



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, November 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 – October 10, 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
 - A. Brewer Memorial Park Demonstration Project Expanded Scope Update
6. NEW BUSINESS
 - A. Revised Capital Improvement Plan – Eric Larson, P.E. ([backup](#))
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. December 12, 2018 ([backup](#))
9. ADJOURNMENT



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

October 10, 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 10/16/2018

Board Members

Present

Don Smith
Marc Feinberg
James Fargher
Patrick Mitchell
Allyn Schneider

Absent

William Bruggeman

Ex-Officio Members

Present

Andy Kinghorn

Absent

Scott Liggett
Van Willis
Kim Jones

Beaufort County Staff

Eric Larson
David Wilhelm
Patricia Wilson
Eric Greenway

Visitors

Dr. Alan Warren, USCB Lab
Alice Howard, County Council
Ellen Comeau, Clemson Extension
Stacey French, SC DHEC
Ken Taylor, SC DHEC
Kevin Smith, Thomas & Hutton
Frank Turanu, Alliance Consulting Engineering

1. Meeting called to order – Don Smith

A. Agenda – Approved with Additions.

Additions to New Business

- E) Brewer Memorial Park Stormwater Demonstration Project Expanded Scope
- F) Extension of the Intergovernmental Agreement for the Stormwater Utility with the City of Beaufort
- G) Evergreen 319 Grant Project Approval, Funding, and Budget Amendment

B. July 11, 2018 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Special Presentation – DHEC Superfund and RCRA Programs – Ken Taylor & Stacey French – Ken Taylor, the Director Division of Site Assessment, Remediation & Revitalization, with SC DHEC explained that superfund is a federal program that has been around since 1980's; it's a pot of money to be used for sites that were placed on a National Priority List (NPL) by the EPA. It is a program led by EPA with input from the State.

There are three primary sites in the area; Kalama (EPA), Wamchem (EPA), and Lobeco (State) as Independent Nail was delisted in 1995.

Mr. Feinberg asked if sites come on and off the list. Mr. Taylor responded that once they are cleaned up they come off of the list.

The Kalama site is a ground water situation, where they are trying to keep contamination from getting into the limestone aquifer. The idea is to pump it and keep it from getting down deeper using extraction wells.

Mr. Kinghorn asked about keeping it from moving down. Mr. Taylor explained they pump the shallow water to keep it out. It is a long term process. He explained every five years the sites go through a review. He mentioned that there is a responsible party who is paying the bill for the Kalama site clean-up.

In response to a question about alternatives to pumping, Mr. Taylor indicated if it is moving laterally you could create a wall filled with reactive material or there are injections to try to neutralize the chemicals. This site is a little tougher because it was wide range of chemicals.

The five year review for the site will take place in 2018 and he noted that the concentrations have been coming down over the years.

The Wamchem site was a dye factory and has been on the NPL in 1984. Springs Industry is responsible party. They are getting close to being cleaned up; only one chemical is above the level. He explained there is an NPDES discharge that is treated before it goes off site, and it cannot go over a certain concentration.

The Lobeco site is not on NPL list, but has been under DHEC order since the 1980's. The site had several areas of concern, but most have been cleaned up. The new waste water lagoons have been tested and there is not much in them. A wall was created around the contaminated groundwater, but unfortunately behind a part that was moving off site so there are wells in that area. They are in the last phase of getting the ground water set up for remediation. Mr. Taylor explained that IC (Institutional Controls) are in place.

Mr. Smith asked if they see any stormwater concerns. Mr. Taylor mentioned they are mostly groundwater problems and when they have events, they try to tell them to turn off pumps until a storm passes.

Ms. Stacey French, manager of RCRA Resource Conservation and Recovery Act for DHEC, works with the Department of Defense. She expressed the idea is to manage the waste to not have as many Superfund sites. Parris Island Recruit Depot was listed on the NPL in 1994 (causeway landfill) and had endangered species. In addition to be on NPL, the Depot applied for a permit to store hazardous waste. They have a Federal Facilities Agreement with is a party team EPA, DHEC, and Naval Facilities for clean-up. There are 29 sites (petroleum, hazardous waste) designated as needing clean-up. Site 45 was a former dry cleaning facility and the contamination was moving laterally. Soil removal and injections have been done in this area. There is some detection in the discharge area, but they are not consistent. The plan is to repair the storm sewer as there are some cracks.

Marine Corps Air Station (MCAS) is not an NPL site and it doesn't have EPA oversight. It is a RCRA, they applied for a permit as they have container storage. They have to determine how they manage the sites to not become a superfund site. There is no offsite impact. If they find new sites, they have to identify and address. Ms. French noted that MCAS has a great working relationship with DHEC.

Ms. French explained MCAS elected to do an interim measure to work with DHEC and OCRM to fix a stormwater problem, where they installed mats and regraded the area to stabilize the bank erosion.

Mr. Smith asked if they were monitoring the water around any of the sites. Ms. French indicated they do source area testing and move out to surface level if needed.

In conversation about the 3rd Battalion pond, she explained the detection in sediment and surface water by DHEC terms did not meet the requirements to be of concern, but EPA is based on older studies had concerns.

Ms. French shared that in the Laurel Bay Housing area, there are no known offsite impacts. In reference to the map, she explained that the green marked areas are ones DHEC has worked with and no additional action is needed and the blue areas are long term monitoring (LTM) sites, as they were not clean initially. [Presentation attached.](#)

5. Reports – Mr. Eric Larson and Mr. David Wilhelm provided a written report which is included in the posted agenda and can be accessed at:

<https://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2018/101018.pdf>

Mr. Larson provided updates on few items from the August and September reports, as they were incorporated into the October packet.

In reference to the August Utility Update #2, the FAQ for regionalism was included as it answers many questions. This project continues to move forward and the kick off meeting has been held. All of Beaufort and Jasper County are participating with the exception of the Town of Hilton Head Island and Town of Ridgeland.

In reference to the August MS4 Update #10, Mr. Larson shared that Amber Woods is the new inspector and the department [regulatory] is now fully staffed.

In reference to the September Utility Update #3, stormwater is advertising for an Administrative Superintendent. The duties of the current superintendent position will be split into admin and operations. This new position will focus on data management.

In reference to September Utility Update #5, Katie Herrera won a structural BMP while at training and the plan is to install it on the Spanish Moss Trail.

In reference to the September Regional Coordination Update #9, Mr. Larson explained that money was being transferred back to capital funds to pay the Battery Creek 319 bill. Mr. Andy Kinghorn asked about the Gray's concerns and Mr. Larson explained that trash rack needed cleaned, there was some erosion on the bank of the pond and some mowing was needed for the site.

In reference to the September MS4 Update item #10, a resolution in support of efforts by NACO will be going to the Natural Resources Committee.

A. Utility Update – Eric Larson

In reference to item #2, the County has MOA's with everyone except the Town of Bluffton. The Town's Council was supposed to take action last night.

The County is advertising for an Assistant Stormwater Manager to help with the day to day tasks, so Mr. Larson can focus on programmatic plans such the next 5-year plan. Also, the new MS4 permit will be issues this next year.

In reference to #5, Hilton Head's financial info is attached. All others are pending; once they are available they will be shared in a future packet.

B. Monitoring Update – Eric Larson

In reference to item #1A, monitoring of the Walmart site, they have been sampling and the pond is very effective in bacteria removal. As soon as it mixes with wetland water, the numbers jump back up. (See attached)

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

Please reference the report, no additional updates.

D. Stormwater Related Projects – Eric Larson

Mr. Larson provided an update on Alljoy. The County is looking into grant funding for a project or two in the area; ideas of buy-out program or regional stormwater facility to help mitigate flooding issues. In response to a question, Mr. Larson explained that flooding has historically been an issue (low lying area/ elevation problem), but the frequency seems to be getting worse.

E. Professional Contracts Report – Eric Larson

This item will be discussed under new business.

F. Regional Coordination – Eric Larson

In reference to item #5, Pepper Hall, a meeting was held on Monday and this project is moving forward.

G. Municipal Reports – Eric Larson

In reference to #3 City of Beaufort, the task force meeting has been canceled due to pending weather.

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

Mr. Larson explained the two new charts included in the packet, one is part of MCM5, an MS4 requirement which shows mapping efforts of the last three months with wet ponds being the biggest BMP. The plan is to go back and inspect BMP conditions in the next program year. Stormwater has purchased five new weather stations and the data is available by internet in real-time (weather underground). The County now has the ability to track rain events.

In reference to item #7, the County received approval for changes to Stormwater management plan regarding construction permitting changes and is effective as of yesterday. The charges were a roll back of some previous rules set in place.

Mr. Larson mentioned there will be an extension of the current MS4 permit, as the new one won't be ready on time. The recommendation was to do two general permits, where there is an additional set of rules for coastal communities.

I. Maintenance Projects Report – David Wilhelm

In reference to the Admin Building project under Stormwater Related Projects, it is a SCDOT system. Mr. Wilhelm explained that pipe joints were separating causing sink holes. A 580 foot section of 30" pipe will be lined by a contracting company from Jacksonville Florida. The work will take about a week. The patch off of Boundary Street is part of the same system and was completed by County crew two weeks ago.

The County will be in the Alljoy area to do some significant improvements, hoping to make the conditions better.

The sweeper truck operator is working night shift Sunday thru Thursday. Facility Maintenance has a sweeper contract that runs out at the end of the year and this position will assume those duties when it ends.

In reference to the Animal Shelter Project, Stormwater improved drainage by grubbing, clearing and reconstructing 1,170 feet of channel and cleaning out 1,030 feet of roadside ditch. This helped dry out the site so the contractor could begin work.

In response to a question about the litter crew, Mr. Wilhelm indicated they are doing well, picking up around 7,000-9,000 pounds of litter a month.

Mr. Wilhelm shared that Thursday, November 1st is the fall clean up and is looking to be a large event with many partners, including Town of Bluffton and City of Beaufort having presence as well.

J. Financial Report

Mr. Larson pointed out the summary of the changes between last year and this year's tax run results that was included in the packet.

6. Unfinished Business – None.

7. New Business

A. Special Presentation – DHEC Superfund and RCRA Programs – Presentation was moved to Item 4.

B. Easement Acquisition Updates–

Trask Parkway Update – Memo and Map included in the packet. A motion was made to proceed with condemnation on the Trask Properties. The motion was approved (5/0).

Oyster Street Update – Memo and Map included in packet. The County is requesting to abandon easement due to a structure on property. The property owner has given another easement on the property for the system. A motion was made to abandon easement on parcel 153A. The motion was approved (5/0).

C. 2019 SWMU Board Meeting Schedule – A motion was made to approve the proposed schedule. The motion was approved (5/0).

D. Brewer Memorial Park Stormwater Demonstration Project Expanded Scope -

The project is near Whitehall Boat Landing and is to modify and improve an existing pond. The County has partnered with Clemson University. Beaufort Open Land Trust owns the park and they plan to do a trail and reflection area in the park. The expanded scope plan incorporates several BMPs into the project such as porous pavement, raingarden, and tree boxes.

The proposed change order is for \$27,800 to design and serve a much larger parcel (expanded scope for the parking and garden areas). A motion was made to approve the additional work at Brewer Memorial park. The motion was approved (5/0).

E. Extension of the Intergovernmental Agreement for the Stormwater Utility with the City of Beaufort – Mr. Larson explained that the County renewed the IGA with the City in

November 2016. This renewal (extension) is requested by the City, as they are proposing to do a bond issue and part of the process for a 25 year bond requires an agreement with funding sources (billing and collections for the life of the bond). The agreement would be extended for an additional 17 years. Mr. Feinberg asked if there is down side. Mr. Larson indicated there may be a few changes may be coming from the bond counsel, but doesn't see anything currently that would be.

A motion was made to approve the recommendation to extend out from 25 years from today without any significant "word-smithing" changing the intent the agreement. The motion was approved (5/0).

F. Evergreen 319 Grant Project Funding and Budget Amendment – Mr. Larson explained the Evergreen Tract is near the Okatie West site. The County applied for grant like the Okatie West pond. This project is smaller in scale and received grant approval. The attachment in the packet shows the mark-ups. It is a \$690,000 project and applied for a grant for 60%. The County received a partial award of \$229,000. The money is already budgeted, but it wasn't programed for FY19. Now that the County has the grant they will start the design and need a budget amendment to move funds to this fiscal year.

In response to Mr. Smith's question about how well the projects are working (monitoring data), Mr. Larson commented that the County started monitoring on the Okatie West project and for the Gray property is looking into what is causing the bacterial levels to drop off.

Mr. Larson shared that Okatie West is serving the entire pink area on the map (Sun City going to the little green stream) and Evergreen will be catching the runoff from HWY170 (northern half). Mr. Larson pointed out there are small sediment ponds that were part of the HWY 170 widening project that have been converted to water quality ponds.

A motion was made to approve the Evergreen project, accept the DHEC grant money and moving it into the 2019 budget. The motion was approved (5/0)

8. Public Comment(s) – None.

9. Next Meeting Agenda – Approved.

10. Meeting Adjourned



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Purpose

- To fulfill the Board's request for an overview of DHEC's Superfund and RCRA Programs and an update on 6 Beaufort County sites – Kalama, Wamchem, Lobeco, Parris Island, Marine Corps Air Station and the Laurel Bay Housing Area.



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Superfund



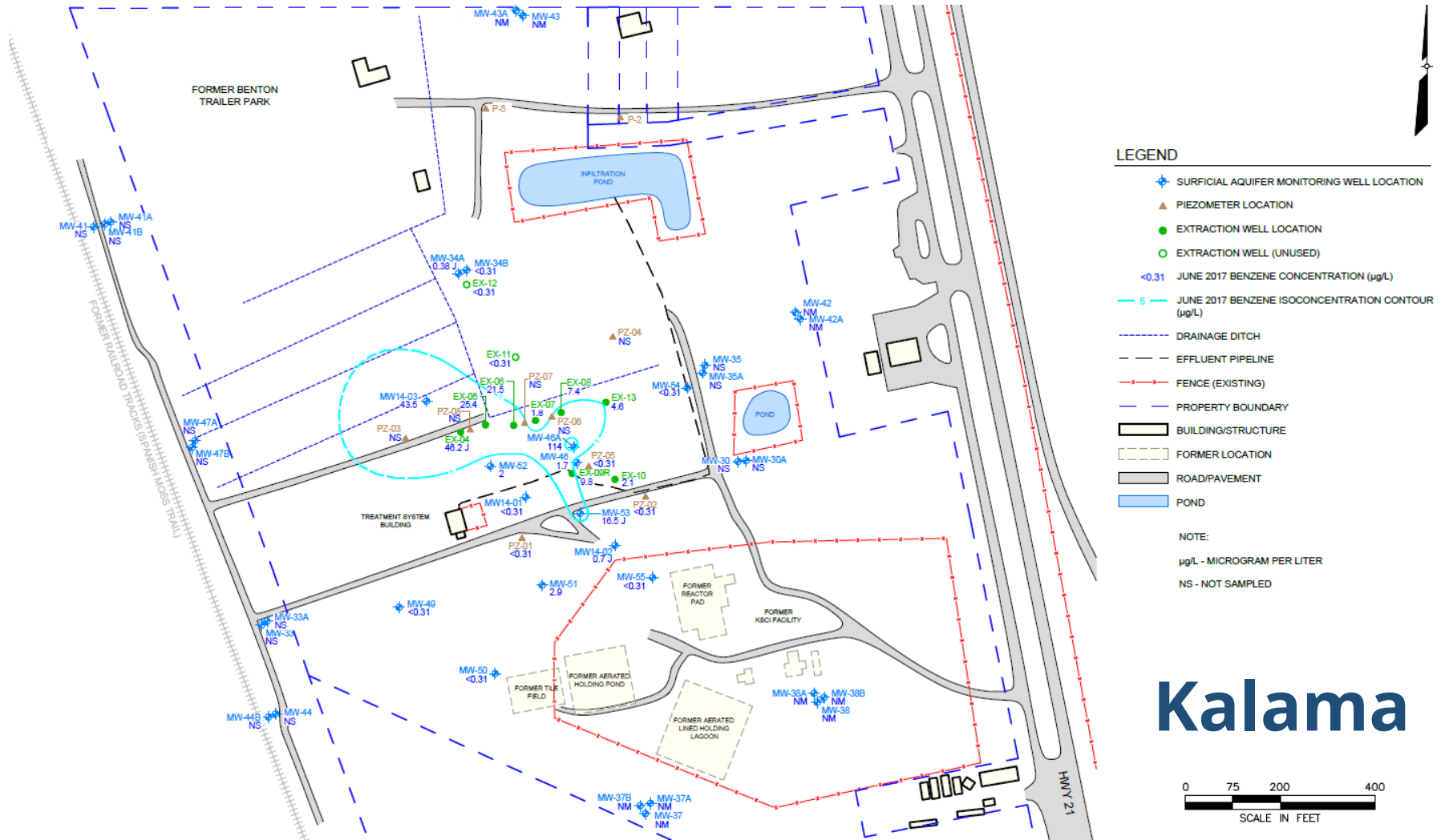
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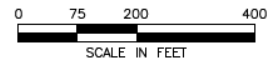
Kalama Specialty Chemicals



- 1973-1983, manufactured wide range of chemicals, including herbicides and plant-growth regulators
- 1979 explosion & fire, releasing chemicals



Kalama



Kalama - Chemicals of Concern



- Groundwater:
 - VOCs (Benzene, 1,2-DCA)
- Soil/Sediment:
 - VOCs (BTEX, 1,2-DCA)
 - SVOCs (Benzoic Acid)
 - Metals (Pb, Cr, Ni, Hg)

Kalama - Remediation



- Listed on NPL 9/21/1994
- 1995, soil/sediment removal w/ off-site disposal
- 1998, groundwater pump & treat system

Kalama – Current Status

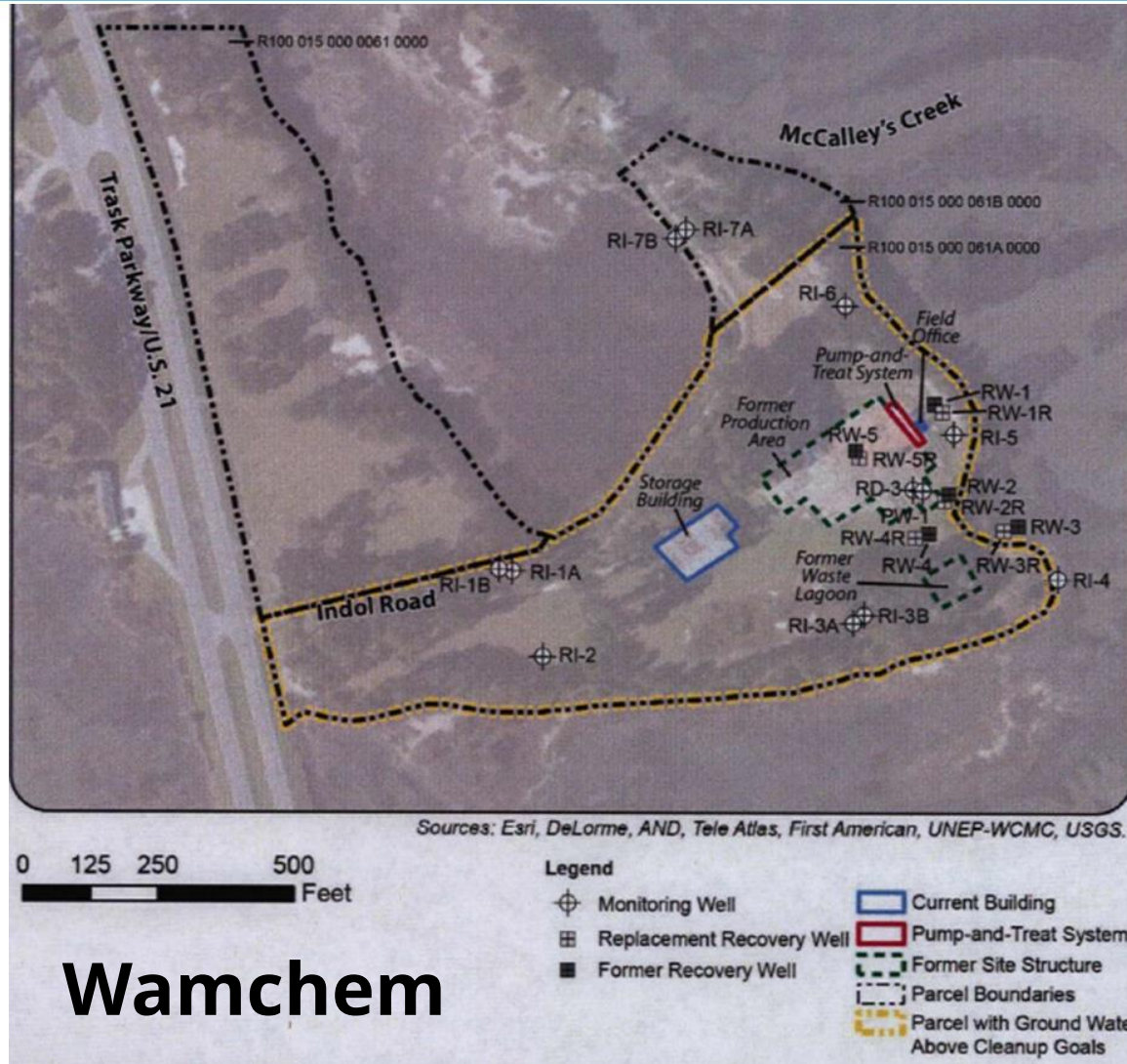


- Semi-annual sampling
- Ongoing delineation
- Evaluation of pulsing strategy
- 2018 Five Year Review

Wamchem



- 1950-1982,
dye
manufacturing



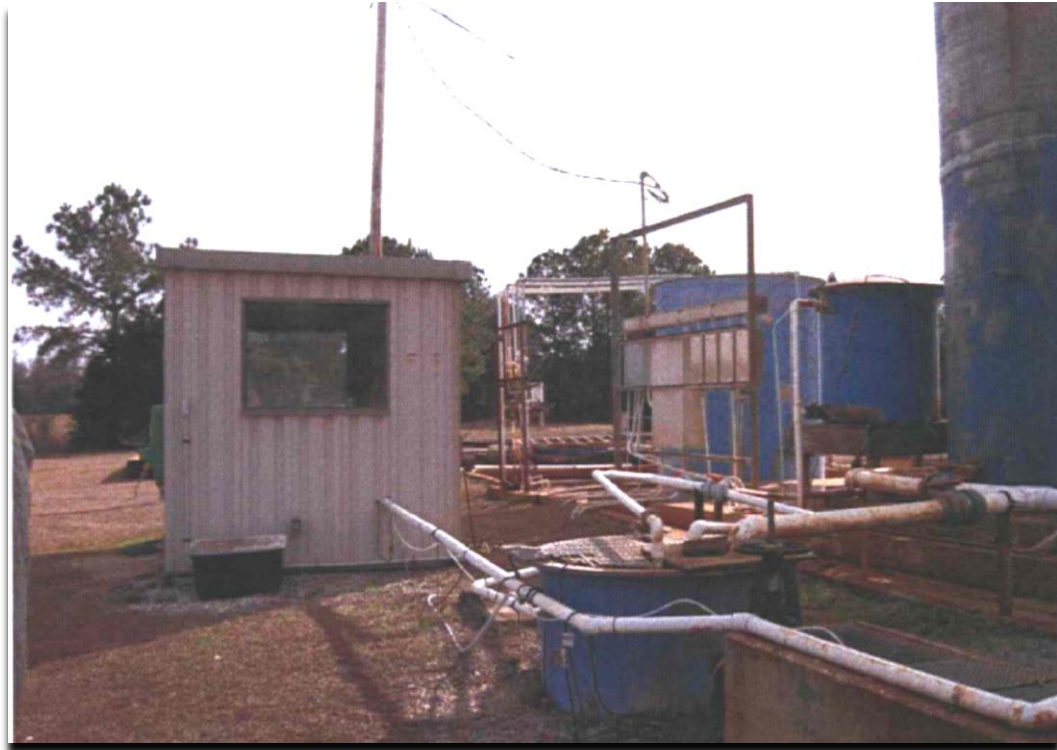
Wamchem

Wamchem – Chemicals of Concern

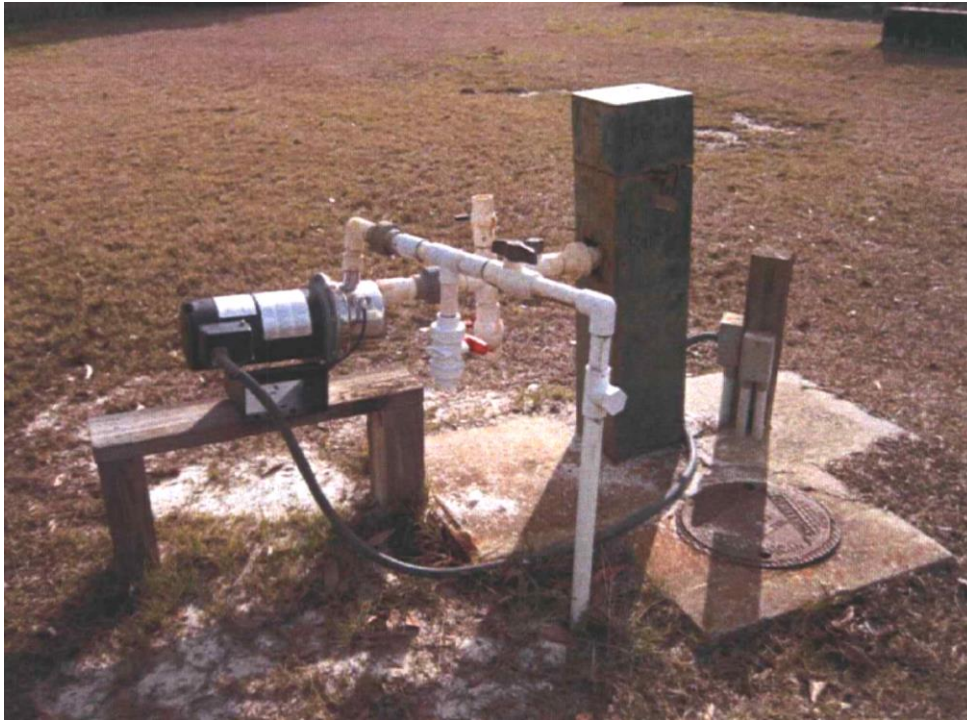
- Groundwater & Soil
 - VOCs (Benzene, 1,2,4-Trichlorobenzene, Acetone, Xylenes, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4-Dinitrotoluene)
 - SVOCs (Naphthalene)
- Only 1,2,4-Trichlorobenzene remains above remediation goal

