
Milestone Year 5	Continue education and training to the public.
BMP F	MEASURABLE GOALS AND MILESTONES
Goals	Track the issuance of notices of violation and enforcement actions. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.

Milestone Year 1	Enforcement policy has been adopted as part of our new stormwater ordinance section. Sec. 99-501 to 99-504. - Requirements for on-site stormwater systems: enforcement, methods and inspections. A database was also created to track illicit discharge and enforcement. The database will also provide reports to assist in determining if an area has consistent violations.
Milestone Year 2	Begin to track issuance of notices of violations and enforcement actions. Notices of violation and enforcement actions have begun to be tracked through MUNIS.
Milestone Year 3	Continue to track issuance of notices of violations and enforcement actions.
Milestone Year 4	Continue to track issuance of notices of violations and enforcement actions.
Milestone Year 5	Review and reassess procedures and database.
BMP G	MEASURABLE GOALS AND MILESTONES
Goals	Measure pollutant levels discharged from identified outfalls to water bodies subject to TMDL.
Milestone Year 1	The County has several watersheds within the County that are impaired and one TMDL. The Okatie River TMDL is identified as having an impairment for fecal. The TMDL has over 10 years of data that is being analyzed to determine possible sources of pollutants such as: wild life, agriculture and failing septic tanks. Developed a TMDL Monitoring and Assessment Plan for discharges of concern located in the TMDL watershed draining to impaired WQMS.
Milestone Year 2	Develop a TMDL Monitoring and Assessment Plan for discharges of concern located in the TMDL watershed draining to impaired WQMS. Determined a schedule for implementing the developed TMDL Monitoring and Assessment Plan. Developed procedures for implementation of water quality monitoring and monitoring database and implement procedures (30 months). Began analysis of historical data to determine trends and loading by looking at the TMDL watershed, Okatie River.
Milestone Year 3	Determine a schedule for implementing the developed TMDL Monitoring and Assessment Plan. Develop procedures for implementation of water quality monitoring and monitoring database and implement procedures (30 months). Continue to implement monitoring schedule and database. Report data and findings of water quality monitoring to DHEC. Update Monitoring Plan for expanded jurisdiction due to change to Permit by Rule.
Milestone Year 4	Continue to implement monitoring schedule and database. Report data and findings of water quality monitoring to DHEC. Develop an Implementation Plan for the Okatie River Watershed.
Milestone Year 5	Continue to implement monitoring schedule and database. Report data and findings of water quality monitoring to DHEC.
BMP H	MEASURABLE GOALS AND MILESTONES
Goals	Staff training on IDDE
Milestone Year 1	
Milestone Year 2	Develop training materials. Train staff. Provided training program webinar developed by SESWA to applicable county staff and inspectors.
Milestone Year 3	Provide annual refresher training and full training for new staff.
Milestone Year 4	Provide annual refresher training and full training for new staff.
Milestone Year 5	Provide annual refresher training and full training for new staff.
BMP I	MEASURABLE GOALS AND MILESTONES
Goals	Map the County owned storm sewer system.
Milestone Year 1	Developed procedures for mapping and condition assessment of the storm sewer system. GIS created data collection software tools and inventory protocols.
Milestone Year 2	Map and assess 25% of stormwater management system. Report "poor" condition areas to the SW Superintendent. Add new stormwater system components accepted in new developments through the as-built process.
Milestone Year 3	Map and assess 25% of stormwater management system. Report "poor" condition areas to the SW Superintendent. Add new stormwater system components accepted in new developments through the as-built process.
Milestone Year 4	Map and assess 25% of stormwater management system. Report "poor" condition areas to the SW

	Superintendent. Add new stormwater system components accepted in new developments through the as-built process.
Milestone Year 5	Map and assess remaining 25% of stormwater management system. Report "poor" condition areas to the SW Superintendent. Add new stormwater system components accepted in new developments through the as-built process.

SECTION 4
CONSTRUCTION SITE RUNOFF PROGRAM
CONSTRUCTION SITE RUNOFF ORDINANCES

1. Do the current ordinances/regulations for the municipal stormwater management program comply with Local, State and Federal public notice requirements? If yes, describe how the public is notified.

Yes
No

Please see attached section Sec. 99-211. of the Stormwater Ordinance which explains how the Public is notified.

2. Do you currently have an erosion prevention and sediment control - or similar - ordinance or regulatory mechanism? If yes, include a copy and reference the page number(s). If No, proceed to the next set of questions below about construction site plans review.

Yes No

Sec. 99-201 Appendix G-17,18 and Sec. 99-309 Appendix G BMP Manual & Sec. 4 Page 4-1 to 4-68

3. Does the ordinance or regulatory mechanism require that site operators implement erosion prevention, sediment control, soil stabilization practices and other controls for land disturbance activities?

Yes No If no, explain

4. Does the ordinance/regulatory mechanism require (explicitly or implicitly) that controls be implemented for any land disturbances greater than or equal to one acre, or less than one acre if part of a large common plan of development or sale that would disturb one acre or more? If yes, note the page number and paragraph number where this is defined.

Yes No A-1 Page Number Appendix A Paragraph Number

5. Does the ordinance or regulatory mechanism contain or reference technical standards for erosion and sediment control? If yes, note the page number and paragraph number where this is defined.

Yes No 4-1 Page Number Section 4 Paragraph Number

6. Do those technical standards meet with or exceed the current SC DHEC construction general permit sections 3.5 and 4.4?

Yes No

7. Do technical standards require that construction activities maintain temporary water quality buffers during construction?

Yes No

8. Does the ordinance or regulatory mechanism clearly define the criteria - primarily who must submit - for submitting erosion and sediment control information or plans? If yes, note page number and paragraph number

Yes No 4-1 Page Number Section 4 Paragraph Number

9. Does the ordinance or regulatory mechanism require approval by the local government prior to commencement of land disturbance activities? If yes, note page number and paragraph number.

Yes No 4-1 Page Number Section 4 Paragraph Number

10. Does the ordinance or regulatory mechanism require re-submittal of erosion and sediment control information or plans if site plans or conditions change during land disturbance activities? If yes, note page number and paragraph number.

Yes No G-5 Page Number 99-103 Paragraph Number

11. Does the ordinance or regulatory mechanism allow right-of-entry for government officials onto construction sites for inspections? If yes, note page number and paragraph number.

Yes No G-25 Page Number 99-103 Paragraph Number

12. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to STOP WORK in the event of non-compliance violations? If yes, note page number and paragraph number.

Yes No G-31 Page Number 99-501 Paragraph Number

13. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to effectively prohibit the discharge of pollutants in wash waters, from washouts, in stormwater runoff and from leaks and spills? If yes, note page number and paragraph number.

Yes No G-1819 Page Number 99-202 Paragraph Number

CONSTRUCTION SITE PLANS REVIEW

1. Does the MS4 presently have in place a technical review process with approval conditioned to meeting all requirements contained in parts 4.2.4 & 5 of the permit (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment construction for construction site runoff?

Yes No If no, explain

2. Does the technical review process require an erosion prevention and sediment control plan to protect water quality with appropriate BMP rationale?

Yes No If no, explain

3. Does the review process include a requirement for pre-construction meeting between the MS4 and site developer, for priority construction sites, including at a minimum those construction activities discharging directly into, or immediately upstream of, waters the state recognizes as impaired or high quality?

Yes No If no, explain

4. If there is a review process, provide a brief narrative or a flow chart of the process, describing the process steps, responsible personnel qualifications (by department, title and contact person), and criteria used for evaluation of information or plans that are submitted.

Yes No If no, explain

~~The review process starts with the Zoning Department with Hillary Austin, Zoning Administrator. Ms. Austin distributes engineering related items such as stormwater construction plans and calculations to the Stormwater Department with Rebecca Baker and Eric Larson, Stormwater Manager who coordinates with the professional engineers of record for questions and comments on the submitted design. The review process starts with the Community Development Department. This department distributes construction plans to the Stormwater Department for review. New and redevelopment plans cannot be approved without approval by the Stormwater Department. This process is illustrated in the BMP Manual in Appendix B-1.~~

RESPONDING TO PUBLIC INPUT AND COMPLAINTS

1. Does the MS4 presently have procedures in place for receipt and consideration of information and complaints submitted by the public?

Yes No

If Yes, please provide a brief narrative of the receipt process and procedures, describing process steps, responsible departments, and personnel (by title). If available, provide information on complaint tracking, documentation, etc:

Before development and permit approval, the public input and complaints are received by the Community Development Department from the public calling the number on the public notice. After construction, complaints are differeed to the Stormwater Utility Department which will resolve the problem by involving the necessary department, Engineering and/or Public Works. A citizen "connect" app. has been created for the public to notify the County of concerns in the area. The complaints will be tracked in a new data base.

ENFORCEMENT AND INSPECTION PROCEDURES

1. Does the MS4 presently have personnel and procedures in place for construction site runoff inspection?

Yes No If no, explain

2. Does the program provide for monthly inspection of priority sites?

Yes No If no, explain

3. Does the MS4 presently have procedures and personnel in place for enforcement to the maximum extend for violations of construction site requirements?

Yes No If no, explain-

4. Does the MS4 use a STOP WORK order to enforce non-compliance with construction site policies and requirements?

Yes No If no, explain

5. How are enforcement actions documented?

A County Stormwater CEPSCI certified employee will issue enforcement violations and violations are tracked. The County is transitioning to a new database to track inspections and enforcement more efficiently.

TRAINING AND EDUCATION

1. Does the MS4 presently make construction site runoff control training/information available to the public, developers, engineers, and contractors? (Clemson University periodically provides training through its Certified Erosion Prevention & Sediment Control Inspection (CEPSCI) course. Local governments are encouraged to refer developers and contractors to these classes.)

Yes No If no, explain

2. Has MS4 staff completed states approved training, such as the Clemson CEPSCI program? Enter the number either way

Yes If yes, how many? No

5 County staff

Complete Tables 1, 2, and 3 (BMP Measurable Goals and Milestones) in the addendum of this NOI. Identify and outline measurable goals and milestones. Attach completed Section 1 tables to this NOI.

ADDENDUM

**TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**

These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION FOUR

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	Revise Stormwater Management Ordinance/ Adequate Legal Authority	<p>Revised stormwater management ordinance, or other regulatory mechanism, to adequate and clearly state the legal authorities to meet the objectives of the construction site runoff requirements for the Stormwater Management Program.</p> <p>Established the legal authority to review designs and proposals for new development and redevelopment to determine whether adequate stormwater runoff control measures will be installed, implemented, and maintained during construction.</p> <p>Established the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Construction Site Runoff Stormwater Management Program.</p> <p>Established the authority to enter private and public property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to construction sites with devices to control erosion and sediment control and other waste at site.</p>
B.	Erosion and Sediment and Other Waste at the Site Control Requirements	Developed requirements for the implementation of appropriate BMPs on a construction site to control erosion and sediment and other waste at the site.
C.	Revise Plan Review Procedures	Developed plan review procedures to determine if the construction site is in compliance with erosion control requirements determined by the County. Set requirements and procedures for a pre-construction meeting and tracking of current construction activities for the County and the public.
D.	Revise Site Inspection Procedures and Penalties	<p>Developed a BMP manual and Stormwater Ordinance to ensure that all erosion control measures meet the County's performance standards to control erosion and sediment and other waste at site. The County shall developed and implemented a written inspection program for construction site controls installed pursuant to the County's construction site runoff control program.</p> <p>The County also created a database to document and maintain records of inspections, findings and enforcement actions and make them available for review by the permitting authority.</p>

E.	Receipt of Public Inquires	Developed procedures for receiving and consideration of public inquires, concerns, and information submitted regarding local construction activities.
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TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
Stormwater Regulatory	Enforcement
Zoning and Planning Community Development	Enforcement and Development Planning
Legal	Enforcement
Building and Code Enforcement	Enforcement
BEST MANAGEMENT PRACTICES (BMPs) MEASURABLE GOALS AND IMPLEMENTATION MILESTONES (Continued)	
GOVERNMENT ENTITY	ROLE
Beaufort County SW Utility	Primary responsible party
OTHER INSTITUTION	ROLE
Carolina Clear Clemson University	Public Education and Training
EQUIPMENT NEEDS (IF APPLICABLE)	
N/A	
GROUP	TARGET DESCRIPTION
N/A	N/A

**ADDENDUM
TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**
These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION FOUR

TABLE 3: BEST MANAGEMENT PRACTICES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	<p>Revised stormwater management ordinance, or other regulatory mechanism, to adequate and clearly state the legal authorities to meet the objectives of the construction site runoff requirements for the Stormwater Management Program.</p> <p>Established the authority to review designs and proposals for new development and redevelopment to determine whether adequate stormwater runoff control measures will be installed, implemented, and maintained during construction consistent with Section 4.2.4.5.f of SCR0300000</p>

	<p>Established the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Construction Site Runoff Stormwater Management Program.</p> <p>Established the authority to enter private and public property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to construction sites with devices to control erosion and sediment control and other waste at site.</p>
Milestone Year 1	Developed ordinance setting forth construction site runoff criteria, requiring implementation and continued maintenance of pre-construction BMPs until close out of project. The ordinance will include all necessary authorities for design review and approval, inspection, and monitoring.
Milestone Year 2	Continued implementation of ordinance setting forth construction site runoff criteria, requiring implementation and continued maintenance of pre-construction BMPs until close out of project.
Milestone Year 3	Continue implementation of ordinance setting forth construction site runoff criteria, requiring implementation and continued maintenance of pre-construction BMPs until close out of project.
Milestone Year 4	Continue implementation of ordinance setting forth construction site runoff criteria, requiring implementation and continued maintenance of pre-construction BMPs until close out of project.
Milestone Year 5	Review and reassess ordinance setting forth construction site runoff criteria, requiring implementation and continued maintenance of pre-construction BMPs until close out of project.
BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Developed requirements for the implementation of appropriate BMPs on a construction site to control erosion and sediment and other waste at the site.
Milestone Year 1	Implemented construction site runoff control standards.
Milestone Year 2	Implemented construction site runoff control standards.
Milestone Year 3	Implement construction site runoff control standards.
Milestone Year 4	Continue to implement construction site runoff control standards.
Milestone Year 5	Review and reassess construction site runoff control standards.
BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Developed plan review procedures to determine if the construction site is in compliance with erosion control requirements determined by the County. Set requirements and procedures for a pre-construction meeting and tracking of current construction activities for the County and the public.
Milestone Year 1	Educated County staff of construction site runoff control standards and plan requirements.
Milestone Year 2	Implemented procedures and requirements for construction site compliance, pre-construction meetings, and tracking of current construction activities for erosion and sediment control.
Milestone Year 3	Implement procedures and requirements for construction site compliance, pre-construction meetings, and tracking of current construction activities for erosion and sediment control.
Milestone Year 4	Implement procedures and requirements for construction site compliance, pre-construction meetings, and tracking of current construction activities for erosion and sediment control.
Milestone Year 5	Review and reassess procedures and requirements.
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	<p>Developed BMP manual and stormwater ordinance to ensure that all erosion control measures meet the County's performance standards to control erosion and sediment and other waste at site. The County shall develop and implement a written inspection program for construction site controls installed pursuant to the County's construction site runoff control program.</p> <p>Created database to document and maintain records of inspections, findings and enforcement actions and make them available for review by the permitting authority.</p>
Milestone Year 1	Developed a stormwater ordinance that references a written inspection program; including issuing infractions, development of a database for tracking and inspecting pre-construction control devices, and a draft written inspection program.
Milestone Year 2	Completed stormwater ordinance and written inspection program.

