



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, April 10, 2019
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
843.255.2805

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

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – March 13, 2019 ([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. Living Shorelines – Peter Kingsley-Smith, SC DNR
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. May 8, 2019 ([backup](#))
9. ADJOURNMENT



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

March 13, 2019 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 3/25/2019

Board Members

Present

William Bruggeman
Marc Feinberg
James Fargher
James Clark

Absent

Allyn Schneider
Patrick Mitchell

Ex-Officio Members

Present

Neil Desai
Kim Jones
Scott Liggett

Absent

Van Willis

Beaufort County Staff

Eric Larson
David Wilhelm
Melissa Allen
Patricia Wilson
Carolyn Wallace
Katie Herrera

Visitors

Dr. Alan Warren, USCB Lab
Steve Andrews, Andrew's Engineering
Alice Howard, County Council District 4
Jeff Netzinger, Town of Hilton Head

1. Meeting called to order – William Bruggeman

- A. Agenda – Approved
- B. February 13, 2019 Minutes – Approved.

2. Introductions – Mr. William Bruggeman welcomed the newest board member, James Clark, with District 6. Introductions completed.

3. Public Comment(s) – None.

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

<https://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2019/031319.pdf>

A. Utility Update – Eric Larson

In reference to item #3, Mr. Eric Larson mentioned that the due date of September 30th is per the Intergovernmental Agreement (IGA), but may need to select a better date as none of the municipalities' financials are ready by that deadline. He commented that the County's were not ready until the end of January and will be presented today.

In reference to #6, the annual retreat is tomorrow and Friday (March 14 & 15). The stormwater budget will be presented Friday morning, if anyone wants to come and show support.

Items #7/8, discussion is taking place about delinquent fees between legal counsel for the military bases and the County, as they have two different opinions. Staff is also having a meeting later this month to discuss military, non-profit, HOA common space and other delinquent fees. The County is diligently pursuing the delinquent accounts; around \$7.2 million total in stormwater fees are in arrears since the inception nearly a decade ago.

B. Monitoring Update – Eric Larson

Please reference the report, no additional updates.

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

Please reference the report, no additional updates.

D. Stormwater Related Projects – Eric Larson

Item #3 (Alljoy) went to NRC, staff was asked to amend scope of work to include phasing and an opportunity for public input. Need an approved budget before moving forward with advertising.

E. Professional Contracts Report – Eric Larson

In reference to item 1A, the consultant is working on water quality model (bacteria loading). Need BJWSA's data to see where they are serving with sewer. The project is slightly behind schedule.

F. Regional Coordination – Eric Larson

Please reference the report, no additional updates.

G. Municipal Reports – Eric Larson

Ms. Kim Jones shared that DNR is looking for volunteers for an oyster reef rebuild at the Alljoy Boat Landing at 10:15 a.m. on March 16th. If you would like to attend please RSVP via email and the information can be found on the Lowcountry Stormwater Partners Facebook page.

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

Mr. Larson shared that the rainfall chart is included in the report; there are five real time stations that are reported on. Ms. Jones mentioned they have a station and Mr. Scott Liggett commented the Town of HHI has two.

I. Maintenance Projects Report – David Wilhelm

Mr. David Wilhelm pointed out the Old Woodland Plantation job on Hilton Head and Sandhill Estates job in Beaufort, both similar types of projects. The cost were similar, but did about three times the work at Sandhill Estates than at Old Woodland Plantation. This shows how much more expensive it is to do work on HHI due to more transit time (loss in productivity).

Thomas Lawton and Oyster Road in Alljoy area recently had crews working on an improvement project cleaning ditches and existing outfalls. The currently system is functioning better; however, it didn't solve all of the issues.

5. New Business

A. FY18 Actuals – Mr. Larson briefly explained the actual handout that was included in the packet. He shared that the revenue variance has been corrected; it was budgeted in one place and was being accounted for in a different account. The department was within \$5,000 of actuals for the year. The interest shown is for the bonding; this is temporary since it will quickly go away once the bond revenue is used for CIP projects. For cost shares, the variance is that a regional project was budgeted last year and was carried forward to this year and a cost share check came in after the previous year was closed out and was applied to this year.

Mr. Larson explained that staff shortage was supplemented with professional services, which shows the impact of what can happen if [the department] is not fully staffed; it has a quick impact in just six months.

Capital Improvement Projects: Battery Creek had a billing error and payment jumped a fiscal year, the money rolled into reserve then came out to pay the bill. Buckingham and Grober Hill projects will be coming off of the list. Salt Creek and Shanklin projects got a slow start, but are moving forward.

For equipment: The County bought the vac truck early, it was purchased last year. A bush hog was late being delivered so it had to be paid out the following fiscal year.

Mr. Billy Bruggeman asked if the County tracks each CIP project by year. Mr. Larson explained that they are multiple year projects and put in the plan that way (divided out). Hurricane Matthew put the County a year behind. He noted there is a file on each project and staff is keeping track so they can anticipate where the project will be.

Mr. Marc Feinberg asked about the reserve fund. Mr. Larson explained it is a combination of pay as you go and borrowing, for equipment and capital projects. There is also a \$1 million that is unspent that is shown as an expenditure (emergency fund).

6. Unfinished Business –

A. FY20 Budget – Mr. Larson briefly went over line items and callout boxes on the budget handout that was included in the packet. He pointed out that the revenue reflects the rate increase [preferred option from the 5 year plan proposal]. If the rate increase isn't approved, staff will need to go back and revise the budget. Contingencies that have been budgeted for are \$100k for non-professional services, \$15k for surveying, \$15k engineer services and \$5 wetland delineation; this will allow the department to move quickly if an emergency arises. The PPP plan is the last piece of the MS4 requirements.

The May River Plan and USCB Water Quality Lab Data mining cost shares were approved by the board and have been budgeted.

\$10,000 has been budgeted for data/asset management software. Mr. Larson commented we are behind on this. Equipment replacements are routine, \$75k wash facility will cover MCM6 Good Housekeeping (MS4 permit requirement), the County hasn't been able to get this project going yet, but has planned to get it started.

Mr. Feinberg asked Mr. Larson if he has received push back on line items. Mr. Larson explained if he gets any push back it will be with the five year plan.

Mr. Larson shared the five year plan presentation. The staff and assets that will see change in the next five years are highlighted in red. He shared current and new capital projects (regional ponds) and their associated costs, as well as additional capital improvement projects to consider and their estimated costs.

Mr. Larson presented the proposed budget, fee scenarios and the preferred option. The preferred option [recommended by staff] is a \$13 increase to \$100 starting next year and staying at

that rate for the next 5 years. The preferred option is to find other funding sources if the additional projects (Graves, Alljoy, sewer extension) are to be completed.

Discussion and comments took place about priorities, funding sources, and the stance or interpretation of the utility's purpose (i.e. water quality).

A motion was made to adopt a rate increase in FY20 to \$100 and remain level for five years. Discussion/Comments: As a homeowner would like to know it would remain level to be able to budget.

Mr. Larson noted that there are multiple options, to include ones not shared, such as no rate increase at all which would require staff to relook at budget and trim it. He mentioned different funding options, such as special purpose tax district, neighborhood development district, or could raise ad valorem taxes.

Mr. Larson commented they [the additional projects] are more of sea level rise, king tide, sanitary sewer, and development agreements issues. Are they the mission of the stormwater utility? Though they are stormwater related, if not stormwater department then who [is responsible]?

The motion was approved 4/0. The vote implies the Board recommends approval of the FY2020 budget.

Discussion about the approval of the five year plan. Mr. Larson explained he brought the four projects to the board, but is suggesting that County Council finds other funding sources for them. He noted he isn't disputing their value. Discussion took place about how the recommendation isn't binding as Council approves the budget 12 months at a time, but Mr. Larson is trying to project where the utility is going to be able to continue to work this plan. The question of where these projects came from came up; Mr. Larson responded from Council in different ways.

A motion was made to recommend the five year plan as presented without the four additional projects, which requires a revenue stream of \$100 per household at five years. The motion was approved 4/0.

7. Public Comment(s) –

Mr. Feinberg acknowledged a professor from USC (formerly an administrator with NOAA) that spoke to over 200 people on Hilton Head about water quality. They were talking about Charleston being a wonderful place and he told the people that they are lucky to live in Beaufort County. Mr. Feinberg commented he thought that is a testament to what we do.

8. Next Meeting Agenda – Approved.

9. Meeting Adjourned



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

April 10, 2019

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Lowcountry Regional Board (SoLoCo)
 - a) Nothing new to report. – SoLoCo was briefed on the Regional Stormwater Design Standard and Model Ordinance Project at their March meeting.
 - b) See Regionalization below.
2. Regionalization
 - a) Regional Stormwater Design Standard and Model Ordinance Project – Nothing new to report. Work continues.
 - b) Regionalization of programs – Nothing new to report.
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 – Received.
 - b) Town of Hilton Head Island – Received.
 - c) Town of Bluffton – Received.
 - d) Town of Port Royal – No response.
 - e) City of Beaufort – Received.
4. FY 2020 Management fee concurrence letters from the Municipalities – Per the Intergovernmental Agreements for the Utility, each year on April 1st, the City and Towns are required to submit a letter stating their approval of the SWU management fee of the upcoming fiscal year.
 - a) Beaufort County – No response.
 - b) Town of Hilton Head Island – No response.
 - c) Town of Bluffton – Verbally told pending signature.
 - d) Town of Port Royal – No response.
 - e) City of Beaufort – No response.
5. Special presentations – Staff has begun research on the various topics provided by the Board for future meetings:
 - a) Military Site's Stormwater management – A site visit to the Naval Hospital is still pending.
 - b) Living shorelines – Scheduled for today's meeting.

- c) Other ideas?
6. FY 2020 Budget – According to the timeline published by the Finance department, the budget will be reviewed by Council in April and early May with first reading of the budget ordinance on May 13th. Staff has not had any meetings with the Administration to go over the budget at this time.
 7. Military installation and other State and Federal properties SWU fees – See “Delinquent Accounts” below.
 8. Delinquent accounts - Staff met with the Assessor’s Office and Treasurer on March 29th to discuss ideas to increase collections. The Treasurer’s office uses numerous collection methods to try to receive payment. Since some classes of properties are tax exempt, collection by traditional methods such as tax sale are not viable. Debt set off (lien against state income tax return) only works on individuals and not other entities. The office is now using third party collection agencies; effectiveness is yet to be seen. We also discussed the practice of devaluation of property value to avoid a tax bill from being sent. The Assessor’s office also has guidelines they feel they must follow in certain cases. As a result, increasing property value to generate a bill is likely not a good solution either. We did discuss the numerous state and federal accounts still unpaid. County legal is preparing letters to be sent out in advance of any notice of intent to file a lawsuit in court. (State and Federal accounts make up approx. 97%-98% of the delinquent account value.) Legal department and Stormwater staff are meeting again on April 8th to review the military fee accounts.
 9. Board Appointments
 - a) Appointment for Stormwater District 5 is pending. Steve Andrews has been nominated by County Council.
 10. Assistant Stormwater Manager – An offer has been accepted by a candidate. Mr. Dan Rybak will begin employment on April 15, 2019.
 11. Engineering Division Re-Organization – The Interim County Administrator is recommending to the County Council to consolidate all engineering related departments into one division. Stormwater is part of the Environmental Engineering & Land Management Division, one of the three engineering divisions. A new position, the Assistant County Administrator – Engineering, to proposed to be created. The Stormwater Utility Manager will report to the ACA-E. Candidates are being interviewed at this time. There are no internal candidates being considered for the position.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
 - i. No update was available at the time of the report.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC has not met in the last month.

Stormwater Related Projects

1. Easements – Staff is working on numerous easement requests and meets monthly to review status. Several condemnations are still being pursued using outside legal counsel.
 - a) Oak Marsh Subdivision – Work continues by staff to research the severity of the encroachments within the easement and preparing a report for the legal department to consider when making a recommendation to the County Council.
2. Complaints – Staff continually works numerous drainage related complaints each month.
3. Alljoy subwatershed flooding – Release of the RFQ is still pending, subject the action on the budget. Funding of the study is still pending a SWU fee rate adjustment for FY 20. Staff is submitting the study for FEMA grant funding, but decisions on the application will probably be 12 months away.
4. 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) – No additional update at this time.
5. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – No additional update at this time.
6. Graves Property / Pepper Hall Public / private partnership – No additional update at this time.
7. Whitehall property purchase – No additional update at this time.
8. US 278 “super street” widening on Jenkins Island (Windmill Harbor area) – SCDOT approval of the “scaled back” stormwater design are still pending.

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) Salt Creek and Shanklin Road - No update at this time.
 - b) Brewer Memorial – No update at this time.
2. Evergreen Regional Pond 319 grant project – (Design=\$89,286, Construction=\$590,000).

Grant=\$229,124) – No update at this time

Regional Coordination

1. Town of Bluffton and Beaufort County Joint meetings on Sanitary Sewer in the May River watershed – No additional update at this time.
2. Mossy Oaks Task Force – (Design \$20,404, Construction \$205,000; County portions only). See Municipal Reports.
3. Charleston Area MS4 managers group – This group did not meet this month.
4. Bluffton Ditch Task Force – This group did not meet this month.

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 March.
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. [See attached 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. Weather Station Data. [See attached chart.](#)

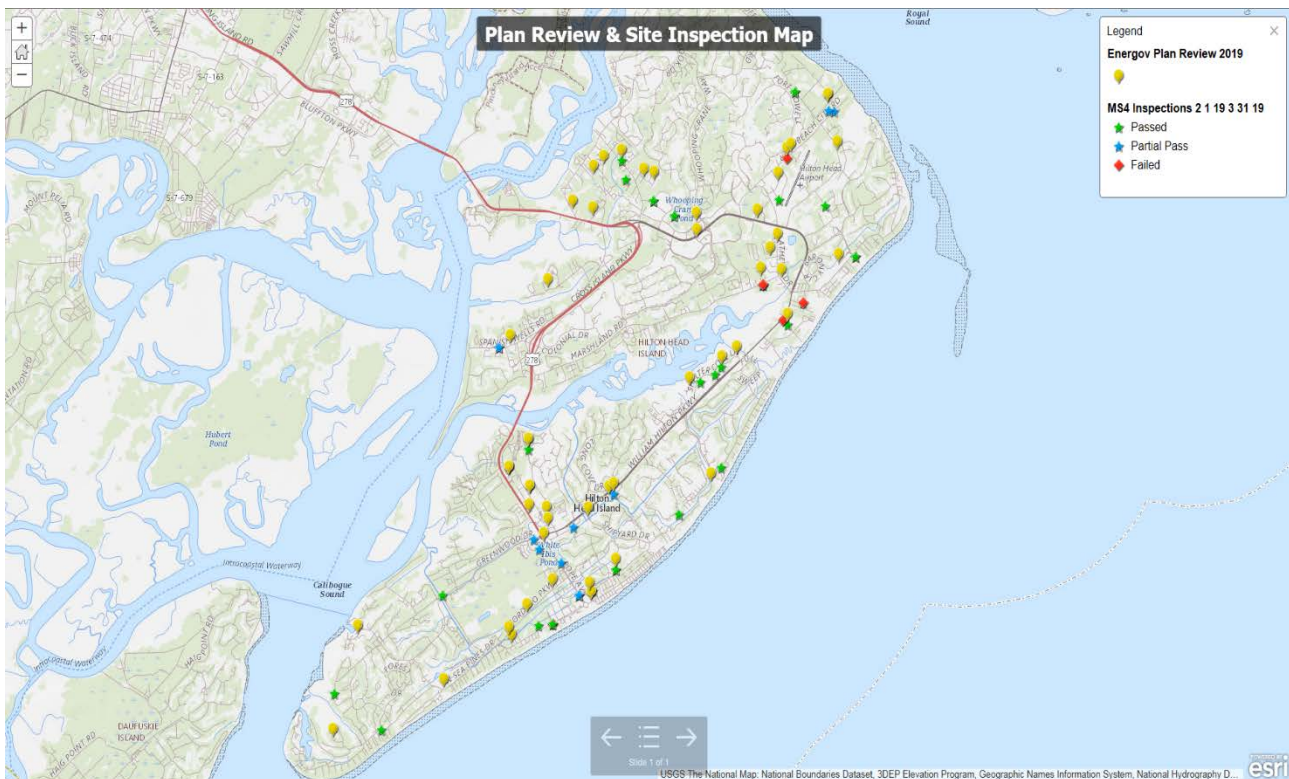
5. Public Education – Lowcountry Stormwater Partners (LSP), via Carolina Clear, continues to work on several initiatives towards public education and outreach. A Joint stakeholder meeting with Together for Beaufort’s Water Quality Committee met March 19th. MS4 staff, LSP staff, and other provided updates on their programs and upcoming events. No additional updates are available at this time.
6. MS4 Statewide General permit – No update at this time.
7. Statewide General permit for Construction – No update at this time.