Wamchem - Remediation

- Listed on NPL 9/21/1984
- 1993, soil removal, treated and backfilled
- 1996, groundwater pump & treat system began operating



Wamchem – Current Status



- Annual GW sampling
- Continue P&T
- Maintain Institutional Controls
- Next Five Year Review is 2019

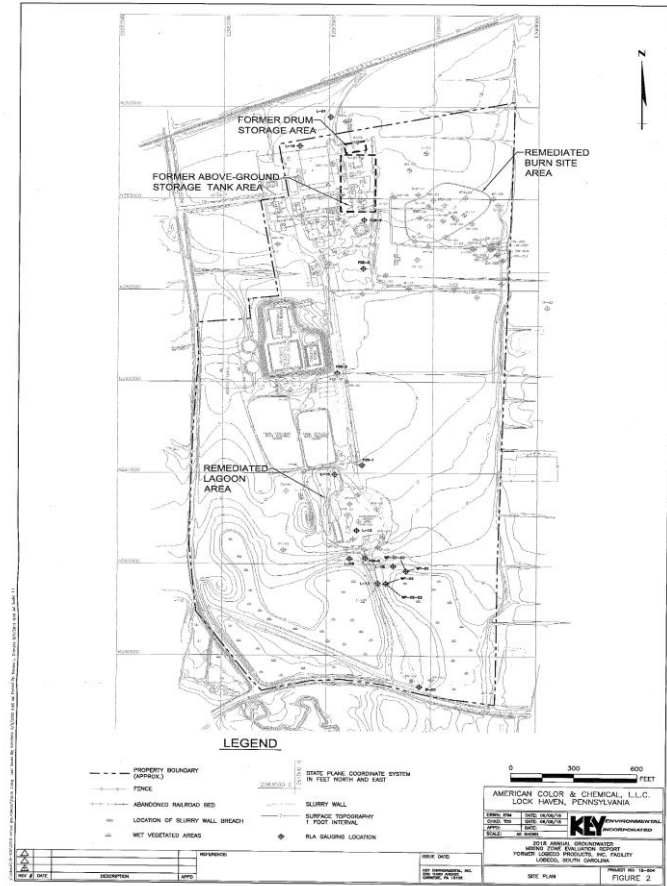
Lobeco



- 1966 – Agricultural
- 1967-2009 Various Chemical Companies
- Sold to Coastal Demolition 17 April 2009
- 2012 Seized by County for delinquent taxes
- 2014 Sold to Nautica & Co. at auction on behalf of a Mr. Tao
- Site is Not an EPA NPL SF Site. DHEC is Overseeing RP Remedy

Lobeco Map

- Multiple “Operable Units”
- Former Drum Storage & ASTs
- Remediated Burn Site Area
- Remediated Lagoon Area
- Rubble Pile (Asbestos)
- Wastewater Treatment system and discharge line



Lobeco – Chemicals of Concern

- Solvents

Trichloroethylene

Cis-1,2-dichloroethylene

TCE is present at up to 12,000 ug/L in groundwater

- PCBs

Discharged to ground, wastewater lagoon.

1990: Soil removal action

2005 & 2010: Oyster sampling – results comparable to control and public oyster beds

2012: EPA/DHEC study

Lobeco - Remediation

- 1990: PCB removal
29,459 Tons of PCB contaminated soil and debris were removed, disposed as hazardous waste.
 - 8,700 tons from Burn Site
 - 20,409 tons from Lagoon
 - Contaminated debris, spent carbon from water treatment
- Cleanup Goal: < 25ppm

Lobeco – Current Status



- Burn Area: Final GW Remedy Selection Pending to Protect Private Wells
- RLA: GW Mixing Zone
- PCBs: No further remedial action planned
- Asbestos: New owner working with DHEC
- ICs are in place

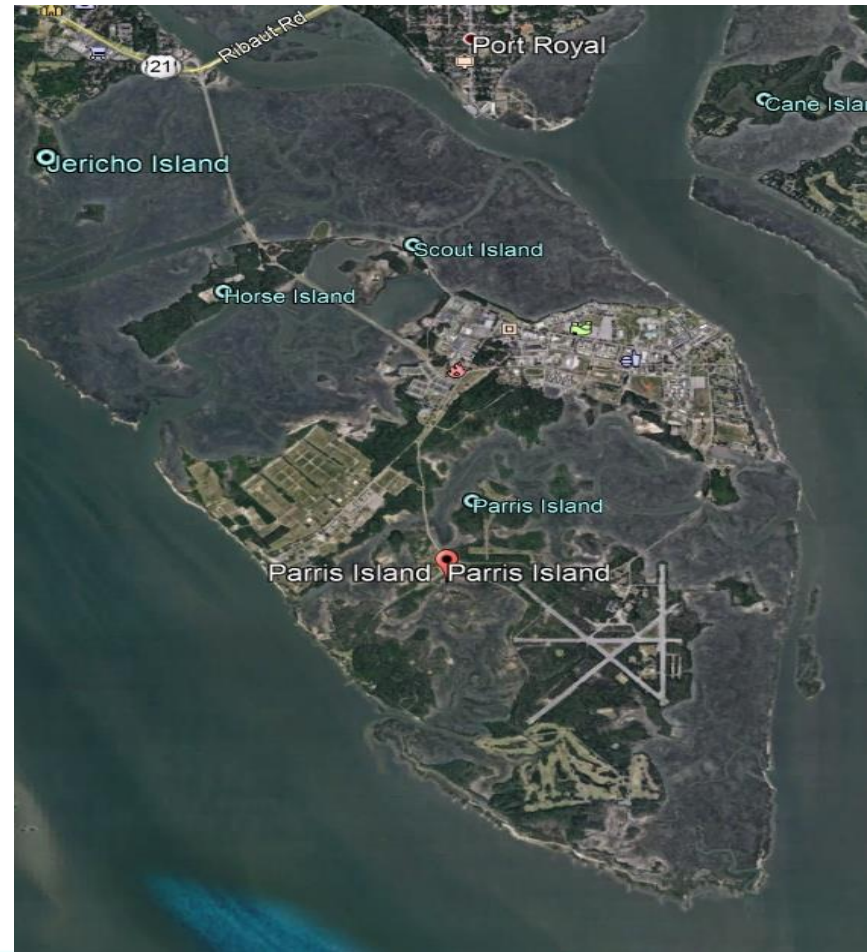


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RCRA Federal Facilities

Marine Corps Recruit Depot– Parris Island

- Regulated under the 2005 Federal Facilities Agreement
- Cleanup team consists of EPA, NAVFAC, Parris Island, and DHEC
- 29 sites identified for investigation



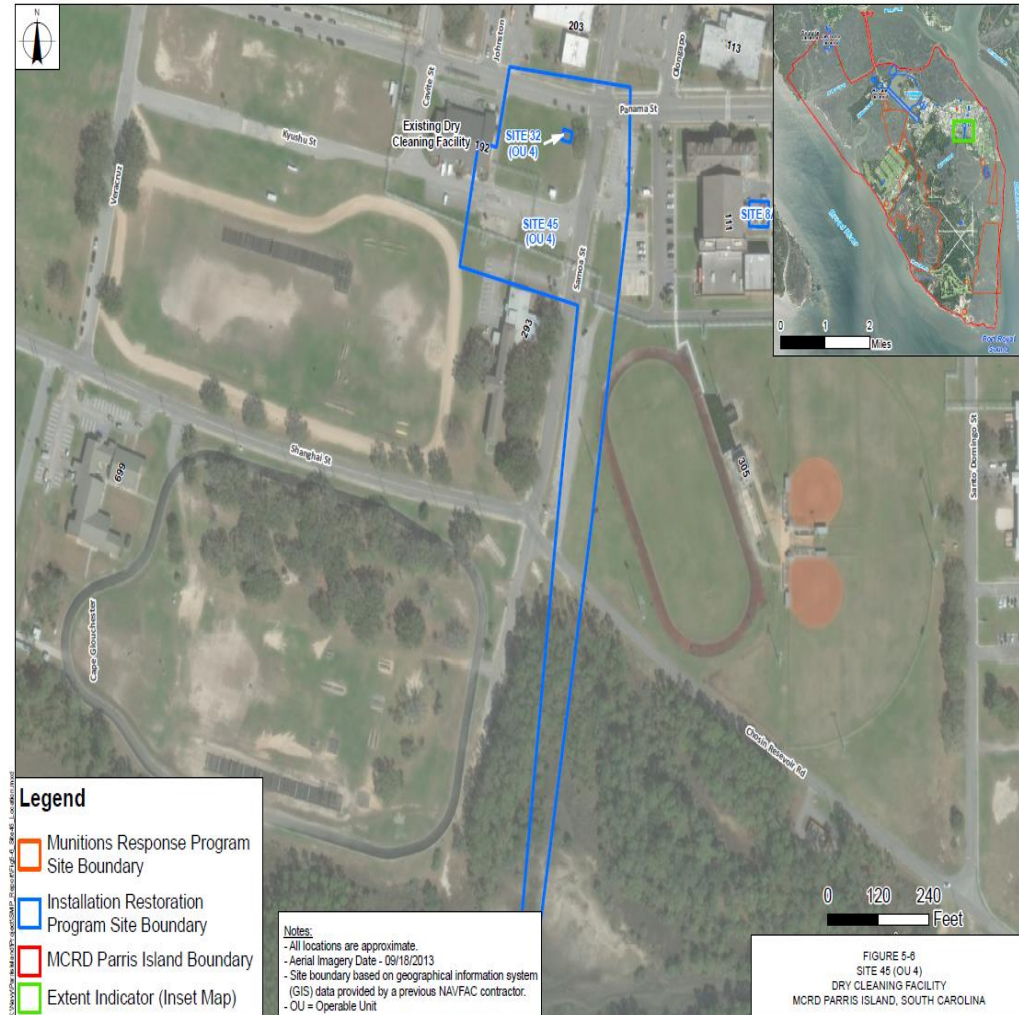
Marine Corps Recruit Depot- Parris Island

Site Location Map



Site 45 Status

- Chlorinated Solvent release at a former drycleaner
 - Contamination is delineated and Treatability Studies completed
- Chemicals of Concern
 - Groundwater - VOCs
 - Soil – VOCs, PAHs, metals

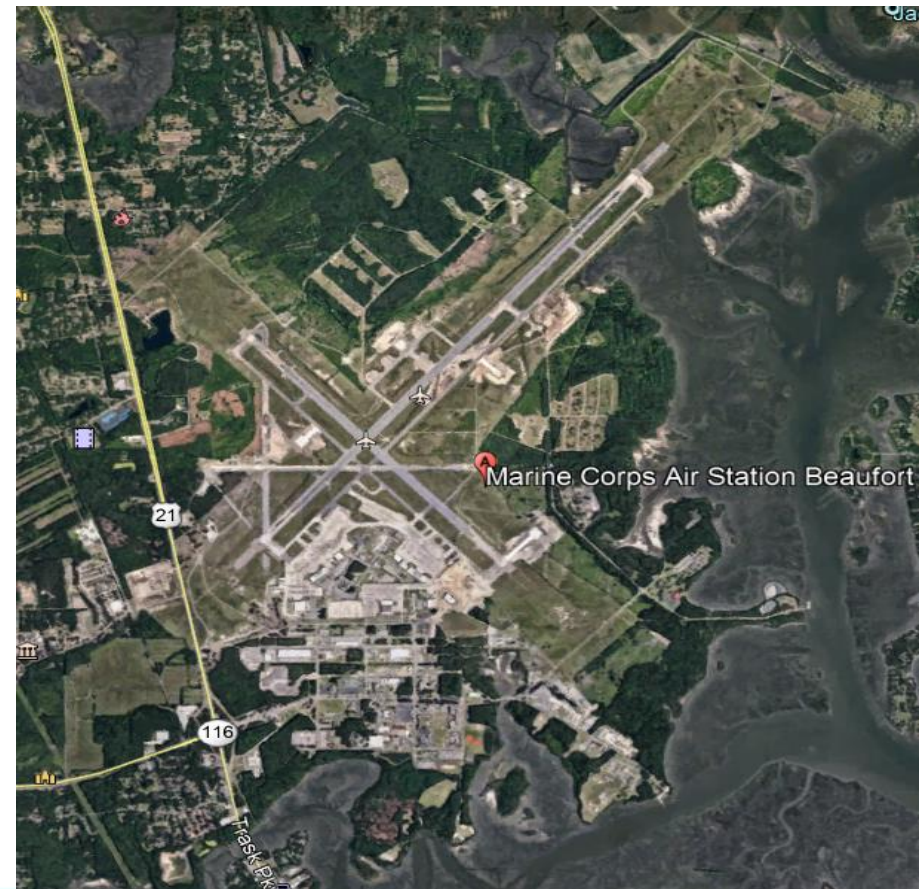


Site 45 Remedy Development

- Documents for proposed Final Remedy are in progress. Remedy will consist of :
 - Source area soil excavation and removal
 - Groundwater treatment
 - ISEB and ISCO
 - Seal storm sewer to prevent groundwater discharge to creek
 - Monitored Natural Attenuation and Land Use Controls

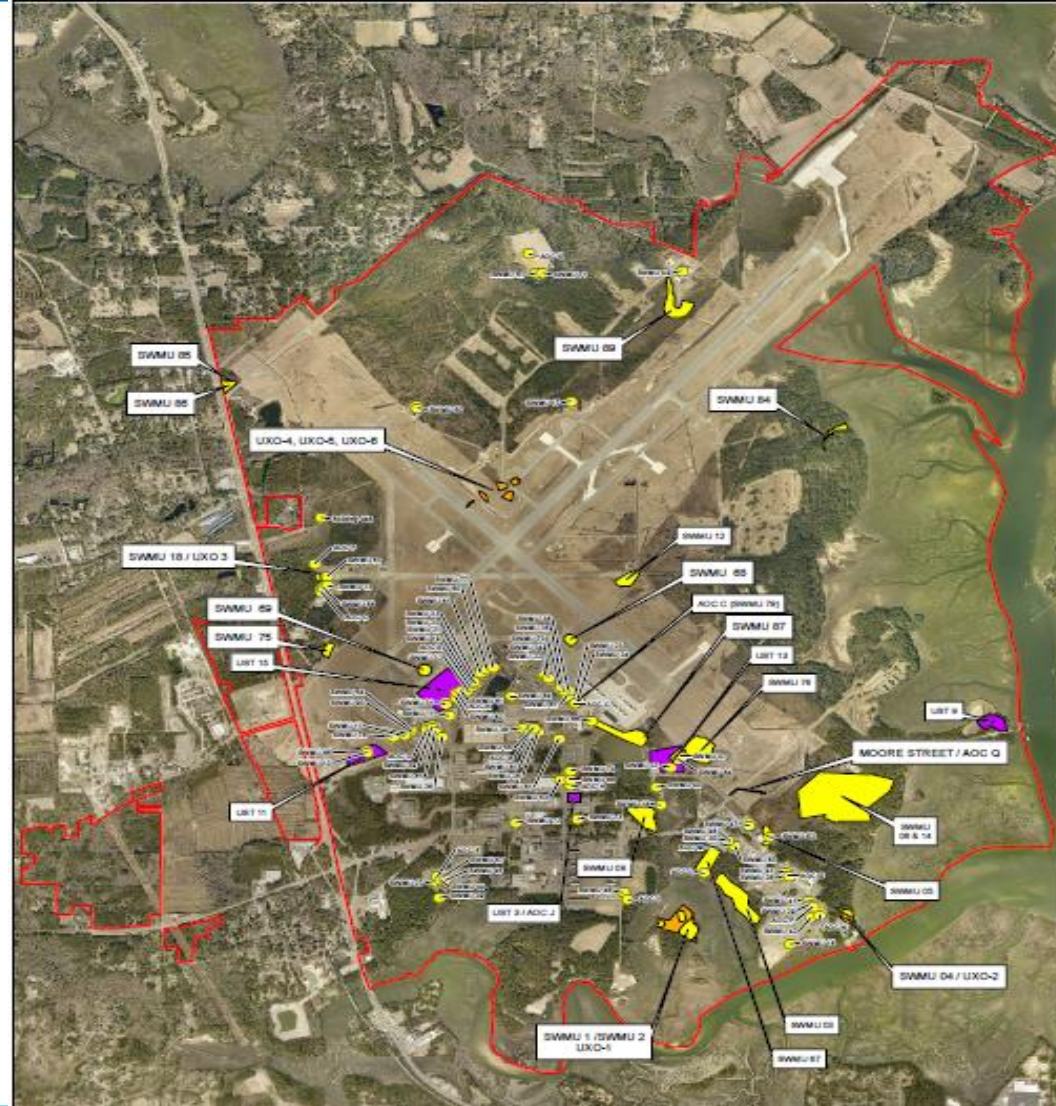
Marine Corps Air Station Beaufort

- Regulated under RCRA Hazardous Waste Management Permit
- Clean up team consists of MCAS Beaufort, NAVFAC, and DHEC
- 106 sites identified for investigation
- No known off-site migration



Marine Corps Air Station Beaufort

Site Location Map



SWMU 3 Former Borrow Pit Landfill

- Extent of landfill delineated (~ 7 acres)
- Groundwater monitoring wells installed
- Chemicals of concern
 - Groundwater – metals
 - Soil – Dioxins, Furans, PCBs, metals



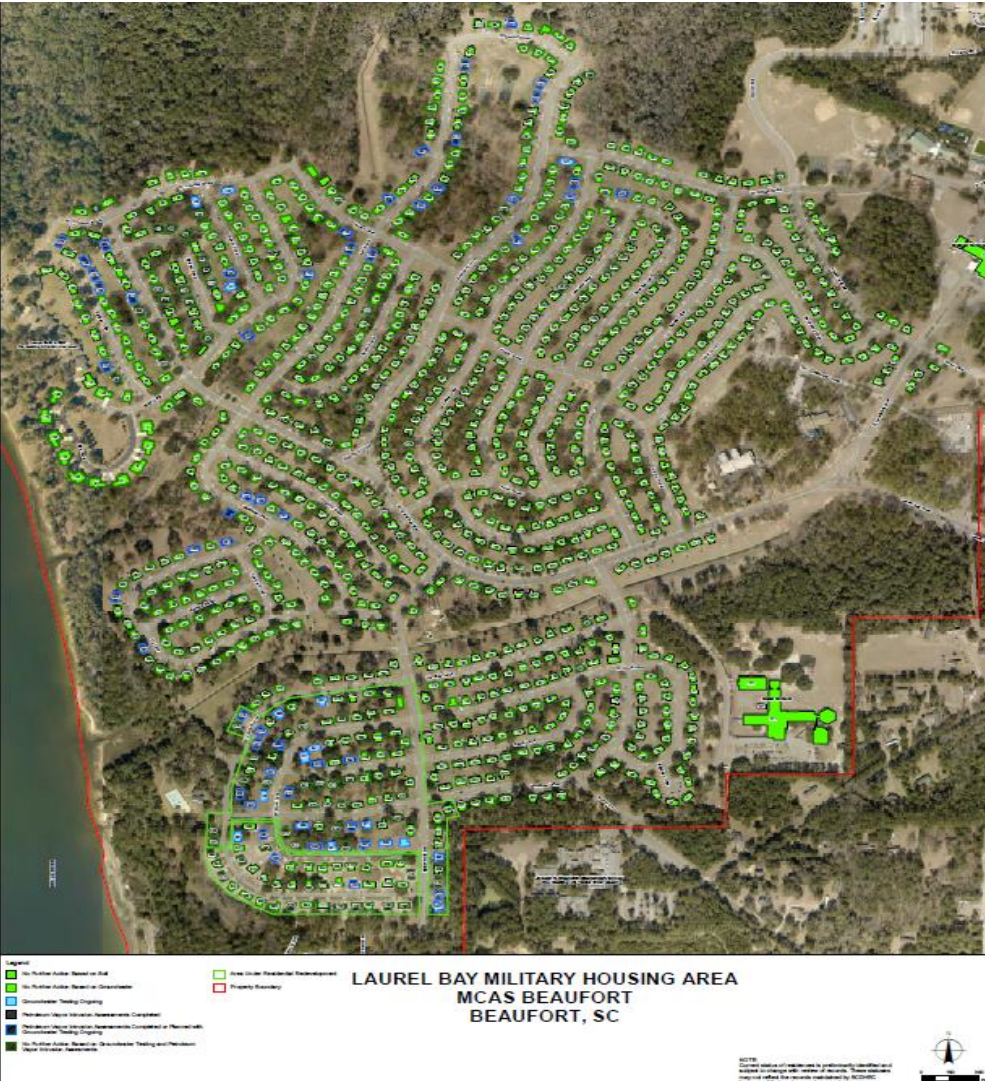
SWMU 3 Bank Erosion Control

- During investigation substantial erosion was identified
- An interim measure was completed for bank stabilization using marine mattresses
- This will be incorporated into a proposed final remedy and documented in a permit modification



Laurel Bay Housing Area

- 3.5 miles west of MCAS Beaufort
- ~ 1300 housing units
- ~ 1100 housing units formerly heated with oil stored in buried oil tanks in the yards of the houses
- All known buried tanks have been removed
- A small percentage of the tanks leaked
- The groundwater is being monitored at known leaks
- No known off-site migration



- The Marines conducted a tank removal and investigation process. DHEC has been providing oversight
 - The map shows the current status
- Further information regarding the status of investigations can be found at:
<https://www.beaufort.marines.mil/Resources/Laurel-Bay-Health-Study/>



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CONTACT US

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Walmart / Sam's Club Pond at Highways 46 and 278



Fecal Coliform Removal Efficiency of Walmart Detention Pond*

Date	WMP IN	WMP OUT	ABSOLUTE DECREASE	% DECREASE
6/12/2018	184.0	10.0	174.0	94.6
6/26/2018	12098.0	31.5	12066.5	99.7
7/10/2018	12098.0	120.5	11977.5	99.0
7/23/2018	1860.0	94.5	1765.5	94.9
8/7/2018	1093.5	26.0	1067.5	97.6
8/21/2018	19863.0	91.5	19771.5	99.5
9/4/2018	359.0	80.5	278.5	77.6
9/18/2018	12098.0	129.5	11968.5	98.9
10/2/2018	14136.0	172.5	13963.5	98.8

Avg. % Decrease = 95.6

*** Fecal Coliform Concentration in MPN of Colony Forming Units /100 ml**



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

November 14, 2018

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Lowcountry Regional Board (SoLoCo)
 - a) Nothing new to report.
 - b) See Regionalization below.
2. Regionalization
 - a) Regional Stormwater Design Standard and Model Ordinance Project – The Consultant is conducting a series of meetings with each of the county and municipal stormwater staff to discuss needs and expectations. They are reviewing everyone's current codes. This serves as a baseline for the study.
 - b) Regionalization of programs – No action. This is pending additional discussion after the Reg. SW Std. is completed.
3. Annual Financial report from the Municipalities – Per the Intergovernmental Agreements for the Utility, each year on September 30th, the City and Towns are required to submit a summary of revenue and expenditures for the previous fiscal year.
 - a) Beaufort County – Actuals pending CAFR completion. (December 2018 or January 2019)
 - b) Town of Hilton Head Island – Received last month.
 - c) Town of Bluffton – [Attached](#).
 - d) Town of Port Royal – No response.
 - e) City of Beaufort – No response.
4. Special presentations – Staff has begun research on the various topics provided by the Board for future meetings:
 - a) Military Site's Stormwater management – Staff has made contact with representatives at MCAS, PI, and Naval Hospital. Site visits for Parris Island and the Naval Hospital have not been scheduled at this time.
 - b) Living shorelines – No action at this time.
 - c) Other ideas?
5. Tax Run After Action Meeting – Utility staff met with County GIS staff to discuss the good and bad of the recent tax run process with the goal of improving the work flow next year.