Milestone Year 3	Implement the stormwater ordinance and inspection program, including to update the database with inspection records, findings and enforcement actions.
Milestone Year 4	Continue to implement the stormwater ordinance and inspection program, including to update the database with inspection records, findings and enforcement actions.
Milestone Year 5	Review and reassess the ordinance and inspection program.
BMP E	MEASURABLE GOALS AND MILESTONES
Goals	Developed procedures for receiving and consideration of public inquires, concerns, and information submitted regarding local construction activities.
Milestone Year 1	Developed procedures for receiving and distributing to key staff for consideration of public inquires, concerns, and information submitted regarding local construction activities.
Milestone Year 2	Completed procedures for receiving and distributing to key staff for consideration of public inquires, concerns, and information submitted regarding local construction activities.
Milestone Year 3	Implement procedures for receiving and distributing to key staff for consideration of public inquires, concerns, and information submitted regarding local construction activities.
Milestone Year 4	Continue to implement procedures for receiving and distributing to key staff for consideration of public inquires, concerns, and information submitted regarding local construction activities.
Milestone Year 5	Review and reassess procedures for receiving and distributing to key staff for consideration of public inquires, concerns, and information submitted regarding local construction activities.

SECTION 5
 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT OR
 PERMANENT / LONG TERM STORM WATER POLLUTION CONTROL MEASURES

POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

1. Will the Post-Construction Stormwater Management Program require that controls are in place to meet the site performance standards in Part 4.2.5.2 to the MEP and to protect water quality?

Yes No If no, explain

2. Does the MS4 currently have in place mechanisms or strategies to address permanent stormwater runoff management from new development or redevelopment projects that result in land disturbance of one acre or more? For example, land use planning requirements, zoning directives, site-based local controls such as riparian buffer zone protection; storage or detention of stormwater prior to release to streams; practices to cause stormwater to percolate the soil rather than runoff immediately; vegetative practices.

Yes No

If Yes, please provide a brief narrative of - and/or references to - the structural and non-structural strategies, describing strategies implemented, Best Management Practices allowed, technical guidance, responsible departments, and personnel (by title).

Sections 2 and 5 of the BMP Manual states: All development that creates runoff and/or discharge may adversely impact water quality in county streams, lakes and tidal waterbodies. Therefore, all proposed development and redevelopment shall be required to submit a Drainage Plan to show compliance with the peak attenuation, water quality, volume and construction pollution control requirements in this manual

SITE PERFORMANCE STANDARDS

1. Has the permittee established, implemented and enforced a requirement that owners or operators of new development and redeveloped sites discharging to the MS4, which disturb greater than or equal to one acre (including projects that disturb less than one acre that are part of a larger common plan of development or sale), design, install, implement, and maintain stormwater control measures that maintain pre-development conditions and protect water quality to the MEP?

Yes No BMP Manual Sect. 2-1 Page Number Sec.:2.1.1 Paragraph Number

PERMANENT STORMWATER CONTROLS SITE MANAGEMENT ORDINANCE

1. Do you currently have an ordinance or regulatory mechanism that addresses permanent stormwater runoff management from new development and redevelopment projects? If yes, reference the page number in your ordinance. If No, proceed to the next section on permanent stormwater management plans review.

Yes No 2-1 Page Number Sec.: 2.1.1 Paragraph Number

2. Does the ordinance or regulatory mechanism require controls to mitigate pollutants in stormwater runoff? If yes, note page number and paragraph number.

Yes No G-14 Page Number 99-115 Paragraph Number

3. Does the ordinance or regulatory mechanism require (explicitly or implicitly) that controls be implemented for any new development or redevelopment projects greater than or equal to one acre, including projects less than one acre that are part of a large common plan of development or sale, that discharge into your small MS4? If yes, note page number and paragraph number.

Yes No 2-1 Page Number Sec.: 2.1.1 Paragraph Number

4. Does the ordinance or regulatory mechanism contain or reference technical standards for water quality controls (e.g., design of detention basins)? If yes, note page number and paragraph number.

Yes No 2-5 Page Number Sec.: 2.1.4 Paragraph Number

5. Does the ordinance or regulatory mechanism clearly define the criteria for submittal -who must submit - of permanent stormwater management design information or plans? If yes, note page number and paragraph number.

Yes No 2-11 Page Number Sec.: 2.3.2 Paragraph Number

6. Does the ordinance or regulatory mechanism require approval prior to construction of permanent stormwater management controls? If yes, note page number and paragraph number.

- Yes No 2-20 Page Number Sec. 2.8.1.21 Paragraph Number
7. Does the ordinance or regulatory mechanism require re-submittal of permanent stormwater management design information or plans if site plans change after the initial design has been approved? If yes, please note page number and paragraph number.
- Yes No D-1 Page Number Appendix D Paragraph Number
8. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to penalize the owner of permanent stormwater management controls for violations? If yes, note page number and paragraph number.
- Yes No G-33 Page Number 99-504 Paragraph Number
9. Does the ordinance or regulatory mechanism allow the MS4 right-of-entry on property where permanent stormwater management controls are installed for inspections? If yes, please note page number and paragraph number.
- Yes No G-6 Page Number 99-104 Paragraph Number
10. Does the ordinance or regulatory mechanism require that permanent stormwater management controls have adequate and long-term operation and maintenance? If yes, please note page number and paragraph number. If no, how does the MS4 owner/operator maintain permanent stormwater management controls?
- Yes No **Appendix G 99-103 Page G-5 and G-6**
11. Does the ordinance or regulatory mechanism require establishment and maintenance of water quality buffers in areas of new development and redevelopment?
- Yes **Appendix G Sec.: 99-300 Page G-25** No If no, explain

PERMANENT STORMWATER MANAGEMENT PLANS REVIEW

1. Does the MS4 presently have in place a technical review process (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment with regard to the impact that permanent stormwater runoff will have on receiving streams? Plan review must specifically address site performance standards and ensure long term maintenance.
- Yes No
- If Yes, provide a brief narrative or a flow chart of the review process, describing the process steps, responsible personnel (by department, title and contact person), and criteria used for evaluation of information or plans that are submitted.

The review process starts with the **Community Development Department with Hillary Austin, Zoning Administrator. Ms. Austin distributes engineering related items such as stormwater construction plans and calculations to the Stormwater Department with Rebecca Baker, MS4 Coordinator who coordinates with the professional engineer of record for questions and comments on the submitted design.**

2. Does the MS4 presently have in place a requirement for submittal of 'as-built' certifications at project completion to ensure that site performance standards and long term maintenance requirements are met?.
- Yes No If no, explain
3. Does the MS4 presently include measures for effective water quality protection in its watersheds?
- Yes No If no, explain
4. Does the MS4 track Post-Construction Stormwater Control measures?.
- Yes No If no, explain
5. Does the MS4 conduct inspection of permanent storm water controls and document all findings and enforcement actions?
- Yes No If no, explain

Complete Tables 1, 2, and 3 (BMP Measurable Goals and Milestones) in the addendum of this NOI. Identify and outline measurable goals and milestones. Attach completed Section 1 tables to this NOI.

ADDENDUM

**TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**

These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION FIVE

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	Adequate legal authorities	<p>Maintain through an ordinance, or other regulatory mechanism, adequate legal authorities to meet the objectives of the Post-Construction Site Runoff Controls program.</p> <p>Establish the authority to review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained.</p> <p>Establish the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program.</p> <p>Establish the authority to enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance the Post-Construction Stormwater Management Program.</p>
B.	Determine BMPs	Review and revise (as necessary) the current Beaufort County Stormwater Manual to include the latest BMPs (non-structural, structural, infiltration, and vegetation).
C.	Plan reviews	Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre (including sites that disturb less than one acre that are part of a larger common plan of development or sale). The site plan review shall address how the project applicant meets the performance standards and how the project will ensure long-term maintenance.
D.	Provide a mechanism to require long-term operation and maintenance of structural BMPs	Implement or require an operation and maintenance plan for the long-term operation of the structural BMPs required by the program. The operation and maintenance plan shall require the owner of each structural BMP to perform and maintain a record of annual inspections of each structural BMP. Annual inspection of permitted structural BMPs shall be performed by a qualified professional.
E.	Inspections of Structural Stormwater Control Measures	<p>To ensure that all stormwater control measures meet the County's performance standards and are being maintained pursuant to the maintenance agreement, the County shall develop and implement a written inspection program for structural stormwater controls installed pursuant to the County's post-construction program for all public and privately owned stormwater control measures with the County.</p> <p>Document and maintain records of inspections, findings and enforcement actions and make them available for review by the permitting authority. Maintain a GIS based inventory of all Post-Construction Stormwater Control Measures.</p>
F.	Enforcement	Track the issuance of notices of violation and enforcement actions. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
Community Development Department	Ordinance assistance
Legal	Ordinance assistance

Building and Code Enforcement	Ordinance assistance and enforcement
BEST MANAGEMENT PRACTICES (BMPs) MEASURABLE GOALS AND IMPLEMENTATION MILESTONES (Continued)	
GOVERNMENT ENTITY	ROLE
Beaufort County SW Utility	Primary responsible party
OTHER INSTITUTION	ROLE
Carolina Clear/Clemson University	Training assistance
EQUIPMENT NEEDS (IF APPLICABLE)	
N/A	
GROUP	TARGET DESCRIPTION
N/A	N/A

ADDENDUM TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI) BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES <i><u>These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)</u></i>	
SECTION FIVE	
TABLE 3: BEST MANAGEMENT PRACTICES	
<p>The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.</p> <p>Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.</p> <p>For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.</p>	
BMP A	MEASURABLE GOALS AND MILESTONES
Goals	<p>Maintain through an ordinance, or other regulatory mechanism, adequate legal authorities to meet the objectives of the Post-Construction Site Runoff Controls program.</p> <p>The County shall have the authority to review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained.</p> <p>The County shall have the authority to request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program.</p> <p>The County shall have the authority to enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance the Post-Construction Stormwater Management Program.</p>
Milestone Year 1	Developed ordinance setting forth design criteria, requiring implementation and continued maintenance of post-construction BMPs. The ordinance will include all necessary authorities for design review and approval, inspection, and monitoring.

Milestone Year 2	Implemented ordinance setting forth design criteria, requiring implementation and continued maintenance of post-construction BMPs.
Milestone Year 3	Continue Implementation ordinance setting forth design criteria, requiring implementation and continued maintenance of post-construction BMPs.
Milestone Year 4	Continue implementation of ordinance setting forth design criteria, requiring implementation and continued maintenance of post-construction BMPs.
Milestone Year 5	Review and reassess ordinance setting forth design criteria, requiring implementation and continued maintenance of post-construction BMPs.

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Review and revise (as necessary) the current Beaufort County Stormwater BMP Manual to include the latest BMPs (non-structural, structural, infiltration, and vegetation).
Milestone Year 1	Completed review and updates of the Beaufort County Stormwater BMP Manual as necessary to implement desired BMPs. Beaufort County Stormwater BMP Manual.
Milestone Year 2	Implemented the Beaufort County Stormwater BMP Manual. Began additional maintenance revisions to the BMP manual as needs were identified through implementation.
Milestone Year 3	Continue to implement the Beaufort County Stormwater BMP Manual.
Milestone Year 4	Continue to implement the Beaufort County Stormwater BMP Manual.
Milestone Year 5	Review and reassess the Beaufort County Stormwater BMP Manual.

BMP C	MEASURABLE GOALS AND MILESTONES
Goals	The County shall conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre (including sites that disturb less than one acre that are part of a larger common plan of development). The site plan review shall address how the project applicant meets the performance standards and how the project will ensure long-term maintenance.
Milestone Year 1	Complete plans review process and procedures in conjunction with developing the stormwater ordinance. Redefined the plans review process and procedures in conjunction with developing the stormwater ordinance, including review and clearly stating criteria for stormwater treatment and design standards.
Milestone Year 2	Implemented plans review process and procedures. Reviewed 113 plans and worked with designers and engineers of record to meet requirements.
Milestone Year 3	Continue to implement plans review process and procedures.
Milestone Year 4	Continue to implement the plans review process and procedures.
Milestone Year 5	Review and reassess the plans review process and procedures.

BMP D	MEASURABLE GOALS AND MILESTONES
Goals	The County shall implement or require an operation and maintenance plan for the long-term operation of the structural BMPs required by the program. The operation and maintenance plan shall require the owner of each structural BMP to perform and maintain a record of annual inspections of each structural BMP. Annual inspection of permitted structural BMPs shall be performed by a qualified professional.
Milestone Year 1	Developed procedures to require an operation and maintenance plan for the long-term operation of the structural BMPs required by the program. Completed procedures to require an operation and maintenance plan for the long-term operation of the structural BMPs required by the program. Made available stormwater control measure (SCM) maintenance plan templates.
Milestone Year 2	Educated SCM operators of maintenance plan requirements. Recorded maintenance agreements and issued a County Stormwater permit in order to schedule annual inspections. The County requires a maintenance plan for each SCM and enters the appropriate data into SCM database.
Milestone Year 3	Continue to implement maintenance plan for each SCM and enter appropriate data into SCM database
Milestone Year 4	Continue to implement maintenance plan for each SCM and enter appropriate data into SCM database.
Milestone Year 5	Complete maintenance plan for all current SCMs and enter appropriate data into SCM database.

BMP E		MEASURABLE GOALS AND MILESTONES	
Goals	To ensure that all stormwater control measures meet the County's performance standards and are being maintained pursuant to the maintenance agreement, the County shall develop and implement a written inspection program for structural stormwater controls installed pursuant to the County's post-construction program. The County shall document and maintain records of inspections, findings and enforcement actions and make them available for review by the permitting authority.		
Milestone Year 1	Created a written inspection program and start to develop stormwater ordinance that references the written inspection program. Begin to setup database for tracking and inspecting post-construction stormwater control measures.		
Milestone Year 2	Completed the written inspection program and stormwater ordinance that references the written inspection program. Completed the setup of a database for tracking and inspecting post-construction stormwater control measures.		
Milestone Year 3	Implement routine inspections.		
Milestone Year 4	Continue to implement routine inspections.		
Milestone Year 5	Complete inspection of every post-construction SCM and documented inspections, findings and enforcement actions in the database.		
BMP F		MEASURABLE GOALS AND MILESTONES	
Goals	Track the issuance of notices of violation and enforcement actions. This mechanism shall include the ability to identify chronic violators for initiation of actions to reduce noncompliance.		
Milestone Year 1	Developed procedures and database for tracking post-construction stormwater control measures violations.		
Milestone Year 2	Identified and input SCMs violations in database. Completed procedures and database for tracking post-construction stormwater control measures violations.		
Milestone Year 3	Continue to identify and input SCMs violations in database.		
Milestone Year 4	Continue to identify and input SCMs violations in database.		
Milestone Year 5	Complete inventory of county-wide inspections of current SCMs and corresponding violation(s).		

SECTION 6
POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

MUNICIPAL FACILITIES AND STORMWATER CONTROL INVENTORY

1. Has the MS4 owner/operator obtained a SC Industrial Stormwater General Permit coverage or a no-exposure waiver for all qualifying municipal industrial activities? If yes, please give permit numbers or copy of the No-Exposure Certification form. .

Yes No **Mosq. Control** **Hilton Head Airport** **Lady's Island Airport** **Permit Numbers(s)**
SCG16000 **SCR00227** **SCR00196**
2 **1** **2**

2. List municipally-owned or operated facilities that have a notable potential for contaminating runoff: for example - vehicle maintenance garages; waste transfer operations; golf courses; salt or other materials storage; landfill. If more than one facility for a given type of operation; give the number of such facilities. Indicate if any of these are covered by an NPDES permit. Is there a documented pollution prevention plan in place for these facilities?