Stormwater Utility Board Meeting Hilton Head Island Monthly Report for February/March 2019

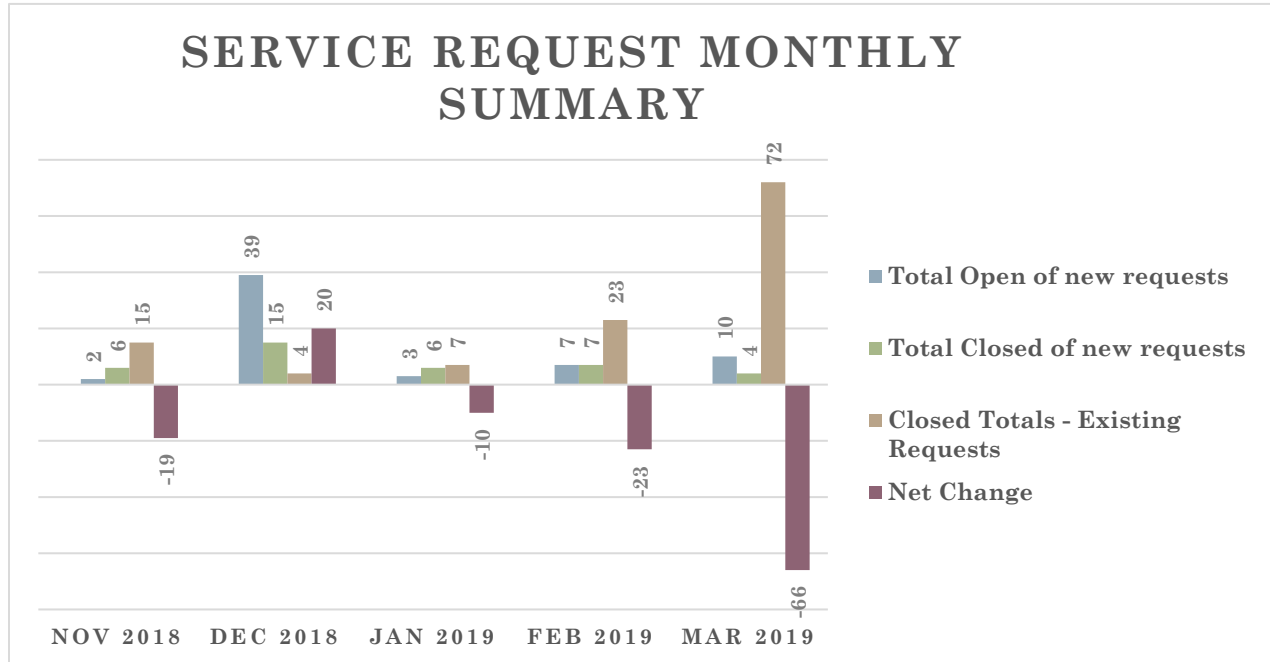
Reporting Period: February 1, 2018 to March 31, 2019

1. MS4 Update (EBER)

MCM1 Public Education & Outreach	<ul style="list-style-type: none"> Completed updates to stormwater page on Town's website pending review.
MCM2 Public Involvement & Participation	<ul style="list-style-type: none"> HH Home & Garden Show 3/29-3/31 Outreach. Prep underway for meeting w/Sea Pines and HH Prep on outreach activity (classroom lecture / inlet marking)
MCM3 Illicit Discharge Detection & Elimination	<p>2 Complaints received via Code Enforcement 5 Investigated 2 Eliminated or resolved</p>
MCM4 Construction Site SW Runoff Control	<p>7 Plan reviews w/ corrections required 36 Plan reviews approved 0 New LD Permits issued 17 Active permitted construction sites 35 Inspections completed 3 NOV issued</p>
MCM5 Post-Construction SW Management	<ul style="list-style-type: none"> No PCBMP permitted construction completed as of March, 2019. Testing procedures for tracking and inspecting using Cartegraph when system is implemented
MCM6 Pollution Prevention/Good Housekeeping	<ul style="list-style-type: none"> CD PP/GH presentation completed



2. Service Requests (COOK)



New Requests by Month	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
Open, Qualifying	0	35	1	6	8
Closed, Qualifying	3	6	1	3	0
Open, Referral	2	2	1	1	1
Closed, Referral	0	0	1	0	0
Open, Enforcement	0	2	1	0	1
Closed, Enforcement	0	0	0	0	0
Closed, Does Not Qualify (DNQ)	3	9	4	4	4
Total Open of New Requests	2	39	3	7	10
Total Closed of New Requests	6	15	6	7	4
Total New Monthly Requests	8	54	9	14	14
% Closed	75%	28%	67%	50%	29%
% Open	25%	72%	33%	50%	71%
% DNQ	38%	17%	44%	29%	29%
Existing Requests Closed by Month					
Qualifies	14	4	1	21	50
Enforcement	0	0	0	0	0
Referral	1	0	6	1	0
DNQ	0	0	0	1	22
Closed Totals - Existing Requests	15	4	7	23	72
Monthly Net Change	-19	20	-10	-23	-66

Summary Requests for Month End March 2019

Open	Open, Qualifying	Open, Enforcement	Open, Referral	Closed
190	157	6	27	917

3. Capital Improvements Update (NETZINGER)

A. Jarvis Creek SW Pump Station - Electrical System Upgrades

Planning for major improvements including raising elevation of emergency power cutoff switch boxes, upgrades to electrical distribution, generator capacity, transfer switches, control systems, transducers, floats, and safety improvements. Project planning is underway. Implementation of Phase I planned for spring of 2019.

B. Sea Pines SW Pump Station - Pump Mount Repairs

Reengineering pump wall-mount system. Project is in conceptual design phase. No change in status this month.

C. Wexford SW Pump Station – Channel Levee Raising

Mitigation project to raise and reinforce upstream channel levee to repair damage caused by Hurricane's Matthew and Irma. Topographic survey completed in February. Design underway; work scheduled to begin in April 2019.

D. Wren Pond - Emergency Spillway

Installation of an emergency spillway to protect pond embankment during extreme rainfall and tide surge events. Project has been put on hold pending discussion with CSA regarding sufficiency of need.

E. Main Street Weir - Safety & Operational Improvements

Installation of deck grating and handrails to improve safety and installation of hardware to improve weir operations. Design complete; Job Order for installation executed; scheduled for completion in May 2019.

4. **Maintenance, Repair & Rehabilitation Projects (UYESUGI / LADD)**

A. Completed in February and March (\$8,500)

- Jarvis Creek Pump Station – Transfer Switch #1 Inspection - \$500
- 37 Deerfield Road – Survey - \$3,000
- Wexford Pump Station – Berm Survey - \$1,500
- 4 Man O War – Sinkhole Repair - \$3,500

B. Underway as of March 31 (\$273,500)

- Jarvis Creek Pump Station – Electrical System Analysis - \$16,500
- Jarvis Creek Pump Station – Outfall Flap Gate Repairs – \$7,200
- Jarvis Creek Pump Station – Pump Repairs - \$70,000
- Jarvis Creek Channel Excavation - \$96,800
- Ruddy Turnstone – CCTV and Pipe Repair - \$80,000
- 9 Kings Court – Sinkhole Repair - \$3,000

C. Planned for Spring 2019 (\$2,500,000)

- Jarvis Creek Pump Station – Electrical System Upgrades - \$1.9M
- Main Street Weir – Structural Modifications - \$68,000
- Channel Excavation at Sunningdale Lane, Indigo Run - \$8,000
- Channel Maintenance, workshelf/vegetation – Old Woodlands, Folly Field, Sparkleberry, Gardner, Arrow, Bay Pines, Haig Point - \$36,000
- Wexford Pump Station – Berm Construction - \$75,000
- Channel Excavation./Structure Repair – Folly Field/Fiddlers Cove - \$12,000
- 25 Wren Drive Pond - Gate Replacement - \$25,000
- 12 Canvas Back Road – pipe installation - \$20,000
- 271 Seabrook Drive – CCTV - \$8,000
- 82 Myrtle Bank Road – CCTV & clean - \$10,000
- 12 Valencia Road- Joint Repair - \$30,000
- 37 Deerfield Road – drainage system improvements - \$22,000
- 1 Jingle Shell Lane – CCTV & Clean - \$5,000
- 9 Bobcat Lane – CCTV & Clean - \$5,000
- 20 Ocean Lane – CCTV & Clean/ CIPP - \$15,000
- Long Cove Club – 2 locations – CCTV & Clean - \$5,000
- Ruddy Turnstone – CCTV and Pipe Repair - \$80,000
- Old Fort Drive – Outfall Stabilization - \$150,000
- 14 South Beach Lane – Pipe replacement - \$7,000
- 4 Sara Court – Sinkhole - \$5,000
- Wexford RV Park/ Powerline Channel – Pipe/Ditch Cleaning - \$8,000
- S. Sea Pines Drive at 1 South Beach Lane – Sinkhole Repair - \$6,000

5. **Master Planning & Modeling Program (COOK)**

A. **Palmetto Hall/Mitchelville Inventory & Modeling Project**

Contract with Woolpert executed in December 2018. Public meeting held on January 28 2019. Field inventory work completed in February. Preliminary inventory and calibrated base model scheduled for completion by the end of April 2019.

B. **Gum Tree and Lower Jarvis Creek Inventory & Modeling Project**

FY19 budgeted project planned for advertisement in Q4 (May, 2019)

C. **Indigo Run/Gardner/Jonesville Inventory & Modeling Project**

FY19 budgeted project planned for advertisement in Q4 (May, 2019)

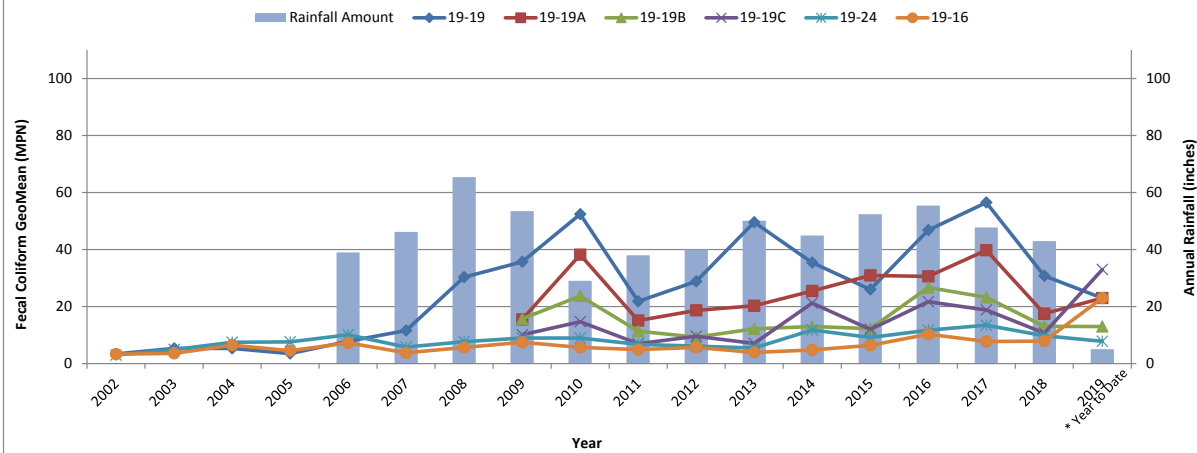
6. **Other Activities / Items of Interest (NETZINGER)**

- **Standardization of PUD Maintenance Agreements** – Coordination process with current agreement partners is on hold. Revisions to boilerplate version underway; the revised version will be utilized as the template for offering services to several smaller POAs.
- **Stormwater Inspector Position** – Advertised in January; four applicants interviewed. Cary Schumacher accepted the Town's offer and started work with the SWU on March 27.

	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
	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	79.0	1600.0	79.0		23.0	920.0	49.0		49.0	540.0	33.0		33.0	240.0	46.0		7.8	220.0	23.0		23.0	49.0	21.0	
November	33.0	49.0	49.0		13.0	33.0	13.0		7.8	7.8	23.0		14.0	31.0	17.0		13.0	2.0	17.0		33.0	2.0	7.8	
October	NS	22.0	79.0		NS	49.0	23.0		NS	33.0	7.8		NS	23.0	7.8		NS	6.8	7.8		NS	2.0	2.0	
September	23.0	17.0	49.0		110.0	7.8	23.0		23.0	11.0	13.0		13.0	4.5	17.0		4.5	2.0	17.0		7.8	1.8	17.0	
August	NS	79.0	70.0		NS	70.0	23.0		NS	21.0	13.0		NS	33.0	4.5		NS	33.0	7.8		NS	33.0	17.0	
July	79.0	350.0	23.0		17.0	110.0	33.0		22.0	130.0	11.0		17.0	49.0	7.8		49.0	49.0	13.0		13.0	22.0	4.5	
June	79.0	23.0	11.0		130.0	49.0	23.0		70.0	13.0	23.0		110.0	17.0	7.8		33.0	7.8	4.5		23.0	4.5	1.8	
May	70.0	17.0	17.0		23.0	23.0	33.0		49.0	7.8	17.0		49.0	2.0	13.0		14.0	23.0	23.0		17.0	4.5	13.0	
April	23.0	7.8	33.0		23.0	23.0	13.0		13.0	4.5	17.0		13.0	7.8	17.0		7.8	13.0	49.0		1.8	4.5	17.0	
March	33.0	350.0	22.0		33.0	11.0	21.0		33.0	33.0	4.5		17.0	13.0	11.0		11.0	13.0	7.8		7.8	33.0	9.3	
February	23.0	13.0	17.0	64.0	17.0	7.8	7.8	33.0	13.0	13.0	17.0	23.0	11.0	9.3	17.0	31.0	6.8	4.5	2.0	6.8	1.8	1.8	7.8	13.0
January	110.0	95.0	13.0	23.0	33.0	79.0	2.0	23.0	49.0	31.0	4.5	13.0	17.0	49.0	2.0	33.0	7.8	27.0	1.8	7.8	17.0	33.0	4.5	23.0
Additional Samples																								
Average Annual GeoMean	46.8	56.5	30.8	38.4	30.6	39.8	17.5	27.5	26.7	23.3	13.1	17.3	21.7	18.8	10.7	32.0	11.7	13.5	9.8	7.3	10.3	7.7	7.9	17.3
** Truncated GeoMetric Mean	37.0	44.0	42.0	41.0	30.0	36.0	29.0	26.0	16.0	20.0	20.0	17.0	16.0	16.0	15.0	15.0	9.0	10.0	10.0	11.0	6.0	7.0	8.0	8.0
** Truncated 90th Percentile	105.0	203.0	176.0	197.0	89.0	133.0	115.0	110.0	69.0	83.0	71.0	65.0	65.0	57.0	56.0	57.0	29.0	37.0	44.0	47.0	21.0	29.0	30.0	32.0

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

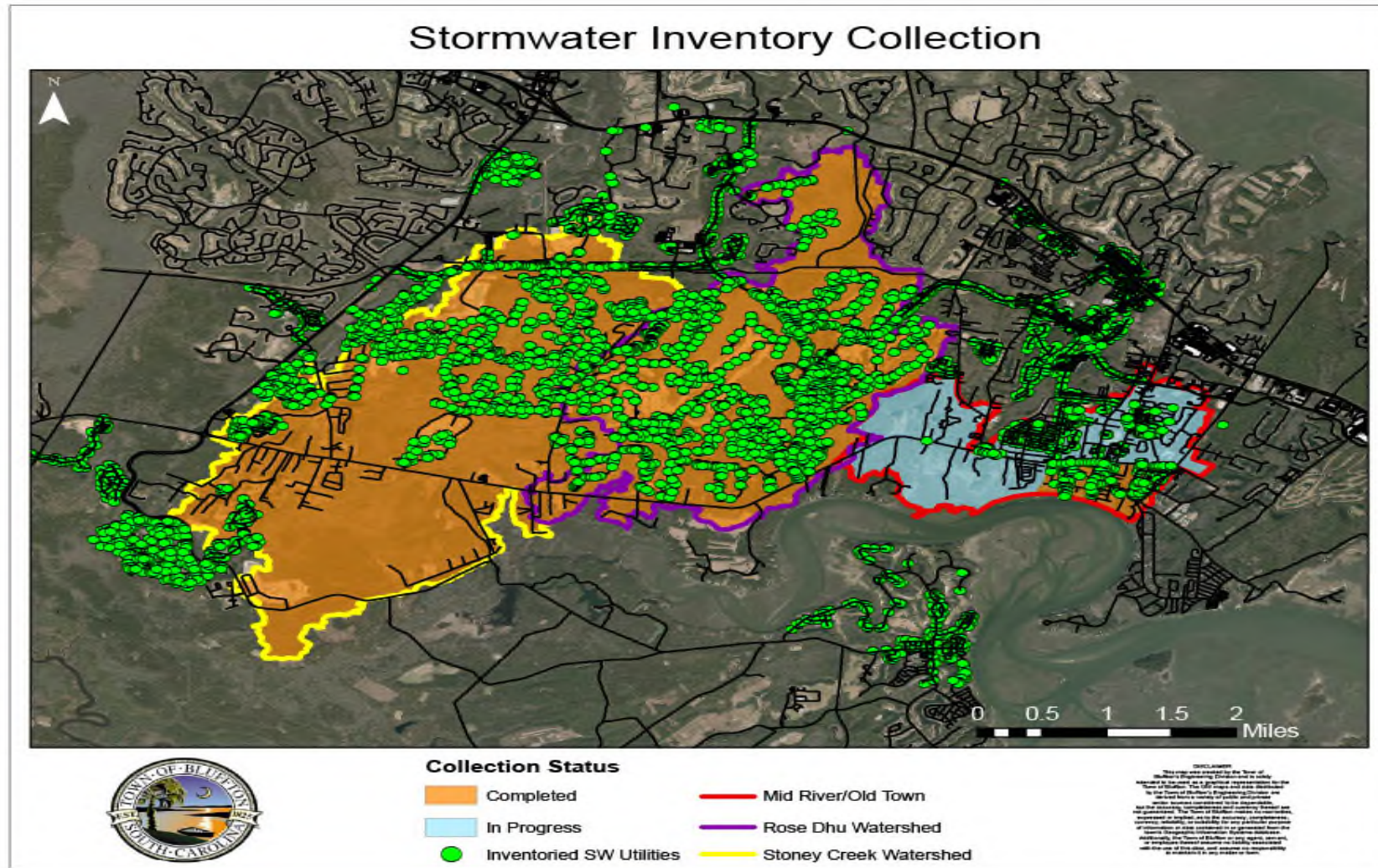
SC DHEC Shellfish Monitoring Stations Average Annual Fecal Coliform



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. 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 mid-FY20. Based on initial quotes, staff has released a separate Request for Proposals, due 4/1/19, to complete MRWAP Water Quality Model, current project assessment, and proposed new projects.
Sewer Connection & Extension Policy	Completed 2018. 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 and Jason/Able are 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. Project on hold following Council direction on 5/31/17.
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. Based on initial quotes, staff has released a separate Request for Proposals, due 4/1/19, to complete MRWAP Water Quality Model, current project assessment, and proposed new projects.