6. The County Council has hired an interim County Administrator, John Weaver. He begins work November 15th. Mr. Weaver has had previous administrative experience in Horry County and Lancaster County among other jobs. He is a lawyer by profession.
7. Eric Larson was recognized by the South Carolina Association of Stormwater Managers (SCASM) at the November 8, 2018 meeting for 2 years of service as a President of the Association.
8. Several stormwater staff members participated in the County-wide litter clean up event on November 1, 2018. #wecare.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)

a) Beaufort County:

- i. Okatie Pond Bold & Gold sample requirements have changed and are being discussed with Bold & Gold, Beaufort County and USCB Lab.
- ii. Walmart Pond (Bluffton-278) collection and analysis is finished. Focusing efforts in other areas/projects.
- iii. Port Royal Cypress Wetlands collection and analysis requests have been completed. Report has been sent to Beaufort County (Katie Herrera).
- iv. Port Royal Redevelopment samples have been collected and analyzed for a wet event. The sampling schedule is quarterly.
- v. MS4 fourth quarter has started and we will continue collecting all sites for wet and dry events until the new monitoring plan is implemented.
- vi. Review of new Beaufort County Comprehensive Water Quality Monitoring Plan, submitted comments and waiting to schedule meeting with Beaufort County and consultant.

b) USCB Lab:

- i. Discussions about sampling at Crystal Lake for fish. Deciding on which analyses are the most crucial to the project.
- ii. New hire started (Hamp Simkins) on 8/13/18 and proceeding to train.
- iii. Accepting weekly sample from Water Oak Utility for E.coli.
- iv. Monthly (and as needed) calibration of equipment and instruments.
- v. Exploration of new TKN method approved for state certification.
- vi. Certification Upkeep-including review of QA/QC, logbooks, COC's.
- vii. On-going efforts to obtain additional certification; no new certs obtained during this Qtr.
- viii. Monthly sterility checks on Lab water for TOC, TRC, HPC, Conductivity, metals.
- ix. New laboratory management system is up and we are training and inputting lab information (sample site, clients, analyses, results, QA/QC requirements, reporting requirements, report format, etc...)
- x. Account tracking for all accounts-expenditures, deposits, ledgers, PO's
- xi. Logistics, planning, scheduling of all activities.
- xii. Procurement of all required materials, supplies and equipment.
- xiii. Learning new University software for all expenses including purchases and

- travel.
- c) Town of Bluffton:
 - i. Continue with weekly sample analysis.
 - ii. Accepting samples for new project: EPA 319 Grant Town Hall Pervious Paving Parking Lot. Wet event samples but as often as possible before construction begins.
 - iii. Additional bi-monthly nutrient (T-N, T-P) parameter analysis for NRP-pond site.
 - iv. 4th Qtr MS4 has begun. USCB Lab continues to collect and share data with TOB for the shared BC MS4 sites.
 - v. Invoice/cost tracking for Town of Bluffton.
 - d) Palmetto Bluff:
 - i. Continued sampling efforts for wet and dry events (12x/year).
 - ii. Data reduction/reporting.
 - iii. Invoicing.
 - e) GEL-HHI:
 - i. Continued analysis for Hilton Head Island E.coli samples 4x/Qtr, including data reduction/reporting, and invoicing.
2. Monitoring Plan updates – The Consultant is preparing a final draft based on comments from staff, USCB, and municipal partners. A meeting with Town of Port Royal to review the draft is scheduled for the end of the week. We are now planning for a January implementation.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC has not met in the last month. SWIC members, minus Town of Hilton Head Island staff, met on October 8th for the regional stormwater standard project.
2. Charleston area MS4 group – Staff from Beaufort County and the Town of Hilton Head Island attended a quarterly meeting of the Charleston MS4s on October 23rd. Topics ranged from a comparison of local stormwater permitting procedures, post construction inspections and inventory, and regional efforts in the Charleston area and in Beaufort / Jasper Counties.

Stormwater Related Projects

1. Revised Capital Improvement Plan – With the completion of the 2018 Management Plan earlier this year, staff has revisited the CIP plan for the next ten years to project funding needs. At the request of the Natural Resources Committee in October, staff has prepared a summary of the CIP plan to present to NRC in November. (This will be presented under New Business)
2. Evergreen Regional Pond 319 Grant Project (Design=\$100,000, Construction=\$590,000. Grant=\$229,124) – The County received a Clean Water Act Section 319 grant for the design and construction of this pond project. A kick off meeting with DHEC is scheduled for the first week of December. The RFQ for design was advertised

November 2nd. SOQ are due December 10, 2018.

3. Okatie West / SC 170 Widening Retrofit (Construction = \$993,048, CO#1 Design \$8,000, CO#1 &2 Const. \$25,739) - Post construction monitoring plan continues. A proposal to ECS, the Bold and Gold vendor, for monitoring funding is still pending.
4. Wallace Road – SCDOT has denied our proposed plan for draining the ROW. Staff met with DOT staff on site and discussed alternative plans. The County has requested a letter from DOT with the official denial of our permit so that we can resubmit a new plan.
5. Administration Building Parking Lot and SCDOT pipe failures – (Liner construction = \$131,625; remaining work in-house) Asphalt patching for the pipe under Marsh Road is scheduled for November 7th. The pipe lining contractor is scheduled to start November 8, 2018. After that work is complete, a second pipe (unneeded) will be safe loaded and abandoned.
6. Easements – Staff is working on numerous easement requests and meets monthly to review status. Several condemnations are still being pursued using outside legal counsel.
7. Complaints – Staff continually works numerous drainage related complaints each month. The stormwater manager met with the superintendent to go over multiple projects earlier in the month. All complaints are managed through the Beaufort County Connect system.
8. Alljoy subwatershed flooding – Staff continues to look into the feasibility of a FEMA grant to perform buy-outs and/or structure elevating. We need to conduct some follow up site visits and estimate costs. Next step would be to gain SWUB recommendation and County Council approval to cost match the proposed project(s). This is anticipated to be a large capital project and will likely require a SWU fee increase in the future to fund these projects.

Professional Contracts Report

1. 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.
 - a) Concept plans for Salt Creek and Shanklin Road sites are still pending.
 - b) The change order to expand the design and scope of the Brewer project was denied by County Council on November 5th. Council states a dissatisfaction with spending money on demonstration projects when funding was not available for flooding problems. Alljoy was referenced. This effectively ends the Brewer project since it is unlikely Council will approve the construction costs after denying a small change order for design. (This will be discussed under Old Business)
 - c) Sawmill / Forby – concept design has indicated only a small benefit in peak rate reduction. Ward Edwards is working on a cost benefit analysis of the project to determine if it is feasible to go forward with design and construction.

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase I” & Academy Park Subdivision (Design Cost \$49,873, Tree Mitigation Cost \$18,200 & \$18,200, Construction Cost by the Developer) – Staff conducted a site visit this month. Construction continues. No additional update at this time.
2. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Staff conducted a site visit this month. Construction continues. No additional update at this time.
3. Town of Bluffton and Beaufort County Joint meetings on Sanitary Sewer in the May River watershed – No additional update at this time.
4. Mossy Oaks Task Force – (Design \$20,404, Construction \$205,000; County portions only). See Municipal Reports.
5. Graves Property / Pepper Hall Public / private partnership – The Development Agreement between the developer and County has had second reading by County Council. Third and final reading is scheduled for December 10. The agreement calls for stormwater to co-fund the drainage plan for the project 50/50 due to the independence of the development’s drainage and the County Park project at the same location.
6. US 278 “super street” widening on Jenkins Island (Windmill Harbor area) – A field review meeting was held on October 17th. The drainage design for the project consists of curb and gutter piped into an underground vaulting system for detention and infiltration. SCDOT has refused to own and operate the system and claim sovereignty over local codes. In the interest of protecting the environment, the County has reluctantly accepted the role of ownership and maintenance of the BMP. It will be designed and constructed using GO Bond revenue, not SWU fees. Maintenance will be SWU fees. Given that this section of road is adjacent to the municipal limits of the Town of Hilton Head Island, the County will recalculate the CWI fee after construction is complete and adjust the CWI amount charged based on this added infrastructure burden.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzing, Stormwater Manager and Brian Eber, MS4 Coordinator)
 - i. [See attached report.](#)
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. [See attached report.](#)
 - ii. County Staff did not attend the monthly May River WAPAC meeting in October.

3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. Mossy Oaks Task Force – A public meeting was held at Beaufort Middle School on October 24, 2018 at 6pm to discuss the project. Attendance was good. Generally, there was support for the project.
 - 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. BMP mapping update. [See attached chart.](#)
5. Weather Station data. [See attached chart.](#)
6. Public Education – Lowcountry Stormwater Partners (LSP), via Carolina Clear, continues to work on several initiatives towards public education and outreach.
 - a) LSP, the County, and the Town of Bluffton have launched a “That’s my Truck” naming contest for our new street sweeper and vac trucks, as well as Bluffton’s sweeper. School kids will color pictures and “name” them. A “celebrity” panel of judges will pick the names. The winner gets a school visit from the trucks and their picture and name prominently displayed on the truck.
 - b) MS4 staff held a LSP update meeting November 14, 2018.
 - c) No additional information available to report.
7. Construction permitting –DHEC has approved our proposed revisions to our permitting process. The new procedures have been adopted and published and are in effect.
8. Monitoring plan update – See Monitoring Update.
9. MS4 Statewide General permit – DHEC presented their plan for the MS4 permit revision at the SCASM meeting November 8, 2018. More details will follow.
10. Statewide General permit for Construction – Nothing new to report.

11. BMP Manual update – Staff is working on a minor amendment to the BMP manual to incorporate the new permitting changes, correct clerical errors, and offer additional guidance on various standards in the manual. We are planning to present the revisions in December or January.
12. Demonstration BMP installation at the Administration Building – Hydro International donated a bio-infiltration curb box to the County. It was placed in the Administration Building Parking lot. Construction began November 13, 2018. Educational opportunities come from signage to be placed by Clemson Extension.

Town of Bluffton
Stormwater Utility Fund FY18 Expenditures

ACCOUNT NAME	BEG.		NET	END	Adj		
	BALANCE	DEBITS	CREDITS	CHANGE	BALANCE	Entries	Balance to FS
SALARIES							330,534.83
OVERTIME							179.25
CAR ALLOWANCE							7,200.00
RETIREMENT							43,492.21
MEDICAL							47,885.52
FICA/MEDICARE							24,590.39
WORKERS' COMPENSATION							9,522.67
MEALS/TRAVEL/LODGING							7,406.97
MTGS/CONFERENCES/TRAINING							2,365.00
UNIFORMS/PROTECTIVE GEAR							1,728.91
BOOKS/SUBSCRIPTIONS/DUES							1,212.92
OFFICE SUPPLIES							3,393.66
VEHICLE FUEL							1,709.72
SMALL TOOLS & EQUIPMENT							14,363.47
FURNITURE/FIXTURES < 5000							2,733.93
COMPUTER SOFTWARE < 50000							9,839.88
CONTRACT SERVICES							46,587.25
ELECTRICITY							3,073.19
TELEPHONE							20,274.18
UTILITIES (WATER & SEWER)							472.47
OFFICE EQUIP RENTALS/LEASES							13,400.84
POSTAGE							4,876.73
PRINTING & BINDING							227.86
LEGAL FEES							1,344.75
DRAINAGE AND DITCH MAINTENANCE							4,615.73
FACILITIES MAINTENANCE							951.41
MAY RIVER WATERSHED ACTION PLA							3,476.75
STORMWATER MANAGEMENT							133,172.16
DECLARED EMERGENCY IRMA							-
OTHER							(8.81)
SWU TO GF TRANSFERS OUT						Ditch Maintenance	43,599.60
SWU TRANSFERS OUT CIP						Sewer and SW BMPs	1,465,654.48
Grand							\$ 2,249,877.92



Town of Bluffton
Budget and Actual - Stormwater Utility Fund
For Period Ending June 30, 2018
 Unaudited as of 10-26-18

	Prior YTD Actual	YTD Actual	Revised Budget	Actual vs Budget Difference	Actual as % of Budget
Revenues					
Licenses & Permits					
Stormwater Fees	\$ 1,276,930	\$ 1,350,856	\$ 1,344,080	\$ 6,776	100.5%
Total Licenses & Permits	1,276,930	1,350,856	1,344,080	6,776	100.5%
Intergovernmental					
State Grants	-	64,663	-	64,663	100.0%
Total Intergovernmental	10,208	64,663	-	64,663	100.0%
Miscellaneous Revenues					
Interest Income	-	-	150	(150)	0.0%
Total Miscellaneous Revenues	-	-	150	(150)	0.0%
Total Revenues	1,287,138	1,415,519	1,344,230	71,289	105.3%
Other Financing Sources					
Prior Year Fund Balance	-	-	1,841,655	(1,841,655)	0.0%
Total Other Financing Sources	-	-	1,841,655	(1,841,655)	0.0%
Total Revenues and Other Financing Sources	\$ 1,287,138	\$ 1,415,519	\$ 3,185,885	\$ (1,770,366)	44.4%
Expenditures					
Operating					
Watershed Management	\$ 724,056	\$ 740,633	\$ 930,481	\$ (189,848)	79.6%
Total Operating Expenditures	724,056	740,633	930,481	(189,848)	79.6%
Total Expenditures	820,804	740,633	930,481	(189,848)	79.6%
Other Financing Uses					
Transfers Out					
Capital Improvements Program Fund	369,818	1,465,655	2,185,404	(719,749)	67.1%
General Fund	50,000	43,600	70,000	(26,400)	62.3%
Total Transfers	419,818	1,509,255	2,255,404	(746,149)	66.9%
Total Expenditures and Other Financing Uses	\$ 1,240,622	\$ 2,249,888	\$ 3,185,885	\$ (935,997)	70.6%

Stormwater Utility Board Meeting Hilton Head Island Monthly Report for October 2018

Reporting Period: October 1 to October 31, 2018

1. MS4 Update

MCM1 Public Education & Outreach	<ul style="list-style-type: none"> Drafting update to stormwater page on Town's website
MCM2 Public Involvement & Participation	<ul style="list-style-type: none"> Prep underway for meeting w/ HHP POA & golf courses regarding WQ, pond management & illicit discharges (meeting 2 of 9 planned with large PUDs)
MCM3 Illicit Discharge Detection & Elimination	4 Complaints received via Code Enforcement 3 Investigated 4 Eliminated or resolved
MCM4 Construction Site SW Runoff Control	7 Plan reviews w/ corrections required 12 Plan reviews approved 1 New LD Permit issued 10 Active permitted construction sites 10 Inspections completed 3 NOVs issued
MCM5 Post-Construction SW Management	<ul style="list-style-type: none"> No LDP permitted construction completed as of Oct 31, 2018. Developing procedures for tracking and inspecting using Cartegraph when system is implemented
MCM6 Pollution Prevention/Good Housekeeping	<ul style="list-style-type: none"> Building Dept. PP/GH presentation completed CD PP/GH scheduled for November

2. Service Requests

	Total Open as of <u>9/30</u>	Received in October	Closed in October	Total Open as of <u>10/31</u>
Qualifying	194	3	0	197
Referrals	18	2	0	22*
Enforcement	2	0	0	1
Non-qualifying		1	1	
Under Evaluation	3	0		3
Totals	217	6	1	223

* Status change for closed requests or enforcement status changed to open referrals

3. Capital Improvements Update

A. Jarvis Creek SW Pump Station

Planning for major improvements including raising elevation of emergency power cutoff switch boxes, upgrades to electrical distribution, transfer switch and control systems, various safety improvements, and installation of mechanical debris screens to improve operational efficiency. Project is in conceptual design phase.

B. Sea Pines SW Pump Station

Reengineering pump wall-mount system. Project is in conceptual design phase.

C. Wexford SW Pump Station

Mitigation project to raise and reinforce upstream channel levee to repair damage caused by Hurricane's Matthew and Irma. Project is in preliminary design phase.

D. Wren Pond Emergency Spillway

Installation of an emergency spillway to protect pond embankment during extreme rainfall and tide surge events. Project is in preliminary design phase.

4. Maintenance, Repair & Rehabilitation Projects

A. Completed in September (\$61,600)

- Port Royal Trunk Line Channel Restoration – Phase VI (South Port Royal Drive Area) - \$18,700
- 2 Night Heron Lane – Sinkhole Repair - \$17,300
- 5 Sea Otter Lane – Pipe Replacement - \$17,600
- 6 Clarendon Lane & 26 Turnbridge Drive – Sinkhole Repairs - \$8,000

B. Underway or Completed in October (\$185,400)

- Jarvis Creek Pump Station – Electrical System Repairs - \$15,700
- Channel Maintenance, workshelf/vegetation – Oakview Channel, Jarvis Creek Channel, Palmetto Headlands Ditches, Gum Tree Channel, Wexford/RV Resort Channel, Arrow Road Channel - \$45,700
- Port Royal Trunk Line Channel Restoration – Phase VII (Grasslawn Avenue Area) - \$71,300
- 50 Sedge Fern Drive – system cleaning, CCTV & Sinkhole Repairs - \$37,100
- 15 Marshland Road – channel maintenance - \$2,500
- 9 Junket – sinkhole repair- \$3,400
- Conservancy Court – sinkhole repairs - \$6,000
- 2 Fife Lane – structure repair - \$3,700

C. Planned for November/December (\$138,500)

- Channel Maintenance, workshelf/vegetation – Old Woodlands, Folly Field Fiddlers Cove Outfall, Ashmore Channel, - \$35,000
- Sol Blatt Pkwy – pathway flume outfall capacity restoration - \$3,100
- Yacht Cove lagoon – sediment removal - \$4,900
- 12 Canvas Back Road – pipe installation - \$20,000
- 11 Spotted Sandpiper – pipe replacement - \$20,000
- 79 Fort Walker Drive – channel maintenance (sediment removal) - \$9,000
- 37 Deerfield Road – survey & drainage system improvements - \$25,000
- 271 Seabrook Drive – CCTV - \$8,000
- 82 Myrtle Bank Road – CCTV & clean - \$10,000
- Mathews Drive – Pathway erosion mitigation- \$7,500
- Leamington – sinkhole repairs at 3 locations - \$6,000

5. Master Planning & Modeling Program

A. Palmetto Hall/Mitchelville Inventory & Modeling Project

Town is completing negotiations with top ranking RFQ respondent Woolpert to undertake inventory, modeling, analysis and master plan development for this FY19 focus watershed.

B. Flood Plain Map Development (HHP, PRP and Point Comfort)

Town is drafting an RFQ for advertisement. Project will develop inundation maps for various design storms for several watersheds where inventory and modeling tasks have previously been completed.

C. Gum Tree/Squire Pope/Stoney Inventory & Modeling Project

FY19 budgeted project planned for advertisement in Q4.

D. Indigo Run/Gardner/Jonesville Inventory & Modeling Project

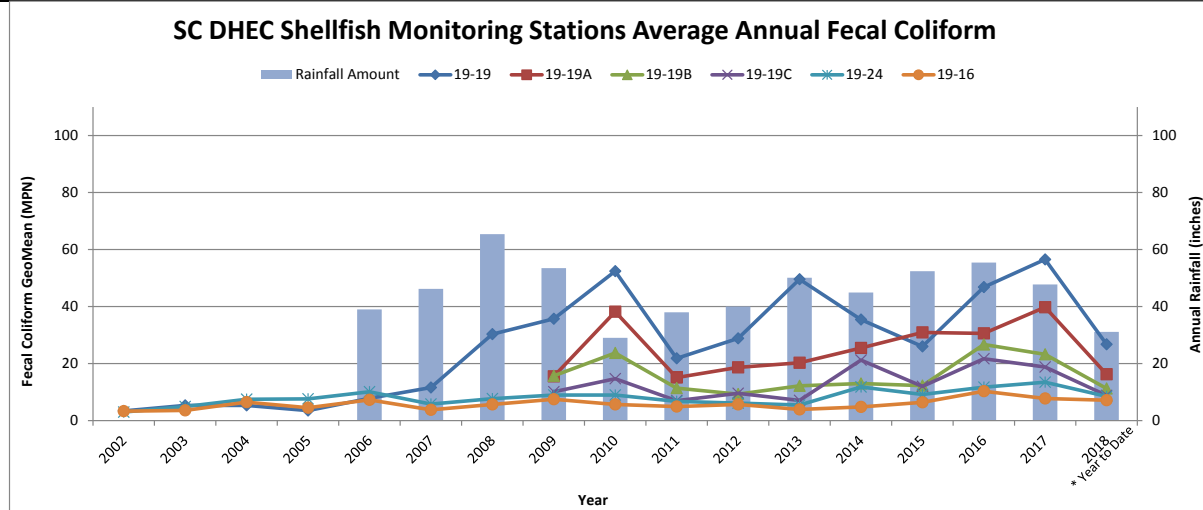
FY19 budgeted project planned for advertisement in Q4.

6. Other Activities / Items of Interest

- New Hire: Erik Ladd, PLA - Stormwater Operations & Maintenance Technician, started with the Town on October 22.
- Hilton Head Island/Beaufort County hosted the 13th Annual SESWA Conference at the Marriott Resort in Palmetto Dunes, October 3-5.
- Standardization of PUD Maintenance Agreements – Draft boilerplate document to be shared with Town Council Finance and Administrative Committee for review in late November or early December. Process by which other (smaller) POAs can apply for service will also be discussed.