Notable Potential for Pollution (Y/N)	Priority (H/M/L)	FACILITY OR TYPE OF OPERATION	POLLUTANT OF CONCERN	STREET ADDRESS	TYPE_USE	AUDITE D IN PERMIT YR (Y/N)	Activity Covered by NPDES Permit? (Y/N)	Is a Pollution Prevention Plan in Effect? (Y/N)
Y	L	HILTON HEAD AIRPORT TERMINAL	Fuel	120 BEACH CITY RD	Airport	Y	Y	Y
Y	L	LI AIRPORT TERMINAL	Fuel	237 SEA ISLAND PKWY	Airport	Y	Y	Y
Y	L	LI AIRPORT HANGARS	Fuel, Chemicals	237 SEA ISLAND PKWY	Airport	Y	Y	Y
Y	L	LI AIRPORT T-HANGER	Fuels, Chemicals	237 SEA ISLAND PKWY	Airport	Y	Y	Y
Y	L	ARTHUR HORNE BUILDING	Generator Fuel	104 RIBAUT RD	County Administration	N	N	N
Y	L	BIV BLDG 3	Generator	102 INDUSTRIAL VILLAGE RD	County Administration	N	N	N
Y	L	CORONER	Generator	1804 OLD SHELL RD	County Administration	N	N	N
Y	L	DSN OFFICE	Generator	1 WASTEWATER WAY	County Administration	N	N	N
Y	L	COUNTY DETENTION CENTER	Generator	106 RIBAUT RD	Detention Center	N	N	N
Y	H	BIG ESTATE DOC BLDG	Solid Waste	63 BIG ESTATE RD	Drop Off Center	Y	N	N
Y	H	BLUFFTON DOC BLDG	Solid Waste	104 SIMMONSVILLE RD	Drop Off Center	Y	N	N
Y	H	COFFIN PT DOC BLDG	Solid Waste	20 CEE CEE RD	Drop Off Center	Y	N	N
Y	H	CUFFY DOC BLDG	Solid Waste	138 CUFFY RD	Drop Off Center	Y	N	N
Y	H	DAUFUSKIE ISLAND DOC	Solid Waste	186 HAIG POINT RD	Drop Off Center	Y	N	N
Y	H	HILTON HEAD DOC	Solid Waste	26 Summit Drive	Drop Off Center	Y	N	N
Y	H	GATES DOC BLDG	Solid Waste	316 CASTLE ROCK RD	Drop Off Center	Y	N	N
Y	H	LOBECO DOC BLDG	Solid Waste	6 KEANS NECK RD	Drop Off Center	Y	N	N
Y	H	PRITCHARDVILLE DOC BLDG	Solid Waste	54 GIBBET RD	Drop Off Center	Y	N	N
Y	H	SHANKLIN RD DOC BLDG	Solid Waste	94 SHANKLIN RD	Drop Off Center	Y	N	N
Y	H	SHELDON DOC BLDG	Solid Waste	208 PAIGE POINT RD	Drop Off Center	Y	N	N
Y	H	STHEL DOC ATTENDANT BLDG	Solid Waste	639 SEA ISLAND PKY	Drop Off Center	Y	N	N
Y	H	STHEL DOC STORAGE SHLTR	Solid Waste	639 SEA ISLAND PKY	Drop Off Center	Y	N	N
Y	H	STHEL DOC TIRE/OIL SHLTR	Solid Waste	639 SEA ISLAND PKY	Drop Off Center	Y	N	N
Y	L	EMS-1 (EMS HEADQUARTERS)	Generator	2727 DEPOT RD	EMS	N	N	N
Y	M	LI FIRE DISTRICT 1 (SHERIFF HELICOPTER)		146 LADYS ISLAND DR	Fire Department	N	N	N
Y	L	ST HELENA LIBRARY	Generator	6355 JONATHAN FRANCIS SR DR	Library	N	N	N
Y	H	PUBLIC WORKS FUEL STATION	Fuel	94 SHANKLIN RD	Miscellaneous	Y	N	N
Y	L	BASIL GREEN COMPLEX – Maintenance Shed	Herbicide, Fuel	1500 RODGERS ST	PALS	N	N	N
Y	L	BATTERY CREEK INDOOR POOL	Chemicals	1 BLUE DOLPHIN DR	PALS	N	N	N
Y	L	BEAUFORT INDOOR POOL	Chemicals	84A SEA ISLAND PKWY	PALS	N	N	N
Y	L	BLUFFTON POOL	Chemicals	200 BURNT CHURCH RD	PALS	N	N	N
Y	L	BURTON WELLS REC CENTER	Generator	1 MIDDLETON RECREATION DR	PALS	N	N	N
Y	L	CHARLES "LIND" BROWN POOL	Chemicals	1710 GREENE ST	PALS	N	N	N
Y	M	CROSSINGS PARK	Maintenance Shed, Fuel	6 HAIG POINT CIR	PALS	N	N	N
Y	M	LADYS ISLAND PARK - BALL FIELDS	Fuel	20 SPRINGFIELD RD	PALS	N	N	N
Y	L	BCSO	Generator	2001 DUKE ST	Police	N	N	N
Y	M	ANIMAL SHELTER CLINIC	Animal Waste, Cleaners	23 SHELTER CHURCH RD	Public Place	N	N	N
Y	M	ANIMAL SHELTER OFFICE BLDG	Animal Waste, Cleaners	23 SHELTER CHURCH RD	Public Place	N	N	N
Y	M	CAT SHELTER BLDG	Animal Waste, Chemicals	23 SHELTER CHURCH RD	Public Place	N	N	N
Y	H	LRTA	Fuel	25 BENTON FIELD RD	Public Service	Y	N	N

Y	L	MOSQUITO CONTROL OFFICE	Chemicals	84 SHANKLIN RD	Public Service	Y	N	N
Y	H	PUBLIC WORKS MAINTENANCE BLDG	Fuel, Oil	120 SHANKLIN RD	Public Service	Y	N	N
Y	H	PUBLIC WORKS SOUTH	Fuel, Oil	9 BENTON FIELD RD	Public Service	Y	N	N

In addition to considering industrial-type operations, you must also consider municipal infrastructure, and related maintenance activities, maintenance schedules and long-term inspection procedures for structural controls and the proper disposal of waste from storm sewers/catch basins, etc. Also included in this program area is discharge of pollutants from roads and parking lots. See Part 4.2.6.1

MUNICIPAL OPERATIONS POLLUTION PREVENTION

1. Does the MS4's operations and maintenance program have policies and procedures in place that address pollution prevention? If yes, please describe procedures. Consider the following in your response: Municipally owned or operated facility assessment (4.2.6.2), Facility specific stormwater management SOP and facility stormwater controls (4.2.6.3), Storm sewer system maintenance activities-MS4 Maintenance (4.2.6.4), Flood management projects, (4.2.6.5), Pesticide, herbicide and fertilizer application and management in landscape maintenance (4.2.6.6). You may want to incorporate maintenance activities, maintenance schedules; long term inspection procedures for structural and non-structural stormwater controls to reduce floatables and other pollutants; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways; controls for reducing or eliminating pollutants from municipal parking lots, maintenance and storage yards, fleet or maintenance areas with outdoor storage areas, salt/sand storage areas, snow disposal areas, waste transfer stations; disposal of waste removed from storm sewers and the areas listed above; and assessment of impacts on water quality from all of the above.

Yes If no, explain
 No

STAFF EDUCATION AND TRAINING

1. Does the MS4's current operation and maintenance program provide annual training for staff on preventing and reducing stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance?

Yes No If no, explain

2. Are training activities documented? If yes, please describe training and method of record-keeping.

Yes If yes, explain **All records of training are documented as part of our Public education report.**
 No

REQUIREMENTS FOR CONTRACTORS OVERSIGHT

1. Are contractors hired by the permittee to perform municipal maintenance activities required to comply with all municipal operations control measures?

Yes No If no, explain

2. Are oversight procedures documented? If yes, please describe SOP.

Yes While all contractors working for the County are required to comply with the County's BMP Manual, the emphasis has been placed on construction oversight to date. Activities in the next years will focus on maintenance activity oversight in addition to construction oversight.
 No

Complete Tables 1, 2, and 3 (BMP Measurable Goals and Milestones) in the addendum of this NOI. Identify and outline measurable goals and milestones. Attach completed Section 1 tables to this NOI.

**ADDENDUM
 TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
 BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES
*These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)***

SECTION SIX

TABLE 1: BMP MEASURABLE GOALS AND IMPLEMENTATION MILESTONES

	Name	DESCRIPTION
A.	SPCC Plans	Develop spill prevention and control plans for County facilities.
A.	Facilities SWPPP Development	Identify priority facilities and develop SWPPPs, SOPs and training where needed.
B.	Training programs	Provide training program for grounds maintenance, landscaping crews, and roadway and drainage staff.
C.	Parking Lot and Street Cleaning	Prioritize and improve street and parking lot cleaning practices. to reduce the amount of debris and solids in runoff.
D.	Asset Management	Asset management of facilities and high priority areas.

TABLE 2: ADMINISTRATIVE INFORMATION

PRIMARY CONTACT	POSITION OR TITLE
Eric Larson, PE	Stormwater Manager
OTHER DEPARTMENT	ROLE
Public Works (includes solid waste)	SPCC SWPPP implementation
Mosquito Control	SPCC SWPPP implementation
Airports	SPCC SWPPP implementation
GOVERNMENT ENTITY	ROLE
Beaufort County SW Utility	Primary responsible party
Sheriff	SPCC SWPPP Detention Facility implementation
OTHER INSTITUTION	ROLE
N/A	N/A
EQUIPMENT NEEDS (IF APPLICABLE)	
SWPP Plans	
GROUP	TARGET DESCRIPTION
County facility staff	Staff at County facilities subject to stormwater good housekeeping measures.

ADDENDUM

**TO SMALL MS4 NPDES PERMIT NOTICE OF INTENT (SMS4-NOI)
BEST MANAGEMENT PRACTICES (BMP) MEASURABLE GOALS AND MILESTONES**

These tables must be completed and attached for each of Sections 1 thru 6 of this Notice of Intent (NOI)

SECTION SIX

TABLE 3: BEST MANAGEMENT PRACTICES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year. Also, certain BMPs - e.g., an ordinance - should be put in place within one year.

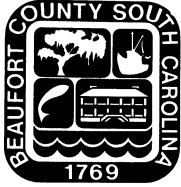
BMP A	MEASURABLE GOALS AND MILESTONES
Goals	SPCC Plans
Milestone Year 1	Identified list of facilities and determine high priority areas.
Milestone Year 2	Evaluate all county-owned or operated facilities to determine whether an SPCC or separate stormwater permit is necessary. Evaluate new facilities as they are obtained. SOP located in Section 6.1 of the BMP Manual
Milestone Year 3	Develop a SWPP that may be used for the identified facilities. Conduct first annual inspections.
Milestone Year 4	Continue to conduct annual inspections of facilities and high priority areas.
Milestone Year 5	Continue to conduct annual inspections of facilities and high priority areas.

BMP A	MEASURABLE GOALS AND MILESTONES
Goals	Facilities SWPPP development.
Milestone Year 1	Developed procedures for asset management of facilities and high priority areas. Facilities Management has prepared a list of facilities to determine high priority based on chemicals stored on site and potential hazardous materials.
Milestone Year 2	Identify high priority areas, 25% of stormwater management system. Reviewed facilities list and determined high priority sites. Conducted inspections of priority facilities and began identifying SWPPP needs. Issued County SW permit to aid facility tracking.
Milestone Year 3	Identify high priority areas, another 25% of stormwater management system. Develop SWPPPs for priority facilities. Conduct annual inspection.
Milestone Year 4	Identify high priority areas, another 25% of stormwater management system. Begin implementation of facility SWPPPs. Conduct annual inspection.
Milestone Year 5	Complete identification of high priority areas, remaining 25% of stormwater management system. Conduct annual inspection.

BMP B	MEASURABLE GOALS AND MILESTONES
Goals	Provide training program for grounds maintenance, landscaping crews, and roadway and drainage staff.
Milestone Year 1	
Milestone Year 2	Developed procedures for training program for grounds maintenance, landscaping crews, and roadway and drainage staff.
Milestone Year 3	Develop and conduct a pollution prevention workshop for all municipal employees responsible for grounds maintenance, landscaping crews, convenience centers, and roadway and drainage staff.
Milestone Year 4	Implement Conduct an annual workshop for new employees and crew managers.
Milestone Year 5	Review and reassess procedures and training.

BMP C	MEASURABLE GOALS AND MILESTONES
Goals	Parking Lot and Street Cleaning
Milestone Year 1	Due to the increase in development in certain areas of the County the road inventory prioritization has not changed and the County will continue to maintain on an as needed basis. The County utilizes a contract sweeper for select routes that are swept on a quarterly basis.

Milestone Year 2	Quantify debris collected from street sweeping. The County continued to use the contract sweeper.
Milestone Year 3	Achieve a determined percentage reduction in solids levels in runoff. Conduct routine parking lot and street sweeping in priority areas. The County is to consider the purchase of a street sweeper and hire an operator to replace contract services.
Milestone Year 4	Continue to achieve and measure determined percentage reduction in solids level in runoff conduct street and parking lot sweeping in priority areas.
Milestone Year 5	Continue to achieve and measure determined percentage reduction in solids level in runoff conduct street and parking lot sweeping in priority areas. Assess sweeping program and priority areas.
BMP D	MEASURABLE GOALS AND MILESTONES
Goals	Asset management of facilities and high priority areas.
Milestone Year 1	Developed procedures for asset management of facilities and high priority areas. Facilities Management has prepared a list of facilities to determine high priority based on chemicals stored on site and potential hazardous materials.
Milestone Year 2	Identify high priority areas, 25% of stormwater management system. Reviewed facilities list and determined high priority locations. Began audits and review of SWPPPs. Identified deficiencies and needs to be improved. Issued SW Permits as needed.
Milestone Year 3	Identify high priority areas, another 25% of stormwater management system. Perform follow up facility inspections.
Milestone Year 4	Identify high priority areas, another 25% of stormwater management system.
Milestone Year 5	Complete identification of high priority areas, remaining 25% of stormwater management system.



MEMORANDUM

Date: March 14, 2018

To: Stormwater Management Utility Board

From: David Wilhelm, P. E., Public Works Director

Re: **Maintenance Project Report**

This report will cover one major project and ten minor projects. The Project Summary Reports are attached.

Major Project – Storm Drainage System Improvements:

- **Salem Drive E (SWUD 9):** This project improved 1,396 feet of drainage system. The scope of work included grubbing, clearing and reconstructing 1,110 feet of channel, constructing 1,110 feet of workshelf, installing 1 access gate, 1,110 feet of channel pipe, strawmat, sod, rip rap, hydroseeding for erosion control and jetting 286 feet of channel pipe. The total cost was **\$196,618.06**.