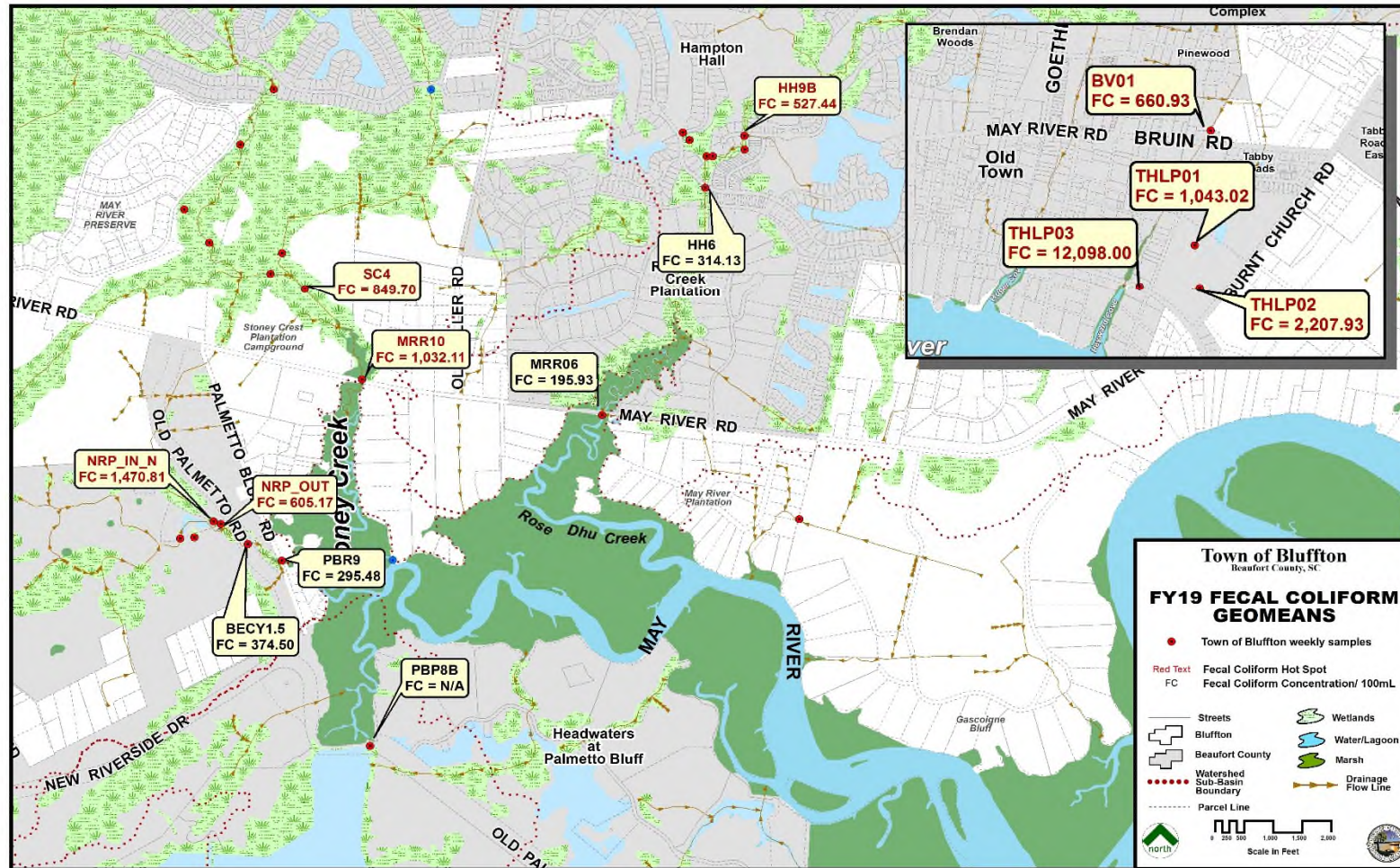
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Exploring partnership opportunities with BJWSA for future sewer phases. WAPAC FY19-20 priority to assess Stormwater Utility Fee. SWU Fee Rate Model Update has been completed by Raftelis with the recommendation to convert to Option E with increase of SWU fee. WAPAC to review Options and make a recommendation for Town Council's consideration. Staff submitted 319 grant pre-proposal on 3/13/19 in support of sewer connections.
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 9.
Sewer Connection Program	<i>Completed 2018.</i> 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. Staff submitted 319 grant pre-proposal on 3/13/19 in support of sewer connections.

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



Stormwater Infrastructure Inventory Collection Status	
FY 2019 YTD Collection Totals	2,400
FY 2018 Collection Totals	3,777
FY 2017 Collection Totals	3,874

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

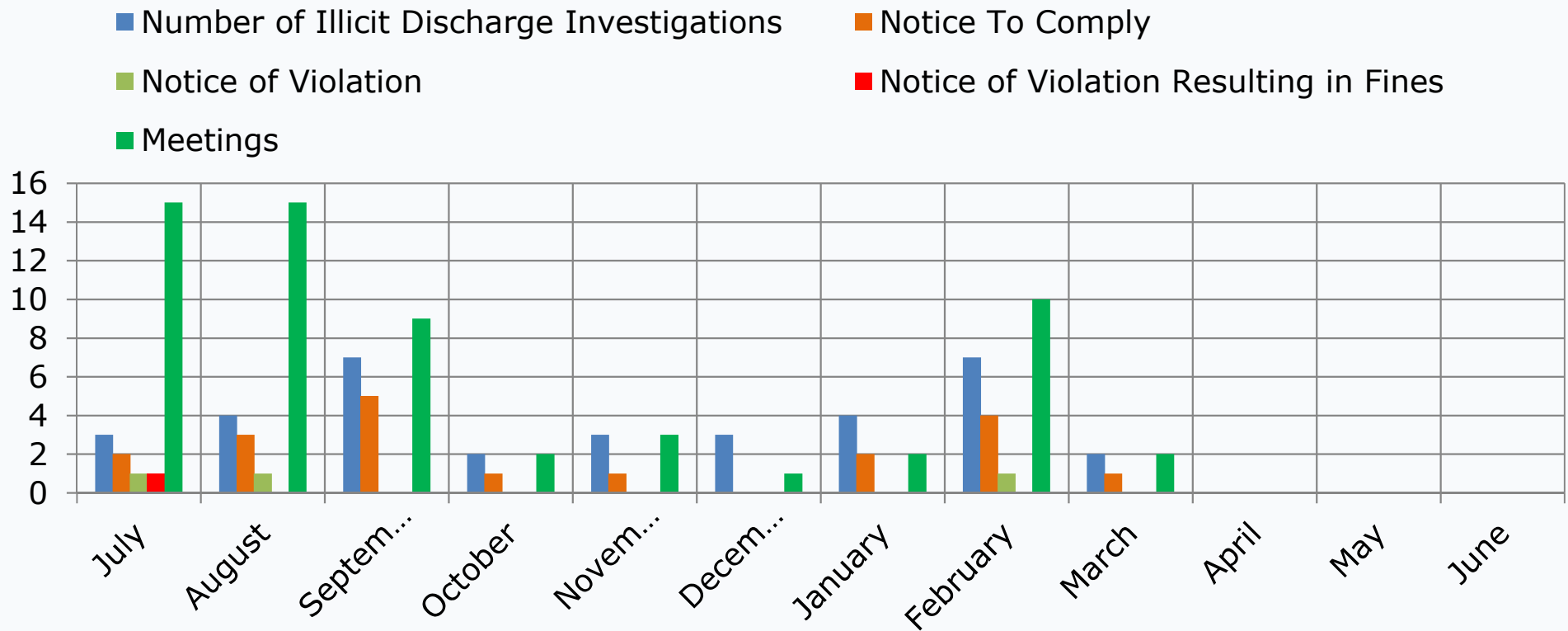


	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2019 YTD Totals	178	123	152
FY 2018 Totals	216	217	224
FY 2017 Totals	307	179	224
FY 2016 Totals	668	11	-

3/19/2019

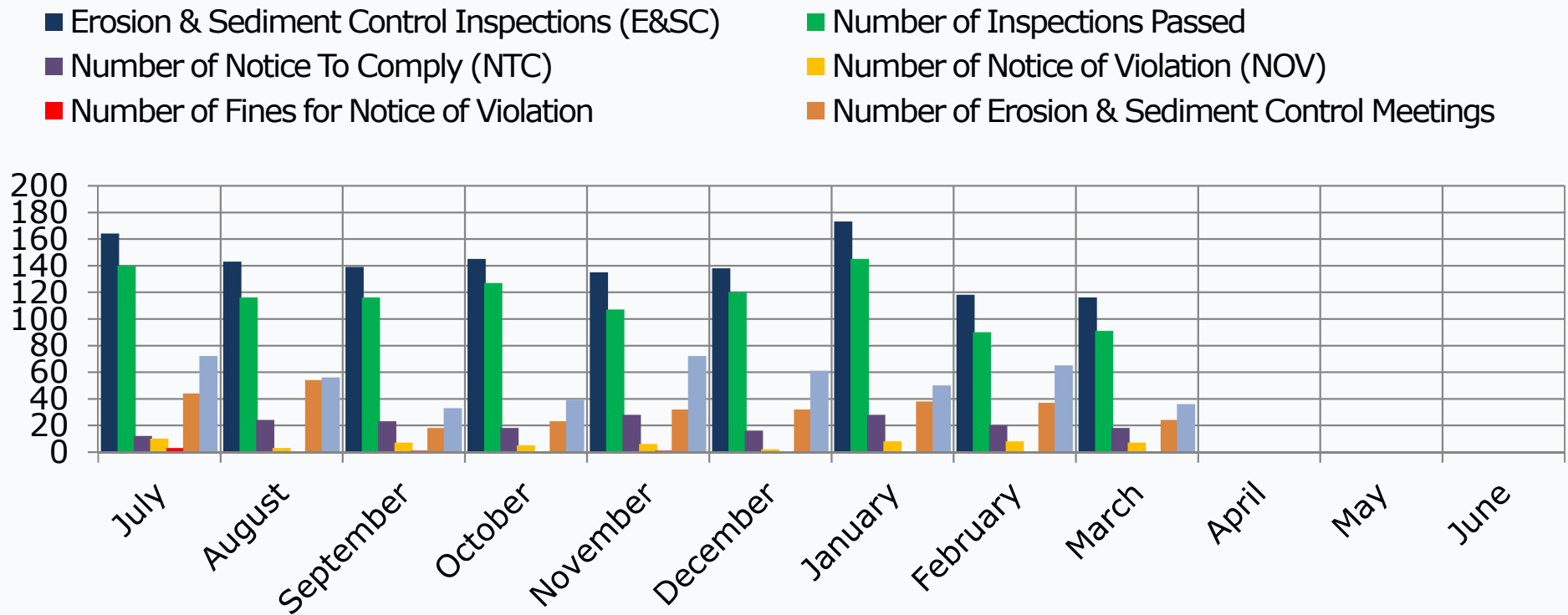
- MST program began November 2016; MS4 Quarterly Sampling initiated 2/2017
- Totals include only samples submitted for laboratory analysis, and not *in situ* parameters.

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



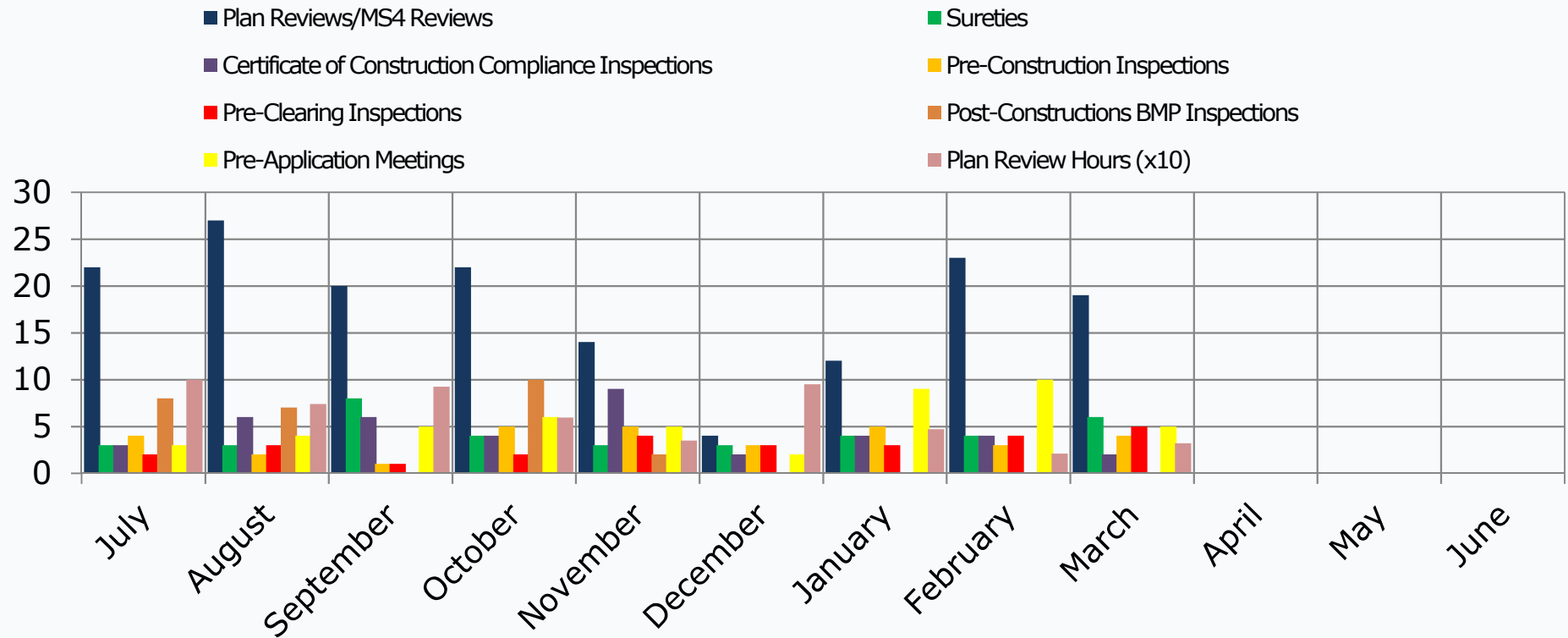
	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2019 YTD Totals	35	19	3	1	59
FY 2018 Totals	48	20	4	2	60
FY 2017 Totals	50	19	8	13	67

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



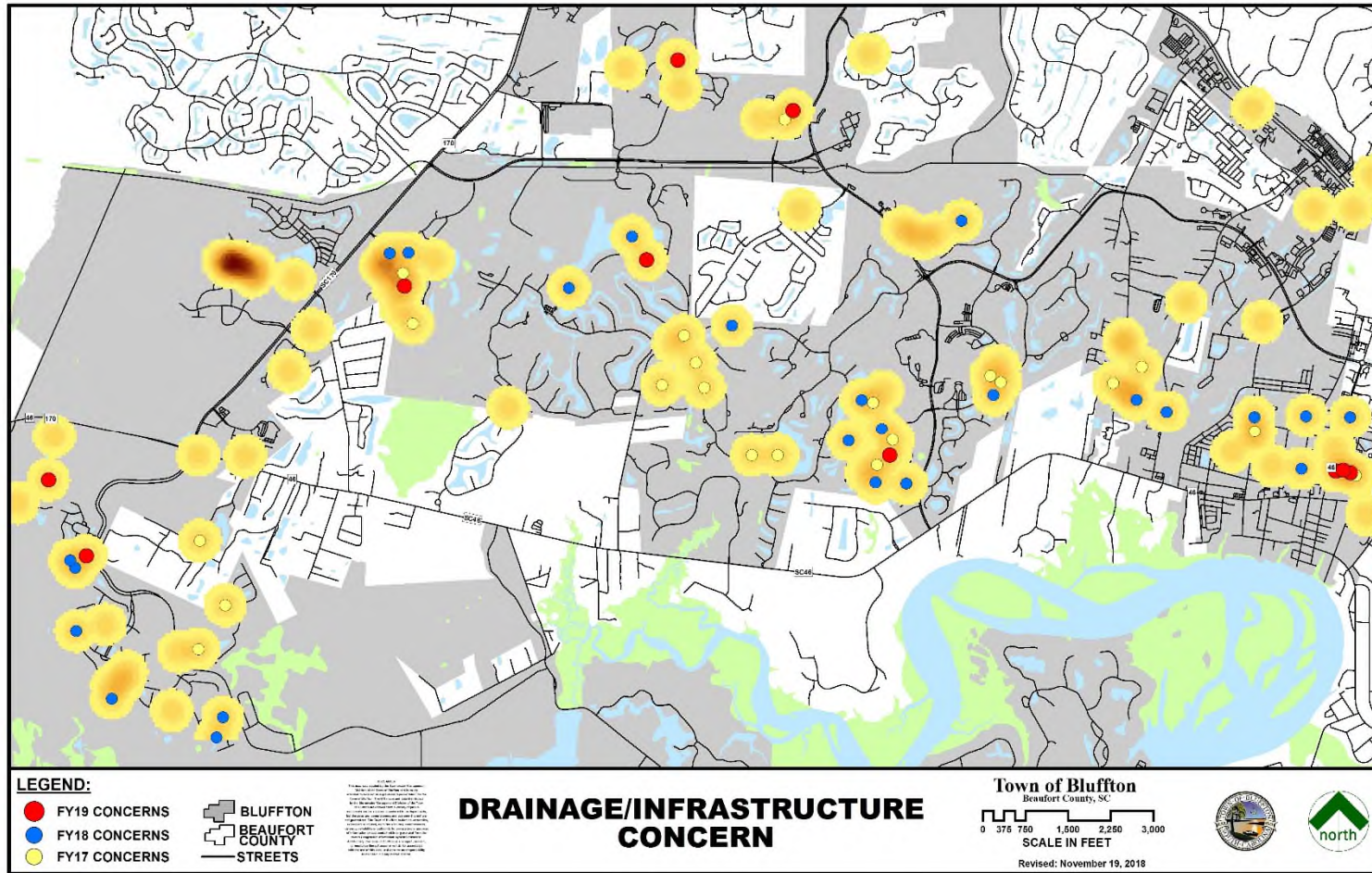
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2019 YTD Totals	1271	1052	187	56	5	302
FY 2018 Totals	1504	1159	300	83	10	499
FY 2017 Totals	1,219	862	233	58	10	237