	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					
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					
October	23.0	NS	22.0	79.0	49.0	NS	49.0	23.0	4.5	NS	33.0	7.8	23.0	NS	23.0	7.8	7.8	NS	6.8	7.8	4.5	NS	2.0	2.0				
September	46.0	23.0	17.0	49.0	17.0	110.0	7.8	23.0	9.3	23.0	11.0	13.0	17.0	13.0	4.5	17.0	23.0	4.5	2.0	17.0	4.5	7.8	1.8	17.0				
August	6.8	NS	79.0	70.0	17.0	NS	70.0	23.0	13.0	NS	21.0	13.0	13.0	NS	33.0	4.5	24.0	NS	33.0	7.8	4.0	NS	33.0	17.0				
July	17.0	79.0	350.0	23.0	7.8	17.0	110.0	33.0	6.8	22.0	130.0	11.0	11.0	17.0	49.0	7.8	2.0	49.0	49.0	13.0	4.5	13.0	22.0	4.5				
June	33.0	79.0	23.0	11.0	46.0	130.0	49.0	23.0	11.0	70.0	13.0	23.0	14.0	110.0	17.0	7.8	4.5	33.0	7.8	4.5	11.0	23.0	4.5	1.8				
May	NS	70.0	17.0	17.0	NS	23.0	23.0	33.0	NS	49.0	7.8	17.0	6.8	49.0	2.0	13.0	6.8	14.0	23.0	23.0	23.0	17.0	4.5	13.0				
April	1.8	23.0	7.8	33.0	33.0	23.0	23.0	13.0	17.0	13.0	4.5	17.0	17.0	13.0	7.8	17.0	13.0	7.8	13.0	49.0	17.0	1.8	4.5	17.0				
March	170.0	33.0	350.0	22.0	130.0	33.0	11.0	21.0	49.0	33.0	33.0	4.5	17.0	17.0	13.0	11.0	13.0	11.0	13.0	7.8	6.8	7.8	33.0	9.3				
February	13.0	23.0	13.0	17.0	14.0	17.0	7.8	7.8	1.8	13.0	13.0	17.0	1.8	11.0	9.3	17.0	7.8	6.8	4.5	2.0	2.0	1.8	1.8	7.8				
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				
Additional Samples																												
Average Annual GeoMean	26.0	46.8	56.5	26.7	30.9	30.6	39.8	16.3	12.3	26.7	23.3	11.3	12.0	21.7	18.8	8.9	9.2	11.7	13.5	8.5	6.4	10.3	7.7	7.1				
** Truncated GeoMetric Mean	37.0	37.0	44.0	41.0	21.0	30.0	36.0	29.0	11.0	16.0	20.0	20.0	11.0	16.0	16.0	15.0	7.0	9.0	10.0	10.0	4.0	6.0	7.0	7.0				
** Truncated 90th Percentile	205.0	105.0	203.0	179.0	95.0	89.0	133.0	119.0	51.0	69.0	83.0	72.0	55.0	65.0	57.0	55.0	30.0	29.0	37.0	43.0	13.0	21.0	29.0	30.0				

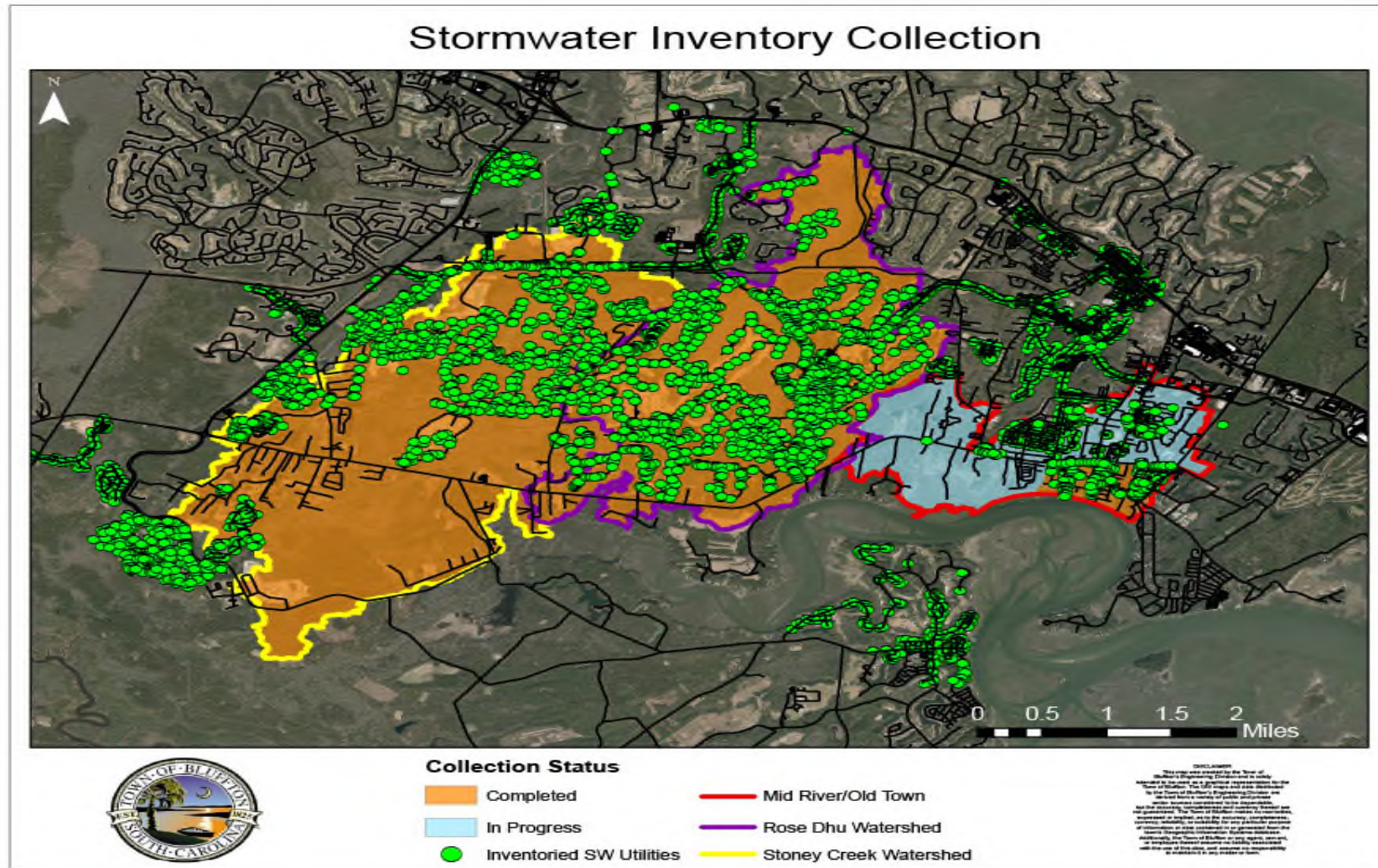
NS = No Sample
 AS = Additional Samples
 ** Town staff calculations utilizing DHEC statistics



ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update	To be completed with direction and input from Water Quality Technical Advisory Committee, May River Watershed Advisory Committee, and Town Council, public and staff. Action Plan Update is a FY19-20 priority of WAPAC and Council. WAPAC scope direction provided 2/22/18 to include watershed health indicators of bacteria, biotic & abiotic parameters and social/cultural/economic indicators. Staff met with SCDHEC to confirm hybrid 5R and traditional watershed-based plan approach will be accepted. To be initiated at start of FY19 with anticipated completion in early FY20.
Sewer Connection & Extension Policy	Council adopted the Sewer Connection & Extension Policy on 9/26/17. WAPAC proposed prioritization phases for sewer extension in Historic District for FY 19-23 and recommended revisions to Sewer Connection Ordinance on 2/22/18. Staff has initiated septic system maintenance education via outreach and with Lowcountry Stormwater Partners. Town Council considered WAPAC recommended amendments to Sewer Connection Program on 4/10/18. Will consider for 2nd & Final Reading upon Septic to Sewer Conversion Program establishment. Town Council Workshop of Septic to Sewer Conversion Program on 7/17/18. Ordinance and Program adoption completed 9/20/18.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Buck Island/Simmonsville Road (BIS) Phases I, II, III and IV are completed. Toy Fields is completed. Six phases of sewer extension are proposed in the 5-year Capital Improvement Program. Current project updates are included in Engineering Consent Agenda under "Sewer & Water." Current project updates are included in Engineering Consent Agenda.
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. Downstream failing septic system was located by Staff and reported to County & SCDHEC for remediation.
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)	EPA & DHEC permitted a workplan amendment 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. Conceptual design completed and approved by property owners. Current project updates are included in Engineering Consent Agenda.
May River Watershed Water Quality Model	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 initiated. Staff is obtaining quotes to complete the water quality model as part of Action Plan Update from ATM and McCormick Taylor.

ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Exploring partnership opportunities with BJWSA for future sewer phases. WAPAC FY19-20 priority to assess Stormwater Utility Fee. SWU Fee Rate Model Update has commenced with Raftelis. Completion anticipated by 12/31/18.
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, through local cleanups, civic group presentations, and the May River Watershed Action Plan Advisory Committee. Current updates are included in Engineering Consent Agenda and Attachment 3.
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 4a.
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 1, 4b, 4c, and 4d.
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 5.
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 6.
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. Current updates are included in Engineering Consent Agenda Attachment 7 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 8.
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 were prioritized as part of FY19 Budgeting Process. Sewer Connection Ordinance 1st Reading 4/10/18. Septic to Sewer Conversion Program discussed at Council's Quarterly Workshop on 7/17/18. Second & final Ordinance changes and Program adoption completed at 9/20/18.

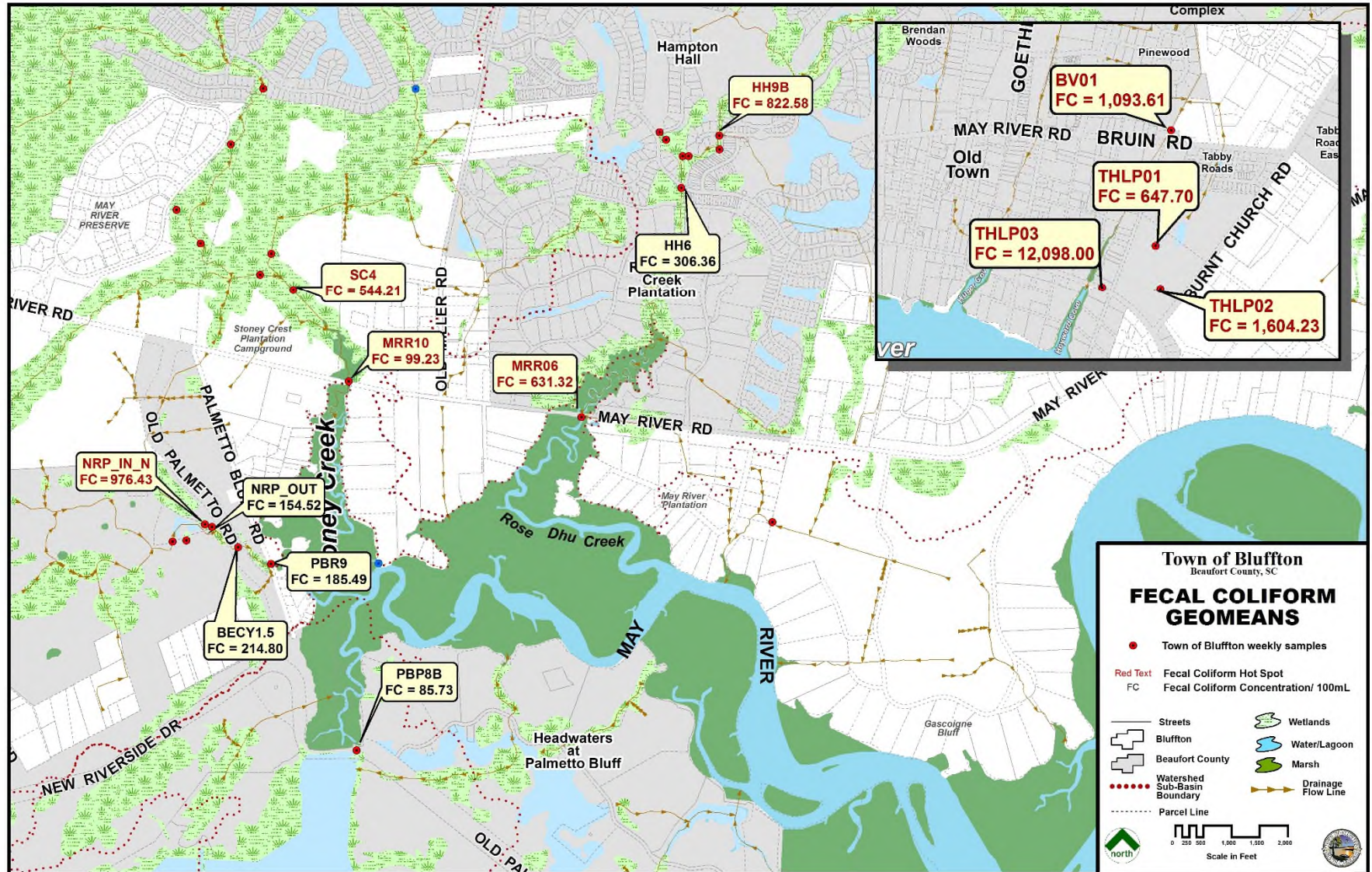
MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory



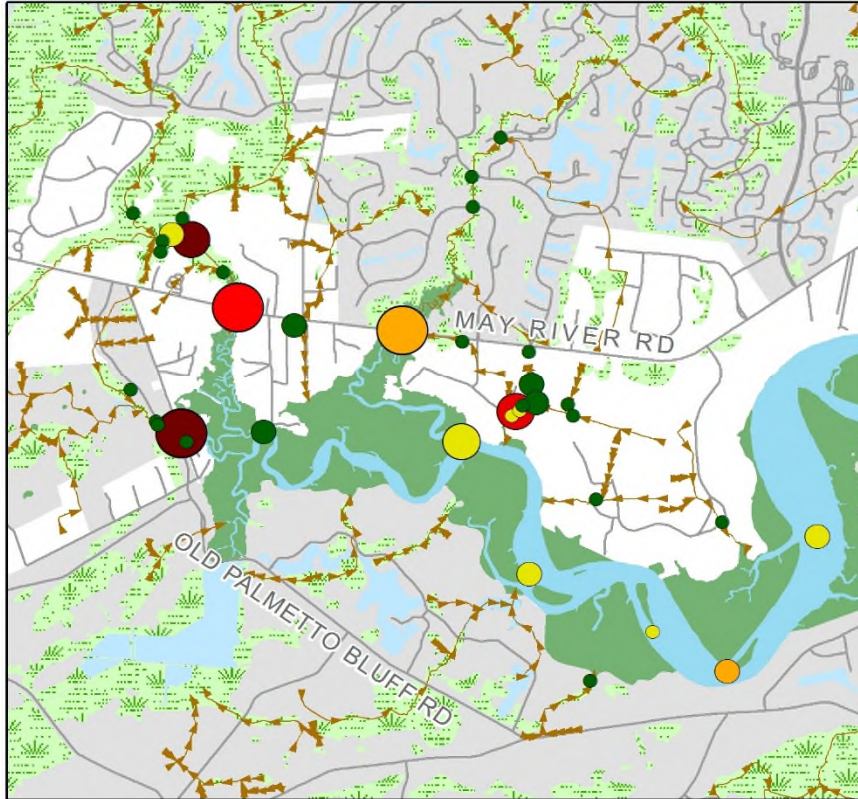
Stormwater Infrastructure Inventory Collection Status

FY 2019 YTD Collection Totals	875
FY 2018 Collection Totals	3,777
FY 2017 Collection Totals	3,874

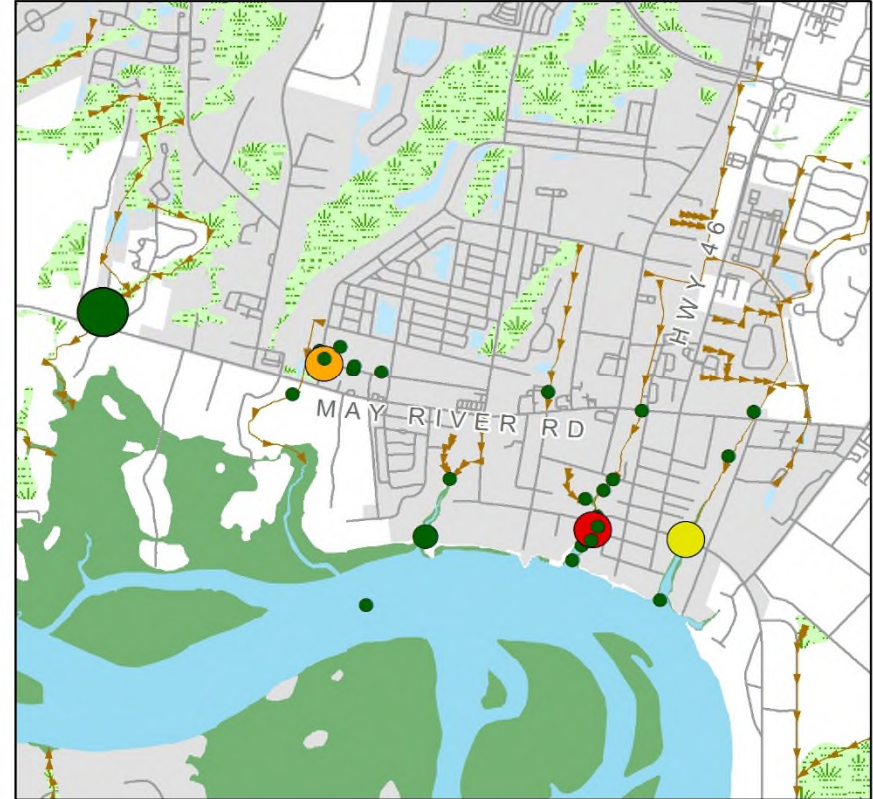
MS4 Minimum Control Measure #3 – IDDE: Fecal Coliform Concentrations Trend Map



**MS4 Minimum Control Measure #3 – IDDE:
Microbial Source Tracking (MST) Trend Map**



Microbial Source Tracking Trend Map
Headwaters May River



Microbial Source Tracking Trend Map
Old Town May River



Size of dot correlates to # of times the site has been sampled.

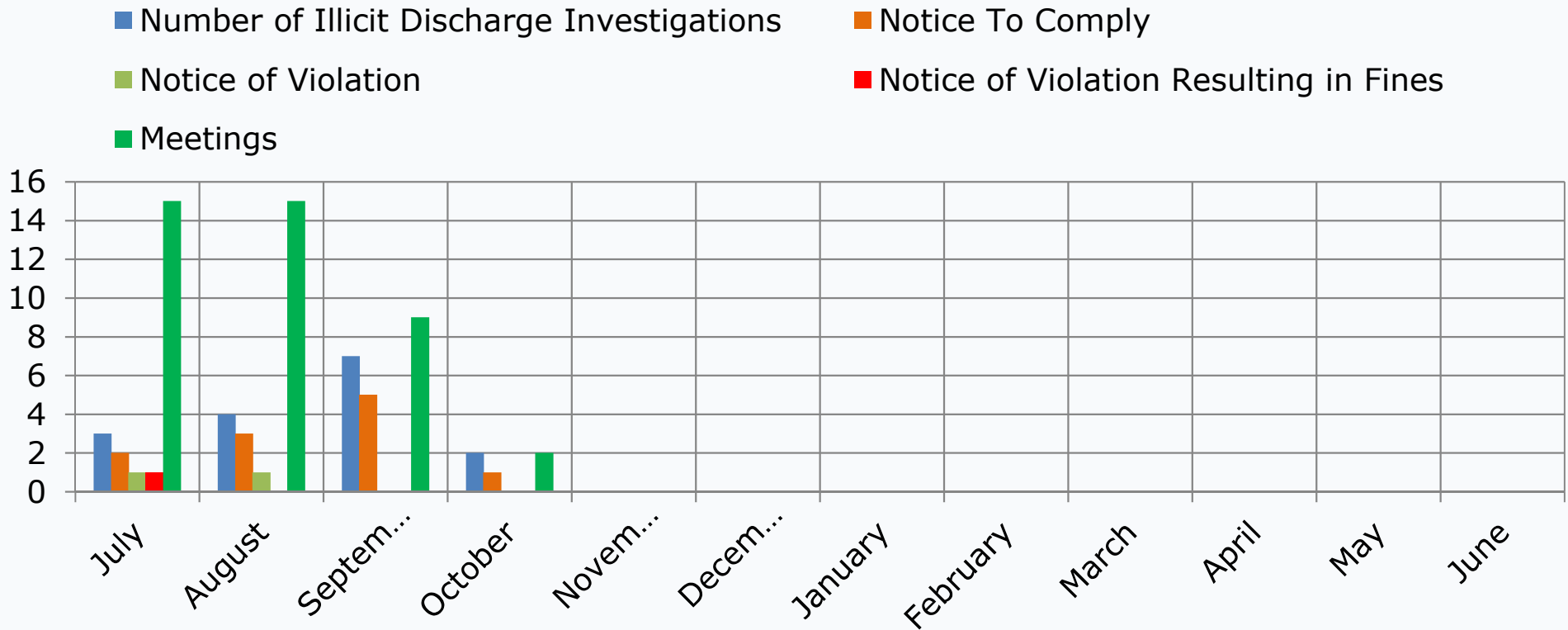
➡➡➡ Drainage Flow Lines

DISCLAIMER
This map and underlying data were prepared for the use of the City of North Charleston and should not be used as a guide for any other purpose. The City of North Charleston Management Commission and the City of North Charleston are not responsible for any errors or omissions in this map or any data derived from this map. The City of North Charleston Management Commission and the City of North Charleston are not responsible for any errors or omissions in this map or any data derived from this map. The City of North Charleston Management Commission and the City of North Charleston are not responsible for any errors or omissions in this map or any data derived from this map.