Minor or Routine Projects:

- **Port Royal Island Bush Hog – Port Royal Island (SWUD 9):** This project improved 95,719 feet of drainage system. The project scope included bush hogging 95,719 feet of channel. The total cost was **\$45,921.22**.
- **Port Royal Vacuum Truck – Port Royal Island (SWUD 6&9):** This project improved 1,242 feet of drainage system. The scope of work included cleaning out 2 manholes, 62 catch basins, jetting 4 driveway pipes, 17 crossline pipes, 184 feet of channel pipe and 1,058 feet of roadside pipe. The total cost was **\$9,674.29**.
- **Camp St Marys Road – Bluffton (SWUD 4):** The scope of work included removing debris. The total cost was **\$5,266.88**.
- **Port Royal Island Vacuum Truck – Port Royal Island (SWUD 6&9):** This project improved 519 feet of drainage system. The scope of work included cleaning out 14 catch basins, jetting 1 driveway pipe, 10 crossline pipes, 8 feet of channel pipe and 511 feet of roadside pipe. The total cost was **\$4,409.70**.
- **Cherokee Farms Road – Port Royal Island (SWUD 6):** The scope of work included repairing a crossline pipe. The total cost was **\$3,793.28**.
- **Community Bible Church Channel – Port Royal Island (SWUD 6):** The scope of work included repairing a sinkhole. The total cost was **\$3,696.73**.
- **Community Bible Church Channel – Port Royal Island (SWUD 6):** The scope of work included repairing a sinkhole. The total cost was **\$3,524.38**.
- **Fox Island Road – Bluffton (SWUD 4):** The scope of work included repairing a sinkhole and handseeding for erosion control. The total cost was **\$2,131.83**.

- **Bluffton Bush Hog – Bluffton (SWUD 4):** This project improved 2,246 feet of drainage system. The scope of work included bush hogging 2,246 feet of workshelf. The total cost was **\$1,478.32**.
- **Ard Road – Port Royal Island (SWUD 6):** The scope of work included repairing a sinkhole. The total cost was **\$1,014.80**.



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Salem Drive E

Activity: Drainage Improvement

Narrative Description of Project:

Duration: 2/16/17 - 7/13/17

Project improved 1,396 L.F. of drainage system. Grubbed, cleared and reconstructed 1,110 L.F. of channel. Constructed 1,110 L.F. of workshelf. Installed (1) access gate, 1,110 L.F. of channel pipe, strawmat, sod, rip rap and hydroseeded for erosion control. Jetted 286 L.F. of channel pipe.

2016-014 / Salem Drive E	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AGI / Access Gate - Installed	9.0	\$182.34	\$10.62	\$132.68	\$0.00	\$76.32	\$401.96
AUDIT / Audit Project	4.0	\$93.96	\$0.00	\$0.00	\$0.00	\$52.92	\$146.88
BKFILL / Back Fill	55.0	\$1,225.62	\$551.04	\$168.66	\$0.00	\$587.24	\$2,532.56
CPI / Channel Pipe - Installation	799.0	\$18,041.95	\$6,860.45	\$22,404.16	\$0.00	\$9,824.35	\$57,130.91
CPJ / Channel Pipe - Jetted	20.0	\$445.60	\$86.80	\$57.00	\$0.00	\$286.80	\$876.20
DEBREM / Debris Removal - Jobsite	40.0	\$893.59	\$35.40	\$36.18	\$0.00	\$533.00	\$1,498.17
EDO / Equipment Drop Off	9.0	\$201.75	\$10.80	\$9.00	\$0.00	\$131.85	\$353.40
HAUL / Hauling	691.5	\$15,063.19	\$6,640.79	\$28,461.72	\$0.00	\$7,958.62	\$58,124.32
HYDR / Hydroseeding	110.0	\$2,319.80	\$494.36	\$663.00	\$0.00	\$1,215.00	\$4,692.16
LM / Loading Materials	110.0	\$2,460.58	\$687.39	\$146.46	\$0.00	\$1,532.15	\$4,826.58
MOW / Mow	4.0	\$84.24	\$7.08	\$7.20	\$0.00	\$52.92	\$151.44
ONJV / Onsite Job Visit	8.0	\$225.51	\$28.90	\$8.70	\$0.00	\$142.59	\$405.70
PL / Project Layout	40.0	\$880.30	\$35.70	\$26.76	\$0.00	\$460.70	\$1,403.46
PP / Project Preparation	6.0	\$134.50	\$7.20	\$7.20	\$0.00	\$85.86	\$234.76
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$4,692.25	\$0.00	\$4,692.25
RMTRW / Remove trees - Workshelf	420.0	\$9,254.92	\$3,187.93	\$863.19	\$0.00	\$4,401.40	\$17,707.44
RRI / Rip Rap - Installed	60.0	\$1,297.80	\$250.31	\$22.86	\$0.00	\$657.08	\$2,228.05
SC / Sediment Control	362.0	\$7,907.32	\$371.30	\$237.66	\$1,409.06	\$3,959.14	\$13,884.48
SCR / Sediment Control - Removed	90.0	\$1,963.80	\$244.81	\$58.62	\$0.00	\$1,064.30	\$3,331.53
SG / Shoot Grade	93.0	\$2,113.21	\$121.92	\$68.16	\$0.00	\$1,176.71	\$3,480.00
STAGING / Staging Materials/Equipment	6.0	\$136.90	\$7.20	\$5.40	\$0.00	\$87.90	\$237.40
WSDR / Workshelf - Dressed	70.0	\$1,548.60	\$211.80	\$53.52	\$0.00	\$804.80	\$2,618.72
WSGRB / Workshelf - Grubbed	83.0	\$1,822.89	\$447.73	\$84.00	\$0.00	\$797.20	\$3,151.82
WSL / Workshelf - Level	310.0	\$6,792.30	\$1,822.06	\$280.86	\$0.00	\$3,612.65	\$12,507.87
2016-014 / Salem Drive E Sub Total	3,399.5	\$75,090.66	\$22,121.59	\$53,803.00	\$6,101.31	\$39,501.50	\$196,618.06
Grand Total	3,399.5	\$75,090.66	\$22,121.59	\$53,803.00	\$6,101.31	\$39,501.50	\$196,618.06

Before



During



After





Project: Salem Drive E
Map #1

Activity: Drainage Improvement

Project #: 2016-014

Township/SW Dist: Port Royal Island/9

Completed: July 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 420 feet

Project: Salem Drive E
Map #2

Activity: Drainage Improvement

Project #: 2016-014

Township/SW Dist: Port Royal Island/9

Completed: July 2017



Legend

Drainage Type

- Access Pipe
- Bleeder Pipe
- Channel Pipe
- Channel
- Stream
- Crossline Pipe
- Driveway Pipe
- Lateral
- Lateral Pipe
- River
- Road Pipe
- Roadside
- Roadside Pipe



1 inch = 420 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 5/11/17-11/17/17

Narrative Description of Project:

First rotation from 5/11/17-11/17/17: Project improved 95,719 L.F. of drainage system. Bush hogged 95,619 L.F. of workshelf and 100 L.F. of roadside ditch. This project consisted of the following areas: Sandhill Estates (100 L.F.), Chisolm Hill Road (4,559 L.F.), Gillison Loop (325 L.F.), Young Circle (265 L.F.), Gamecock Way (1,105 L.F.), Smalls Drive (995 L.F.), Mulrain Road (380 L.F.), Smith Road (175 L.F.), Ihly Farm Road (3,090 L.F.), Moultrie Circle (510 L.F.), Greenleaf Lane (290 L.F.), Poppy Hill Road (4,361 L.F.), Power Drive (547 L.F.), Lawson Drive (880 L.F.), Donaldson Drive (2,322 L.F.), John Davis Court (330 L.F.), Hilanda Drive (665 L.F.), Hobcaw Drive (1,690 L.F.), Parker Drive (4,115 L.F.), Schein Loop (2,580 L.F.), Mroz Road (1,355 L.F.), Hamrick Drive (1,827 L.F.), Bay Pines Drive (2,110 L.F.), Nelson Drive (799 L.F.), Hale Drive (3,081 L.F.), Irongate Drive (1,7400 L.F.), Capehart Circle (710 L.F.), Zehm Lane (7,920 L.F.), Cleveland Drive (3,207 L.F.), St. Pauls Church Road (5,066 L.F.), Josephine Drive (498 L.F.), Blackburn Pierce (45 L.F.), Franklin Drive (2,875 L.F.), Quarter Horse Road (1,416 L.F.), Clydesdale Circle (1,050 L.F.), Pony Avenue (869 L.F.), Huron Drive (1,422 L.F.), US 802 East Coast Marina (715 L.F.), Burton Wells Road (9,195 L.F.), Brilliant Lane (410 L.F.), Possum Hill Road (1,855 L.F.), Broad River Boulevard (710 L.F.), Oakmont Drive(140 L.F.), Fair Grounds (805 L.F.), Walker Circle (690 L.F.),Providence Road (1,070 L.F.), Harding Street (225 L.F.), Leo Green Road (1,090 L.F.), County Shed Road (730 L.F.), Mamie Frazier Lane (440 L.F.), Peace Haven Drive (280 L.F.), Arnold Drive (780 L.F.), Powell Drive (3,710 L.F.), Shanklin Road Public Works Complex (1,800 L.F.), Roseida Road (2,175 L.F.), Laurel Bay Road (3,340 L.F.), Edward Court (200 L.F.), Pelican Circle (85 L.F.)

2018-301 / Port Royal Island Bush Hog

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
CBH / Channel- bushhogged	1,060.0	\$21,891.66	\$11,826.18	\$2,861.18	\$0.00	\$9,073.50	\$45,652.52
RDBH / Roadside ditch - bushhogged	6.0	\$134.64	\$37.08	\$3.90	\$0.00	\$82.18	\$257.80
2018-301 / Port Royal Island Bush Hog Sub Total	1,066.5	\$22,037.20	\$11,863.26	\$2,865.08	\$0.00	\$9,155.68	\$45,921.22
Grand Total	1,066.5	\$22,037.20	\$11,863.26	\$2,865.08	\$0.00	\$9,155.68	\$45,921.22

Before



During



After





Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Vacuum Truck - Smalls Hill Road, Murray Drive, Blackburn Pierce Drive, Harold Drive, Ihly Farm Road, Mulrain Road, Moultrie Circle, Public Works Complex, Jonesfield Place, Jonesfield Road, Pine Grove Road, Donaldson Drive, Campbell Road, Jefferson Drive, Salt Creek Drive East, Roosevelt Avenue, Donald Camp Road, Rice Road, Grant Street, Arnold Lane, and Grays Hill Acres

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 12/28/16 - 6/29/17

Project improved 1,242 L.F. of drainage system. Cleaned out (2) manholes and (62) catch basins. Jetted (17) crossline pipes, (4) driveway pipes, 184 L.F. of channel pipe and 1,058 L.F. of roadside pipe.

2017-306A / Port Royal Island Vac Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contracto Cost	Indirect Cost	Total Cost
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
CBCO / Catch basin - clean out	165.0	\$3,732.62	\$720.44	\$351.45	\$0.00	\$2,414.13	\$7,218.64
CLPJT / Crossline Pipe - Jetted	22.0	\$490.16	\$95.48	\$45.49	\$0.00	\$315.48	\$946.61
DPJT / Driveway Pipe - Jetted	14.0	\$311.92	\$60.76	\$39.77	\$0.00	\$200.76	\$613.21
RSPJ / Roadside Pipe - Jetted	20.0	\$445.60	\$86.80	\$39.91	\$0.00	\$286.80	\$859.11
2017-306A / Port Royal Island Vac Truck	222.0	\$5,003.79	\$963.48	\$476.62	\$0.00	\$3,230.40	\$9,674.29
Sub Total							
 Grand Total	222.0	\$5,003.79	\$963.48	\$476.62	\$0.00	\$3,230.40	\$9,674.29

Before



During



After





Project: Port Royal Island Vacuum Truck - Smalls Hill Road Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Smalls Hill Road Map #1_2017-306A

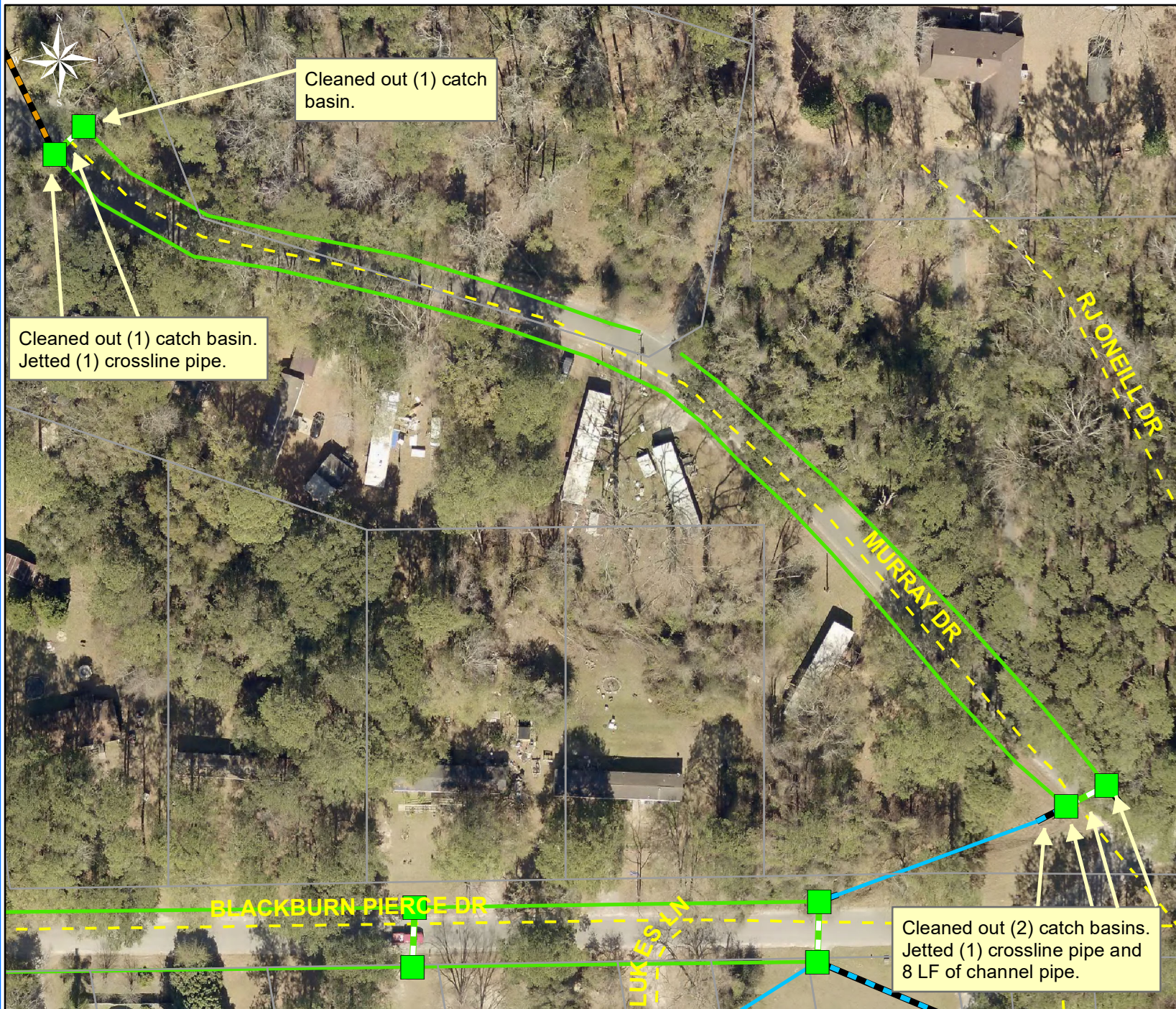
Project: Port Royal Island Vacuum Truck - Murray Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Murray Drive Map #2_2017-306A

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

Cleaned out (2) catch basins.
Jetted (1) crossline pipe and
8 LF of channel pipe.

Cleaned out (1) catch basin.
Jetted (1) crossline pipe.

Cleaned out (1) catch basin.