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



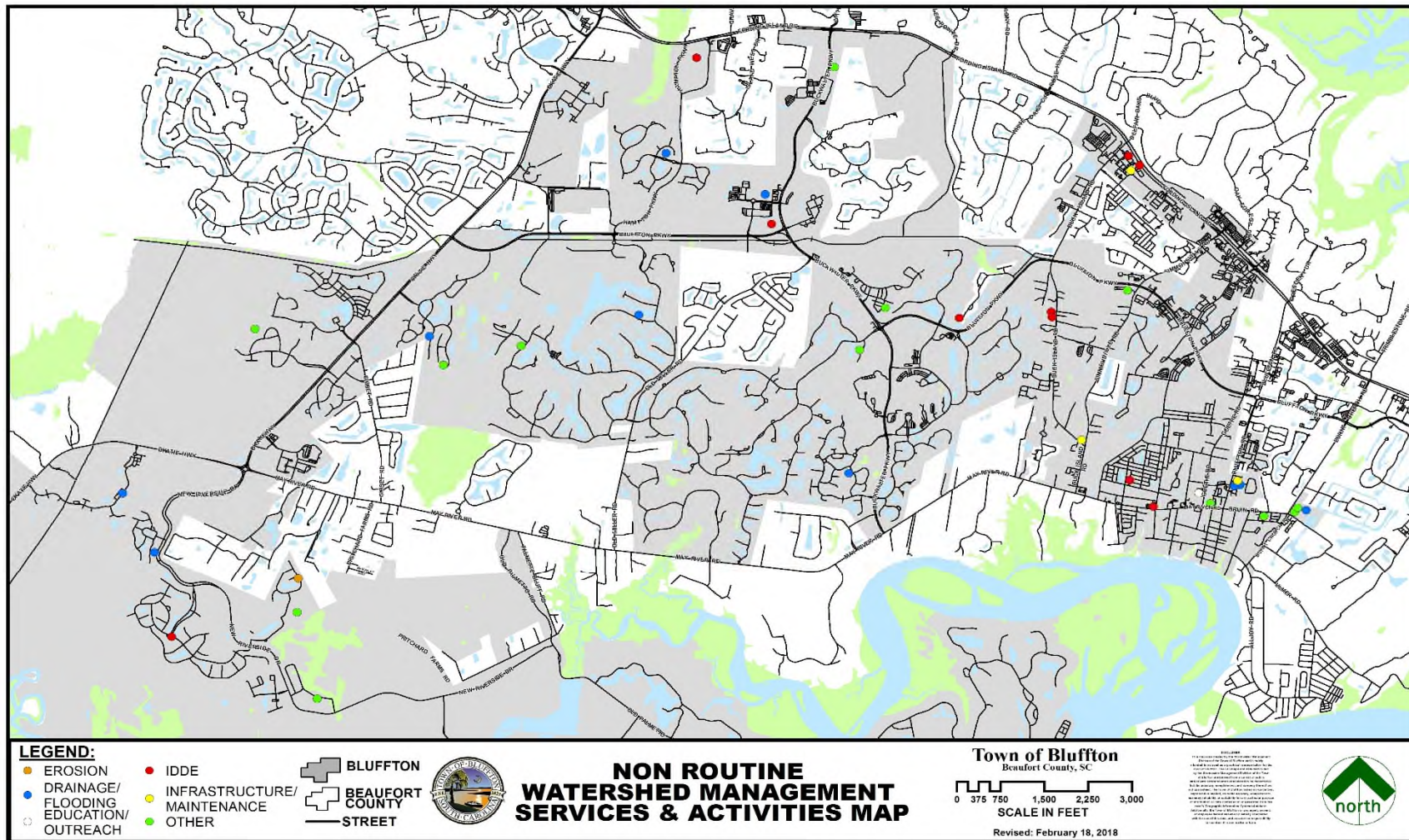
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2019 YTD Totals	163	38	40	32	27	27	49	555 Hrs.
FY 2018 Totals	242	59	50	32	32	88	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)



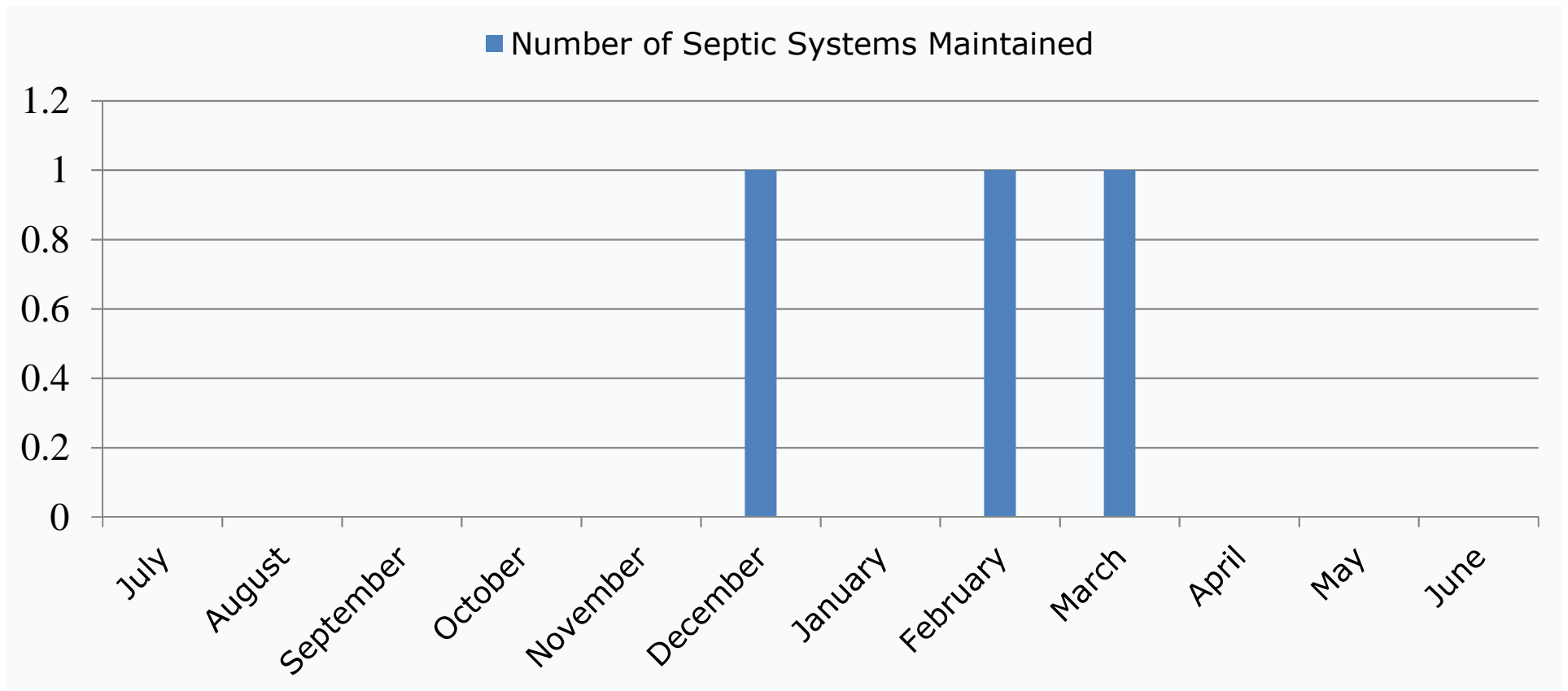
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2019 YTD Totals	41	32
FY 2018 Totals	48	75
FY 2017 Totals	72	80

Citizen Request for Watershed Mngt. Services & Activities Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2019 YTD Totals	43	42
FY 2018 Totals	75	79
FY 2017 Totals	53	82

Septic System Maintenance Assistance



	Number of Septic Systems Maintained
FY 2019 YTD Totals	3
FY 2018 Totals	16
FY 2017 Totals	18



CITY OF BEAUFORT

TO: Eric Larson, P.E.

FROM: Neil Desai, P.E.

DATE: April 2, 2019

SUBJECT: Stormwater Utility Board Report

The following is the City of Beaufort Public Works Department monthly report from March 1 to March 31, 2019

1) CAPITAL IMPROVEMENTS UPDATE

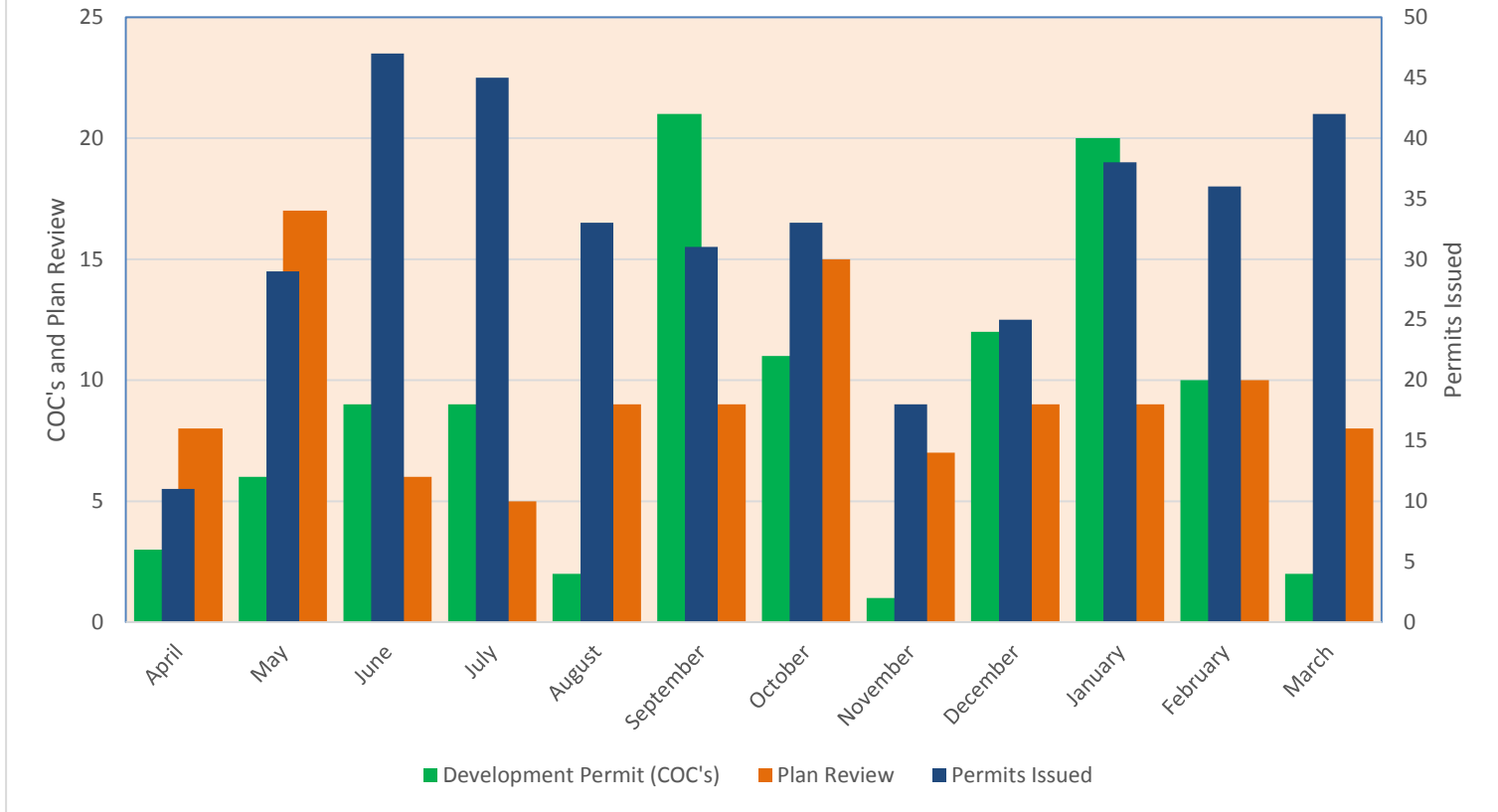
- a) Mossy Oaks Drainage Project – City has received preliminary approval from Army Corps. Proceeding to apply for State M&R permits where applicable.
- b) Azalea Project – Project is complete.

- c) Greenlawn Streetscape – Water Quality component with manufactured device at outfall. Utility companies working out final design of utility banks.

2) **MAINTANCE & REPAIR UPDATE**

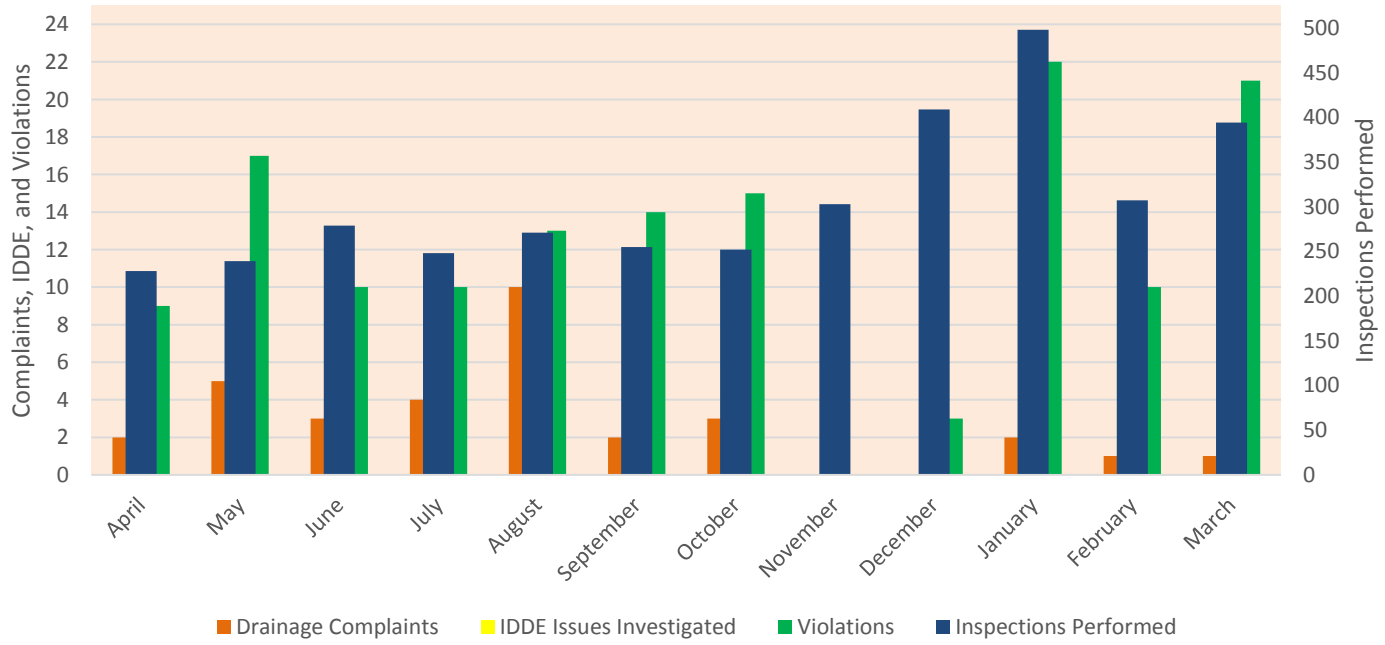
- a) Routine maintenance of drainage easement City wide.
- b) Preliminary scheduled vac truck for April/May in the Battery Shores subdivision.

MS4 Minimum Control Measure #5 Stormwater Plan Review



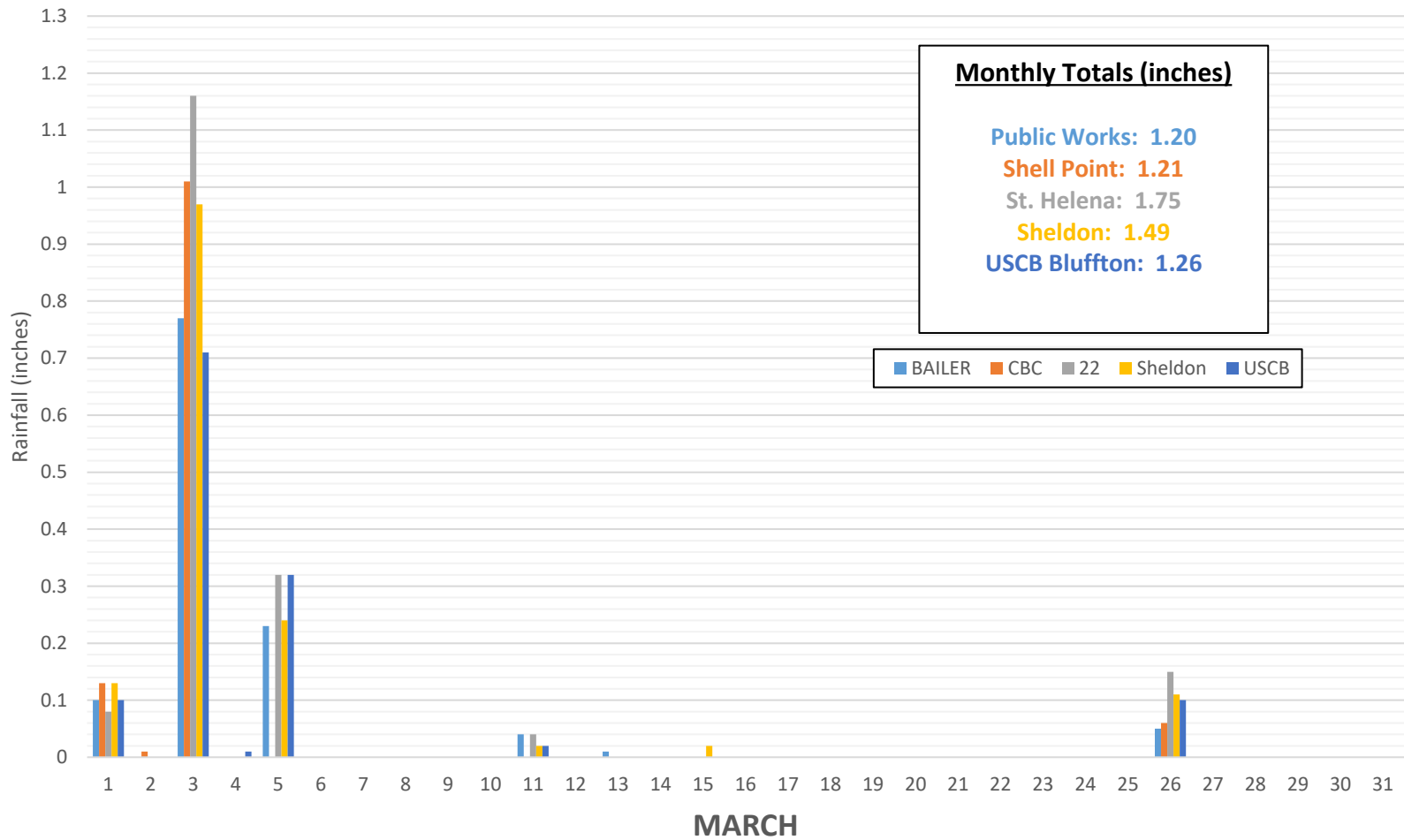
TYPE	April	May	June	July	August	September	October	November	December	January	February	March	Last 12 Months
Development Permit (COC's)	3	6	9	9	2	21	11	1	12	20	10	2	62
Plan Review	8	17	6	5	9	9	15	7	9	9	10	8	112
Permits Issued	11	29	47	45	33	31	33	18	25	38	36	42	247

MS4 Minimum Control Measure #4 Erosion Sediment Control Inspections



TYPE	April	May	June	July	August	September	October	November	December	January	February	March	Last 12 Months
Inspections Performed	228	239	279	248	271	255	252	303	409	498	307	394	3683
Drainage Complaints	2	5	3	4	10	2	3	0	0	2	1	1	29
IDDE Issues Investigated	0	1	0	1	2	1	2	0	1	0	1	0	9
Violations	9	17	10	10	13	14	15	0	3	22	10	21	88

Beaufort County Weather Stations Daily Rainfall Amounts - March 2019





MEMORANDUM

Date: April 10, 2019

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

This report will cover three major projects and eleven minor projects. The Project Summary Reports are attached.