Updated: 08/20/2018



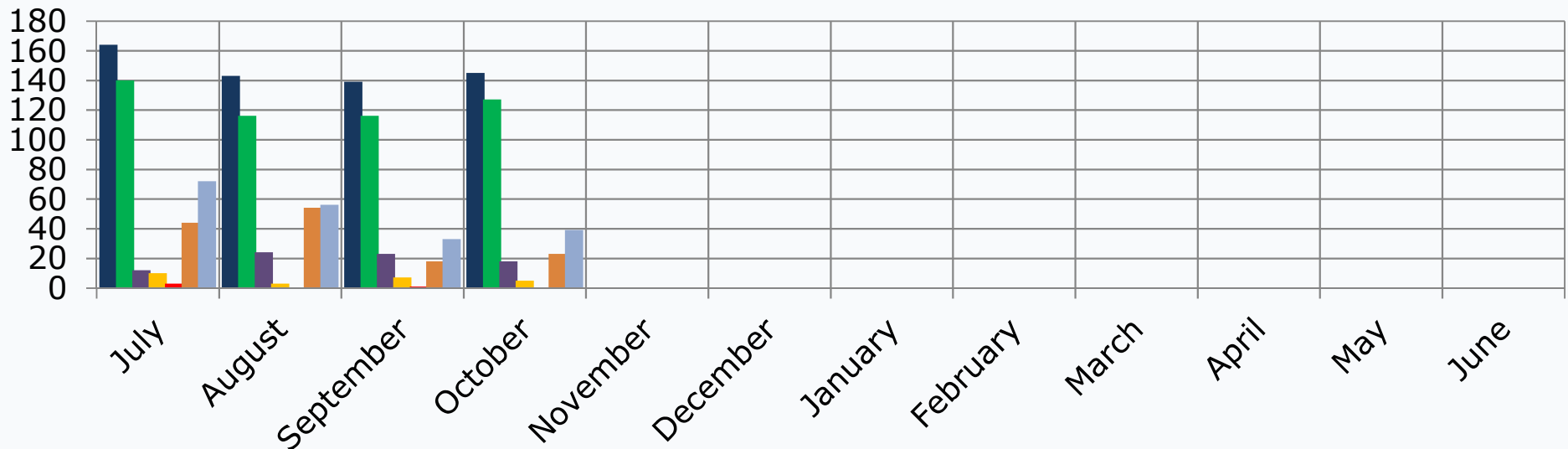
MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	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 2019 YTD Totals	16	11	2	1	41
FY 2018 Totals	48	20	4	2	60
FY 2017 Totals	50	19	8	13	67

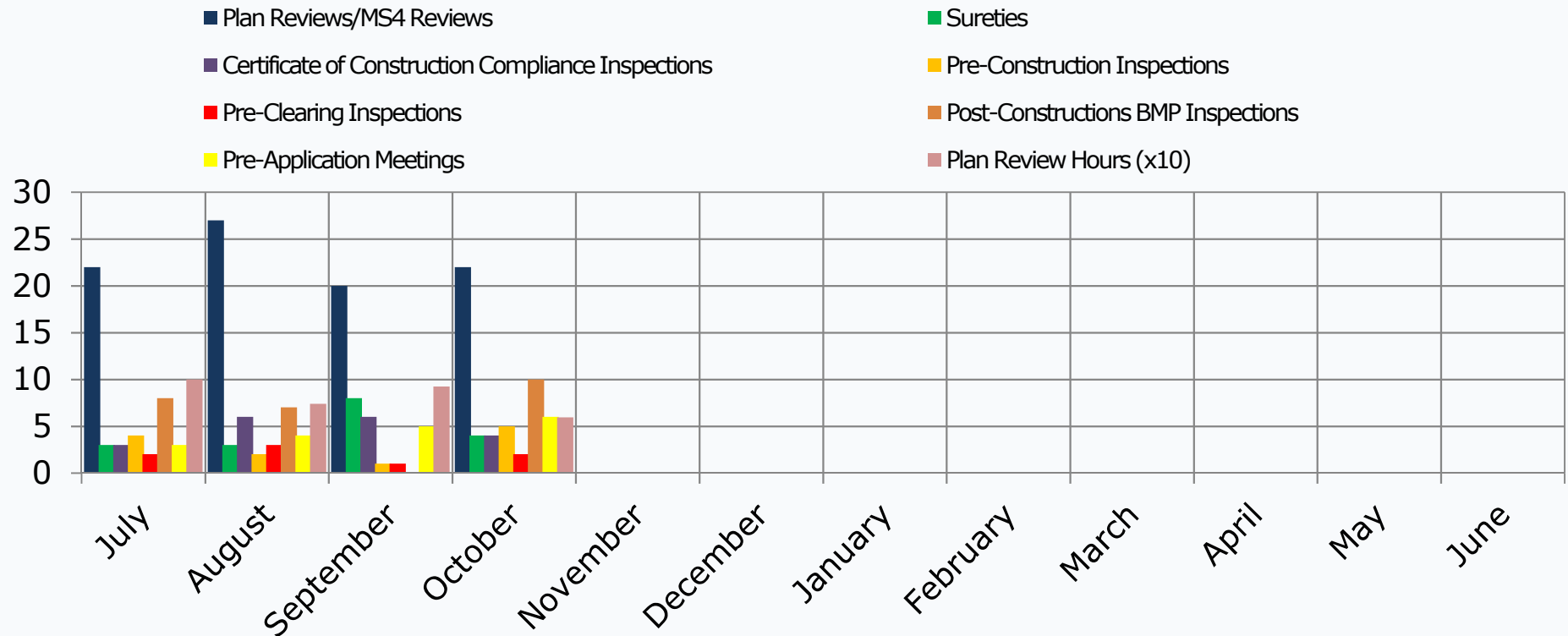
MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control

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



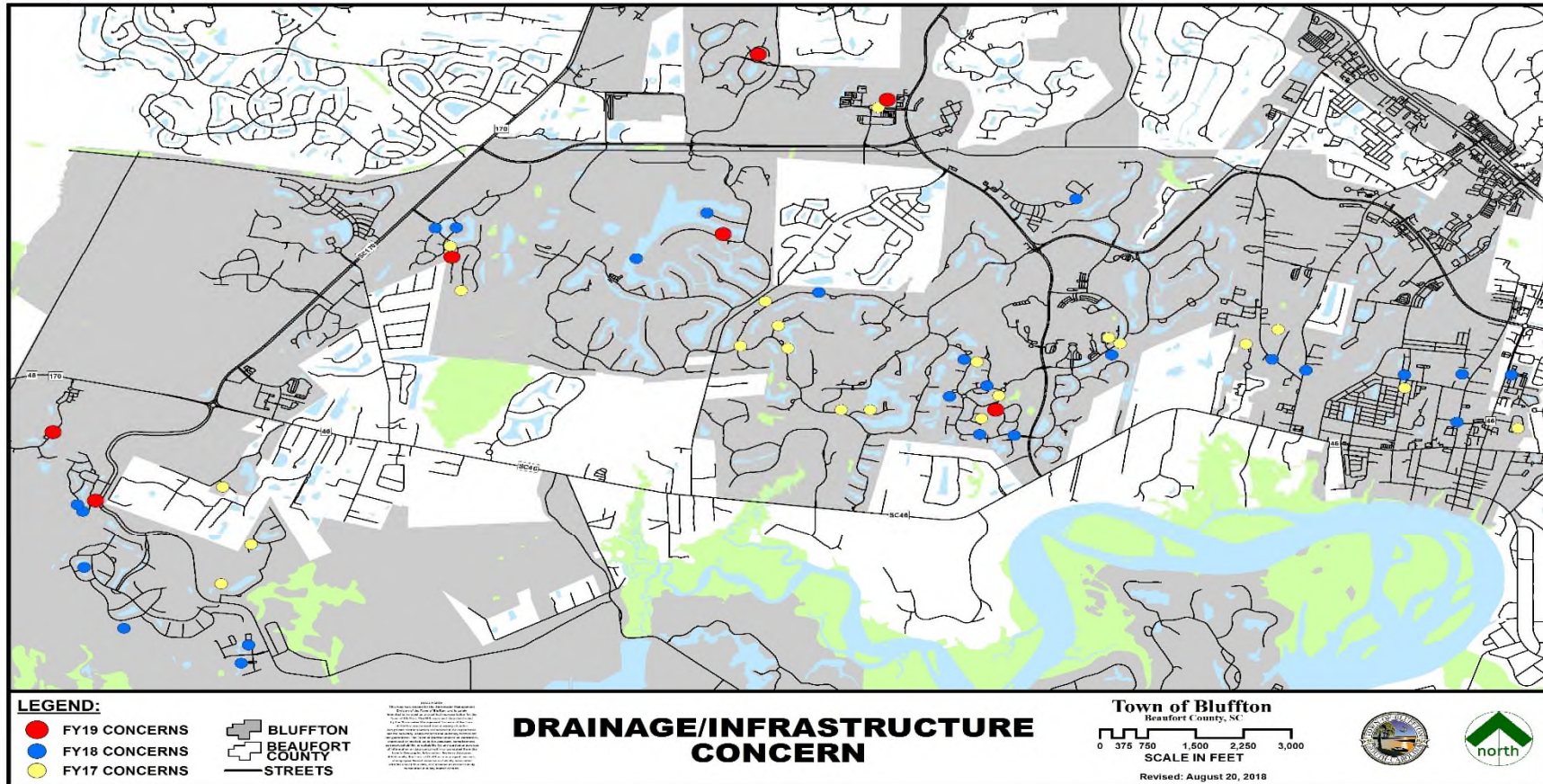
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2019 YTD Totals	591	499	77	25	4	139
FY 2018 Totals	1504	1159	300	83	10	499
FY 2017 Totals	1,219	862	233	58	10	237

MS4 Minimum Control Measure #5 Stormwater Plan Review & Related Activity



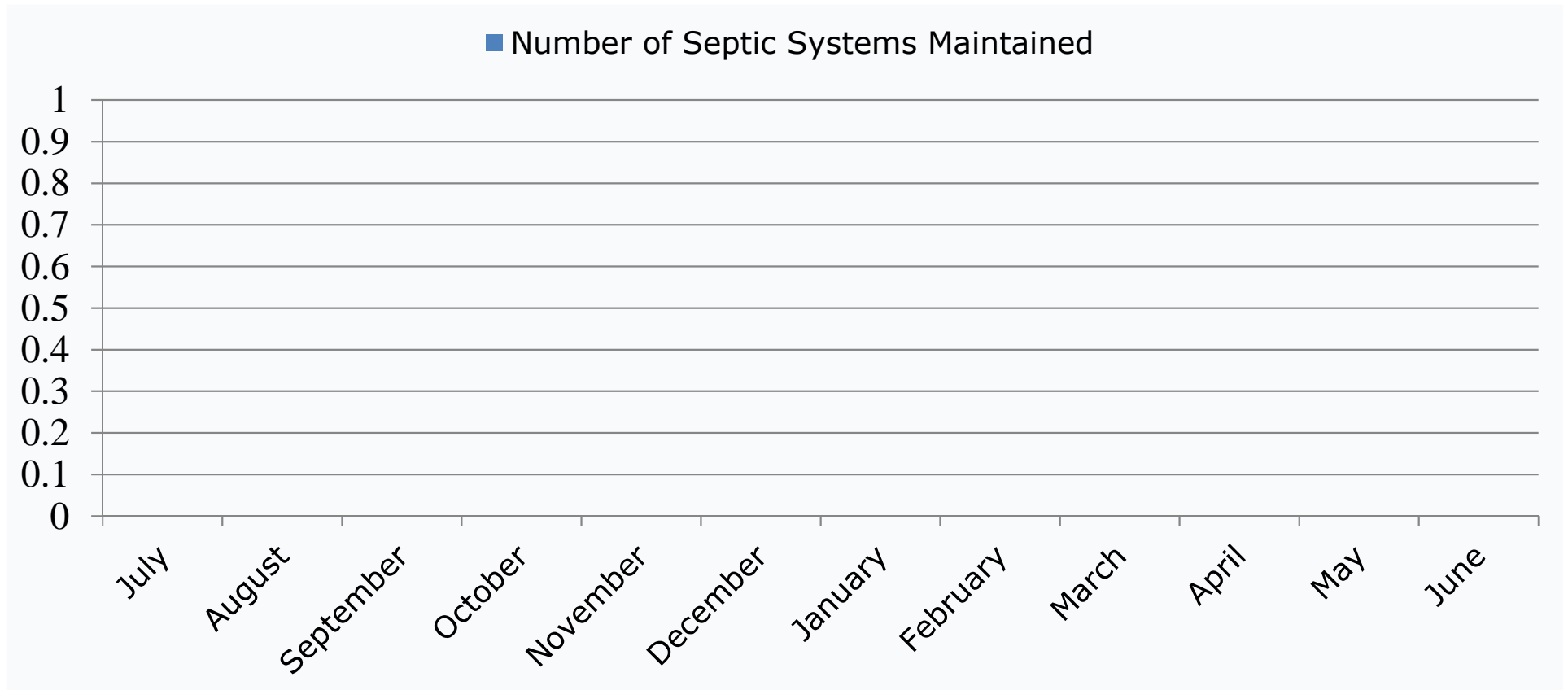
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2019 YTD Totals	91	18	19	12	8	25	18	326 Hrs.
FY 2018 Totals	242	59	50	32	32	88	88	1,210 Hrs.
FY 2017 Totals	253	62	96	47	45	7	23	1,265 Hrs.

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



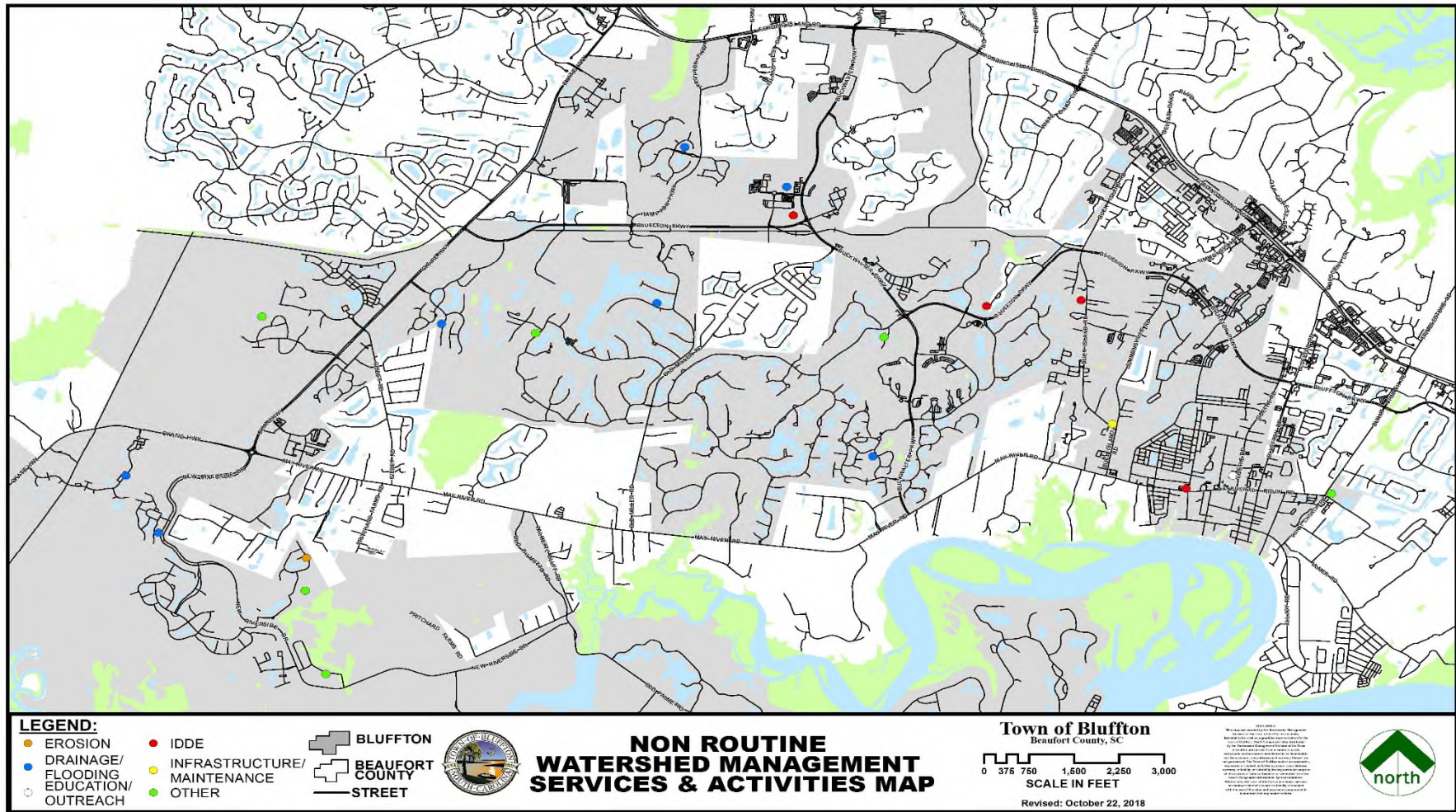
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2019 YTD Totals	15	22
FY 2018 Totals	48	75
FY 2017 Totals	72	80

Septic System Maintenance Assistance



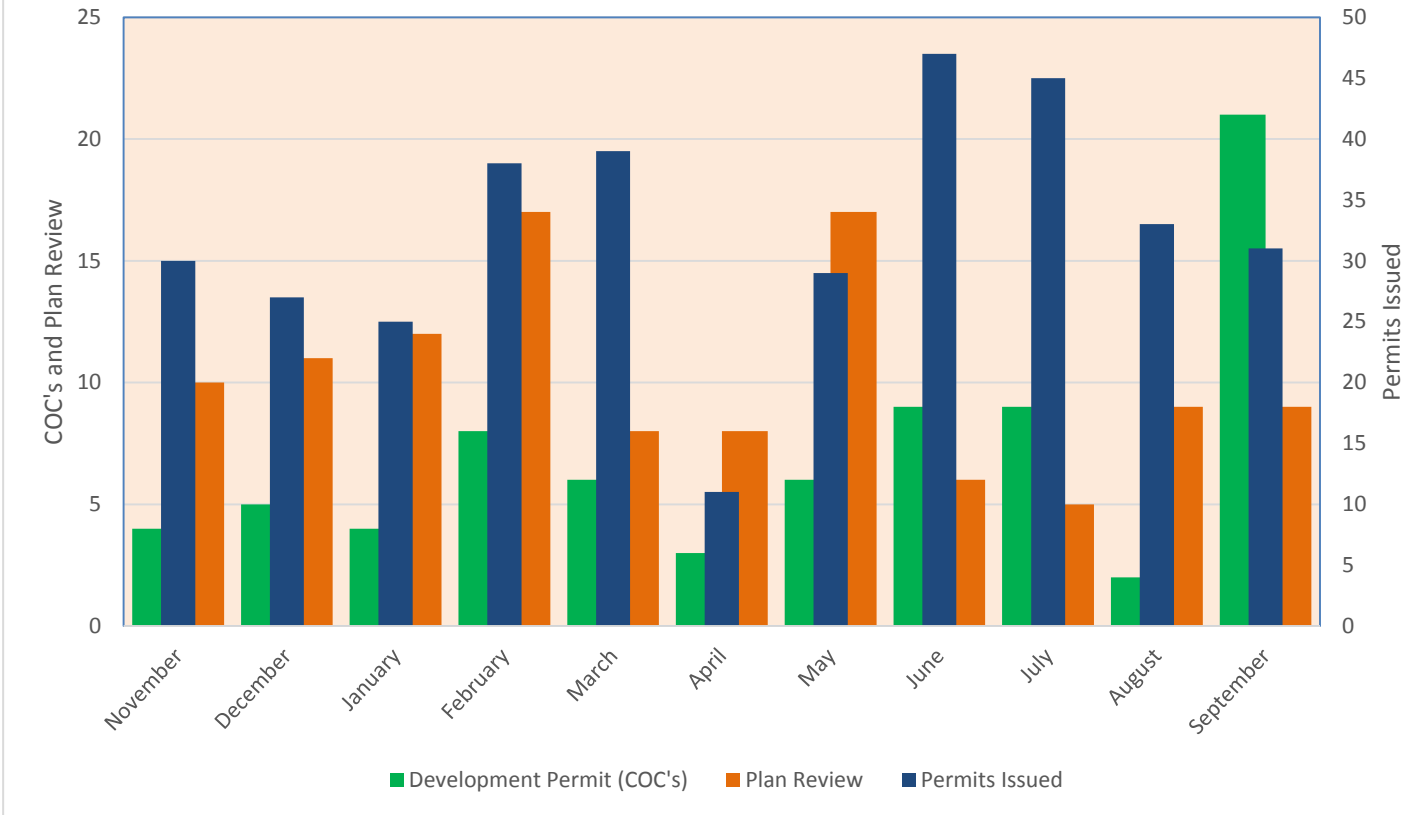
	Number of Septic Systems Maintained
FY 2019 YTD Totals	0
FY 2018 Totals	16
FY 2017 Totals	18

Citizen Request for Watershed Mngt. Services & Activities Map



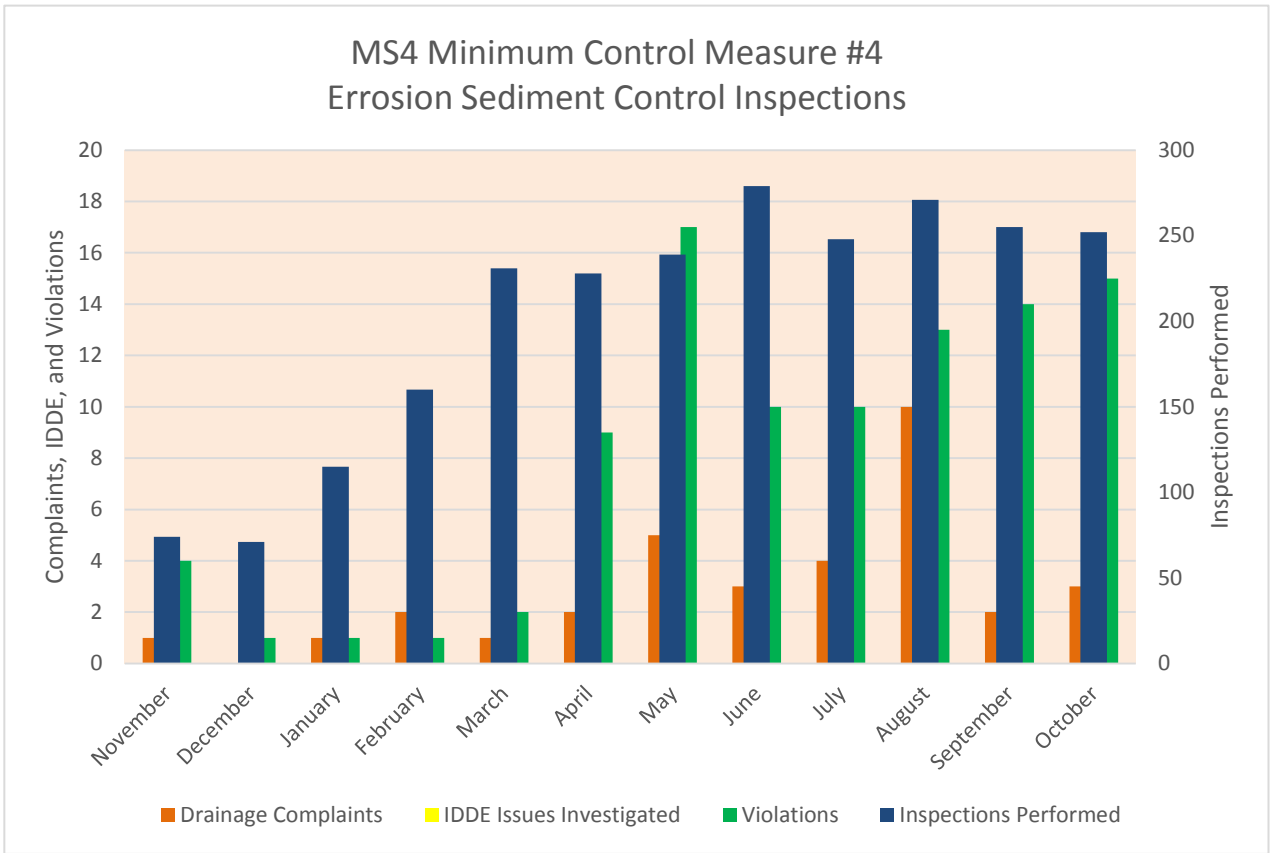
	Number of Citizen Requests Investigated	Number of Meetings
FY 2019 YTD Totals	29	28
FY 2018 Totals	75	79
FY 2017 Totals	53	82

MS4 Minimum Control Measure #5 Stormwater Plan Review



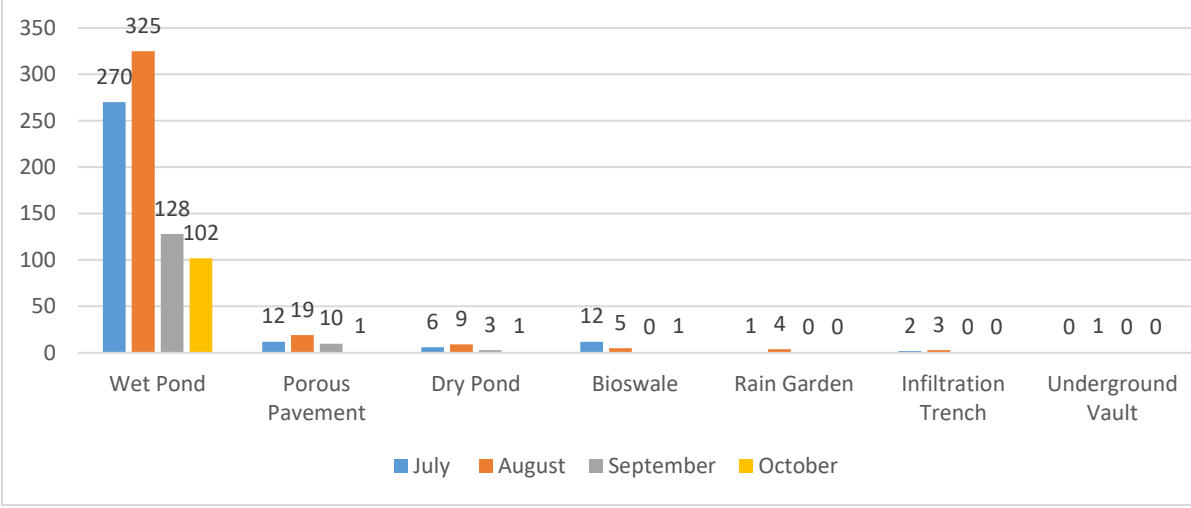
TYPE	November	December	January	February	March	April	May	June	July	August	September	October	Last 12 Months
Development Permit (COC's)	4	5	4	8	6	3	6	9	9	2	21	11	88
Plan Review	10	11	12	17	8	8	17	6	5	9	9	15	127
Permits Issued	30	27	25	38	39	11	29	47	45	33	31	33	388