Project: Port Royal Island Vacuum Truck - Murray Drive Map #3

Activity: Routine/ Preventive Maintenance














Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

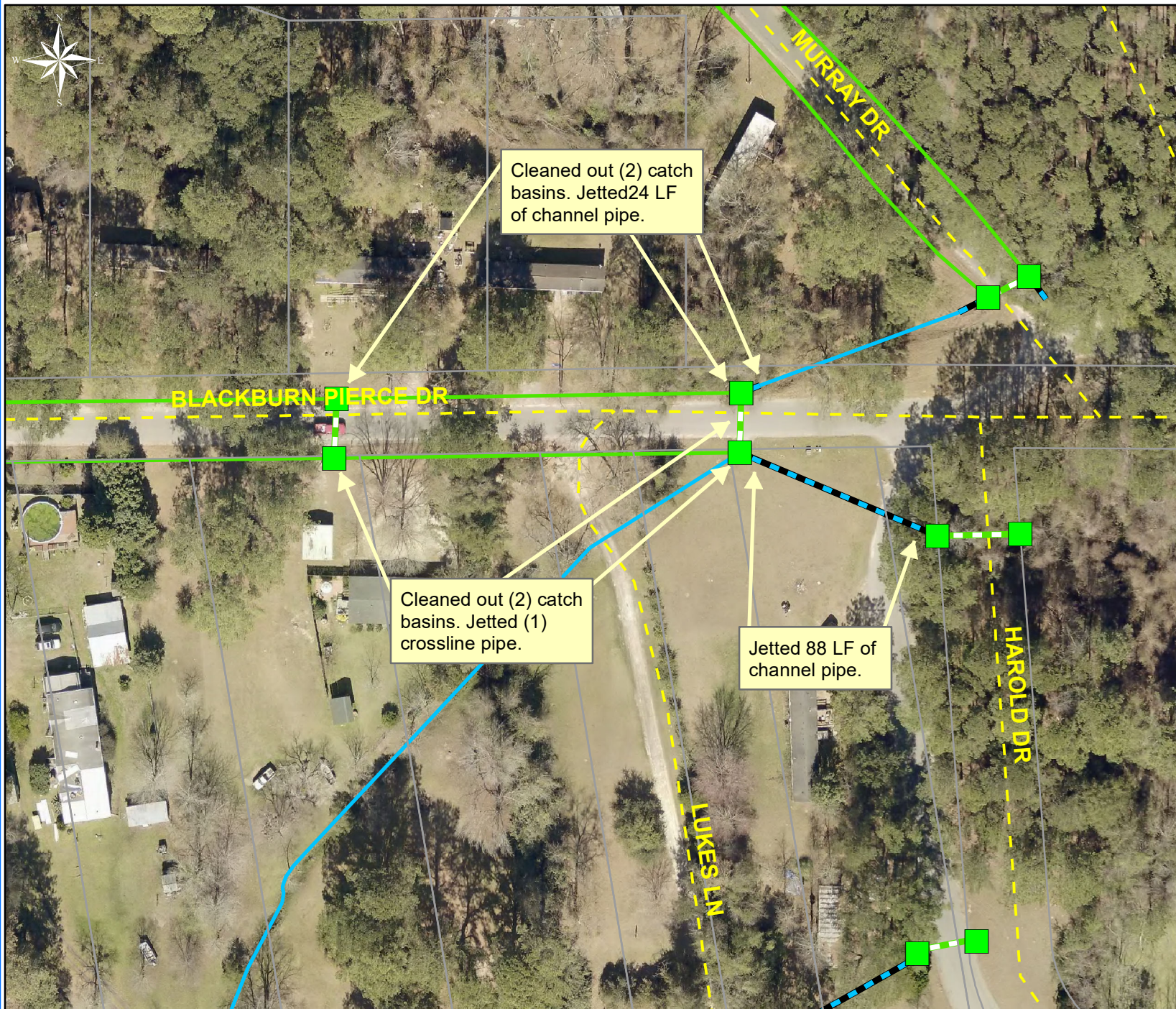


1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print:01/30/18

File:C:\project summaries map\PRI Vacuum Truck- Murray Drive Map #3_2017-306A



Project: Port Royal Island Vacuum Truck - Blackburn Pierce Drive Map #4

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

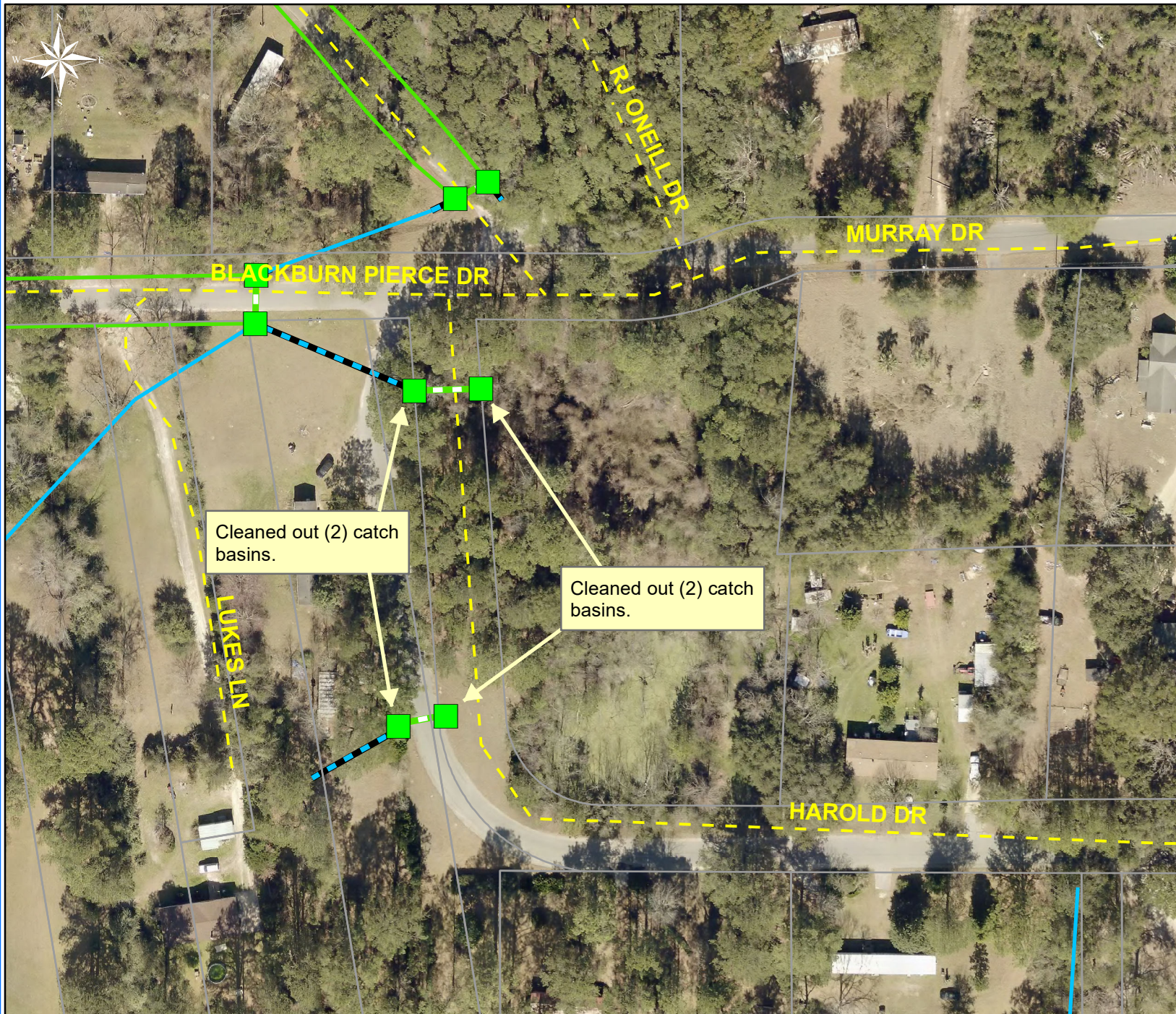


1 inch = 83 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Blackburn Pierce Drive Map #4_2017-306A



Project: Port Royal Island Vacuum Truck - Harold Drive Map #5

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

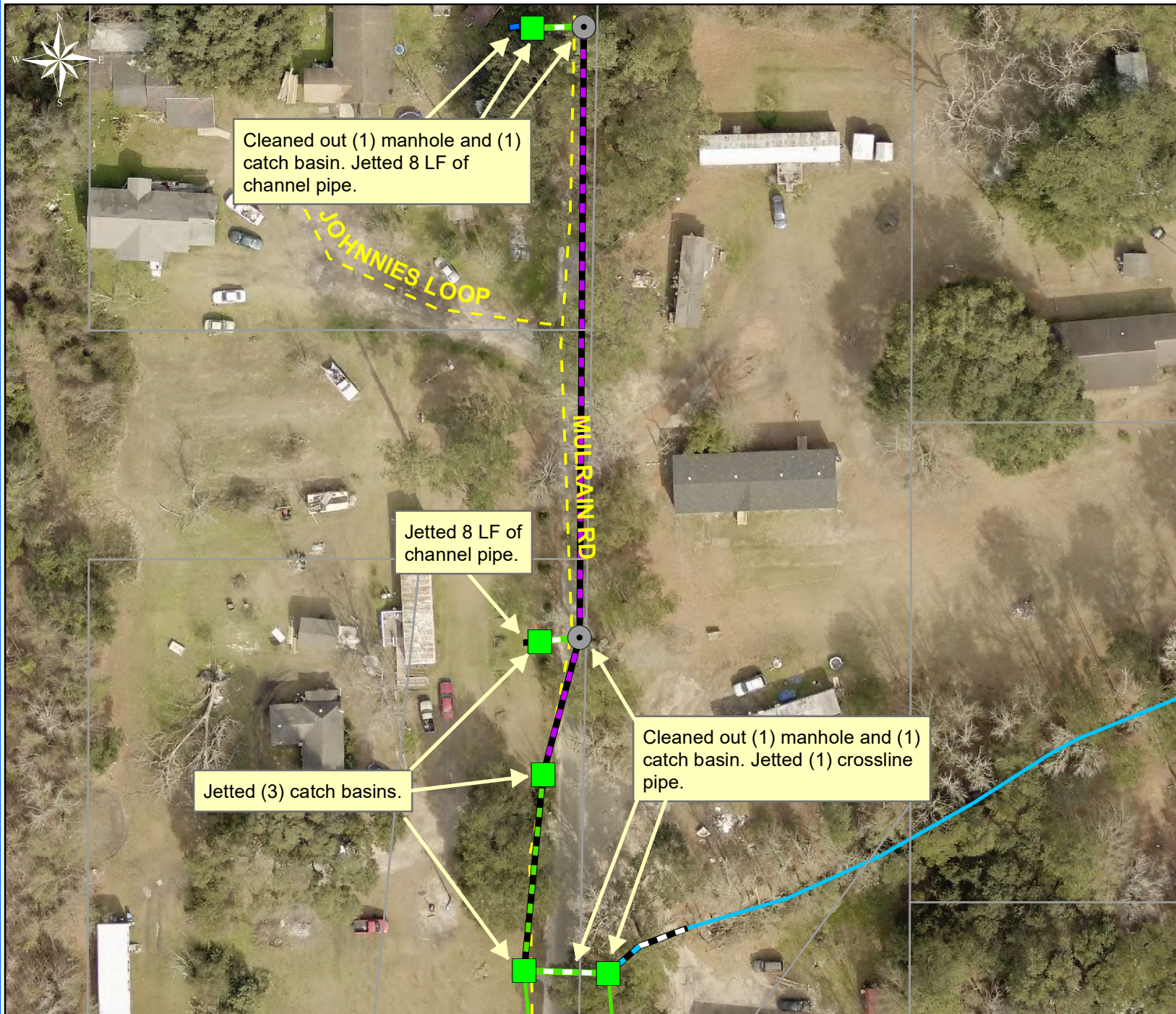
Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility
Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Harold Drive Map #5_2017-306A



Project: Port Royal Island Vacuum Truck - Mulrain Road Map #6

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

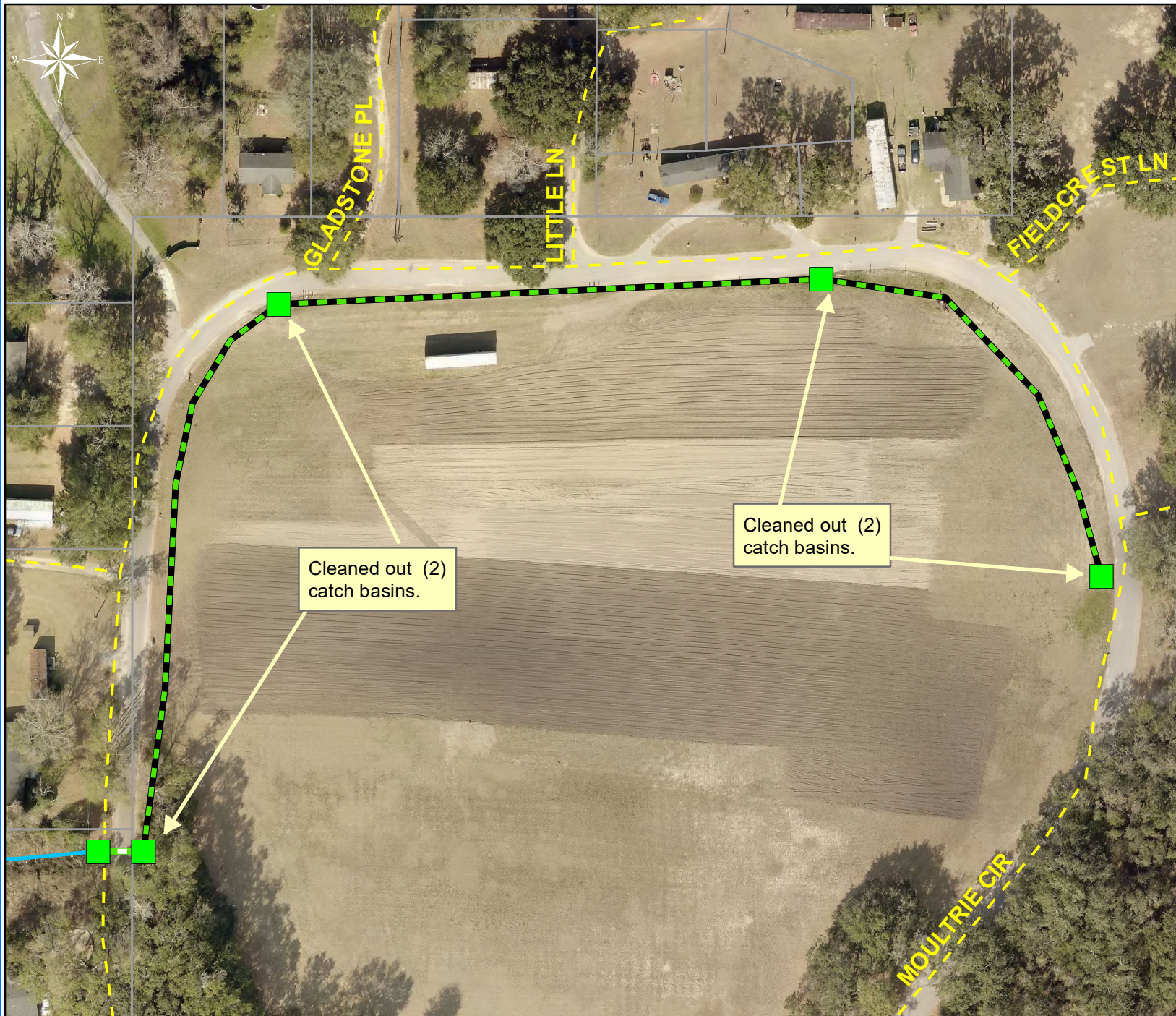
Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 67 feet