Major Project:

- **Delaney Circle Channel – Port Royal Island (SWUD 6):** This project improved 1,700 feet of drainage system. The scope of work included grubbing and clearing 1,300 feet of workshelf, constructing and cleaning out 730 feet of channel, installing 2 access pipes, 400 feet of channel pipe and rip rap for erosion control. The total cost was **\$71,972.03**.
- **Little Capers Road – Lady’s Island (SWUD 7):** This project improved 3,320 feet of drainage system. The scope of work included grubbing and clearing 2,280 of workshelf, cleaning out 930 feet of channel, jetting 1 crossline pipe, 20 feet of roadside pipe, installing 2 bleeder pipes, 1 access gate and rip rap for erosion control. The total cost was **\$26,065.96**.
- **Calico Court – Port Royal Island (SWUD 9):** This project improved 1,774 feet of drainage system. The scope of work included cleaning out 1,774 feet of roadside ditch, jetting 2 crossline pipes, 19 driveway pipes and hydroseeding for erosion control. The total cost was **\$16,111.08**.

Minor or Routine Projects:

- **Jasmine Hall Road/Duncan Farms Channel - Sheldon (SWUD 5):** This project improved 12,592 feet of drainage system. The scope of work included bush hogging 3,167 feet of lateral ditch and 6,028 feet of channel, cleaning out 3,397 feet of channel and installing 1 access pipe. The total cost was **\$10,680.27**.
- **Pinewood Circle – Port Royal Island (SWUD 6):** The scope of work included installing 1 crossline pipe and rip rap for erosion control. The total cost was **\$9,014.06**.
- **Mink Point Boulevard Channel 1 – Port Royal Island (SWUD 9):** This project improved 2,008 of drainage system. The scope of work included grubbing and clearing 314 feet of workshelf, bush hogging 2,008 feet of channel, cleaning out 1,270 feet of channel. The total cost was **\$8,478.01**.

- **Confederate Avenue – Bluffton (SWUD 4):** This project improved 1,499 feet of drainage system. The scope of work included cleaning out 1,499 feet of roadside ditch, jetting 8 driveway pipes and handseeding for erosion control. The total cost was **\$6,425.14**.
- **Thomas Lawton Drive – Bluffton (SWUD 4):** This project improved 450 feet of drainage system. The scope of work included cleaning out 354 feet of roadside ditch, jetting 1 crossline pipe, 6 driveway pipes and 96 feet of roadside pipe. The total cost was **\$6,367.73**.
- **Powell Drive and Lonesome Court – Port Royal Island (SWUD 6):** This project improved 2,384 feet of drainage system. The scope of work included cleaning out 2,384 feet of roadside ditch. The total cost was **\$5,153.91**.
- **Scott Hill Road Channel 2 – St Helena Island (SWUD 8):** This project improved 2,757 feet of drainage system. The scope of work included bush hogging 1,047 feet of channel and 790 feet of roadside ditch. The total cost was **\$4,224.08**.
- **Bluffton Vacuum Truck – Bluffton (SWUD 4):** This project improved 352 feet of drainage system. The scope of work included cleaning out 1 manhole, jetting 9 driveway pipes, 250 feet of channel and 102 feet of trough. The total cost was **\$3,357.84**.
- **Lady’s Island Valley Drains – Lady’s Island (SWUD 7):** This project improved 7,766 feet of drainage system. The scope of work included cleaning out 7,766 feet of valley drains. The total cost was **\$2,796.44**.
- **Bluffton Washout Repair – Bluffton (SWUD 4):** The scope of work included repairing a washout. The total cost was **\$2,534.48**.
- **Tanglewood Drive – Port Royal Island (SWUD 6):** This project improved 155 feet of drainage system. The scope of work included cleaning out 155 feet of channel. The total cost was **\$2,192.64**.



Beaufort County Public Works
Stormwater Infrastructure
 Project Summary

Project Summary: Delaney Circle Channel

Activity: Drainage Improvement

Duration: 07/31/17-11/08/17

Narrative Description of Project:

Project improved 1,700 L.F. of drainage system. Grubbed and cleared 1,300 L.F. of workshelf. Constructed and cleaned out 730 L.F. of channel. Installed (2) access pipes, 400 L.F. of channel pipe and rip rap for erosion control.

2018-001 / Delaney Circle Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	35.0	\$749.00	\$280.15	\$707.77	\$0.00	\$297.00	\$2,033.92
AUDIT / Audit Project	2.5	\$54.48	\$0.00	\$0.00	\$0.00	\$0.00	\$54.48
BKFILL / Back Fill	30.0	\$668.30	\$353.12	\$46.83	\$0.00	\$429.30	\$1,497.55
CCON / Channel - constructed	245.0	\$5,410.09	\$1,796.35	\$629.53	\$0.00	\$3,464.91	\$11,300.88
CPI / Channel Pipe - Installation	332.0	\$7,535.96	\$2,364.53	\$9,470.35	\$0.00	\$4,311.60	\$23,682.44
HAUL / Hauling	271.0	\$5,990.70	\$2,425.65	\$4,982.01	\$0.00	\$2,691.04	\$16,089.39
PL / Project Layout	10.0	\$240.90	\$18.00	\$15.60	\$0.00	\$138.25	\$412.75
PP / Project Preparation	15.0	\$334.15	\$18.00	\$18.24	\$0.00	\$214.65	\$585.04
RRI / Rip Rap - Installed	40.0	\$932.20	\$386.15	\$70.20	\$0.00	\$543.20	\$1,931.75
SG / Shoot Grade	32.0	\$693.78	\$28.80	\$26.47	\$0.00	\$352.57	\$1,101.62
STAGING / Staging Materials/Equipment	26.0	\$572.43	\$70.64	\$55.74	\$0.00	\$270.55	\$969.36
WSDR / Workshelf - Dressed	39.0	\$868.79	\$412.86	\$140.49	\$0.00	\$558.09	\$1,980.23
WSGRB / Workshelf - Grubbed	148.0	\$3,347.76	\$3,589.09	\$686.14	\$0.00	\$1,475.76	\$9,098.75
WSL / Workshelf - Level	30.0	\$676.70	\$102.83	\$50.45	\$0.00	\$403.90	\$1,233.88
2018-001 / Delaney Circle Channel Sub Total	1,255.50	\$28,075.23	\$11,846.17	\$16,899.81	\$0.00	\$15,150.82	\$71,972.03
Grand Total	1,255.50	\$28,075.23	\$11,846.17	\$16,899.81	\$0.00	\$15,150.82	\$71,972.03

Before

During

After



Project: Delaney Circle Channel Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-001

Township/SW Dist: Port Royal Island/6

Completed: November 2017



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



1 inch = 210 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 03/11/19
 File: C:\project summaries map\Delaney Circle Map #1_2018-001

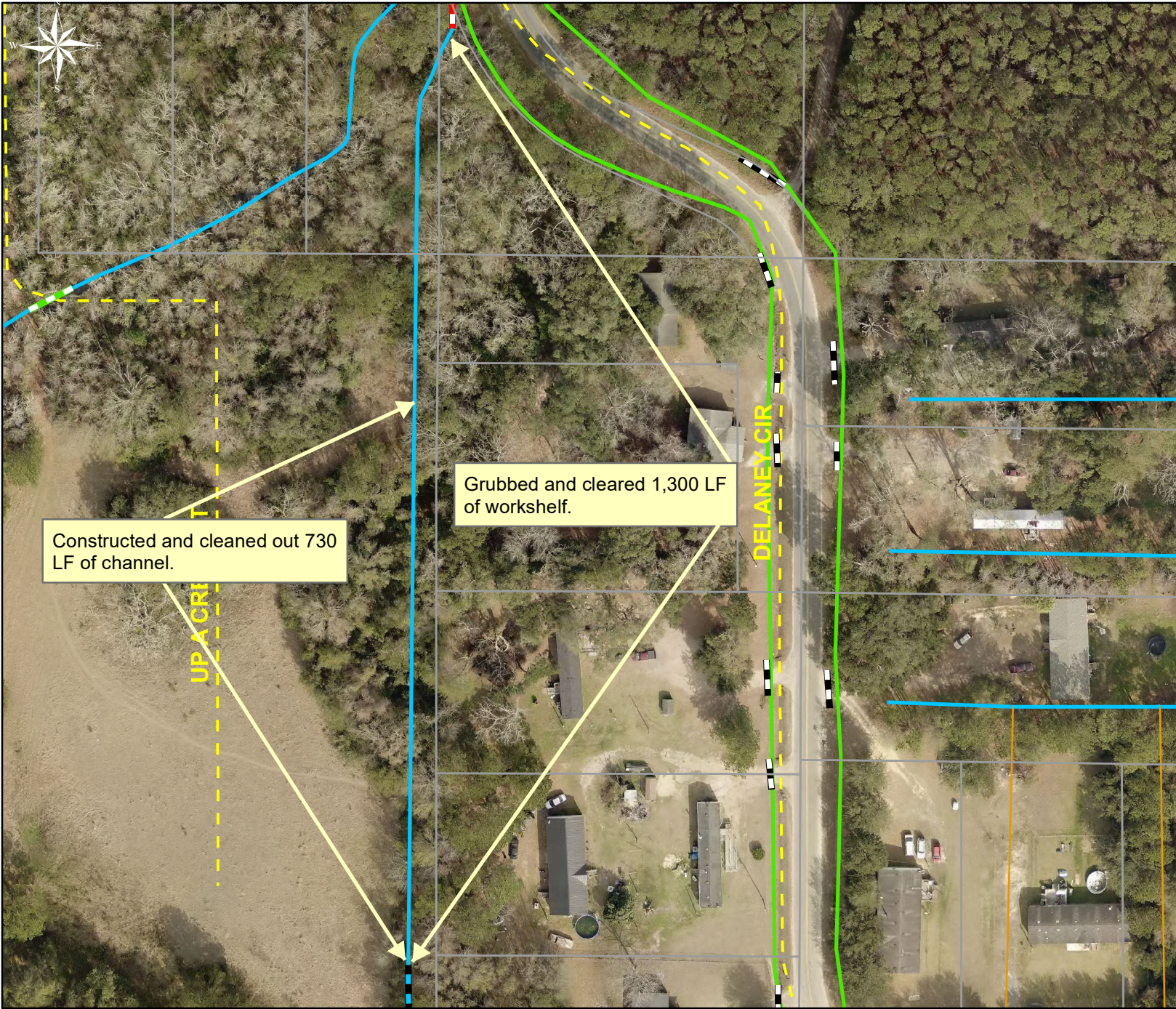
Project: Delaney Circle Channel Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2018-001

Township/SW Dist: Port Royal Island/6

Completed: November 2017



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



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 03/11/19
 File: C:\project summaries map\Delaney Circle Map #2_2018-001



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Little Capers Road Channel

Activity: Drainage Improvement

Duration: 08/22/17-12/06/17

Narrative Description of Project:

Project improved 3,320 L.F. of drainage system. Grubbed and cleared 2,280 L.F. of workshelf. Cleaned out 930 L.F. of channel. Jetted (1) crossline pipe and 20 L.F. of roadside pipe. Installed (2) bleeder pipes, (1) access gate and rip rap for erosion control.

2018-522 / Little Capers Road Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Cost	Total Cost
AGI / Access Gate - Installed	15.0	\$303.90	\$18.00	\$161.64	\$0.00	\$188.25	\$671.79
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
BKFILL / Back Fill	15.0	\$303.90	\$58.60	\$11.20	\$0.00	\$188.25	\$561.95
BPINST / Bleeder pipe - Installed	45.0	\$944.00	\$192.46	\$423.92	\$0.00	\$503.70	\$2,064.08
CCO / Channel - cleaned out	40.0	\$843.90	\$207.78	\$40.19	\$0.00	\$388.80	\$1,480.67
CLPJT / Crossline Pipe - Jetted	4.0	\$89.12	\$17.36	\$18.42	\$0.00	\$57.36	\$182.26
DEBREM / Debris Removal - Jobsite	40.0	\$843.90	\$259.95	\$33.60	\$0.00	\$388.80	\$1,526.25
DEBRIS / Debris Removal	40.0	\$843.90	\$185.49	\$40.03	\$0.00	\$388.80	\$1,458.22
HAUL / Hauling	107.0	\$2,342.97	\$1,037.58	\$1,641.00	\$0.00	\$1,122.09	\$6,143.63
LM / Loading Materials	20.0	\$400.52	\$57.43	\$11.20	\$0.00	\$199.44	\$668.59
ONJV / Onsite Job Visit	2.0	\$49.40	\$8.04	\$9.75	\$0.00	\$26.46	\$93.65
SG / Shoot Grade	30.0	\$627.50	\$36.00	\$8.11	\$0.00	\$134.40	\$806.01
STAGING / Staging Materials/Equipment	28.0	\$593.32	\$122.86	\$8.96	\$0.00	\$357.63	\$1,082.77
WSGRB / Workshelf - Grubbed	170.0	\$3,729.00	\$2,494.81	\$1,096.19	\$0.00	\$1,973.40	\$9,293.40
2018-522 / Little Capers Road Channel Sub Total	557.5	\$11,948.02	\$4,696.36	\$3,504.21	\$0.00	\$5,917.38	\$26,065.96
Grand Total	557.5	\$11,948.02	\$4,696.36	\$3,504.21	\$0.00	\$5,917.38	\$26,065.96

(No Pictures Available)



Project: Little Capers Road Channel Map #1

Activity: Drainage Improvement














Project #: 2018-522

Township/SW Dist: Lady's Island/7

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 25 50 100 150 200 Feet

1 inch = 100 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/28/19

File: C:\project summaries map\Little Capers Road channel Map #1_2018-522



Project: Little Capers Road Channel Map #2

Activity: Drainage Improvement














Project #: 2018-522

Township/SW Dist: Lady's Island/7

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 30 60 120 180 240 Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/28/19

File: C:\project summaries map\Little Capers Road channel Map #2_2018-522



Project: Little Capers Road Channel Map #3

Activity: Drainage Improvement














Project #: 2018-522

Township/SW Dist: Lady's Island/7

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 10 20 40 60 80 Feet

1 inch = 50 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/28/19

File: C:\project summaries map\Little Capers Road channel Map #3_2018-522



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Calico Court

Activity: Routine/Preventive Maintenance

Duration: 10/08/18-10/29/18

Narrative Description of Project:

Project improved 1,774 L.F. of drainage system. Cleaned out 1,774 L.F. of roadside ditch. Jetted (2) crossline pipes and (19) driveway pipes. Hydroseeded for erosion control.

2019-524 / Calico Court

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CLPJT / Crossline Pipe - Jetted	10.0	\$222.80	\$191.60	\$52.70	\$0.00	\$143.40	\$610.50
DPJT / Driveway Pipe - Jetted	36.0	\$802.08	\$689.76	\$163.02	\$0.00	\$516.24	\$2,171.10
HAUL / Hauling	65.5	\$1,434.69	\$927.48	\$344.04	\$0.00	\$223.51	\$2,929.72
HYDR / Hydroseeding	20.0	\$533.05	\$31.64	\$1,005.16	\$0.00	\$265.65	\$1,835.50
RSDCL / Roadside Ditch - Cleanout	171.0	\$4,958.82	\$968.09	\$270.11	\$0.00	\$2,315.59	\$8,512.61
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2019-524 / Calico Court Sub Total	304.5	\$7,996.47	\$2,808.57	\$1,835.04	\$0.00	\$3,471.00	\$16,111.08
Grand Total	304.5	\$7,996.47	\$2,808.57	\$1,835.04	\$0.00	\$3,471.00	\$16,111.08

Before



During



After





Project: Calico Court

Activity: Routine/ Preventive Maintenance

Project #: 2019-524

Township/SW Dist: Port Royal Island/9

Completed: October 2018

Legend

Drainage Type

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



1 inch = 170 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Jasmine Hall Road and Duncan Farms Channel

Activity: Routine/Preventive Maintenance

Duration: 04/11/18-05/17/18

Narrative Description of Project:

Project improved 12,592 L.F. of drainage system. Bush hogged 3,167 L.F. of lateral ditch and 6,028 L.F. of channel. Cleaned out 3,397 L.F. of channel. Installed (1) access pipe.