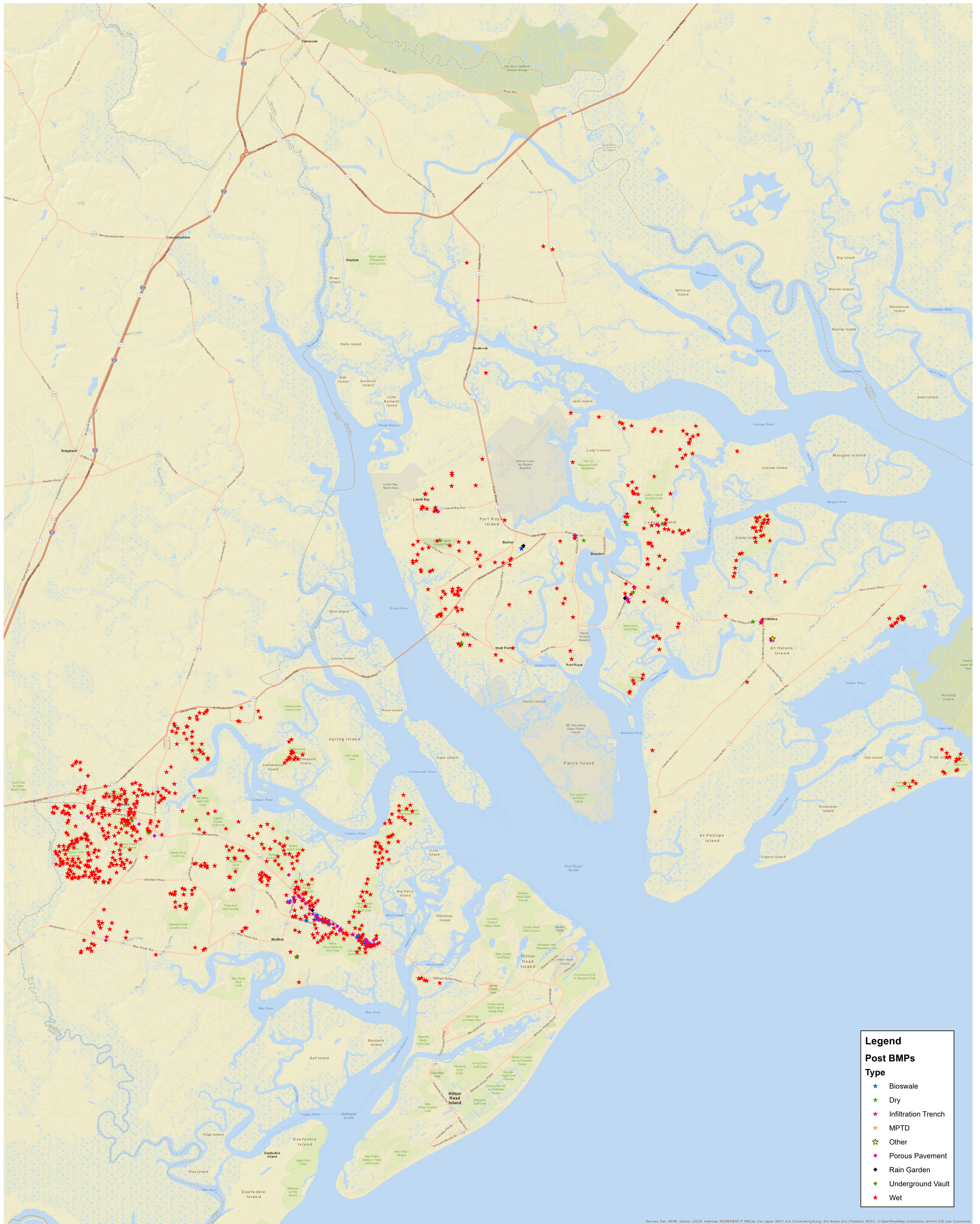
MS4 Minimum Control Measure #4 Erosion Sediment Control Inspections



TYPE	November	December	January	February	March	April	May	June	July	August	September	October	Last 12 Months
Inspections Performed	74	71	115	160	231	228	239	279	248	271	255	252	2423
Drainage Complaints	1	0	1	2	1	2	5	3	4	10	2	3	34
IDDE Issues Investigated	3	2	0	1	0	0	1	0	1	2	1	2	13
Violations	4	1	1	1	2	9	17	10	10	13	14	15	97

BMP Efforts





Legend

Post BMPs

Type

- ★ Bioswale
- ★ Dry
- ★ Infiltration Trench
- ★ MPTD
- ★ Other
- ★ Porous Pavement
- ◆ Rain Garden
- ◆ Underground Vault
- ★ Wet

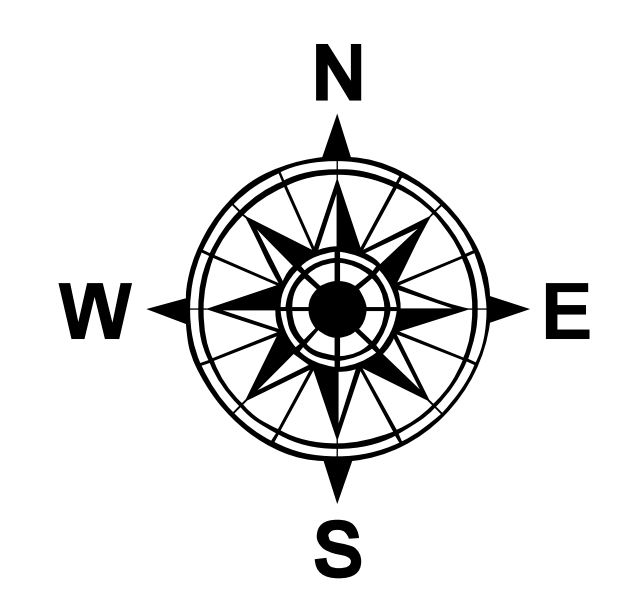
Source: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Prepared by:
 Beaufort County GIS
 Department
 Date: 11/2/2018 MG

0 0.75 1.5 3
 Miles

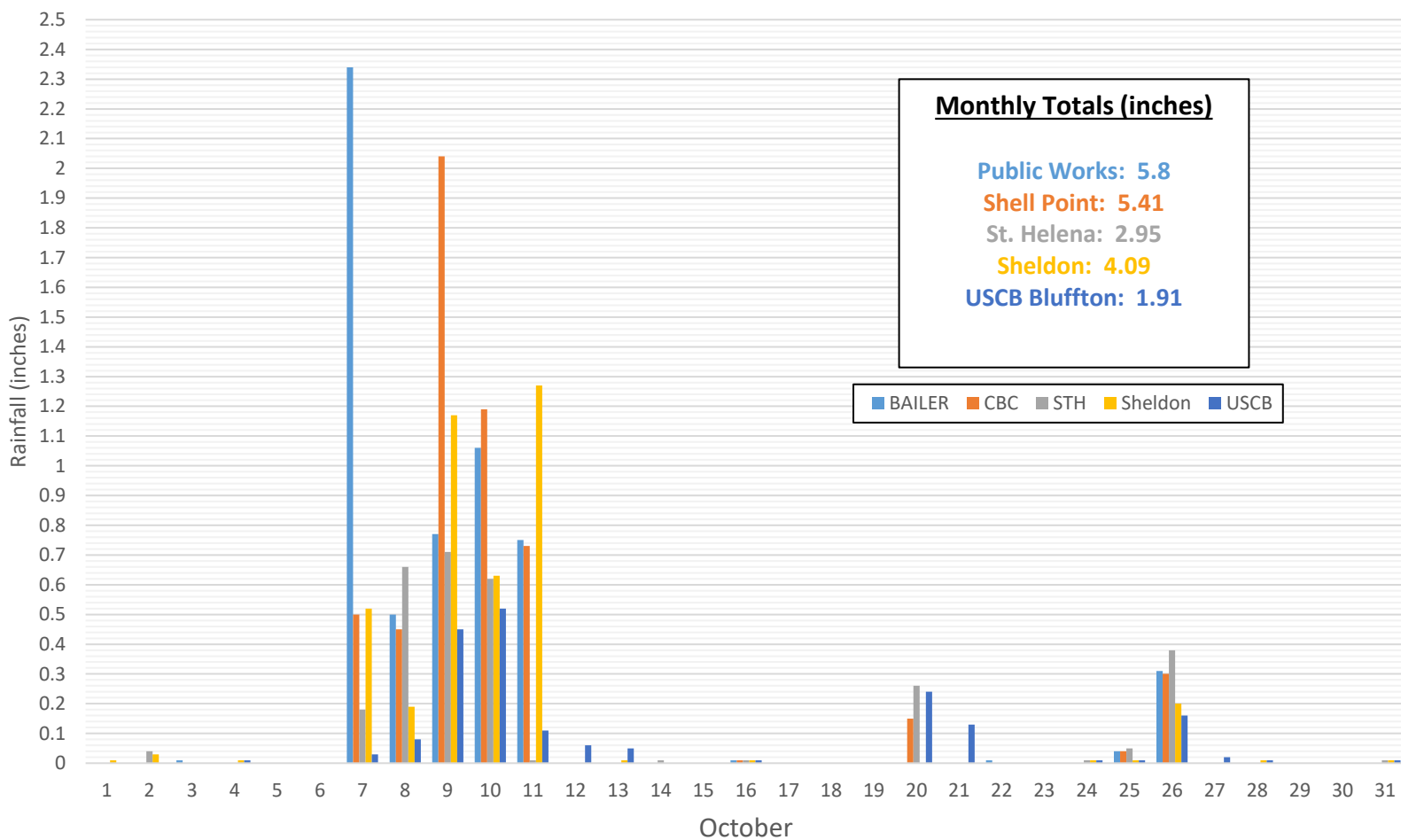


BMPs



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Beaufort County Weather Stations Daily Rainfall Amounts - October 2018





MEMORANDUM

Date: November 14, 2018

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

This report will cover fourteen minor projects. The Project Summary Reports are attached.

Minor or Routine Projects:

- **Sheldon Bush Hog - Sheldon (SWUD 5):** This project improved 123,368 feet of drainage system. The scope of work included bush hogging 123,368 feet of channel. The total cost was **\$54,411.47.**
- **Bluffton Vacuum Truck – Bluffton (SWUD 4):** This project improved 1,311 feet of drainage system. The scope of work included cleaning out 23 catch basins, jetting 11 crossline pipes, 24 driveway pipes, 102 feet of channel pipe and 1,209 feet of roadside pipe. The total cost was **\$11,703.58.**
- **Alumni Road Channel – Lady’s Island (SWUD 7):** This project improved 3,217 feet of drainage system. The scope of work included cleaning out 3,217 feet of channel and installing 1 access gate. The total cost was **\$6,279.30.**
- **Glaze Drive – Port Royal Island (SWUD 6):** This project improved 1,740 feet of drainage system. The scope of work included cleaning out 1,740 feet of roadside ditch and jetting 24 driveway pipes. The total cost was **\$5,601.15.**
- **Milledge Village Road – Port Royal Island (SWUD 6):** The scope of work included installing 1 driveway pipe and rip rap for erosion control. The total cost was **\$3,918.73.**
- **Frederick Drive – Port Royal Island (SWUD 9):** This project improved 533 feet of drainage system. The scope of work included cleaning out 533 feet of roadside ditch and jetting 6 driveway pipes. The total cost was **\$3,806.54.**
- **Beaufort County Open Land Trust – Lady’s Island (SWUD 7):** The scope of work included grubbing and clearing perimeter of pond. The total cost was **\$3,295.86.**
- **Godwin Road – Port Royal Island (SWUD 6):** This project improved 1,467 feet of drainage system. The scope of work included bush hogging 836 feet of roadside ditch, cleaning out 536 feet of roadside ditch and 95 feet of channel. The total cost was **\$3,056.79.**
- **Bluffton Parkway – Bluffton (SWUD 4):** The scope of work included repairing a sinkhole. The total cost was **\$2,496.37.**

- **David Green Road Channel #1 – St Helena Island (SWUD 8):** This project improved 1,155 feet of drainage system. The scope of work included removing a blockage from flowline and cleaning out 1,155 feet of channel. The total cost was **\$2,301.68.**
- **Beaufort County Administrative Building – City of Beaufort (SWUD 1):** This project improved 856 feet of drainage system. The scope of work included cleaned out 1 manhole and jetting 856 feet of channel pipe. The total cost was **\$1,315.14.**
- **James D. Washington Road Channel #1 – St Helena Island (SWUD 8):** This project improved 385 feet of drainage system. The scope of work included cleaning out 385 feet of channel. The total cost was **\$1,118.96.**
- **Scott Hill Road – St Helena Island (SWUD 8):** This project improved 780 feet of drainage system. The scope of work included cleaning out 780 feet of roadside ditch. The total cost was **\$1,114.24.**
- **McRiley Complex – Bluffton (SWUD 4):** The scope of work included repairing a sinkhole. The total cost was **\$754.43.**



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sheldon Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 10/17/17- 02/15/18

Narrative Description of Project:

First rotation 10/17/17- 02/15/18: Project improved 123,368 L.F. of drainage system. Bush hogged 123,368 L.F. of channel. This project consisted of the following areas: Stroup Road (1,701 L.F.), Browns Island Road (3,025 L.F.), Gum Tree Lane (4,554 L.F.), Hunt Ter (3,837 L.F.), Middlefield Circle (4,033 L.F.), Kears Neck Road (2,313 L.F.), Coker Lane (1,757 L.F.), Coakley Drive (653 L.F.), Oakhurst Road (1,896 L.F.), Spann Circle (1,782 L.F.), Dan Drive (895 L.F.), Honeybee Island Road (690 L.F.), Wimbee Landing Road (15,920 L.F.), Old Dawson Acres (6,053 L.F.), Jasmine Hall Road (9,870 L.F.), River Oaks Road (2,884 L.F.), Pap Kee Lane (1,465 L.F.), Siegler Road (493 L.F.), Dean Hall Road (371 L.F.), Horace Dawson Lane (6,014 L.F.), Archie Sumpter Road (3,844 L.F.), Johnson Road (1,777 L.F.), Mitchell Road (4,928 L.F.), Fire Station Lane (1,257 L.F.), Paige Point Bluff (440 L.F.), Priester Road (1,480 L.F.), Robinson Hill Road (1,855 L.F.), Cuthbert Farm Road (802 L.F.), George Williams Lane (3,124 L.F.), William A Campbell Road (1,640 L.F.), Huspah Court South (2,506 L.F.), Huspah Court North (768 L.F.), Bailey Road (1,980 L.F.), Bailey Circle (1,218 L.F.), Nix Road (1,173 L.F.), Prescott Road (1,259 L.F.), African Baptist Church Road (2,308 L.F.), Horse Tail Road (4,341 L.F.), Dash Road (267 L.F.), Booker T Washington Circle (2,041 L.F.), Albertha Fields (2,158 L.F.), Big Estate Road (2,176 L.F.), Joseph Lane (985 L.F.), Newberry Circle (1,137 L.F.), Swallowtail Lane (2,388 L.F.), Gray Road (2,789 L.F.), Big Estate Circle (1,877 L.F.), Jenkins Road (643 L.F.)

2018-303 / Sheldon Bush hog

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CBH / Channel- bushhogged	1,114.0	\$23,506.0	\$13,510.14	\$2,813.72	\$0.00	\$14,559.87	\$54,389.68
2018-303 / Sheldon Bush hog Sub Total	1,115.0	\$23,527.74	\$13,510.14	\$2,813.72	\$0.00	\$14,559.87	\$54,411.47
Grand Total	1,115.0	\$23,527.74	\$13,510.14	\$2,813.7	\$0.00	\$14,559.87	\$54,411.47

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
 Project Summary

Project Summary: Bluffton Vacuum Truck

Palmetto Beach Lane, Shelterwood Lane, Cherry Point Road, Cherry Point Road N, Sailors Choice, Bluffton Parkway, Vine Street, E. Morningside Drive, Foreman Hill Road, Bush Lane, Grande Oaks Drive, Allendale Street, Sutler Road, Mourning Dove Lane, Graves Road, Mullet Street, Trout Street and Black Fish Street

Activity: Routine/Preventive Maintenance

Duration: 7/05/17-12/20/17

Narrative Description of Project:

Project improved 1,311 L.F. of drainage system. Cleaned out (23) catch basins. Jetted (11) crossline pipes, (24) driveway pipes, 102 L.F. of channel pipe and 1,209 L.F. of roadside pipe.

2018-310 / Bluffton 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	104.0	\$2,317.12	\$451.36	\$405.68	\$0.00	\$1,491.36	\$4,665.52
CLPJT / Crossline Pipe - Jetted	62.0	\$1,387.20	\$269.08	\$194.52	\$0.00	\$894.00	\$2,744.80
CPJ / Channel Pipe - Jetted	30.0	\$668.40	\$130.20	\$102.60	\$0.00	\$430.20	\$1,331.40
DEBREM / Debris Removal - Jobsite	6.0	\$133.68	\$26.04	\$30.12	\$0.00	\$86.04	\$275.88
DPJT / Driveway Pipe - Jetted	48.0	\$1,069.44	\$208.32	\$143.00	\$0.00	\$688.32	\$2,109.08
RSPJ / Roadside Pipe - Jetted	8.0	\$184.08	\$34.72	\$30.12	\$0.00	\$119.64	\$368.56
STBY / Stand By	4.0	\$89.12	\$17.36	\$33.60	\$0.00	\$57.36	\$197.44
2018-310 / Bluffton Vacuum Truck Sub Total	262.5	\$5,859.94	\$1,137.08	\$939.64	\$0.00	\$3,766.92	\$11,703.58
Grand Total	262.5	\$5,859.94	\$1,137.08	\$939.64	\$0.00	\$3,766.92	\$11,703.58

Before

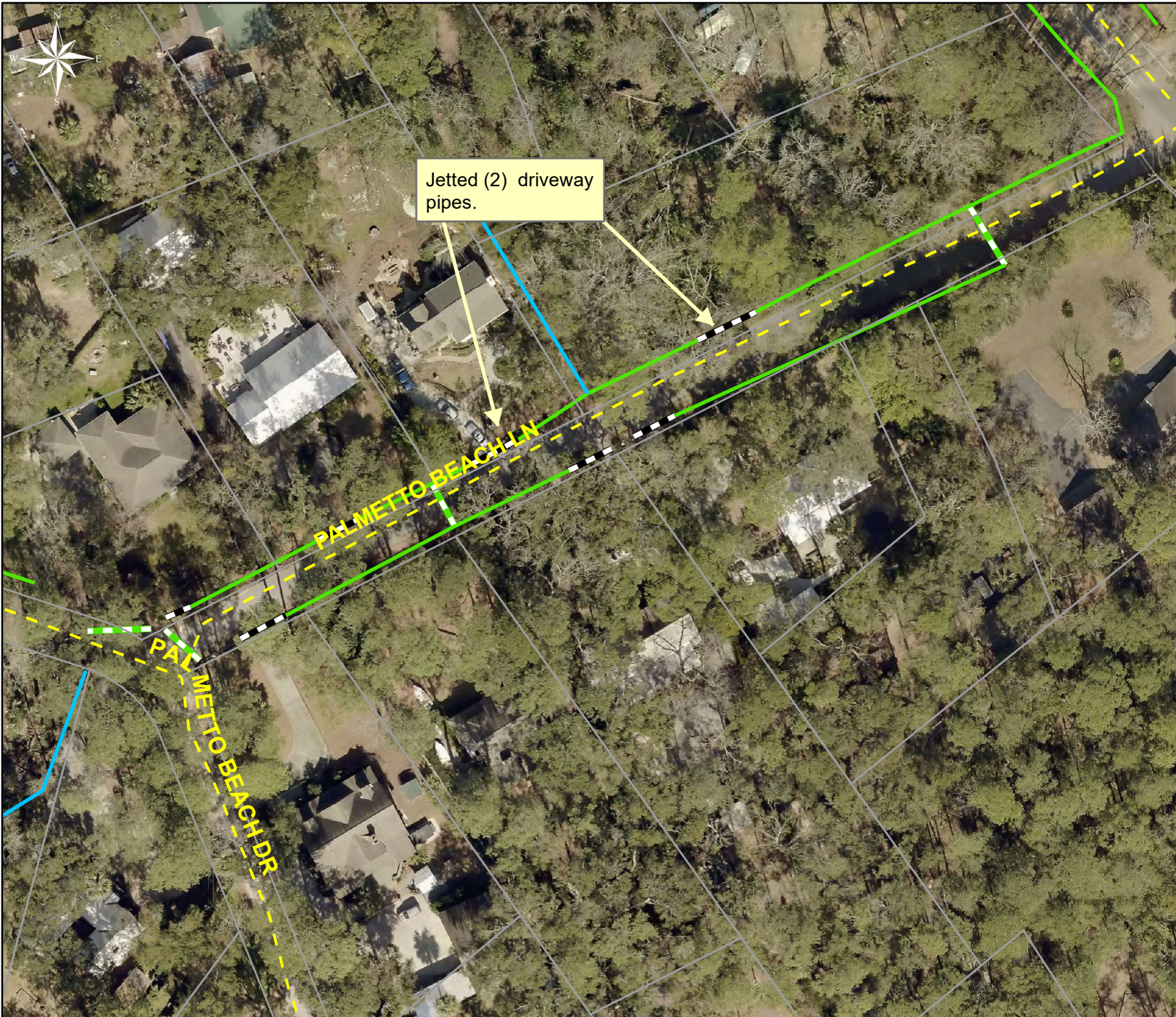


During



After





Project: Bluffton Vacuum Truck - Palmetto Beach Lane Map #1

Activity: Routine/ Preventive Maintenance














Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Palmetto Beach Lane Map#1_2018-310

Project: Bluffton
Vacuum Truck -
Shelterwood Lane
Map #2

Activity: Routine/
Preventive
Maintenance

Project #:
2018-310














Township/SW Dist:
Bluffton/4

Completed:
December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Shelterwood Lane Map#2_2018-310



Project: Bluffton
 Vacuum Truck -
 Cherry Point
 Road
 Map #3

Activity: Routine/
 Preventive
 Maintenance

Project #:
 2018-310

Township/SW Dist:
 Bluffton/4

Completed:
 December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Cherry Point Road Map#3_2018-310

Project: Bluffton Vacuum Truck - Sailors Choice Map #4

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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: 04/25/18
File:C:\project summaries map\Bluffton Vac Truck- Sailors Choice Map #4_2018-310



Project: Bluffton Vacuum Truck - Bluffton Parkway Map #5

Activity: Routine/ Preventive Maintenance














Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck-Bluffton Parkway Map#5_2018-310



Project: Bluffton Vacuum Truck - Vine Street Map #6

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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

Cleaned out (1) catch basin. Jetted (1) driveway pipe and 56 LF of channel pipe.

Jetted 28 LF of roadside pipe.

Jetted (1) crossline pipe.



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Vine Street Map#6_2018-310



Project: Bluffton
 Vacuum Truck -
 E. Morningside
 Drive
 Map #7

Activity: Routine/
 Preventive
 Maintenance

Project #:
 2018-310

Township/SW Dist:
 Bluffton/4

Completed:
 December 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

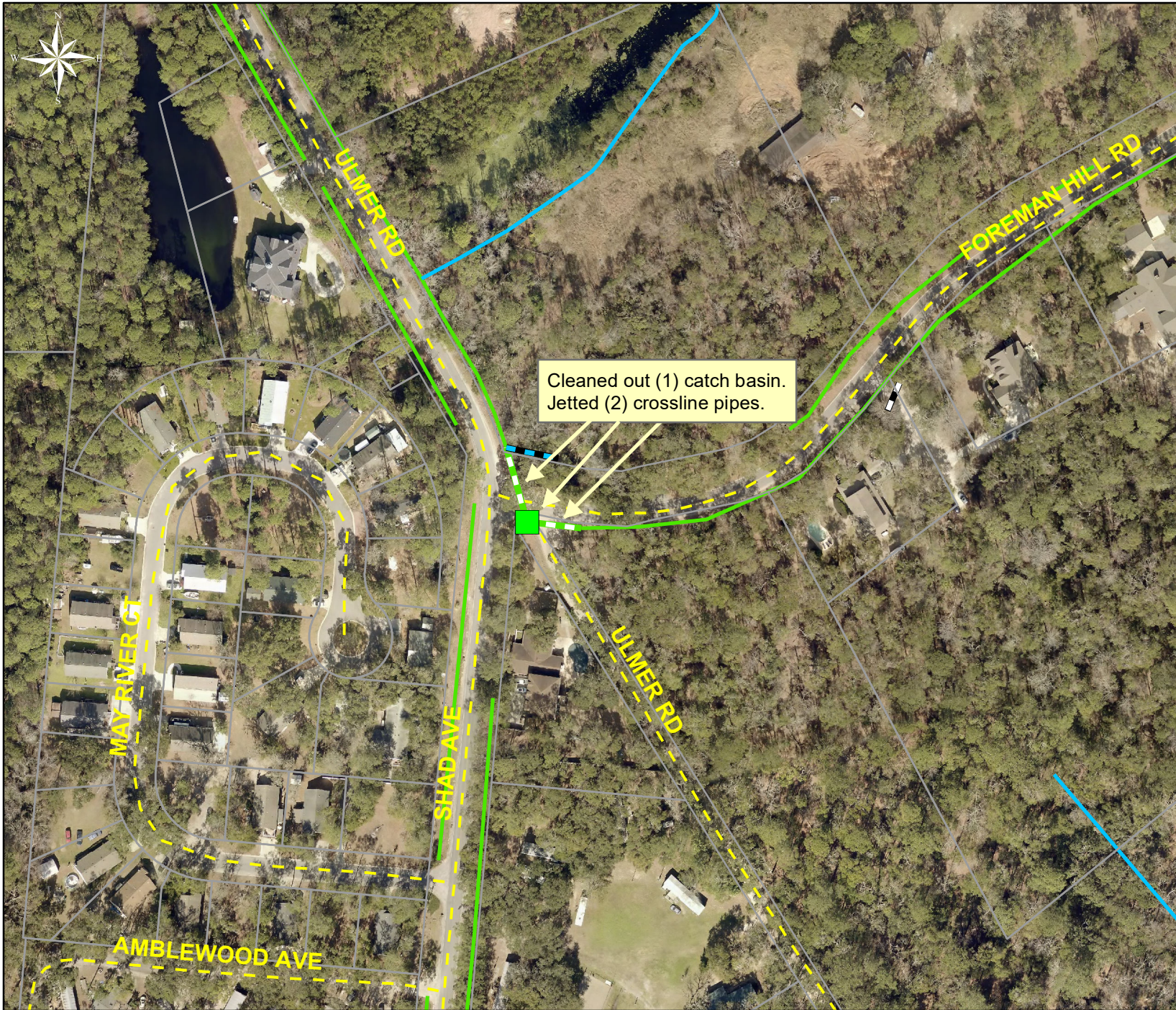
Cleaned out (2) catch basins. Jetted (1) crossline pipe and 30 LF of channel pipe .