Project: Port Royal Island Vacuum Truck - Moultrie Circle Map #7

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility
Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Moultrie Circle Map #7_2017-306A



Project: Port Royal Island Vacuum Truck - Public Works Complex Map #8

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

- Drainage Type**
- Access Pipe
 - Bleeder Pipe
 - Channel Pipe
 - Channel
 - Stream
 - Crossline Pipe
 - Driveway Pipe
 - Lateral
 - Lateral Pipe
 - River
 - Road Pipe
 - Roadside
 - Roadside Pipe

0 80 160 320 480 640 Feet

1 inch = 330 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Public Works Complex Map #8_2017-306A



Project: Port Royal Island Vacuum Truck - Jonesfield Place Map #9

Activity: Routine/ Preventive Maintenance














Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

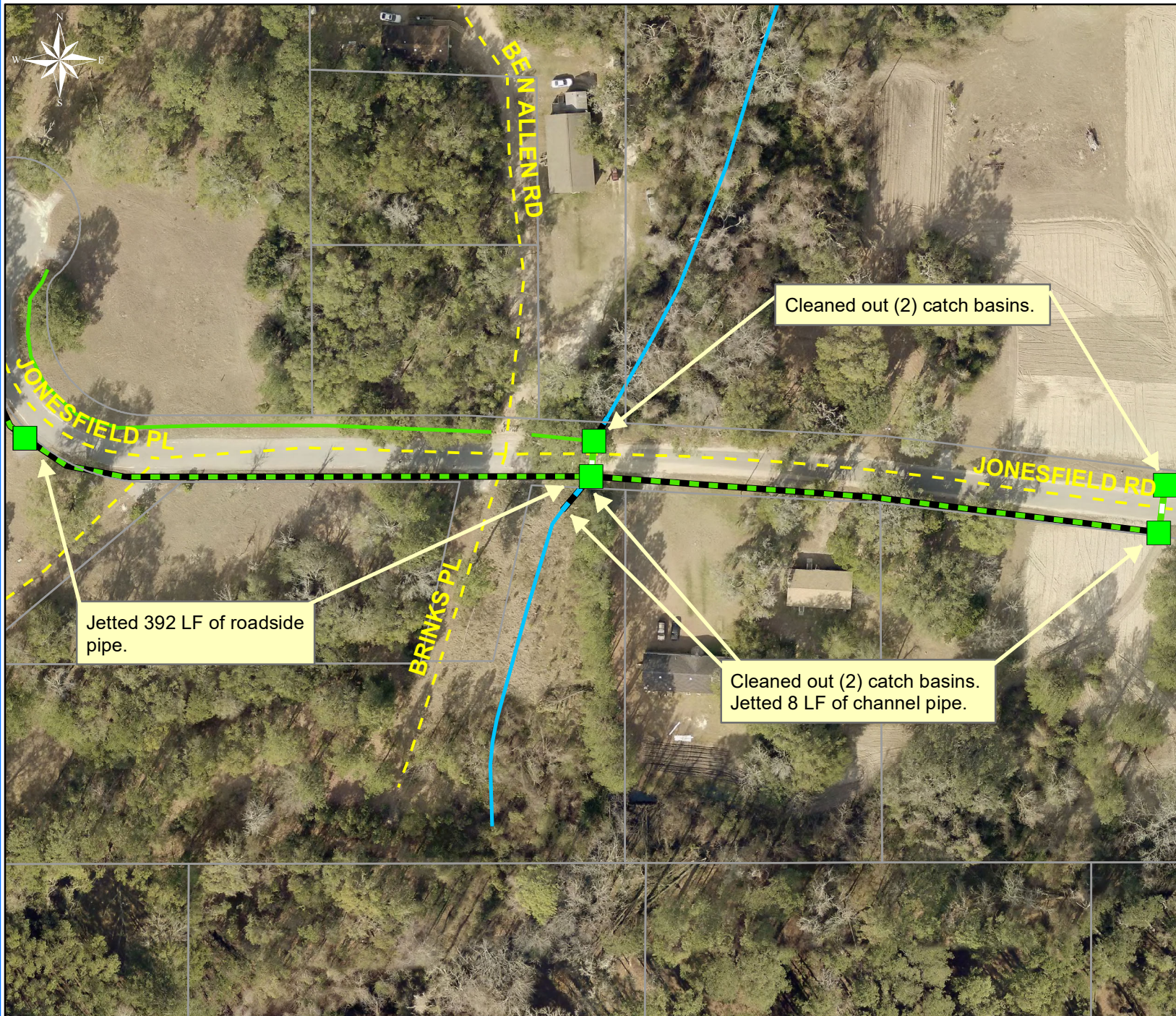


1 inch = 50 feet

Prepared By: BC Stormwater Management Utility

Date Print:01/30/18

File:C:\project summaries map/PRI Vacuum Truck- Jonesfield Place Map #9 2017-306A



Project: Port Royal Island Vacuum Truck - Jonesfield Road & Jonesfield Place Map #10

Activity: Routine/ Preventive Maintenance




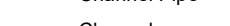
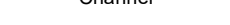
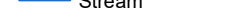
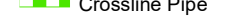






Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Jonesfield Road & Jonesfield Place Map #10_2017-306A

Project: Port Royal Island Vacuum Truck - Jonesfield Road Map #11

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017



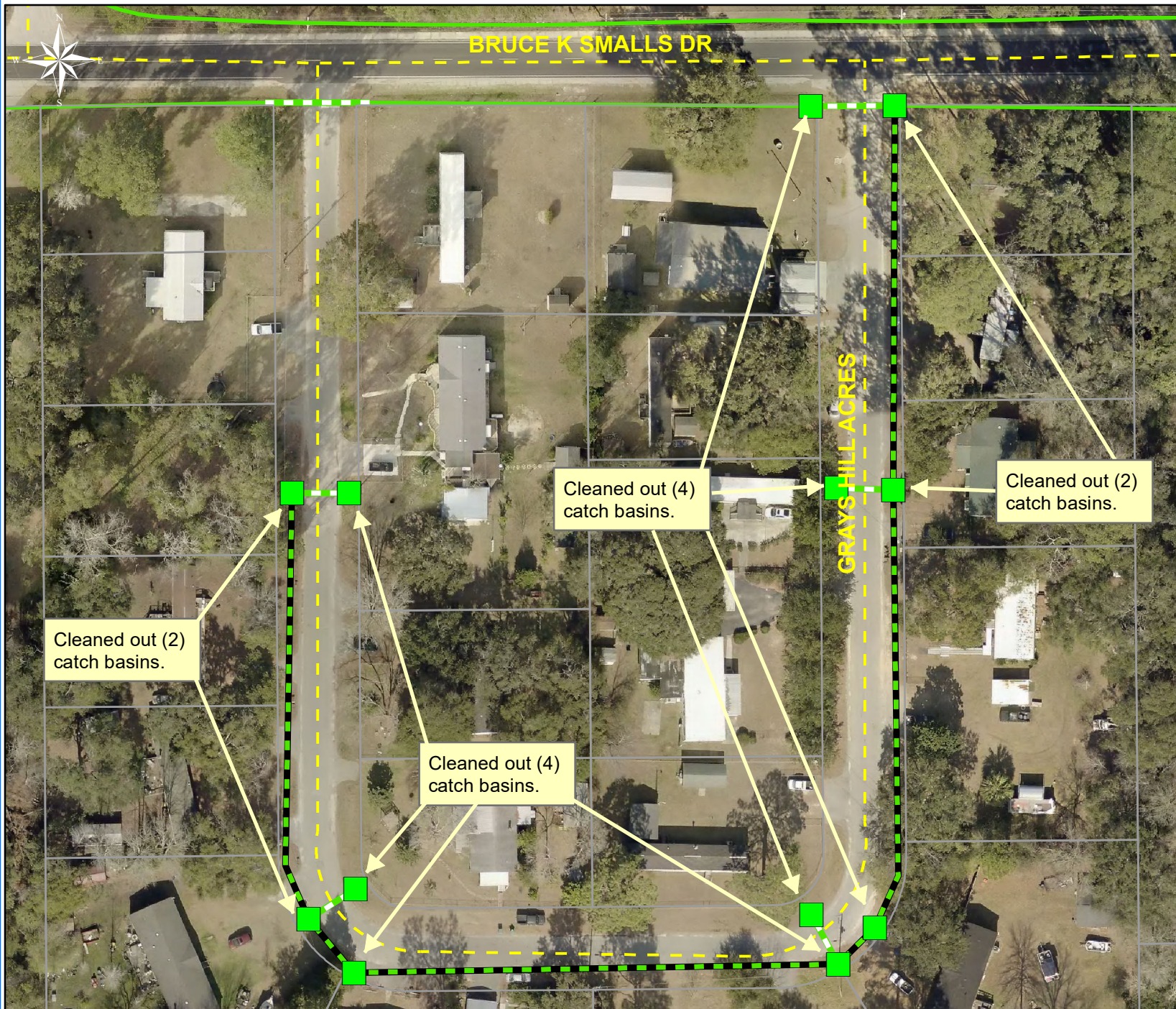
Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print:01/30/18

File:C:\project summaries map/PRI Vacuum Truck- Jonesfield Road Map #11 2017-306A



Project: Port Royal Island Vacuum Truck - Grays Hill Acres Map #12

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Grays Hill Acres Map #12 2017-306A



Project: Port Royal Island Vacuum Truck - Pine Grove Road & Arnold Lane Map #13

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Pine Grove Road & Arnold Lane Map #13_2017-306A



Project: Port Royal Island Vacuum Truck - Donaldson Drive Map #14

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

Drainage Type

- Access Pipe
- Bleeder Pipe
- Channel Pipe
- Channel
- Stream
- Crossline Pipe
- Driveway Pipe
- Lateral
- Lateral Pipe
- River
- Road Pipe
- Roadside
- Roadside Pipe

0 10 20 40 60 80 Feet

1 inch = 50 feet

Prepared By: BC Stormwater Management Utility
Date Print: 01/30/18

File: C:\project summaries map\PRI Vacuum Truck- Donaldson Drive Map #14_2017-306A



Project: Port Royal Island Vacuum Truck - Campbell Road Map #15

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

0 60 120 240 360 480 Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print:01/30/18

File:C:\project summaries map\PRI Vacuum Truck- Campbell Road Map #15_2017-306A

Project: Port Royal Island Vacuum Truck - Jefferson Road & Grant Street Map #16

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017



Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print:01/30/18

File:C:\project summaries map\PRI Vacuum Truck- Jefferson Road & Grant Street Map #16_2017-306A



Project: Port Royal Island Vacuum Truck - Salt Creek East Map #17

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

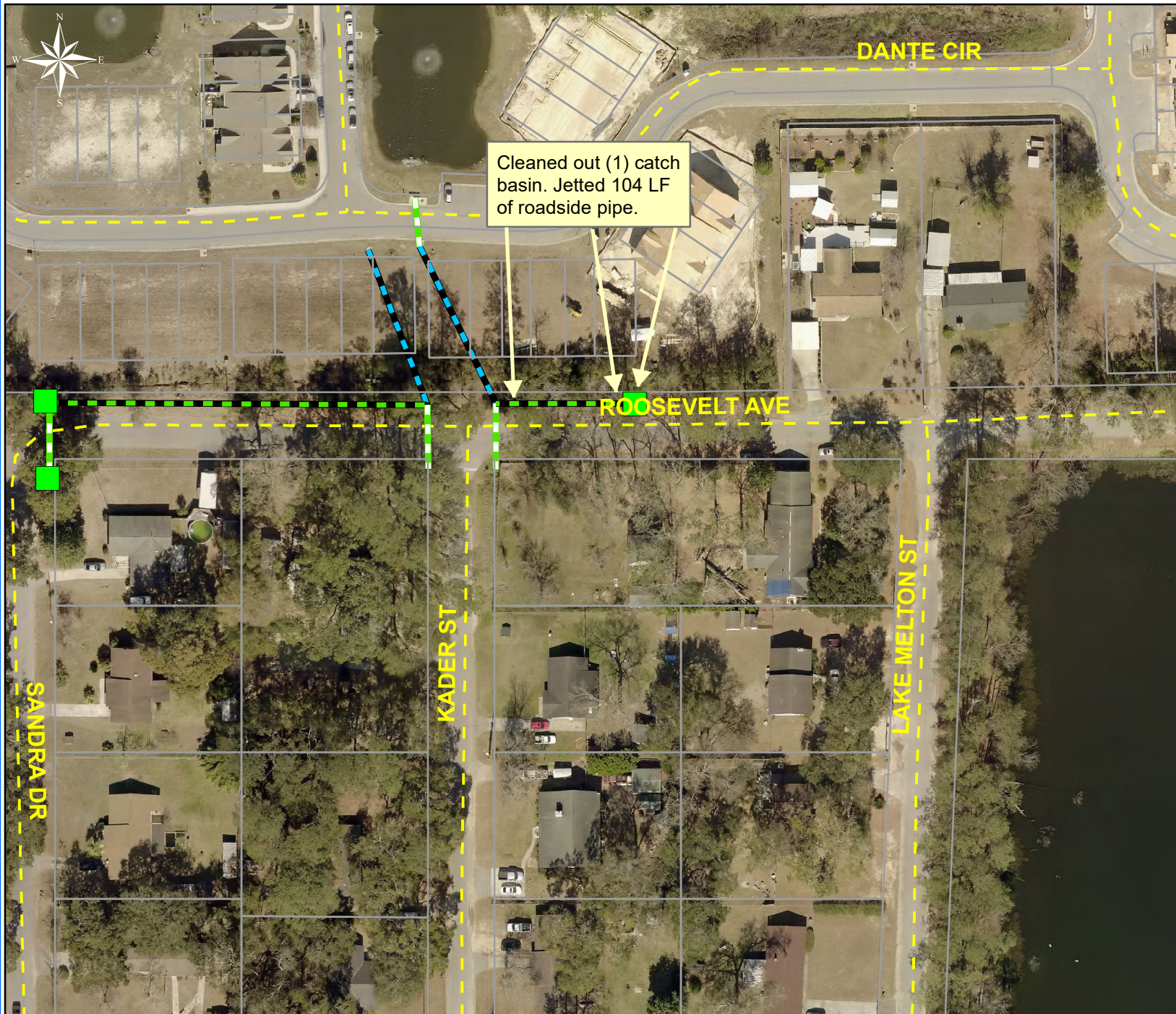


1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum Truck-Salt Creek East Map#17_2017-306A



Project: Port Royal Island Vacuum Truck - Roosevelt Avenue Map #18

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print:02/05/18

File:C:\project summaries map/PRI Vacuum Truck-Roosevelt Avenue Map#18_2017-306A



Project: Port
Royal Island
Vacuum Truck -
Donaldson Camp
Road
Map #19

Activity: Routine/
Preventive
Maintenance

Project #:
2017-306A

Township/SW Dist:
Port Royal Island/6
& 9

Completed:
June 2017

0 25 50 100 150 200
Feet

1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum Truck-Donaldson Camp Road Map#19_2017-306A



Project: Port Royal Island Vacuum Truck - Public Works Complex Map #20

Activity: Routine/ Preventive Maintenance

Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

0 30 60 120 180 240 Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print:02/05/18

File:C:\project summaries map\PRI Vacuum TruckPublic Works Complex Map#20_2017-306A



Project: Port Royal Island Vacuum Truck - Rice Road Map #21

Activity: Routine/ Preventive Maintenance














Project #: 2017-306A

Township/SW Dist: Port Royal Island/6 & 9

Completed: June 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe



1 inch = 170 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum TruckRice Road Map#21_2017-306A



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Camp St Marys Road Debris Removal

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed debris.