2018-598 / Jasmine Hall Road & Duncan Farms Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CBH / Channel- bushhogged	50.0	\$1,065.44	\$706.60	\$158.86	\$0.00	\$676.80	\$2,607.70
CCO / Channel - cleaned out	142.0	\$2,944.87	\$793.53	\$410.48	\$0.00	\$1,359.17	\$5,508.05
HAUL / Hauling	55.0	\$1,210.25	\$499.26	\$317.62	\$0.00	\$504.70	\$2,531.83
2018-598 / Jasmine Hall Road & Duncan Farms Sub Total	248.5	\$5,253.25	\$1,999.39	\$886.96	\$0.00	\$2,540.67	\$10,680.27
Grand Total	248.5	\$5,253.25	\$1,999.39	\$886.96	\$0.00	\$2,540.67	\$10,680.27

Before

(Picture Not Available)

During



After



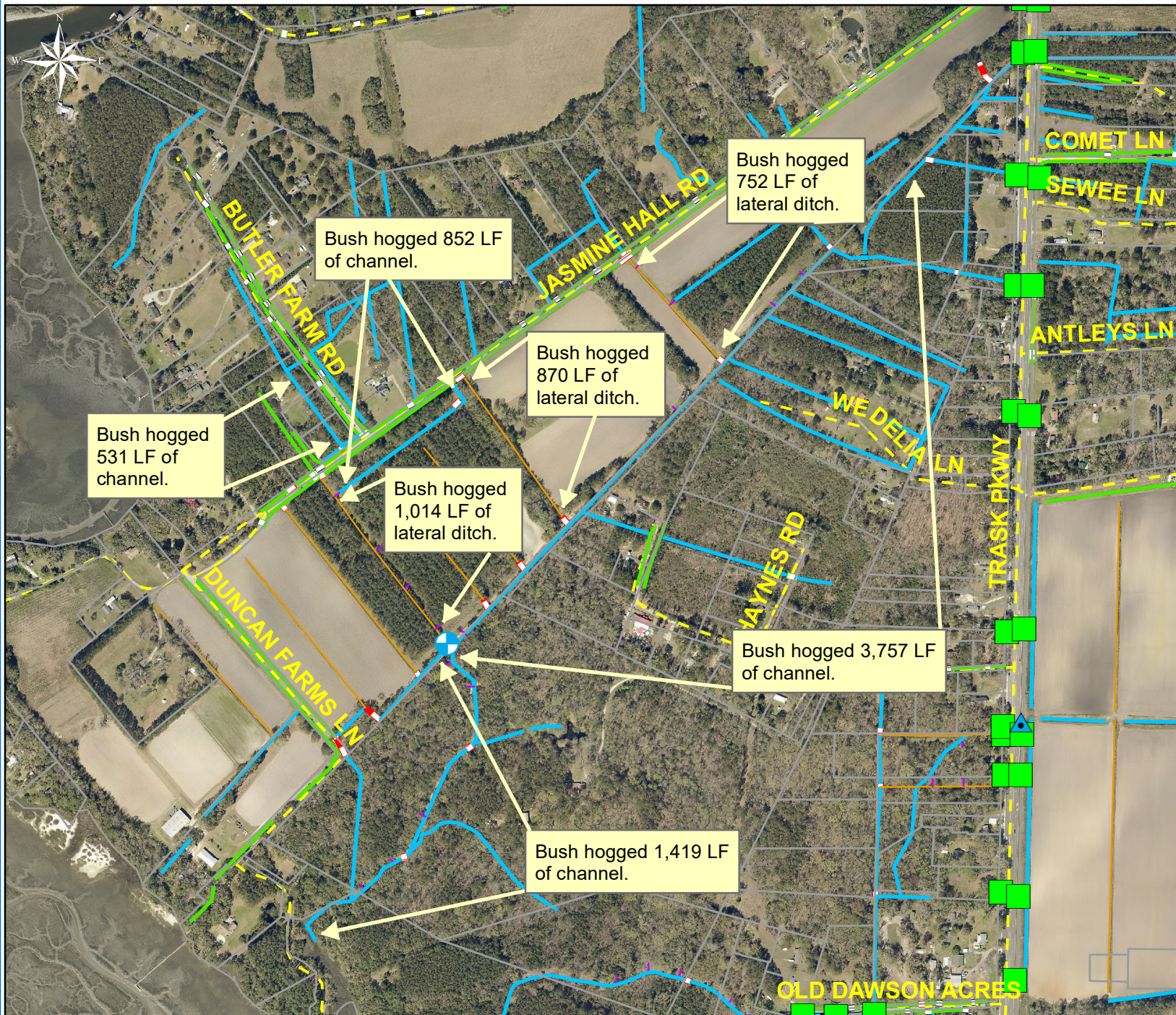
Project: Duncan Farms Lane Channel Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-598

Township/SW Dist: Sheldon/5

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

0 160320 640 960 1,280 Feet

1 inch = 670 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/07/19

File: C:\project summaries map\Duncan Farms Channel_2018-598

Project: Duncan Farms Lane Channel Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2018-598

Township/SW Dist: Sheldon/5

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



1 inch = 250 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Pinewood Circle

Activity: Routine/Preventive Maintenance

Duration: 08/09/18-11/11/18

Narrative Description of Project:

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

2018-625 / Pinewood Circle

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
ASI / Asphalt Installation	40.0	\$863.20	\$148.45	\$59.94	\$0.00	\$429.30	\$1,500.89
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CLPI / Crossline Pipe - Installation	50.0	\$1,073.80	\$116.80	\$796.75	\$0.00	\$561.60	\$2,548.95
HAUL / Hauling	35.0	\$750.73	\$495.60	\$2,854.98	\$0.00	\$245.14	\$4,346.45
RRI / Rip Rap - Installed	15.0	\$322.14	\$43.52	\$23.91	\$0.00	\$168.48	\$558.05
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2018-625 / Pinewood Circle Sub Total	142.0	\$3,056.36	\$804.37	\$3,735.58	\$0.00	\$1,417.75	\$9,014.06
Grand Total	142.0	\$3,056.36	\$804.37	\$3,735.58	\$0.00	\$1,417.75	\$9,014.06

Before



During



After





Project: Pinewood Circle

Activity: Routine/ Preventive Maintenance














Project #: 2018-625

Township/SW Dist: Port Royal Island/6

Completed: November 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

Prepared By: BC Stormwater Management Utility

Date Print: 02/20/19

File: C:\project summaries map\Pinewood Circle 2018-625



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Mink Point Boulevard Channel #1

Activity: Routine/Preventive Maintenance

Duration: 07/16/18-08/16/18

Narrative Description of Project:

Project improved 2,008 L.F. of drainage system. Grubbed and cleared 314 L.F. of workshelf. Bush hogged 2,008 L.F. of channel. Cleaned out 1,270 L.F. of channel.

2019-500 / Mink Point Boulevard Channel #1	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	20.0	\$421.35	\$212.54	\$43.08	\$0.00	\$266.30	\$943.27
CCO / Channel - cleaned out	60.0	\$1,832.20	\$349.27	\$72.63	\$0.00	\$821.80	\$3,075.90
HAUL / Hauling	62.0	\$1,348.55	\$909.52	\$587.62	\$0.00	\$374.12	\$3,219.81
WGRSB / Workshelf- Grubbed	30.0	\$649.00	\$124.29	\$55.15	\$0.00	\$388.80	\$1,217.24
2019-500 / Mink Point Boulevard Channel #1 Sub Total	173.0	\$4,272.89	\$1,595.62	\$758.48	\$0.00	\$1,851.02	\$8,478.01
Grand Total	173.0	\$4,272.89	\$1,595.62	\$758.48	\$0.00	\$1,851.02	\$8,478.01

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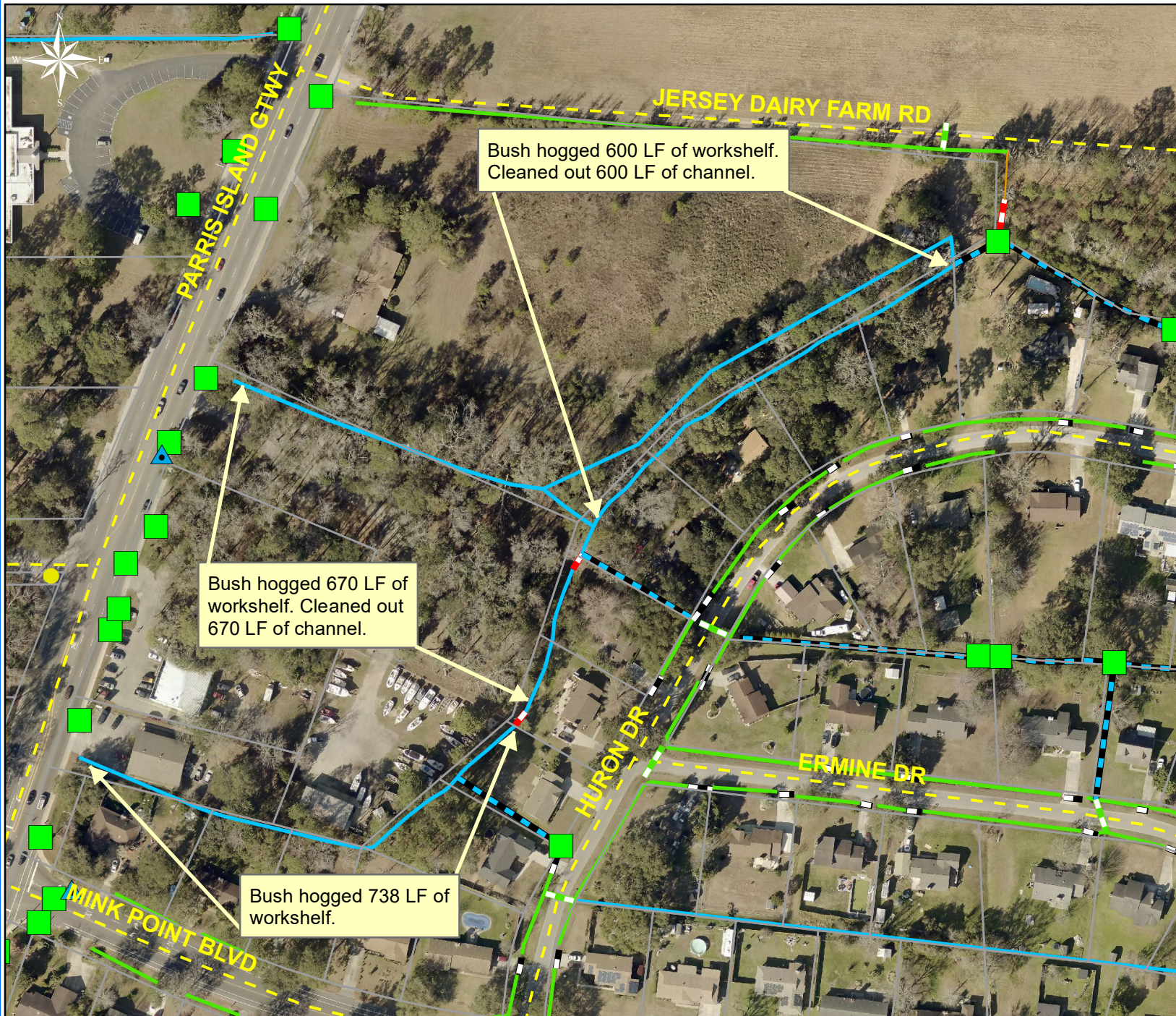
Project: Mink Point Boulevard Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-500














Township/SW Dist: Port Royal Island/9

Completed August 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 = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/24/19

File: C:\project summaries map\Mink Point Boulevard Channel #1_2019-500

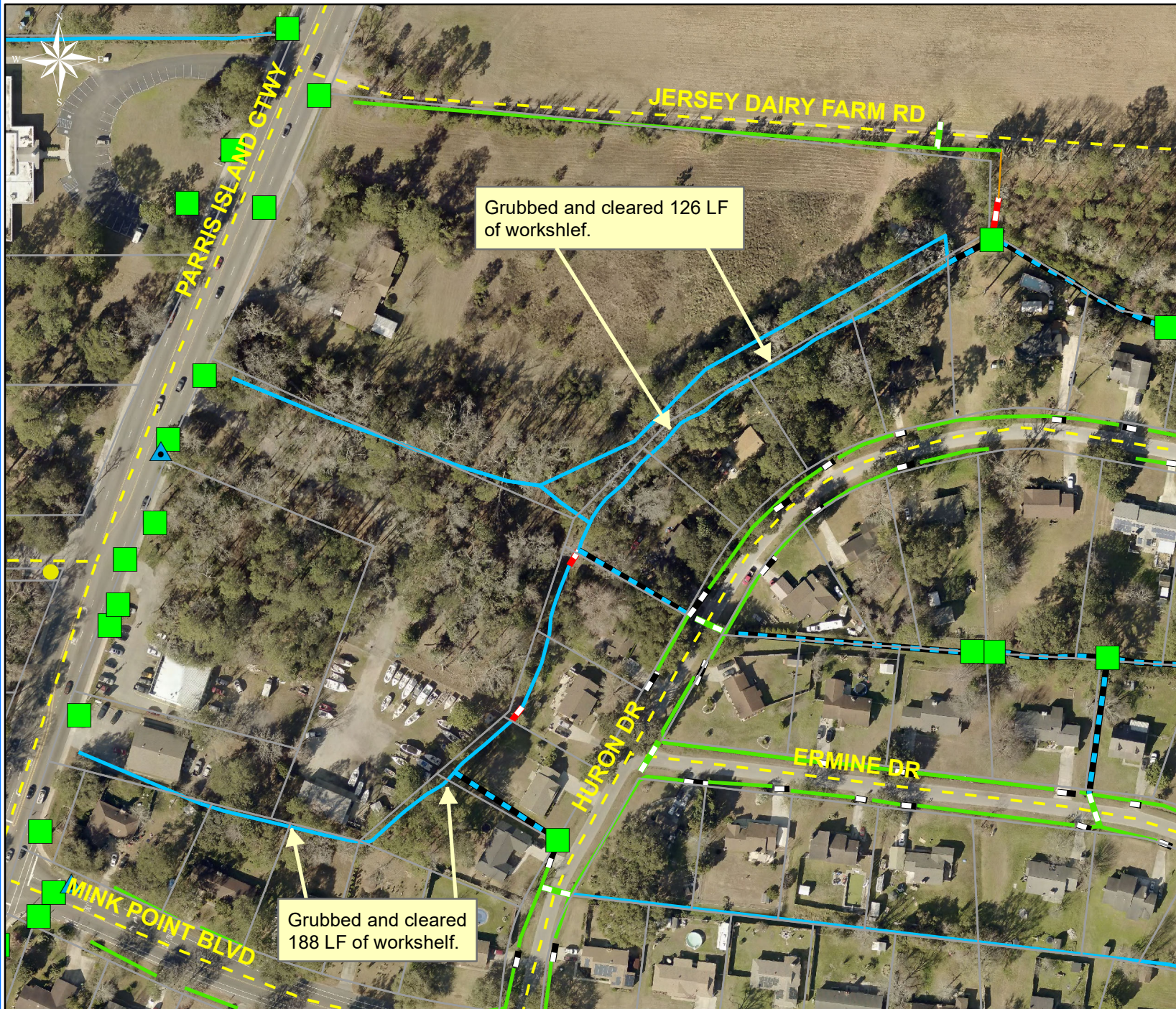
Project: Mink Point Boulevard Channel #2

Activity: Routine/ Preventive Maintenance

Project #: 2019-500

Township/SW Dist: Port Royal Island/9

Completed August 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 = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print:01/24/19

File:C:\project summaries map\Mink Point Boulevard Channel #2_2019-500



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Confederate Avenue

Activity: Routine/Preventive Maintenance

Duration: 09/17/18-11/21/18

Narrative Description of Project:

Project improved 1,499 L.F. of drainage system. Cleaned out 1,499 L.F. of roadside ditch. Jetted (8) driveway pipes. Handseeded for erosion control.

2019-521 / Confederate Avenue	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	10.0	\$222.80	\$191.60	\$45.20	\$0.00	\$143.40	\$603.00
HAUL / Hauling	32.0	\$700.64	\$453.12	\$119.60	\$0.00	\$100.94	\$1,374.30
HAND/ HANDSEEDED	12.0	\$369.36	\$15.36	\$74.28	\$0.00	\$111.44	\$570.44
RSDCL / Roadside Ditch - Cleanout	78.0	\$2,204.08	\$413.33	\$165.41	\$0.00	\$1,053.82	\$3,836.64
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2019-521 / Confederate Avenue Sub Total	133.5	\$3,531.02	\$1,073.41	\$404.49	\$0.00	\$1,416.22	\$6,425.14
Grand Total	133.5	\$3,531.02	\$1,073.41	\$404.49	\$0.00	\$1,416.22	\$6,425.14

Before



During



After





Project:
Confederate
Avenue Map #1

Activity: Routine/
Preventive
Maintenance

Project #:
2019-521

Township/SW Dist:
Bluffton/4

Completed:
November 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

0 100 200 400 600 800
Feet

1 inch = 420 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/13/19

File: C:\project summaries map\Confederate Avenue Map #1_2019-521



Project:
Confederate
Avenue Map #2

Activity: Routine/
Preventive
Maintenance

Project #:
2019-521

Township/SW Dist:
Bluffton/4

Completed:
November 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 80 160 320 480 640
Feet

1 inch = 330 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/13/19

File: C:\project summaries map\Confederate Avenue Map #2 2019-521



Project:
Confederate
Avenue Map #3

Activity: Routine/
Preventive
Maintenance














Project #:
2019-521

Township/SW Dist:
Bluffton/4

Completed:
November 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

Prepared By: BC Stormwater Management Utility

Date Print:02/13/19

File:C:\project summaries map\Confederate Avenue Map #3_2019-521



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Thomas Lawton Drive

Activity: Routine/Preventive Maintenance

Duration: 08/27/18-09/27/18

Narrative Description of Project:

Project improved 450 L.F. of drainage system. Cleaned out 354 L.F. of roadside ditch. Jetted (1) crossline pipe, (6) driveway pipes and 96 L.F. of roadside pipe.

2019-520 / Thomas Lawton 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	12.0	\$442.08	\$52.08	\$45.56	\$0.00	\$185.58	\$725.30
HAUL / Hauling	16.0	\$356.32	\$226.56	\$73.66	\$0.00	\$230.72	\$887.26
PP / Project Preparation	6.0	\$193.47	\$11.52	\$18.78	\$0.00	\$80.01	\$303.78
PRRECON / Project Reconnaissance	15.0	\$334.15	\$18.00	\$12.70	\$0.00	\$214.65	\$579.50
RSDCL / Roadside Ditch - Cleanout	70.0	\$2,030.80	\$305.84	\$78.10	\$0.00	\$943.90	\$3,358.64
TC / Traffic Control - Jobsite	12.0	\$267.42	\$21.60	\$11.40	\$0.00	\$172.08	\$472.50
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2019-520 / Thomas Lawton Drive Sub Total	132.5	\$3,658.38	\$635.60	\$240.20	\$0.00	\$1,833.55	\$6,367.73
Grand Total	132.5	\$3,658.38	\$635.60	\$240.20	\$0.00	\$1,833.55	\$6,367.73

Before



During



After



Project: Thomas Lawton Drive

Activity: Routine/
Preventive
Maintenance

Project #:
2019-520

Township/SW Dist:
Bluffton/4

Completed:
September 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 01/03/19

File: C:\project summaries map\Thomas Lawton Drive_2019-520



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Powell Drive and Lonesome Court

Activity: Routine/Preventive Maintenance

Duration: 11/07/18-11/29/18

Narrative Description of Project:

Project improved 2,384 L.F. of drainage system. Cleaned out 2,384 L.F. of roadside ditch.