1 inch = 50 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- E. Morningside Drive Map#7 2018-310



Project: Bluffton
Vacuum Truck -
Foreman Hill
Road
Map #8

Activity: Routine/
Preventive
Maintenance














Project #:
2018-310

Township/SW Dist:
Bluffton/4

Completed:
December 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:01/23/18

File:C:\project summaries map/Bluffton Vac Truck- Foreman Hill Road Map #8_2018-310

Project: Bluffton
Vacuum Truck -
Bush Lane
Map #9

Activity: Routine/
Preventive
Maintenance

Project #:
2018-310

Township/SW Dist:
Bluffton/4

Completed:
December 2017

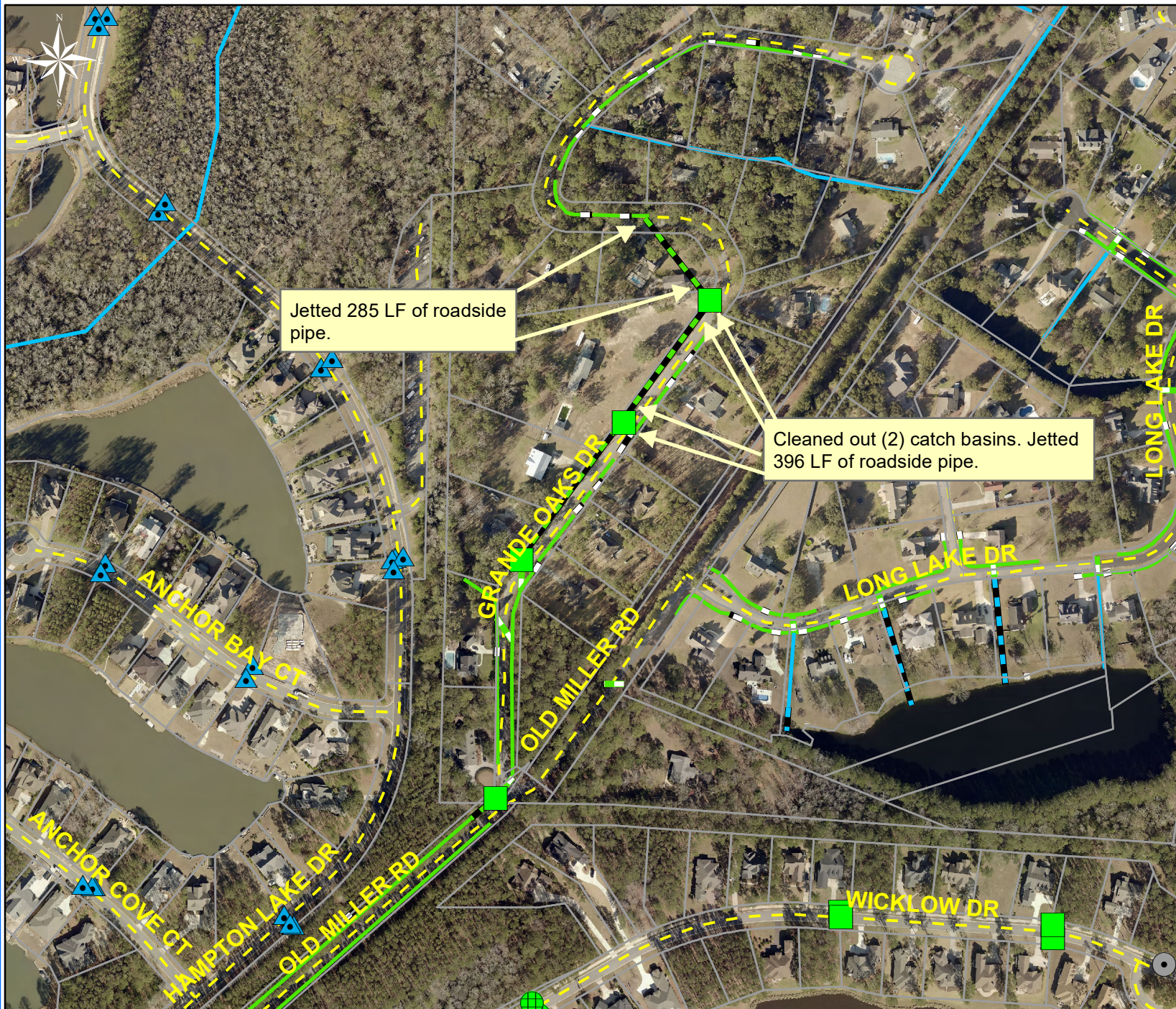


Legend	
Drainage Type	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print: 04/25/18
File: C:\project summaries map\Bluffton Vac Truck- Bush Lane Map#9_2018-310



Project: Bluffton Vacuum Truck - Grande Oaks Drive Map #10

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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 = 330 feet

Prepared By: BC Stormwater Management Utility

Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Grande Oaks Drive Map#10_2018-310



Project: Bluffton Vacuum Truck - Sutler Road Map #11

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Sutler Road Map#11_2018-310

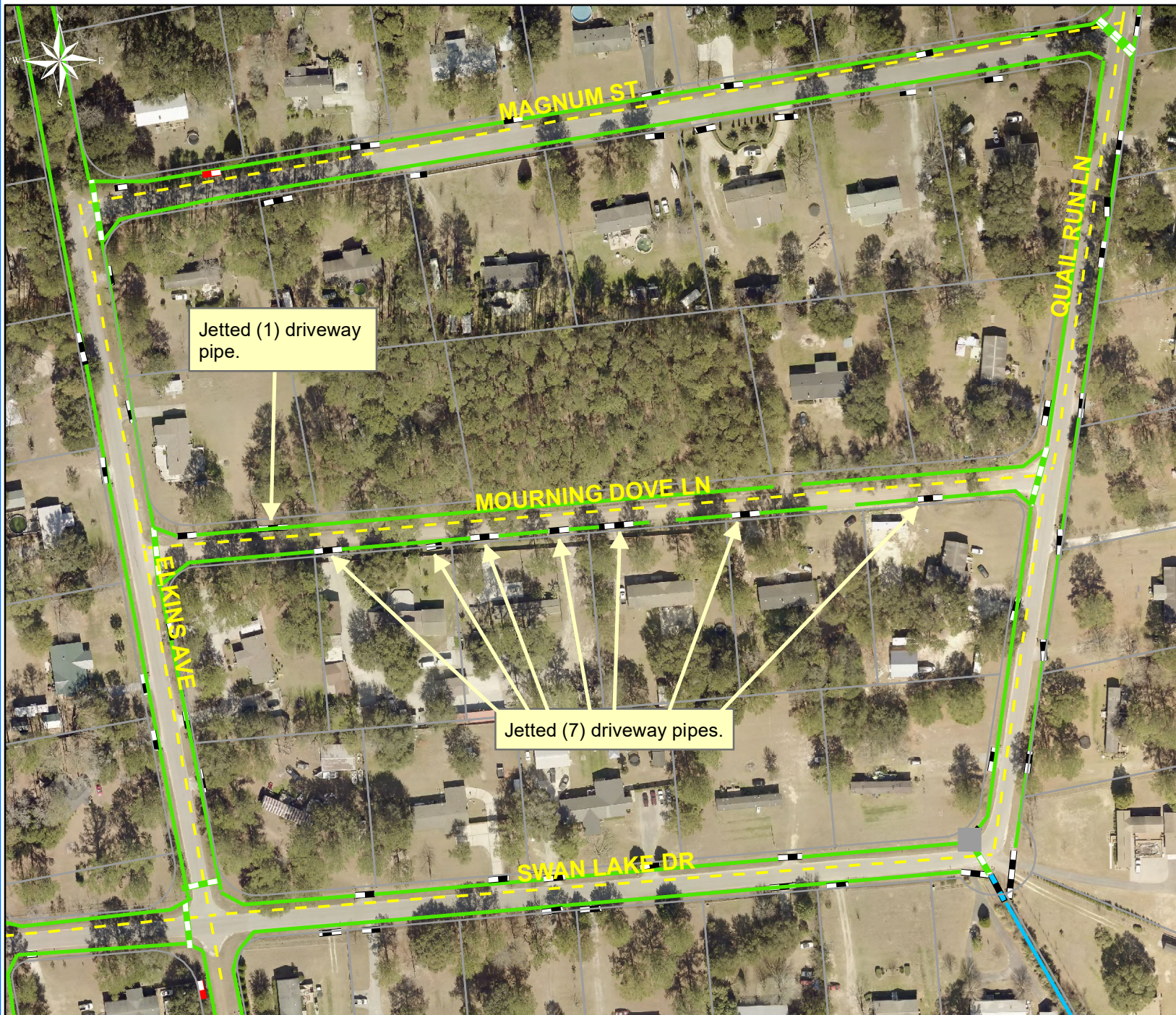
Project: Bluffton
 Vacuum Truck -
 Mourning Dove
 Lane
 Map #12

Activity: Routine/
 Preventive
 Maintenance

Project #:
 2018-310














Township/SW Dist:
 Bluffton/4

Completed:
 December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Mourning Dove Lane Map#12_ 2018-310



Project: Bluffton Vacuum Truck - Graves Road Map #13

Activity: Routine/ Preventive Maintenance














Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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

Prepared By: BC Stormwater Management Utility

Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Graves Road Map#13_2018-310

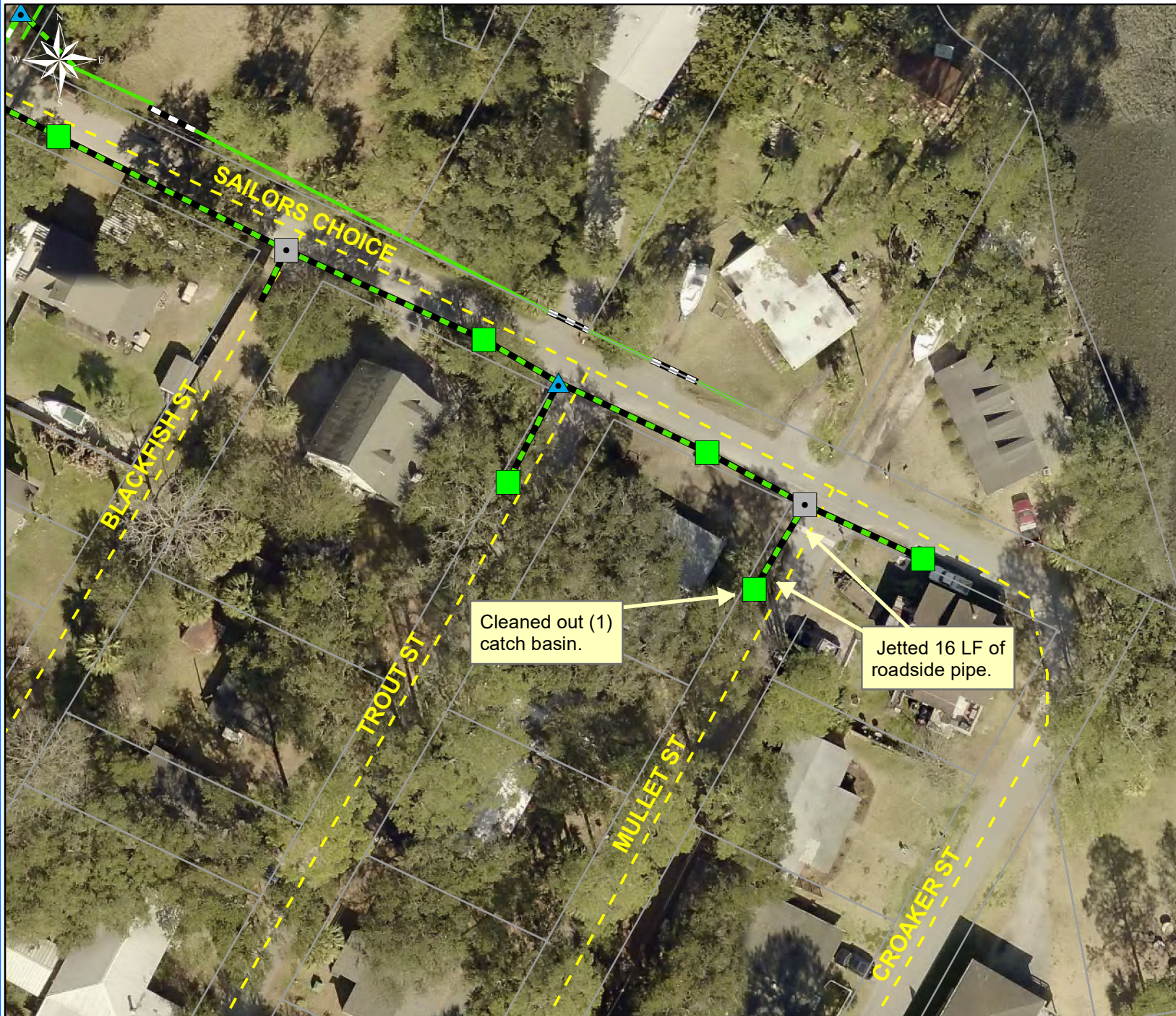
Project: Bluffton
Vacuum Truck -
Mullet Street
Map #14

Activity: Routine/
Preventive
Maintenance

Project #:
2018-310














Township/SW Dist:
Bluffton/4

Completed:
December 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: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Mullet Street Map #9_2018-310

Project: Bluffton
Vacuum Truck -
Trout Street
Map #15

Activity: Routine/
Preventive
Maintenance

Project #:
2018-310

Township/SW Dist:
Bluffton/4

Completed:
December 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: Bluffton Vacuum Truck - Blackfish Street Map #16

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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 = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Blackfish Street Map #16_2018-310



Project: Bluffton Vacuum Truck - Thomas Lawton Drive and Sailors Choice
Map #17

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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: Bluffton Vacuum Truck - Allendale Street Map #18

Activity: Routine/ Preventive Maintenance

Project #: 2018-310

Township/SW Dist: Bluffton/4

Completed: December 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 = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 04/25/18

File: C:\project summaries map\Bluffton Vac Truck- Allendale Street Map #18_ 2018-310



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Alumni Road Channel

Activity: Routine/Preventive Maintenance

Duration: 03/30/18-04/19/18

Narrative Description of Project:

Project improved 3,217 L.F. of drainage system. Cleaned out 3,217 L.F. of channel. Installed (1) access gate.

2018-595 / Alumni Road Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AGI / Access Gate - Installed	12.0	\$243.12	\$14.40	\$115.92	\$0.00	\$101.76	\$475.20
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
CCO / Channel - cleaned out	128.0	\$2,824.73	\$706.94	\$183.51	\$0.00	\$1,712.94	\$5,428.12
HAUL / Hauling	8.0	\$183.08	\$37.68	\$25.52	\$0.00	\$118.80	\$365.08
2018-595 / Alumni Road Channel Sub Total	148.5	\$3,261.83	\$759.02	\$324.95	\$0.00	\$1,933.50	\$6,279.30
Grand Total	148.5	\$3,261.83	\$759.02	\$324.95	\$0.00	\$1,933.50	\$6,279.30

(No Pictures Available)

Project: Alumni
Road Channel

Activity: Routine/
Preventive
Maintenance

Project #:
2018-595














Township/SW Dist:
Ladys Island/7

Completed:
April 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

0 120240 480 720 960
Feet

1 inch = 500 feet

Prepared By: BC Stormwater Management Utility

Date Print:06/25/18

File:C:\project summaries map\Alumni Road Channel_2018-595



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Glaze Drive

Activity: Routine/Preventive Maintenance

Duration: 05/22/18-07/09/18

Narrative Description of Project:

Project improved 1,740 L.F. of drainage system. Cleaned out 1,740 L.F. of roadside ditch. Jetted (24) driveway pipes.

2018-610 / Glaze Drive

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
DPJT / Driveway Pipe - Jetted	28.0	\$623.84	\$536.48	\$125.15	\$0.00	\$401.52	\$1,686.99
HAUL / Hauling	32.0	\$645.64	\$339.42	\$89.31	\$0.00	\$26.63	\$1,101.00
RSDCL / Roadside Ditch - Cleanout	70.0	\$1,507.50	\$399.10	\$111.78	\$0.00	\$716.10	\$2,734.48
UTLOC / Utility locates	1.5	\$37.05	\$0.00	\$0.00	\$0.00	\$19.85	\$56.90
2018-610 / Glaze Drive Sub Total	132.5	\$2,835.82	\$1,275.00	\$326.24	\$0.00	\$1,164.10	\$5,601.15
Grand Total	132.5	\$2,835.82	\$1,275.00	\$326.24	\$0.00	\$1,164.10	\$5,601.15

Before



During



After





Project: Glaze Drive

Activity: Routine/ Preventive Maintenance

Project #: 2018-610

Township/SW Dist: Port Royal Island/6

Completed: July 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 = 250 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Milledge Village Road

Activity: Routine/Preventive Maintenance

Duration: 03/08/18-03/27/18

Narrative Description of Project:

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

2018-584 / Milledge Village Road

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
ASI / Asphalt Installation	20.0	\$431.60	\$25.58	\$18.32	\$0.00	\$214.65	\$690.15
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
DPINS / Driveway Pipe - Installed	32.0	\$690.56	\$142.37	\$136.89	\$0.00	\$343.44	\$1,313.26
HAUL / Hauling	12.0	\$267.24	\$113.04	\$1,162.55	\$0.00	\$173.04	\$1,715.87
STAGING / Staging Materials/Equipment	4.0	\$91.54	\$7.20	\$11.45	\$0.00	\$59.40	\$169.59
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2018-584 / Milledge Village Road Sub Total	69.0	\$1,504.19	\$288.19	\$1,329.21	\$0.00	\$797.14	\$3,918.73
Grand Total	69.0	\$1,504.19	\$288.19	\$1,329.21	\$0.00	\$797.14	\$3,918.73

Before



During



After



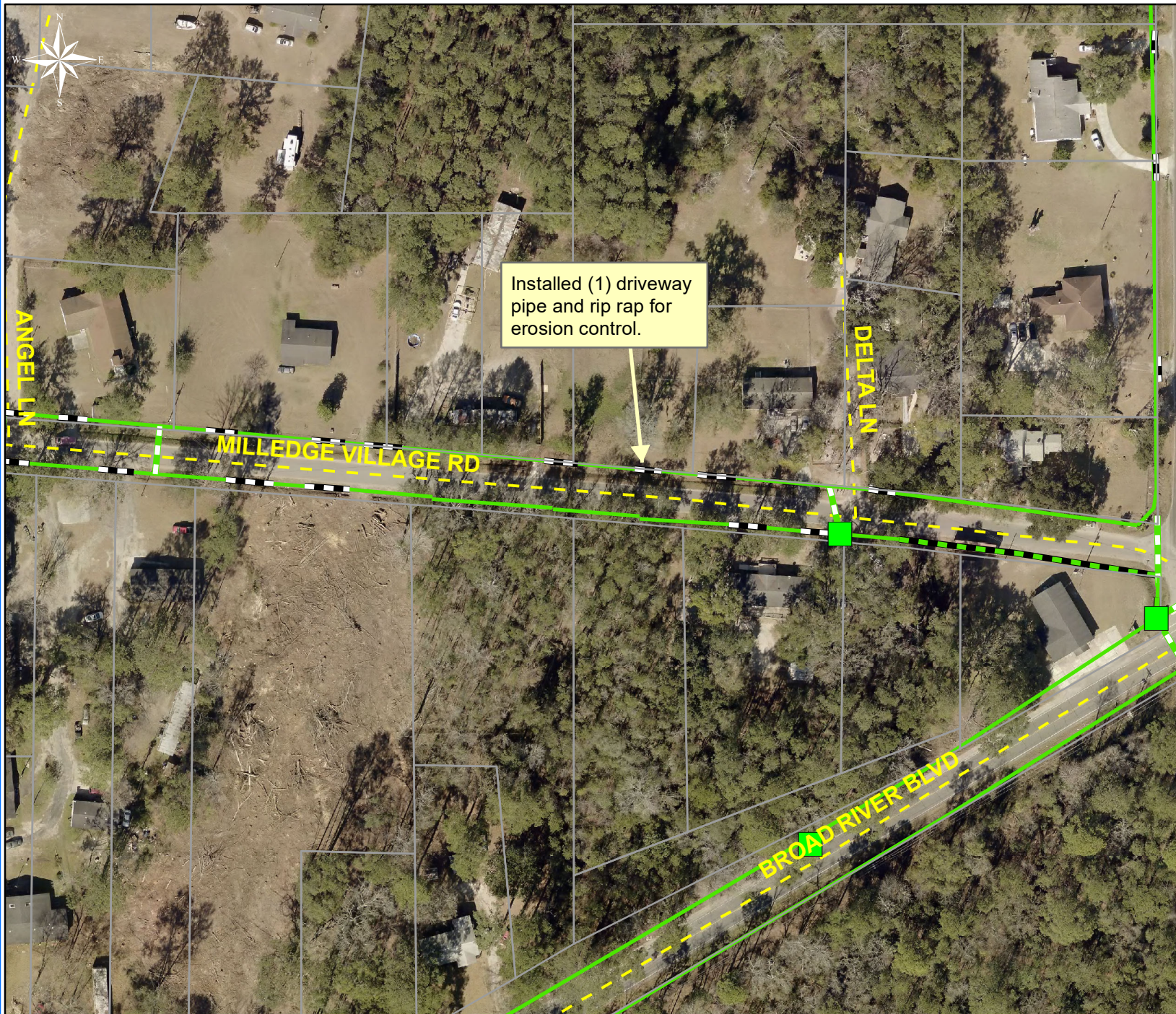
Project: Milledge Villiage Road

Activity: Routine/
Preventive
Maintenance

Project #:
2018-584

Township/SW Dist:
Port Royal Island/6

Completed:
March 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 = 130 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Frederick Drive

Activity: Routine/Preventive Maintenance

Duration: 05/22/18-07/10/18

Narrative Description of Project:

Project improved 533 L.F. of drainage system. Cleaned out 533 L.F. of roadside ditch. Jetted (6) driveway pipes.