Duration: 8/17/17 - 8/28/17

2018-520 / Camp St Marys Rd	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DEBRIS / Debris Removal	75.0	\$1,701.00	\$508.25	\$115.91	\$0.00	\$935.45	\$3,260.61
HAUL / Hauling	32.0	\$729.65	\$301.44	\$481.03	\$0.00	\$475.79	\$1,987.91
2018-520 / Camp St Marys Rd Sub Total	107.5	\$2,442.40	\$809.69	\$596.94	\$0.00	\$1,417.85	\$5,266.88
Grand Total	107.5	\$2,442.40	\$809.69	\$596.94	\$0.00	\$1,417.85	\$5,266.88

During



After





Project: Camp St Marys Road

Activity: Routine/ Preventive Maintenance














Project #: 2018-520

Township/SW Dist: Bluffton/4

Completed: July 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe



1 inch = 210 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 02/20/18
 File: C:\project summaries map\Camp St. Marys Road_2018-520



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Vacuum Truck
 Hosea Road, Murray Drive, Roosevelt Avenue, Blackburn Pierce Drive,
 Salt Creek Drive East, Dogwood Drive, Magnolia Street and Hamrick Drive

Activity: Routine/Preventive Maintenance
Duration: 7/18/17-11/29/17

Narrative Description of Project:

Project improved 519 L.F. of drainage system. Cleaned out (14) catch basins. Jetted (1) driveway pipe, (10) crossline pipes, 8 L.F. of channel pipe and 511 L.F. of roadside pipe.

2018-306 / Port Royal Island Vacuum Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
CBCO / Catch basin - clean out	70.0	\$1,559.60	\$303.80	\$231.30	\$0.00	\$1,003.80	\$3,098.50
CLPJT / Crossline Pipe - Jetted	22.0	\$486.32	\$92.52	\$52.92	\$0.00	\$311.88	\$943.64
CPJ / Channel Pipe - Jetted	4.0	\$89.12	\$17.36	\$14.50	\$0.00	\$57.36	\$178.34
RB / Remove blockage from flowline	4.0	\$89.12	\$17.36	\$14.50	\$0.00	\$57.36	\$178.34
2018-306 / Port Royal Island Vacuum Truck Sub Total	100.5	\$2,235.06	\$431.04	\$313.21	\$0.00	\$1,430.40	\$4,409.70
Grand Total	100.5	\$2,235.06	\$431.04	\$313.21	\$0.00	\$1,430.40	\$4,409.70

Before

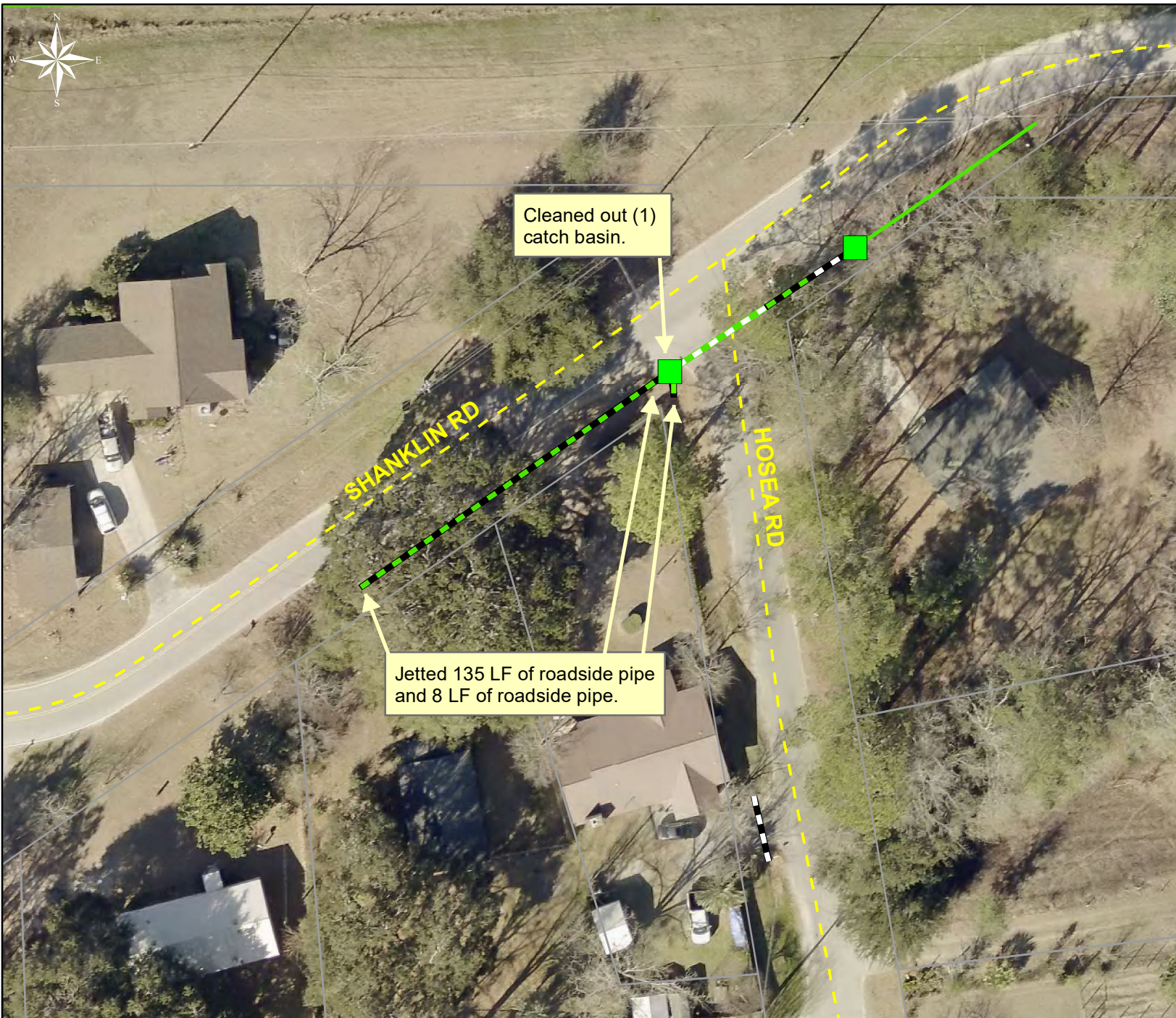


During



After





Project: Port Royal Island Vacuum Truck - Shanklin Road & Hosea Road Map #1

Activity: Routine/ Preventive Maintenance














Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe



1 inch = 50 feet

Prepared By: BC Stormwater Management Utility

Date Print:00/19/18

File:C:\project summaries map\PRI Vacuum Truck- Shanklin Road & Hosea RoadMap #1_2018-306



Project: Port Royal Island Vacuum Truck - Hosea Road Map #2

Activity: Routine/ Preventive Maintenance














Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

0 10 20 40 60 80 Feet

1 inch = 50 feet

Prepared By: BC Stormwater Management Utility

Date Print:00/19/18

File:C:\project summaries map\PRI Vacuum Truck-Hosea Road Map #2_2018-306

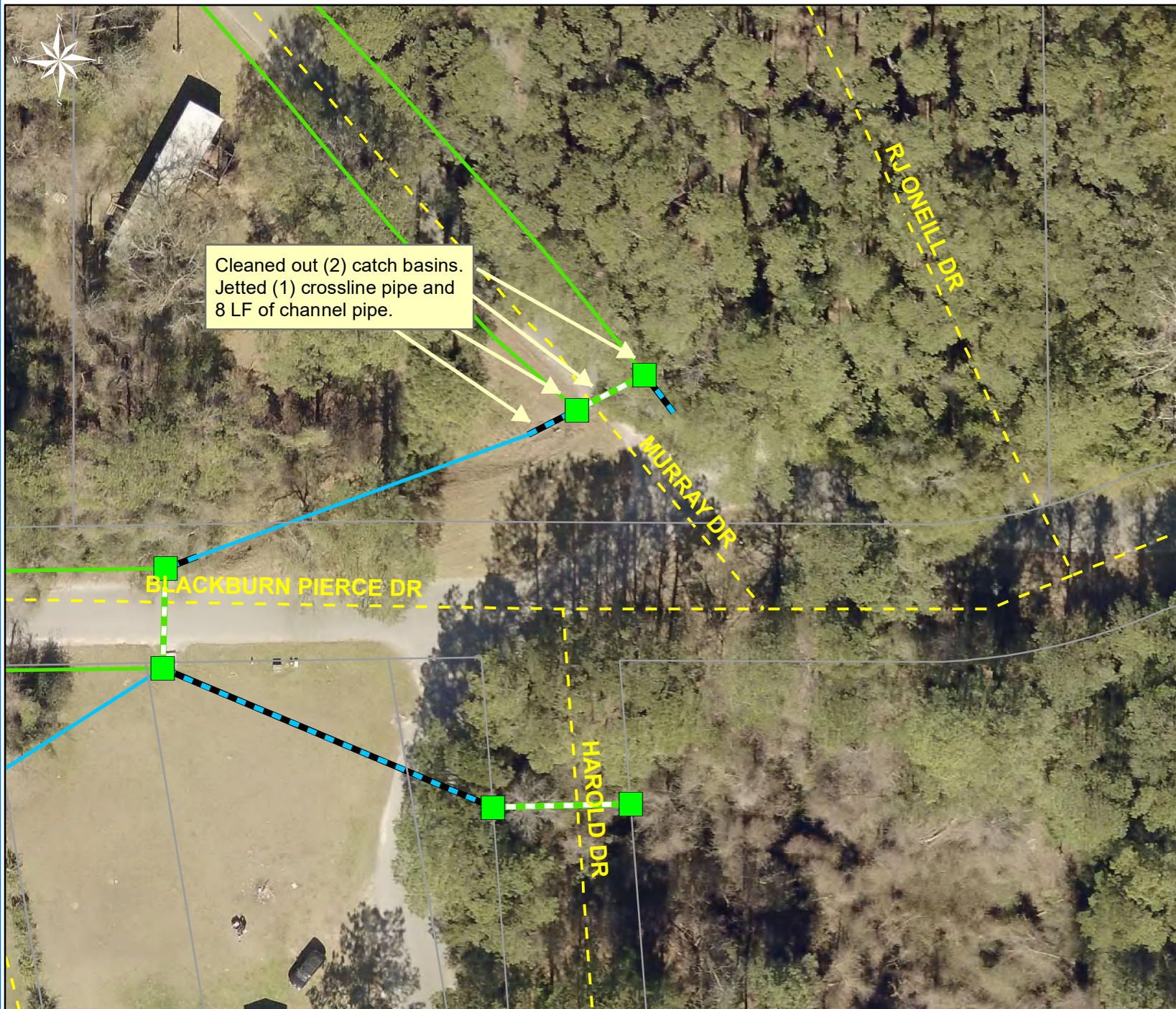
Project: Port Royal Island Vacuum Truck - Murray Drive Map #3