2019-531 / Powell Drive & Lonesome Court

	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
HAUL / Hauling	28.0	\$621.16	\$396.48	\$111.80	\$0.00	\$331.66	\$1,461.10
RSDCL / Roadside Ditch - Cleanout	75.0	\$2,308.50	\$442.78	\$109.45	\$0.00	\$696.50	\$3,557.23
UTLOC / Utility locates	3.0	\$74.10	\$0.00	\$0.00	\$0.00	\$39.69	\$113.79
2019-531 / Powell Drive & Lonesome Court Sub Total	107.0	\$3,025.55	\$839.26	\$221.25	\$0.00	\$1,067.85	\$5,153.91
Grand Total	107.0	\$3,025.55	\$839.26	\$221.25	\$0.00	\$1,067.85	\$5,153.91

Before



During



After





Project: Powell Drive and Lonesome Court Map #1

Activity: Routine/ Preventive Maintenance














Project #: 2019-531

Township/SW Dist: Port Royal Island/6

Completed: November 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

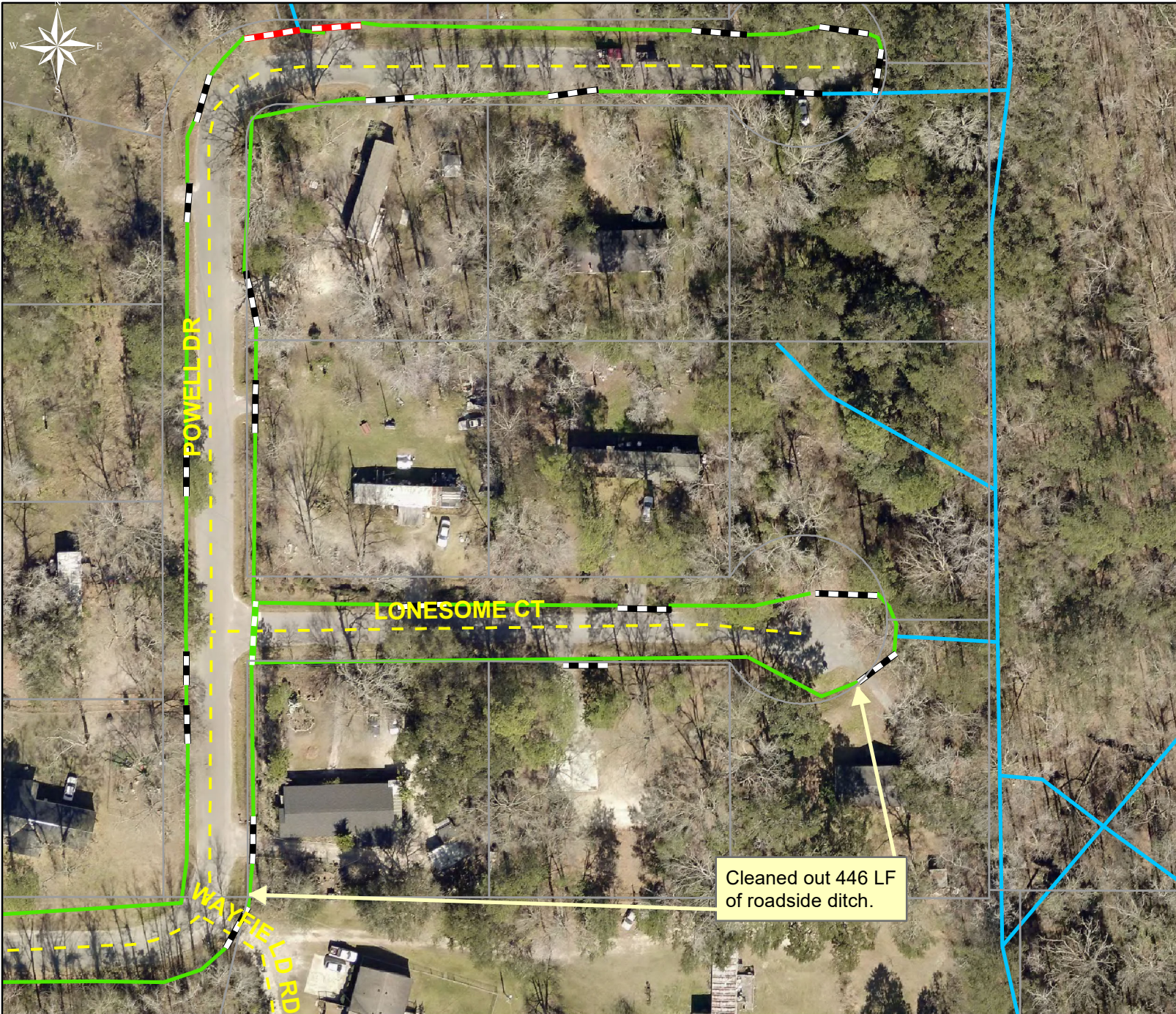


1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/20/19

File: C:\project summaries map\Powell Drive and Lonesome Court Map #1_2019-531



Project: Powell Drive and Lonesome Court Map #2

Activity: Routine/ Preventive Maintenance














Project #: 2019-531

Township/SW Dist: Port Royal Island/6

Completed: November 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 20 40 80 120 160 Feet

1 inch = 83 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/20/19

File: C:\project summaries map\Powell Drive and Lonesome Court Map #2_2019-531

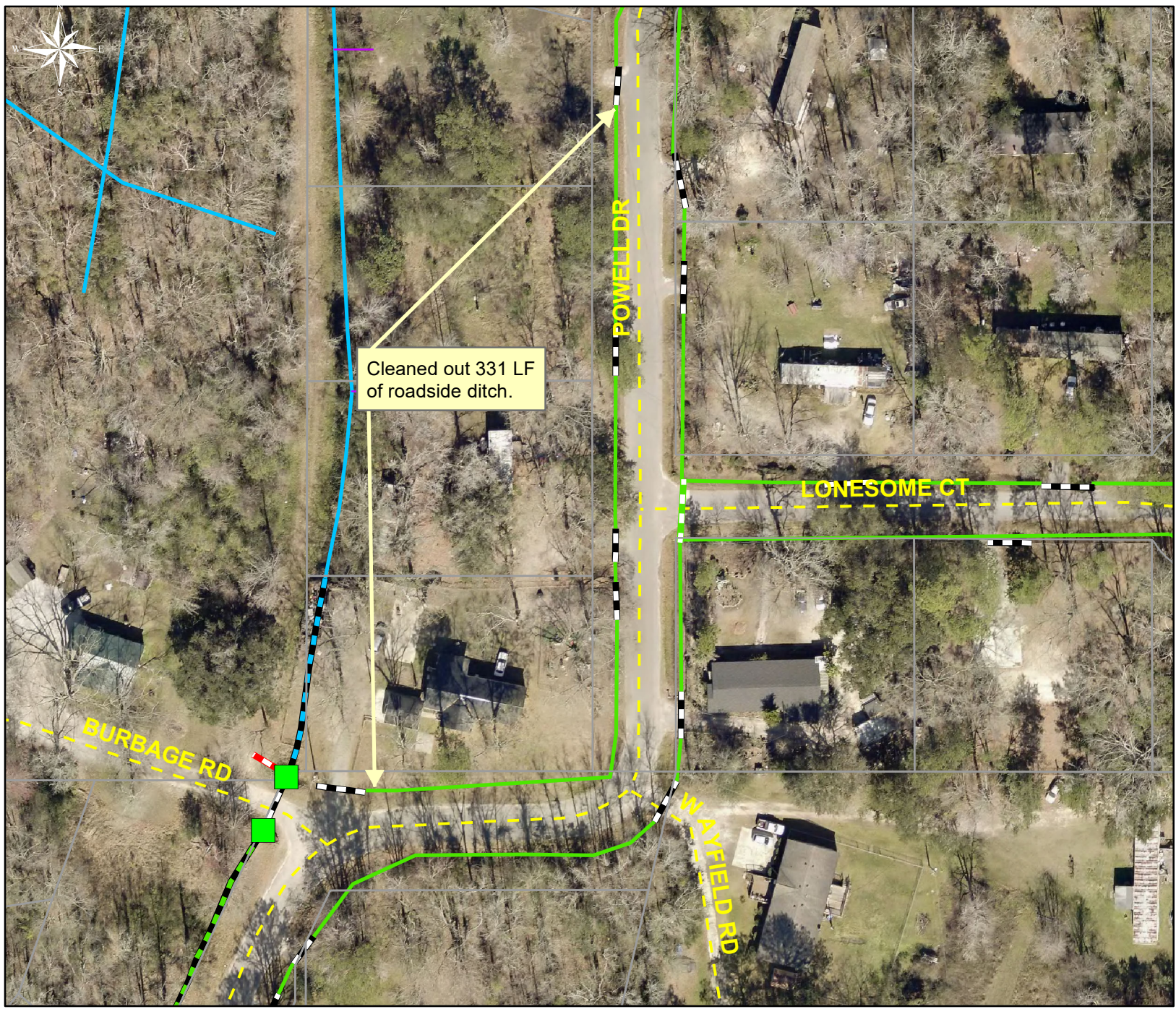
Project: Powell Drive and Lonesome Court Map #3

Activity: Routine/ Preventive Maintenance

Project #: 2019-531

Township/SW Dist: Port Royal Island/6

Completed: November 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 = 83 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/20/19
File: C:\project summaries map\Powell Drive and Lonesome Court Map #3_2019-531

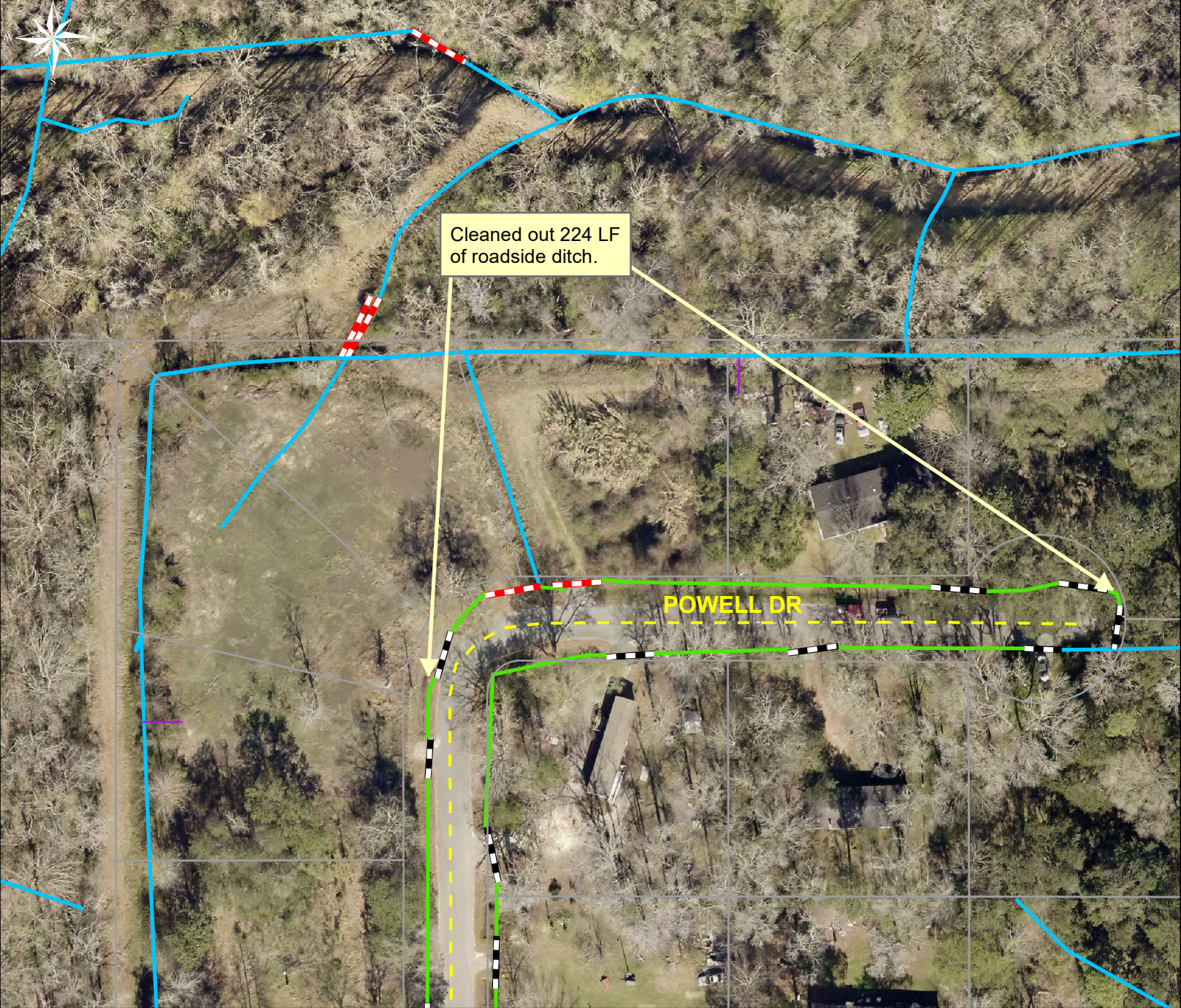
Project: Powell Drive and Lonesome Court Map #4

Activity: Routine/ Preventive Maintenance

Project #: 2019-531

Township/SW Dist: Port Royal Island/6

Completed: November 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 20 40 80 120 160 Feet

1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 02/20/19
 File: C:\project summaries map\Powell Drive and Lonesome Court Map #4_2019-531



Project: Powell Drive and Lonesome Court Map #5

Activity: Routine/ Preventive Maintenance














Project #: 2019-531

Township/SW Dist: Port Royal Island/6

Completed: November 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 = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/20/19

File: C:\project summaries map\Powell Drive and Lonesome Court Map #5_2019-531



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Scott Hill Road Channel #2

Activity: Routine/Preventive Maintenance

Duration: 06/04/18-06/20/18

Narrative Description of Project:

Project improved 2,757 L.F. of drainage system. Bush hogged 1,047 L.F. of channel and 790 L.F. of roadside ditch. Cleaned out 1,440 L.F. of channel and 790 L.F. of roadside ditch.

2018-616 / Scott Hill Road Channel #2	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
CCO / Channel - cleaned out	40.0	\$830.60	\$733.80	\$50.20	\$0.00	\$520.70	\$2,135.30
HAUL / Hauling	28.0	\$601.96	\$221.64	\$180.72	\$0.00	\$383.87	\$1,388.19
LM / Loading Materials	15.0	\$360.80	\$61.60	\$50.95	\$0.00	\$205.45	\$678.80
2018-616 / Scott Hill Road Channel #2 Sub Total	84.0	\$1,815.15	\$1,017.04	\$281.87	\$0.00	\$1,110.02	\$4,224.08
Grand Total	84.0	\$1,815.15	\$1,017.04	\$281.87	\$0.00	\$1,110.02	\$4,224.08

Before



During



After





Project: Scott Hill Road Channel #2
Map#1

Activity: Routine/
Preventive
Maintenance

Project #:
2018-616

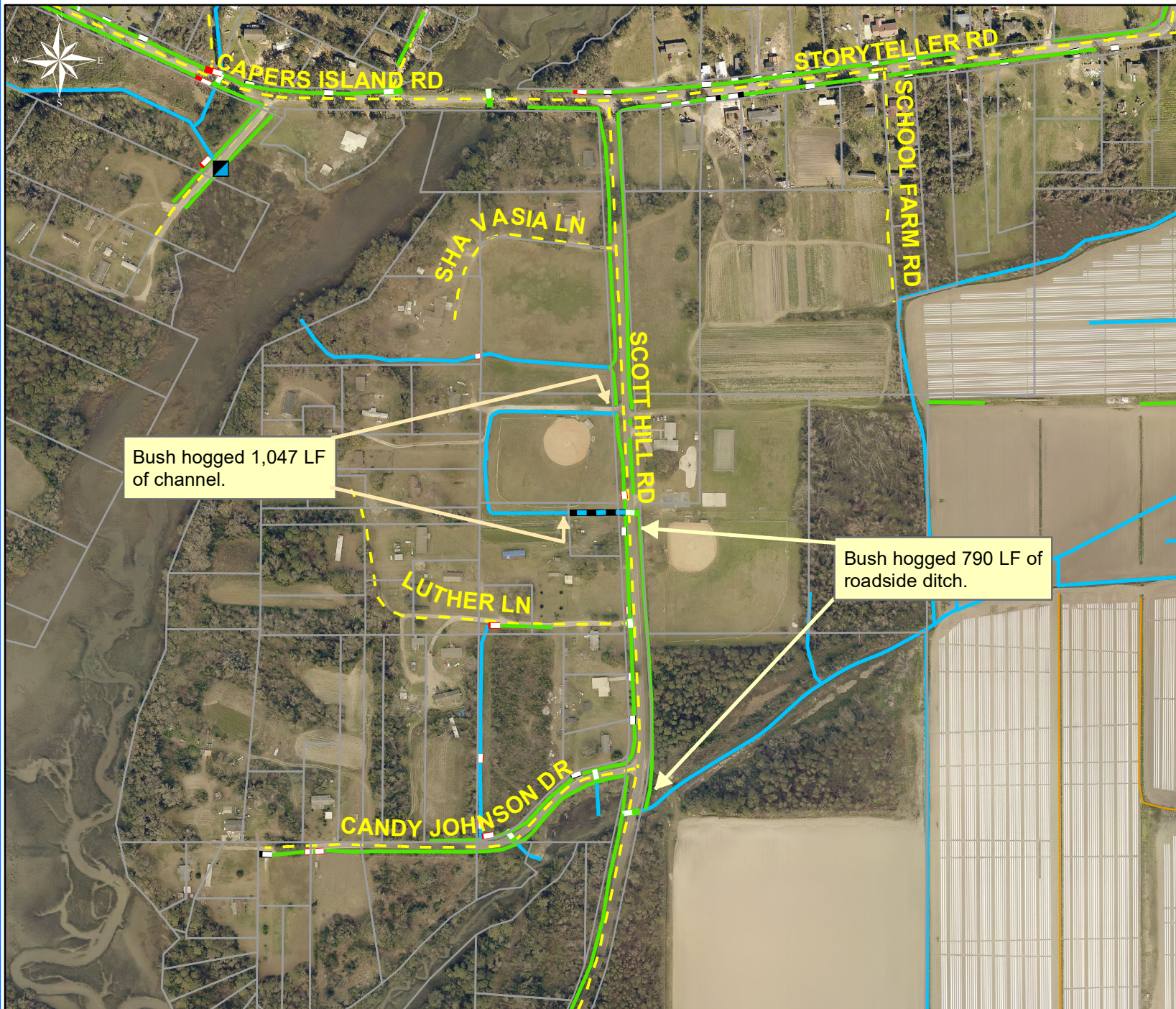
Township/SW Dist:
St. Helena Island/8

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 = 420 feet



Project: Scott Hill Road Channel #2 Map#2

Activity: Routine/ Preventive Maintenance

Project #: 2018-616

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 = 420 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Vacuum Truck
 Oscar Frazier Park, Harrison Island Road

Activity: Routine/Preventive Maintenance
Duration: 03/22/18-06/20/18

Narrative Description of Project:

Project improved 352 L.F. of drainage system. Cleaned out (1) manhole. Jetted (9) driveway pipes, 250 L.F. of channel pipe and 102 L.F. of trough.