2018-613 / Frederick Drive

	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
DPJT / Driveway Pipe - Jetted	20.0	\$445.60	\$383.20	\$65.80	\$0.00	\$286.80	\$1,181.40
HAUL / Hauling	17.0	\$367.55	\$150.78	\$68.70	\$0.00	\$53.26	\$640.29
RSDCL / Roadside Ditch - Cleanout	45.0	\$1,082.40	\$206.22	\$50.02	\$0.00	\$616.35	\$1,954.99
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2018-613 / Frederick Drive Sub Total	83.0	\$1,918.80	\$740.20	\$184.52	\$0.00	\$963.02	\$3,806.54
Grand Total	83.0	\$1,918.80	\$740.20	\$184.52	\$0.00	\$963.02	\$3,806.54

Before



During



After





Project: Frederick Drive
 Activity: Routine/ Preventive Maintenance
 Project #: 2018-613
 Township/SW Dist: Port Royal Island/9
 Completed: July 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 = 130 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Beaufort County Open Land Trust

Activity: Pond Maintenance

Duration: 12/01/17-12/04/17

Narrative Description of Project:

Grubbed and cleared perimeter of pond.

2018-547 / Beaufort County Open Land Trust	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
DEBREM / Debris Removal - Jobsite	18.0	\$364.68	\$21.60	\$38.08	\$0.00	\$225.90	\$650.26
HAUL / Hauling	8.5	\$163.88	\$80.07	\$118.37	\$0.00	\$0.00	\$362.32
PGC / Pond - Grubb and Clear	66.0	\$1,451.82	\$110.40	\$21.53	\$0.00	\$688.64	\$2,272.39
2018-547 / Beaufort County Open Land Trust Sub Total	93.0	\$1,991.28	\$212.07	\$177.98	\$0.00	\$914.54	\$3,295.86
Grand Total	93.0	\$1,991.28	\$212.07	\$177.98	\$0.00	\$914.54	\$3,295.86

(Pictures Not Available)

Project: Beaufort
County Open Land
Trust

Activity: Pond
Maintenance

Project #:
2018-547

Township/SW Dist:
Lady's Island/7

Completed:
December 2017

Grubbed and cleared perimeter
of pond.



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:09/24/18

File:C:\project summaries map\Beaufort County Open Land Trust_2018-547



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Godwin Road

Activity: Routine/Preventive Maintenance

Duration: 05/02/18-05/10/18

Narrative Description of Project:

Project improved 1,467 L.F. of drainage system. Bush hogged 836 L.F. of roadside ditch. Cleaned out 536 L.F. of roadside ditch and 95 L.F. of channel.

2018-605 / Godwin 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
CBH / Channel- bushhogged	8.0	\$168.54	\$74.26	\$22.63	\$0.00	\$106.52	\$371.95
HAUL / Hauling	11.0	\$244.97	\$103.62	\$45.01	\$0.00	\$158.62	\$552.22
RSDCL / Roadside Ditch - Cleanout	50.0	\$1,167.10	\$230.99	\$28.32	\$0.00	\$676.35	\$2,102.76
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2018-605 / Godwin Road 2018-605 Sub Total	70.0	\$1,603.86	\$408.87	\$95.96	\$0.00	\$948.10	\$3,056.79
Grand Total	70.0	\$1,603.86	\$408.87	\$95.96	\$0.00	\$948.10	\$3,056.79

Before



During



After





Project: Godwin Road

Activity: Routine/ Preventive Maintenance

Project #: 2018-605

Township/SW Dist: Port Royal Island/6

Completed: May 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

Bush hogged 836 LF of roadside ditch.
Cleaned out 536 LF of roadside ditch.

Cleaned out 95 LF of channel.



1 inch = 190 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Parkway

Activity: Routine/Preventive Maintenance

Duration: 10/11/17-10/12/17

Narrative Description of Project:

Repaired sinkhole.

2018-539 / Bluffton Parkway	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
CBREP / Catch basin - repaired	20.0	\$429.80	\$55.63	\$76.29	\$0.00	\$260.55	\$822.27
HAUL / Hauling	10.0	\$217.90	\$94.20	\$77.26	\$0.00	\$0.00	\$389.36
SD / Soft Digging	33.0	\$741.79	\$71.92	\$73.82	\$0.00	\$386.32	\$1,273.85
2018-539 / Bluffton Parkway Sub Total	63.5	\$1,400.39	\$221.75	\$227.37	\$0.00	\$646.87	\$2,496.37
Grand Total	63.5	\$1,400.39	\$221.75	\$227.37	\$0.00	\$646.87	\$2,496.37

Before

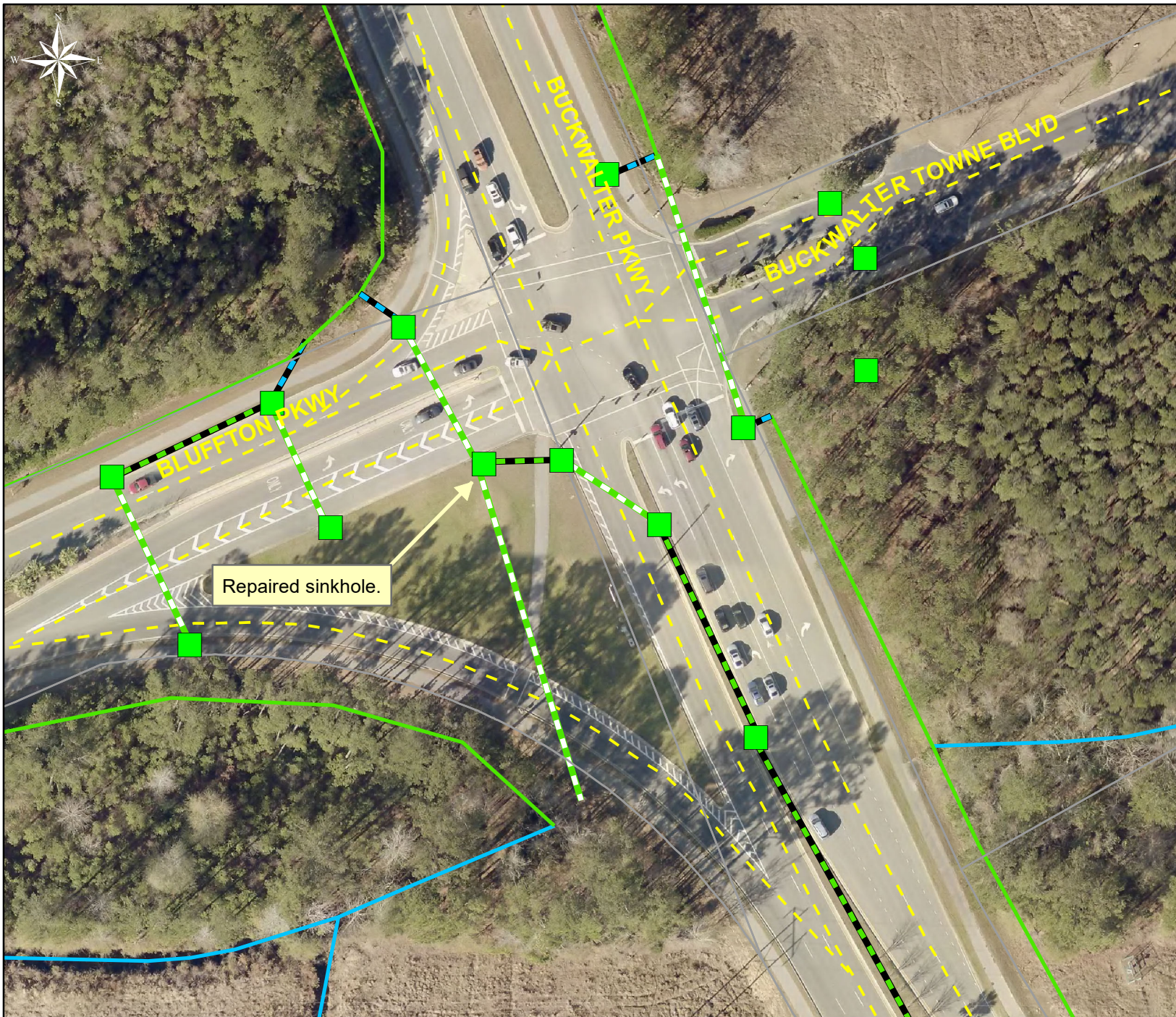


During



After

(Picture Not Available)



Project: Bluffton Parkway

Activity: Routine/ Preventive Maintenance














Project #: 2018-539

Township/SW Dist: Bluffton/4

Completed: October 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



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: David Green Road Channel #1

Activity: Routine/Preventive Maintenance

Duration: 01/12/18

Narrative Description of Project:

Project improved 1,155 L.F. of drainage system. Removed blockage from flowline. Cleaned out 1,155 L.F. of channel.

2018-563 / David Green Channel #1	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	11.5	\$350.80	\$108.33	\$52.67	\$0.00	\$165.83	\$677.63
RB / Remove blockage from flowline	34.0	\$1,066.50	\$145.12	\$36.64	\$0.00	\$364.91	\$1,613.16
2018-563 / David Green Road Channel #1 Sub Total	46.0	\$1,428.19	\$253.45	\$89.31	\$0.00	\$530.74	\$2,301.68
Grand Total	46.0	\$1,428.19	\$253.45	\$89.31	\$0.00	\$530.74	\$2,301.68

Before



During



After

(No Picture Available)

Project: David Green Road Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-563














Township/SW Dist: St. Helena Island/8

Completed: January 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

0 50 100 200 300 400 Feet

1 inch = 210 feet

Prepared By: BC Stormwater Management Utility

Date Print:04/11/18

File:C:\project summaries map\David Green Road Channel #1_2018-563



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Beaufort County Administrative Building

Activity: Routine/Preventive Maintenance

Duration: 05/31/17-06/01/17

Narrative Description of Project:

Project improved 856 L.F. of drainage system. Cleaned out (1) manhole. Jetted 856 L.F. of channel pipe.

2017-556 / Beaufort County Administrative Building

	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
CPJ / Channel Pipe - Jetted	30.0	\$668.40	\$130.20	\$75.44	\$0.00	\$430.20	\$1,304.24
2017-556 / Beaufort County Administrative Building Sub Total	30.5	\$679.30	\$130.20	\$75.44	\$0.00	\$430.20	\$1,315.14
Grand Total	30.5	\$679.30	\$130.20	\$75.44	\$0.00	\$430.20	\$1,315.14

Before

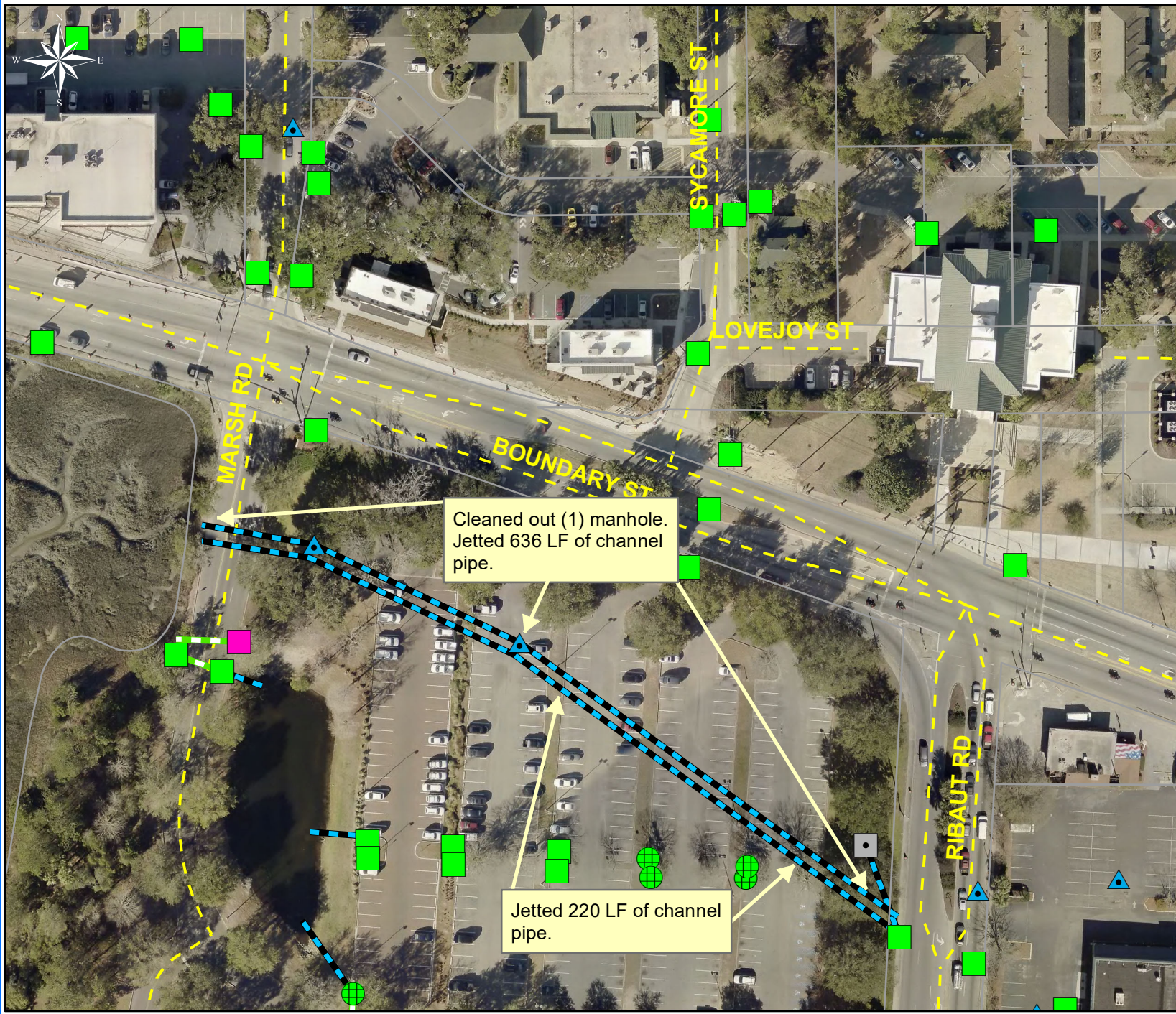


During



After





Project: Beaufort County Administration Building

Activity: Routine/ Preventive Maintenance

Project #: 2017-556

Township/SW Dist: City of Beaufort/1

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: 09/24/18
 File: C:\project summaries map\Bft County Admin Bldg_2017-556



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: James D Washington Road Channel #1

Activity: Routine/Preventive Maintenance

Duration: 05/21/18-06/07/18

Narrative Description of Project:

Project improved 385 L.F. of drainage system. Cleaned out 385 L.F. of channel.

2018-608 / James D Washington Road Channel #1

	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
CCO / Channel - cleaned out	12.0	\$243.12	\$43.03	\$32.63	\$0.00	\$101.76	\$420.54
HAUL / Hauling	8.0	\$178.16	\$75.36	\$45.18	\$0.00	\$115.36	\$414.06
LM / Loading Materials	5.0	\$99.30	\$60.40	\$52.71	\$0.00	\$61.05	\$273.46
2018-608 / James D Washington Road Channel #1 Sub Total	25.5	\$531.48	\$178.79	\$130.52	\$0.00	\$278.17	\$1,118.96
Grand Total	25.5	\$531.48	\$178.79	\$130.52	\$0.00	\$278.17	\$1,118.96

Before

During

After

(Picture Not Available)





Project: James D. Washington Road Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-608

Township/SW Dist: St. Helena Island/8

Completed: June 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 = 330 feet

Prepared By: BC Stormwater Management Utility
Date Print: 09/24/18

File: C:\project summaries map\James D Washington Road Channel #1_2018-608



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Scott Hill Road

Activity: Routine/Preventive Maintenance

Duration: 02/06/18-02/12/18

Narrative Description of Project:

Project improved 780 L.F. of drainage system. Cleaned out 780 L.F. of roadside ditch.

2018-572 / Scott Hill 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	15.0	\$314.30	\$141.30	\$66.64	\$0.00	\$0.00	\$522.24
RSDCL / Roadside Ditch - Cleanout	15.0	\$303.90	\$67.54	\$21.42	\$0.00	\$188.25	\$581.11
2018-572 / Scott Hill Road Sub Total	30.5	\$629.10	\$208.84	\$88.06	\$0.00	\$188.25	\$1,114.24
Grand Total	30.5	\$629.10	\$208.84	\$88.06	\$0.00	\$188.25	\$1,114.24

Before

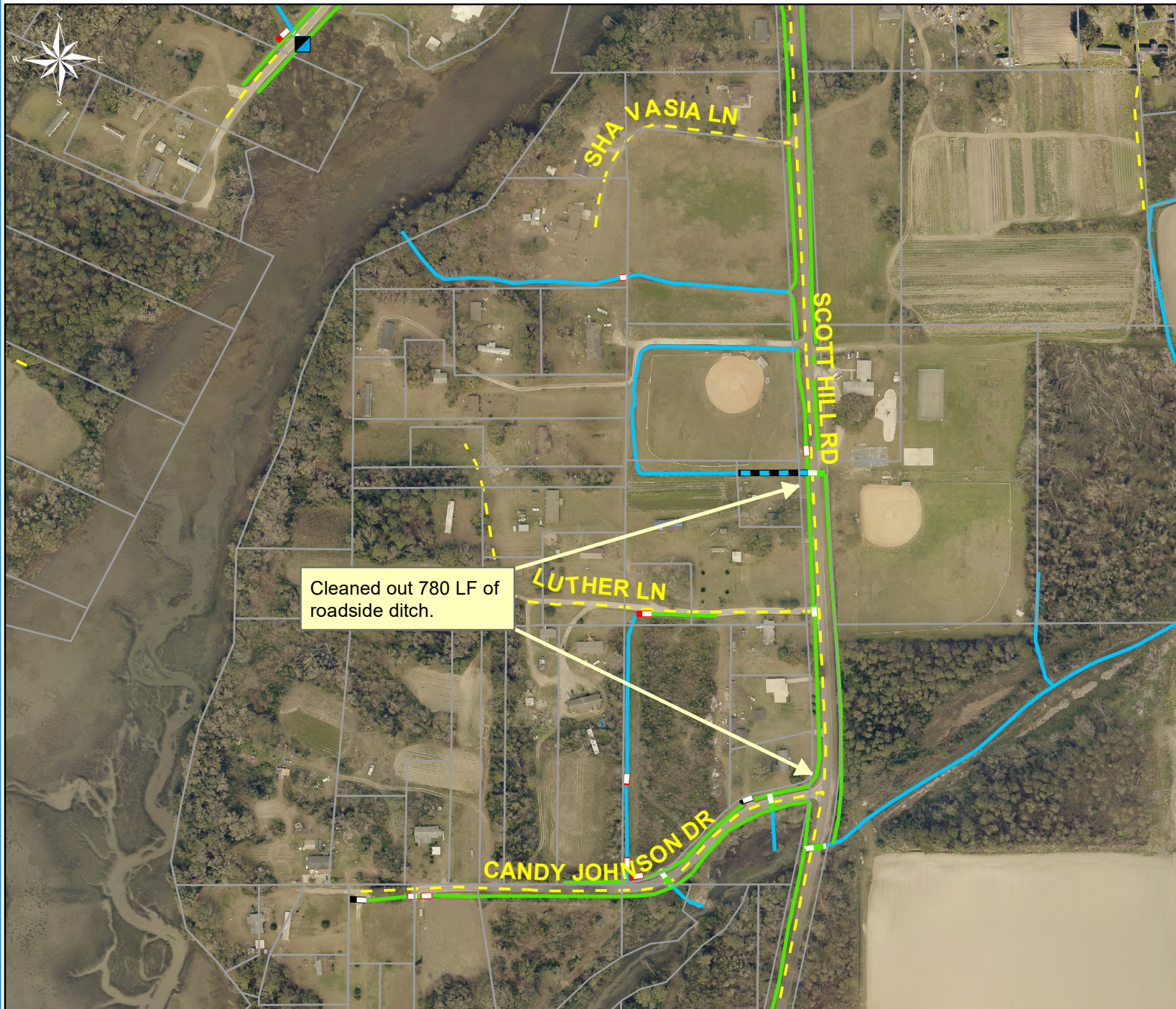


During



After





Project: Scott Hill Road

Activity: Routine/ Preventive Maintenance














Project #: 2018-572

Township/SW Dist: St. Helena Island/8

Completed: February 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 = 330 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: McRiley Complex

Activity: Routine/Preventive Maintenance

Duration: 03/05/18

Narrative Description of Project:

Repaired sinkhole.

2018-582 / MC Riley Complex

	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
SR / Sinkhole repair	16.0	\$376.94	\$36.00	\$83.64	\$0.00	\$246.96	\$743.54
2018-582 / MC Riley Complex Sub Total	16.5	\$387.84	\$36.00	\$83.64	\$0.00	\$246.96	\$754.43
Grand Total	16.5	\$387.84	\$36.00	\$83.64	\$0.00	\$246.96	\$754.43

(Pictures Not Available)

Project: MC Riley Complex

Activity: Routine/
Preventive
Maintenance

Project #:
2018-582














Township/SW Dist:
Bluffton/4

Completed:
March 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 = 210 feet

CAPITAL PROJECTS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
	ACTUALS	UNAUDITED ACTUALS	REVISED BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET
Okatie East (Completed)														
SC170/Okatie West 319 Project	51,371	946,213	112,741											
Hwy 278 Retrofit (Completed)	20,310													
Admin Bldg Parking Lot (Pervious Paving) (Completed)														
Battery Creek 319 (Completed)	3,515	205,137												
Buckingham Plantation			276,247	276,248										
Brewer Memorial Park Demonstration Wet Pond Porject		17,338	100,462	450,000										
Factory Creek M2 Phase I		62,930	5,142											
Factory Creek M2 Phase II	33,840	12,000	20,550											
Salt Creek South M1 (2017 Masterplan \$2,117,730)		26,109	444,774	1,646,847										
Shanklin Road M2 (2017 Masterplan \$3,458,787)		22,248	639,144		1,797,395	1,000,000								
Grober Hill M2 (2017 Masterplan \$2,614,801)														
Sawmill Creek / Forby Site (2017 Masterplan \$155,535)		31,181	80,819	560,000										
Camp St. Mary M2 (2017 Masterplan \$3,890,617)					342,000	165,000	1,783,617	1,600,000						
Battery Creek West M1 (2017 Masterplan \$4,287,238)														
Paige Point Overtopping														
Mossy Oaks Watershed (Partner with CoB) Phase I design		5,000	220,404											
Evergreen Tract Detention Basin (not in CIP plan or budget)		8,118	106,893	295,000	295,000									
Sawmill Branch 1 Regional BMP (2017 Master Plan \$2,063,688)						206,369		412,738	1,444,582					
Rock Springs Creek 1 Regional BMP (2017 Master Plan \$430,524)					43,052	86,105	301,367							
Sawmill Branch 2 Regional BMP (2017 Master Plan \$1,071,064)						107,106			214,213	749,745				
Lucy Point Creek Regional BMP (2017 Master Plan \$438,293)									43,829	87,659	306,805			
Albergotti Creek 2 Regional BMP (2017 Master Plan \$602,447)									60,245	120,489	421,713			
Alljoy Regional Basin / Buy-out (not in CIP plan or budget)														
May River Sanitary Sewer Projects (not in CIP plan or budget)														
	109,036	1,336,274	2,007,175	3,228,095	2,477,447	1,564,580	2,084,984	2,012,738	1,762,868	957,893	728,518	-	-	-
SUMMARY														
Beginning Available Funds	3,118,606	9,085,106	9,014,283	6,460,390	3,532,021	1,306,033	5,520,672	4,029,384	2,725,408	1,359,023	5,359,306	4,459,411	4,137,208	3,495,322
Revenue	5,841,385	5,909,671	5,894,381	5,840,156	5,974,480	6,111,893	6,252,466	6,396,273	6,543,387	6,693,885	6,847,844	7,005,345	7,166,468	7,331,297
Bond Revenue	5,000,000					5,000,000				2,000,000				
Total Revenue	13,959,991	14,994,777	14,908,664	12,300,546	9,506,500	12,417,926	11,773,139	10,425,657	9,268,796	10,052,909	9,258,297	8,628,863	8,580,743	8,216,647
Total Expenditures	(4,874,885)	(5,980,495)	(8,049,829)	(8,128,167)	(7,568,381)	(6,273,629)	(7,128,787)	(7,094,137)	(7,312,719)	(7,054,671)	(7,056,475)	(6,645,983)	(7,136,710)	(6,733,994)
Ending Available Funds	9,085,106	9,014,283	6,460,390	3,532,021	1,306,033	5,520,672	4,029,384	2,725,408	1,359,023	2,410,453	1,623,518	1,414,276	885,350	934,120



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, December 12, 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 – November 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. January 9, 2019 ([backup](#))
9. ADJOURNMENT