Activity: Routine/ Preventive Maintenance

Project #: 2017-306

Township/SW Dist: Port Royal Island/6 & 9

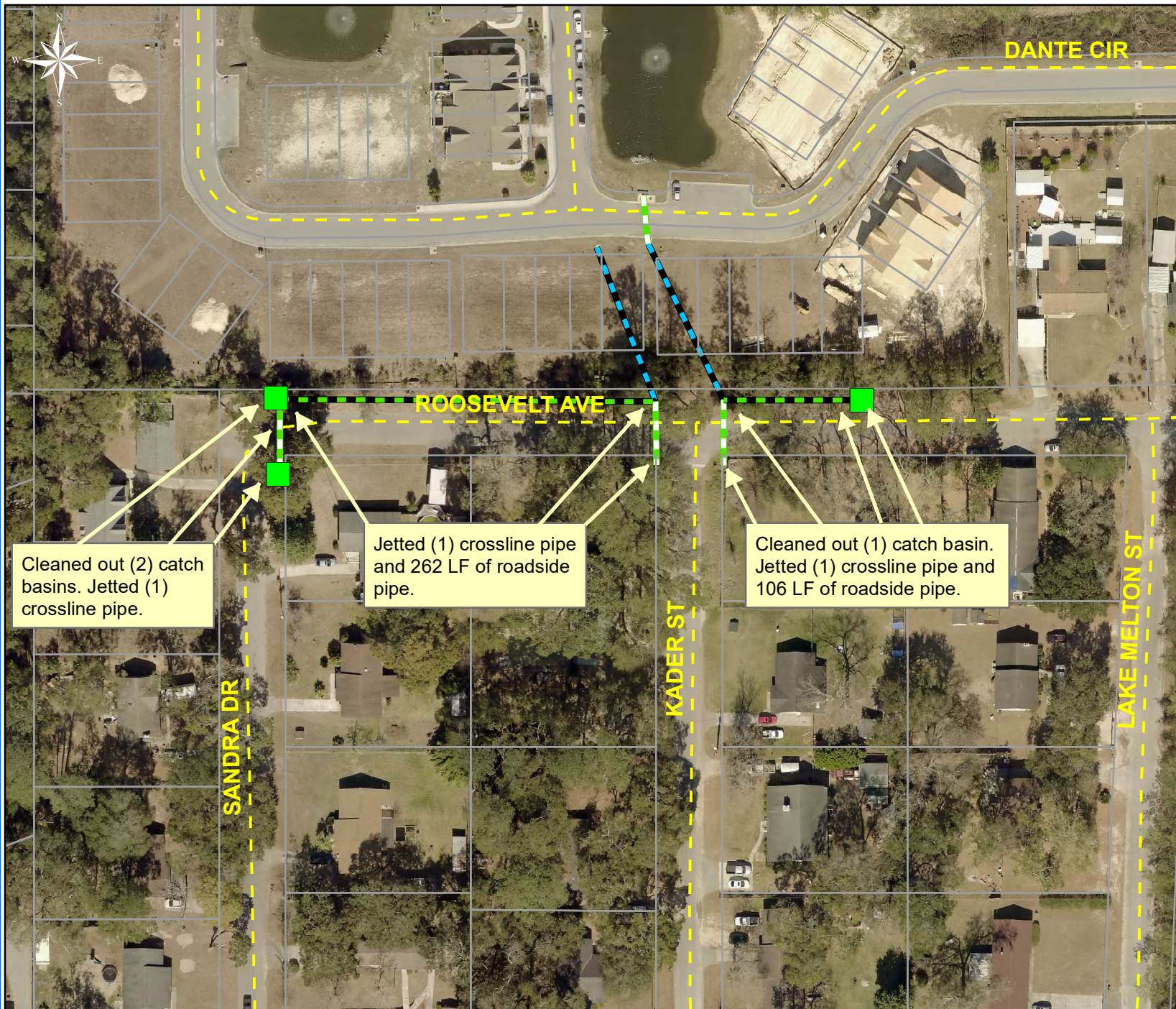
Completed: November 2017



Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 50 feet



Project: Port Royal Island Vacuum Truck - Roosevelt Avenue Map #4

Activity: Routine/ Preventive Maintenance

Project #: 2018-306

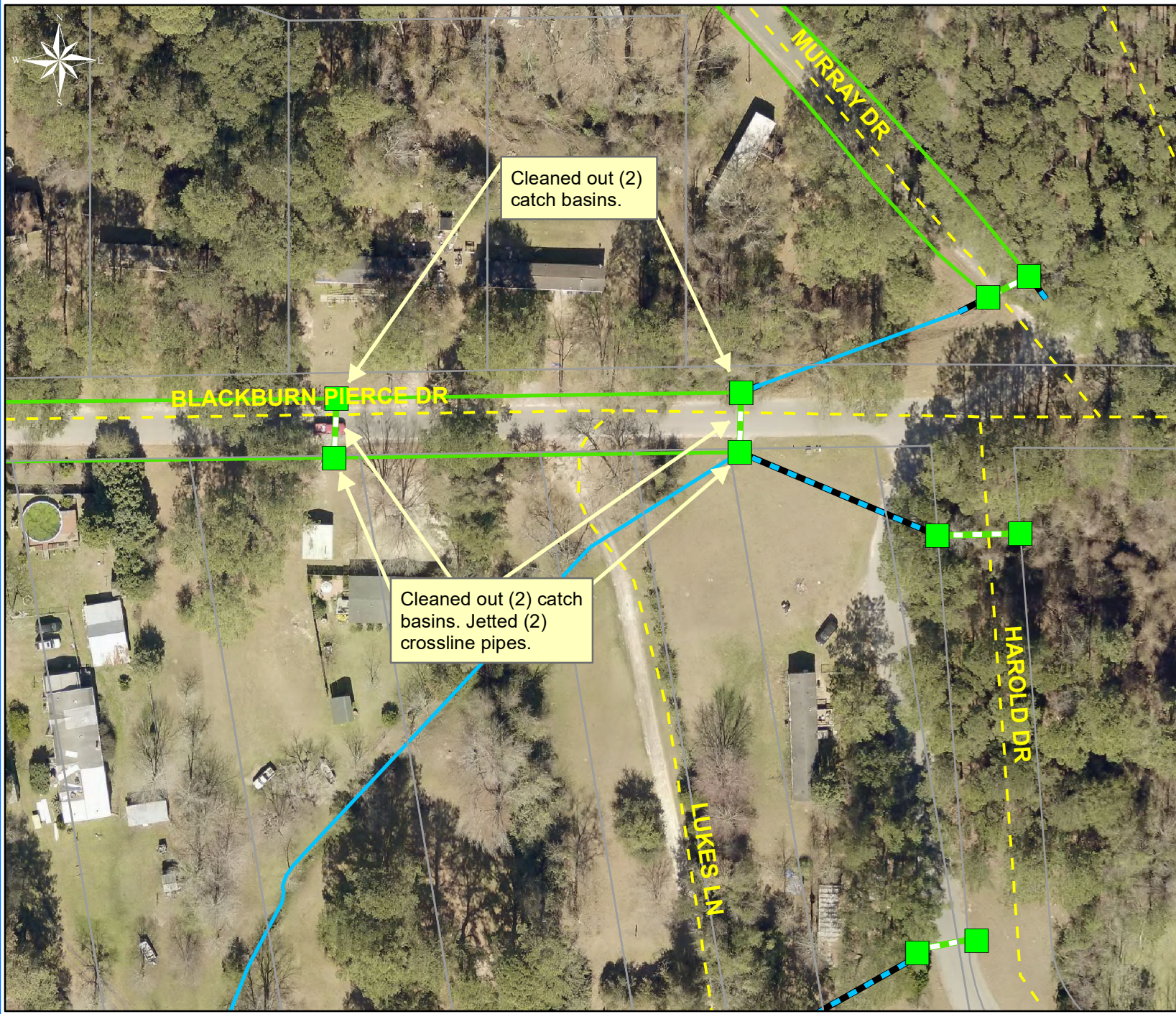
Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 100 feet



Project: Port Royal Island Vacuum Truck - Blackburn Pierce Drive Map #5

Activity: Routine/ Preventive Maintenance

Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum Truck- Blackburn Pierce Drive Map #5_2018-306



Project: Port Royal Island Vacuum Truck - Salt Creek Drive East Map #6

Activity: Routine/ Preventive Maintenance

Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend	
Drainage Type	
Access Pipe	Red dashed line
Bleeder Pipe	Purple solid line
Channel Pipe	Blue dashed line
Channel	Blue solid line
Stream	Light blue solid line
Crossline Pipe	Green dashed line
Driveway Pipe	Black dashed line
Lateral	Orange solid line
Lateral Pipe	Black and orange dashed line
River	Dark blue solid line
Road Pipe	Purple and black dashed line
Roadside	Green solid line
Roadside Pipe	Green and black dashed line



1 inch = 83 feet



Project: Port Royal Island Vacuum Truck - Magnolia Street Map #7

Activity: Routine/ Preventive Maintenance

Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum Truck- Magnolia Street Map #7_2018-306



Project: Port Royal Island Vacuum Truck - Dogwood Street Map #8

Activity: Routine/ Preventive Maintenance

Project #: 2018-306

Township/SW Dist: Port Royal Island/6 & 9

Completed: November 2017

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/05/18

File: C:\project summaries map\PRI Vacuum Truck- Dogwood Street Map #8_2018-306



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Cherokee Farms Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired crossline pipe.

Duration: 1/19/17 - 2/23/17

2017-528 / Cherokee Farms Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APREP / Asphalt Preparation	24.0	\$531.06	\$93.35	\$98.88	\$0.00	\$340.56	\$1,063.85
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	13.0	\$308.95	\$122.46	\$259.31	\$0.00	\$203.86	\$894.58
RPWO / Repaired Washout	34.0	\$711.54	\$70.03	\$63.68	\$0.00	\$349.14	\$1,194.39
SD / Soft Digging	14.0	\$311.92	\$60.76	\$48.66	\$0.00	\$200.76	\$622.10
2017-528 / Cherokee Farms Road	85.5	\$1,875.22	\$346.60	\$470.54	\$0.00	\$1,100.93	\$3,793.28
Sub Total							
Grand Total	85.5	\$1,875.22	\$346.60	\$470.54	\$0.00	\$1,100.93	\$3,793.28

(Pictures Not Available)

Project: Cherokee Farms Road

Activity: Routine/
Preventive
Maintenance

Project #:
2017-528














Township/SW Dist:
Port Royal Island/6

Completed:
February 2017



Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

0 40 80 160 240 320
Feet

1 inch = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/05/18

File: C:\project summaries map\Cherokee Farms Road_2017-528



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Community Bible Church Channel

Activity: Routine/Preventive Maintenance

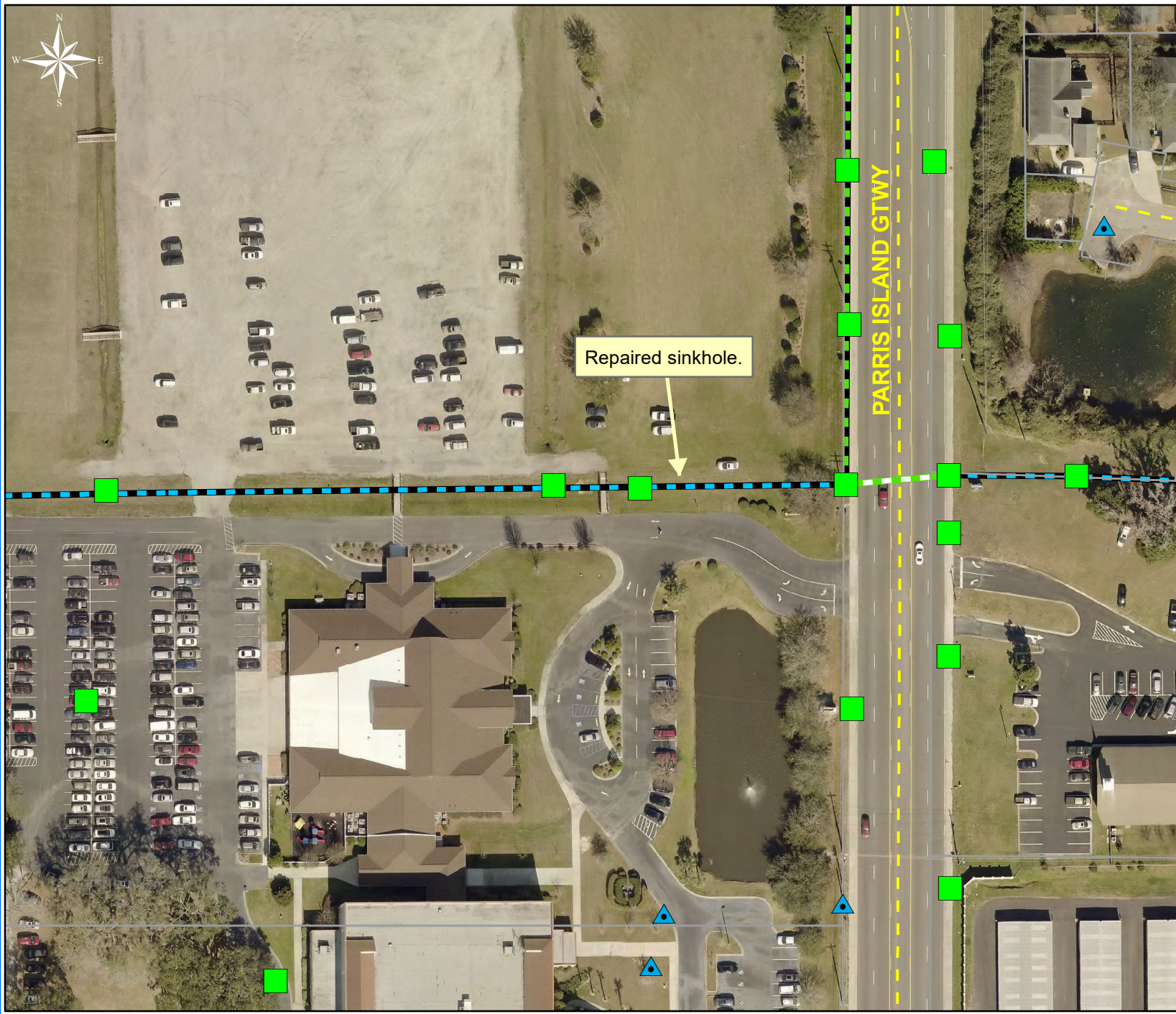
Narrative Description of Project:

Repaired sinkhole.

Duration: 6/21/16 - 7/19/16

2016-008A / Community Bible Church	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
SD / Soft Digging	68.0	\$1,539.04	\$195.88	\$153.52	\$0.00	\$972.62	\$2,861.06
SR / Sinkhole repair	9.0	\$209.22	\$36.33	\$14.44	\$0.00	\$129.42	\$389.41
STBY / Stand By	10.0	\$228.80	\$43.40	\$7.20	\$0.00	\$148.50	\$427.90
2016-008A / Community Bible Church Sub Total	87.5	\$1,988.81	\$275.61	\$175.16	\$0.00	\$1,257.15	\$3,696.73
Grand Total	87.5	\$1,988.81	\$275.61	\$175.16	\$0.00	\$1,257.15	\$3,696.73

(Pictures Not Available)



Project: Community Bible Church Channel

Activity: Routine/ Preventive Maintenance

Project #: 2016-008A

Township/SW Dist: Port Royal Island/6

Completed: July 2016

Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe

0 25 50 100 150 200 Feet

1 inch = 100 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 02/14/18
 File: C:\project summaries map\Community Bible Church Channel_2016-008A



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Community Bible Church Channel

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired sinkholes.

Duration: 12/15/16 - 11/16/17

2017-522 / Community Bible Church	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	18.5	\$409.60	\$169.27	\$79.20	\$0.00	\$194.67	\$852.73
PCAM / Pole Camera System	40.0	\$866.80	\$72.00	\$31.20	\$0.00	\$551.40	\$1,521.40
SR / Sinkhole repair	27.0	\$620.29	\$71.66	\$45.94	\$0.00	\$394.00	\$1,131.89
2017-522 / Community Bible Church	86.0	\$1,908.43	\$312.93	\$156.34	\$0.00	\$1,146.68	\$3,524.38
Sub Total							
Grand Total	86.0	\$1,908.43	\$312.93	\$156.34	\$0.00	\$1,146.68	\$3,524.38

(Pictures Not Available)

Project: Community Bible Church Channel

Activity: Routine/ Preventive Maintenance

Project #: 2017-522














Township/SW Dist: Port Royal Island/6

Completed: November 2017



Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

0 25 50 100 150 200 Feet

1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/14/18

File: C:\project summaries map\Community Bible Church Channel_2017-522



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Fox Island Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired sinkhole. Handseeded for erosion control.

Duration: 8/7/17

2018-513 / Fox Island	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	10.0	\$217.90	\$94.20	\$75.52	\$0.00	\$0.00	\$387.62
SR / Sinkhole repair	40.0	\$871.60	\$78.40	\$244.55	\$0.00	\$531.30	\$1,725.85
2018-513 / Fox Island Lane	50.5	\$1,101.25	\$172.60	\$320.07	\$0.00	\$537.92	\$2,131.83
Sub Total							
Grand Total	50.5	\$1,101.25	\$172.60	\$320.07	\$0.00	\$537.92	\$2,131.83

Before



During



After





Project: Fox Island Road

Activity: Routine/
Preventive
Maintenance














Project #:
2018-513

Township/SW Dist:
Bluffton/4

Completed:
August 2017

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe

Repaired sinkhole. Handseeded
for erosion control.



1 inch = 260 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 01/04/17

Narrative Description of Project:

Second rotation on 01/04/17: Project improved 2,246 L.F. of drainage system. Bush hogged 2,246 L.F. of workshel. This project consisted of the following areas: Running Deer Road (580 L.F.), Pinckney Colony (804 L.F.) and Barrel Landing Road (862 L.F.)

2017-304A / Bluffton Bush Hog

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
HAUL / Hauling	5.0	\$111.35	\$39.95	\$30.41	\$0.00	\$72.10	\$253.81
PDBH / Ponds - bushhogged	30.0	\$656.30	\$99.60	\$38.61	\$0.00	\$419.10	\$1,213.61
2017-304A / Bluffton Bush Hog Sub Total	35.5	\$778.55	\$139.55	\$69.02	\$0.00	\$491.20	\$1,478.32
Grand Total	35.5	\$778.55	\$139.55	\$69.02	\$0.00	\$491.20	\$1,478.32

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Ard Road

Activity: Routine/Preventive Maintenance

Duration: 10/09/17

Narrative Description of Project:

Repaired sinkhole.

2018-533 / Ard Road

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
HAUL / Hauling	4.0	\$77.12	\$37.68	\$10.61	\$0.00	\$0.00	\$125.41
SR / Sinkhole repair	22.0	\$473.12	\$61.40	\$43.86	\$0.00	\$300.12	\$878.50
2018-533 / Ard Road Sub Total	26.5	\$561.14	\$99.08	\$54.47	\$0.00	\$300.12	\$1,014.80
Grand Total	26.5	\$561.14	\$99.08	\$54.47	\$0.00	\$300.12	\$1,014.80

Before



During



After





Project: Ard Road

Activity: Routine/
Preventive
Maintenance














Project #:
2018-533

Township/SW Dist:
Port Royal Island/6

Completed:
October 2018

Legend

Drainage Type

-  Access Pipe
-  Bleeder Pipe
-  Channel Pipe
-  Channel
-  Stream
-  Crossline Pipe
-  Driveway Pipe
-  Lateral
-  Lateral Pipe
-  River
-  Road Pipe
-  Roadside
-  Roadside Pipe



1 inch = 420 feet



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, April 11, 2018
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
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 – March 14, 2018 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Special Presentation - TBD
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. May 9, 2018 ([backup](#))
9. ADJOURNMENT