2018-310A / 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	20.0	\$445.60	\$86.80	\$90.24	\$0.00	\$286.80	\$909.44
CPJ / Channel Pipe - Jetted	14.0	\$311.92	\$60.76	\$105.30	\$0.00	\$200.76	\$678.74
DPJT / Driveway Pipe - Jetted	40.0	\$891.20	\$173.60	\$120.36	\$0.00	\$573.60	\$1,758.76
2018-310A / Bluffton Vacuum Truck Sub Total	74.5	\$1,659.62	\$321.16	\$315.90	\$0.00	\$1,061.16	\$3,357.84
Grand Total	74.5	\$1,659.62	\$321.16	\$315.90	\$0.00	\$1,061.16	\$3,357.84

Before



During



After



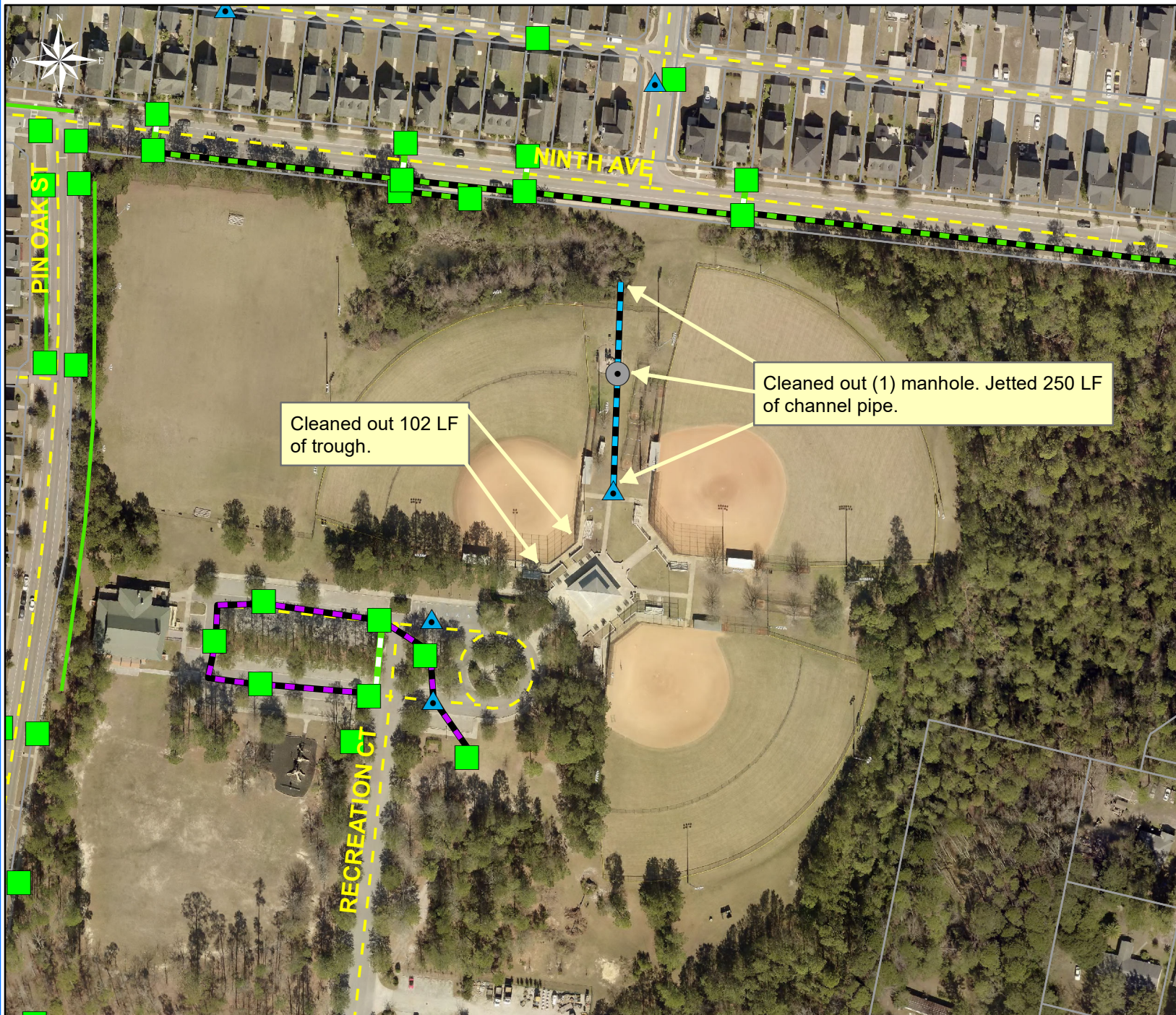
Project: Bluffton Vacuum Truck - Oscar Frazier Park Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-310A

Township/SW Dist: Bluffton/4

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 = 170 feet



Project: Bluffton Vacuum Truck - Harrison Island Road Map #2

Activity: Routine/ Preventive Maintenance














Project #: 2018-310A

Township/SW Dist: Bluffton/4

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: 01/10/18

File: C:\project summaries map\Bluffton Vac Truck- Harrison Island Road Map#2_2018-310A



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Lady's Island Valley Drains

Activity: Routine/Preventive Maintenance

Duration: 08/01/18-11/29/18

Narrative Description of Project:

Project improved 7,766 L.F. of drainage system. Cleaned 7,766 L.F. of valley drains. This project consisted of the following areas: Honeysuckle Lane (3,262 L.F.), Harborview Drive (1,328 L.F.), Fairfield Road (3,176 L.F.)

2019-313 / Ladys Island Valley Drains

	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
COVD / Cleaned Out Valley Drains	40.0	\$982.90	\$176.12	\$87.78	\$0.00	\$496.50	\$1,743.30
HAUL / Hauling	20.0	\$430.45	\$283.20	\$101.40	\$0.00	\$216.30	\$1,031.35
2019-313 / Ladys Island Valley Drains Sub Total	61.0	\$1,435.14	\$459.32	\$189.18	\$0.00	\$712.80	\$2,796.44
Grand Total	61.0	\$1,435.14	\$459.32	\$189.18	\$0.00	\$712.80	\$2,796.44

Before



During



After

(No Pictures Available)

Project: Lady's Island Valley Drains - Fairfield Road Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-313

Township/SW Dist: Ladys Island/7

Completed: November 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 = 500 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/07/19

File: C:\project summaries map\Ladys Island Valley Drains- Fairfield Road Map#1_2019-313

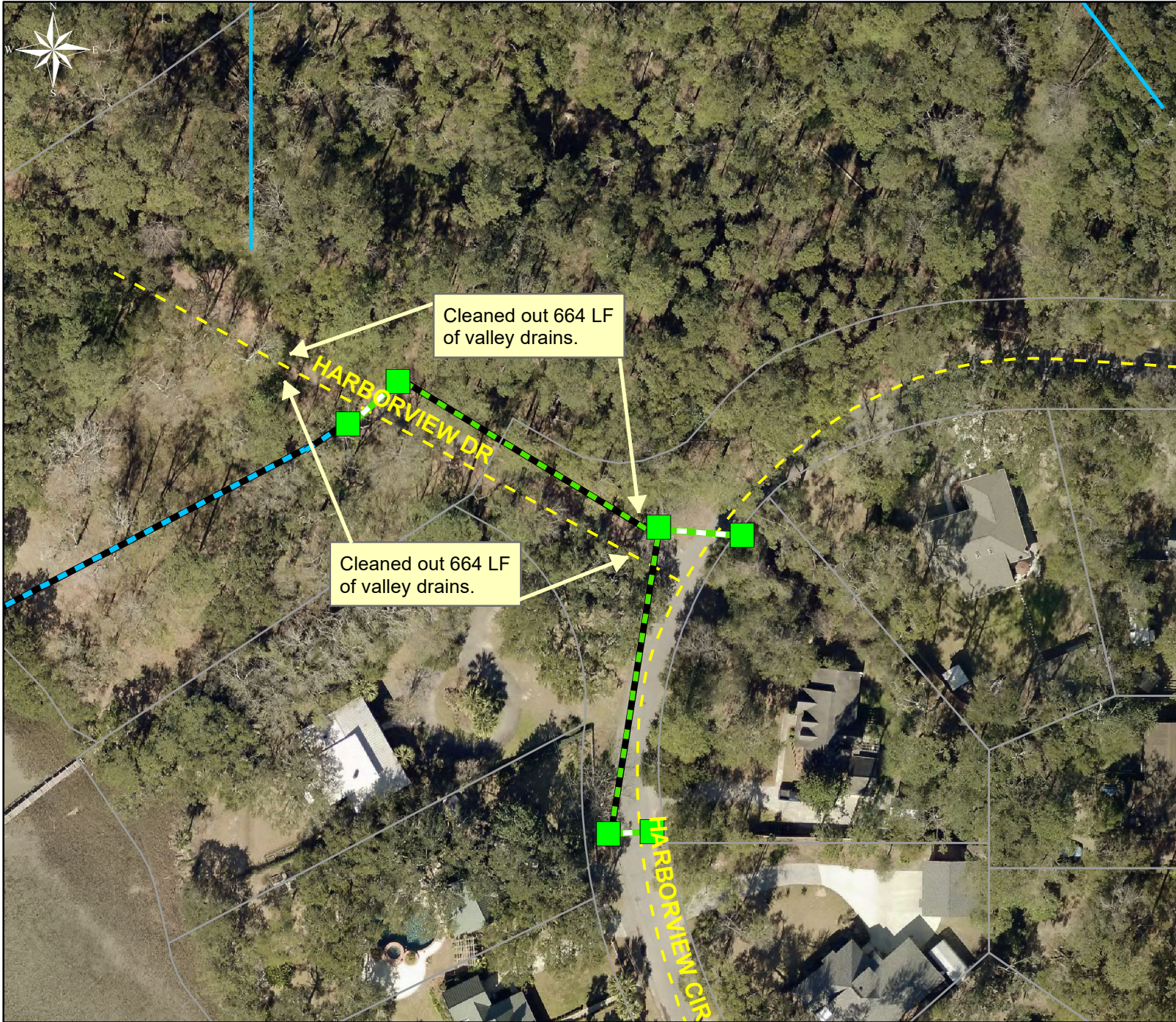
Project: Lady's Island Valley Drains - Harborview Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2019-313

Township/SW Dist: Ladys Island/7

Completed: November 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 = 83 feet

Project: Lady's Island Valley Drains - Honeysuckle Lane Map #3

Activity: Routine/ Preventive Maintenance

Project #: 2019-313

Township/SW Dist: Ladys Island/7

Completed: November 2018



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



1 inch = 420 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/07/19

File: C:\project summaries map\Ladys Island Valley Drains- Honeysuckle Lane Map#3_2019-313



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Washout Repair- Flounder Street

Activity: Routine/Preventive Maintenance

Duration: 10/08/18

Narrative Description of Project:

Repaired Washout.

2019-319 / Bluffton Washout Repair

	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
HAUL / Hauling	5.0	\$108.95	\$70.80	\$916.54	\$0.00	\$0.00	\$1,096.29
RPWO / Repaired Washout	18.0	\$393.78	\$78.86	\$56.87	\$0.00	\$251.46	\$780.97
SD / Soft Digging	7.0	\$172.90	\$268.24	\$79.00	\$0.00	\$115.29	\$635.43
2019-319 / Bluffton Washout Repair Sub Total	31.0	\$697.42	\$417.90	\$1,052.41	\$0.00	\$366.75	\$2,534.48
Grand Total	31.0	\$697.42	\$417.90	\$1,052.41	\$0.00	\$366.75	\$2,534.48

Before

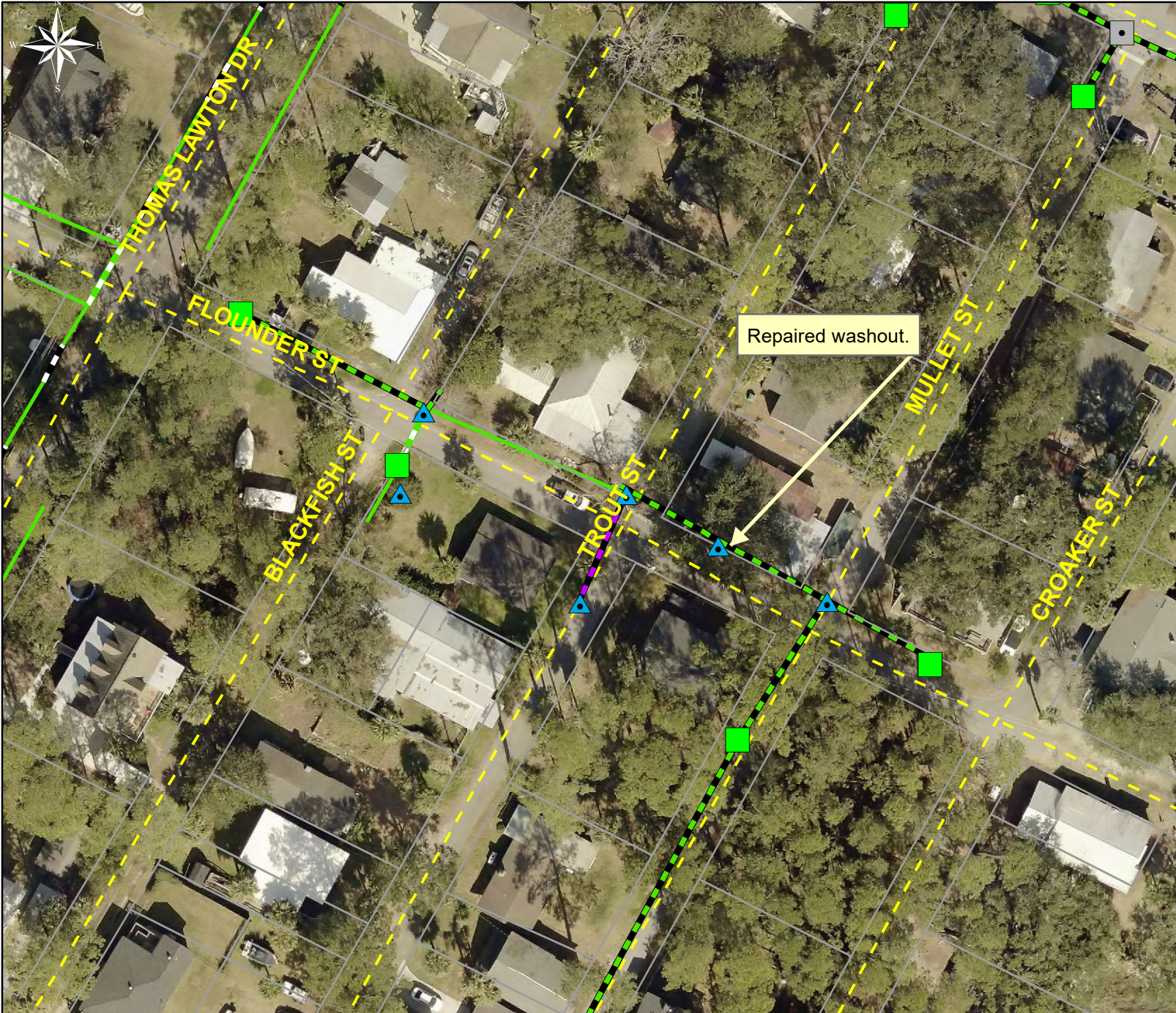


During



After





Project: Bluffton Washout Repair - Flounder Street

Activity: Routine/ Preventive Maintenance














Project #: 2019-319

Township/SW Dist: Bluffton/4

Completed: October 2018

Legend

Drainage Type

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



1 inch = 67 feet

Prepared By: BC Stormwater Management Utility
Date Print: 02/18/19

File: C:\project summaries map\Bluffton Washout Repair-Flounder Street_2019-319



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Tanglewood Drive

Activity: Routine/Preventive Maintenance

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

Narrative Description of Project:

Project improved 155 L.F. of drainage system. Cleaned out 155 L.F. of channel.

2019-522 / Tanglewood 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
CCO / Channel - cleaned out	20.0	\$790.50	\$86.16	\$47.90	\$0.00	\$288.90	\$1,213.46
CLPINP / Crossline Pipe - Inspected	4.0	\$89.12	\$76.64	\$0.00	\$0.00	\$57.36	\$223.12
HAUL / Hauling	10.0	\$222.80	\$219.26	\$110.08	\$0.00	\$144.20	\$696.34
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2019-522 / Tanglewood Drive Sub Total	36.0	\$1,148.91	\$382.06	\$157.98	\$0.00	\$503.69	\$2,192.64
Grand Total	36.0	\$1,148.91	\$382.06	\$157.98	\$0.00	\$503.69	\$2,192.64

(No Pictures Available)



Project:
Tanglewood Drive

Activity: Routine/
Preventive
Maintenance














Project #:
2019-522

Township/SW Dist:
Port Royal Island/6

Completed:
October 2018

Legend

Drainage Type

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

0 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 02/13/19

File: C:\project summaries map\Tanglewood Drive 2019-522



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, May 8, 2019
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 – April 10, 2019 ([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. June 12, 2019 ([backup](#))
9. ADJOURNMENT

