



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, November 13, 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 – October 9, 2019 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Daniel Rybak ([backup](#))
 - B. Monitoring Update – Daniel Rybak ([backup](#))
 - C. Stormwater Implementation Committee Report – Daniel Rybak ([backup](#))
 - D. Stormwater Related Projects – Daniel Rybak ([backup](#))
 - E. Upcoming Professional Contracts Report – Daniel Rybak ([backup](#))
 - F. Regional Coordination – Daniel Rybak ([backup](#))
 - G. Municipal Reports – Daniel Rybak ([backup](#))
 - H. MS4 Update – Daniel Rybak ([backup](#))
 - I. Maintenance Projects Report – Matthew Rauch ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. December 11, 2019 ([backup](#))
9. ADJOURNMENT



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

October 9, 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 10/25/2019

Board Members

Present

William Bruggeman
Steven Andrews
James Fargher
Marc Feinberg
Patrick Mitchell
Allyn Schneider

Absent

James Clark

Ex-Officio Members

Present

Neil Desai
Scott Liggett
Kim Jones
Van Willis

Absent

Beaufort County Staff

Daniel Rybak
Melissa Allen

Visitors

Alan Warren, USCB
Bill Hodgins, Center for Watershed Protection

1. Meeting called to order – William Bruggeman

- A. Agenda – Approved.
- B. August 14, 2019 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

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

<https://www.beaufortcountysc.gov/stormwater-management-utility-board/agendas/2019/100919.pdf>

A. Utility Update – Daniel Rybak

In reference to item #1, the timeline of work for Regional Stormwater Design Standard and Model Ordinance was reviewed and it has been recommended to extend to date of the original contract to March 31, 2020. The recommendation has been supported and approved. Center for Watershed Protection is in the process of consolidating and organizing comments from the participating partners and a meeting will be held in October to review and discuss. The final documents will be presented for public comment. Ms. Kim Jones confirmed that the meeting with the partners is scheduled for October 16th. Mr. Bill Hodgins will be doing a presentation on this today [New Business].

2019 Tax run was successfully completed. Some obstacles were short one staff due to military deployment, Town of Bluffton changed rate structure and the County increased their stormwater rate. Information was submitted by October 4th.

B. Monitoring Update – Daniel Rybak

Dr. Allen Warren commented that they were limited by drought conditions. Most of the work to be completed needs to be done in wet weather conditions.

C. Stormwater Implementation Committee (SWIC) Report – Daniel Rybak

Please reference the report, no additional updates.

D. Stormwater Related Projects – Daniel Rybak

In reference to the Flyover Bridge, the signed contract has been received and notice to proceed has been initiated. Factory Creek is on track, construction is ongoing and estimated to be at 60% and [phase 2] is at 80% complete.

In regards to the Lady’s Island Sea Level Rise and “no-fill” ordinance, the committee met on September 24th to discuss the draft ordinance and comments were presented.

E. Professional Contracts Report – Daniel Rybak

Salt Creek and Shanklin, design work is on track and will have a design review meeting this month. In reference to Brewer Memorial Park, a joint ownership and operation agreement with Open Land Trust was reviewed and approved. Permits are being obtained for Evergreen project.

F. Regional Coordination – Daniel Rybak

Ms. Jones took information from the July meeting to the May River Watershed Action Plan Advisory Committee, they have recommended to Town Council to reconvene the joint councils meeting to discuss long term funding strategy for sanitary sewer extension.

In reference to Mossy Oaks, Mr. Neil Desai shared that the City is waiting from Army Corps for approval. The City is looking to do a brief to a local state legislative group to give a status of the project.

G. Municipal Reports – Daniel Rybak

Mr. Van Willis noted that DOT contractors recently did some resurfacing work and left accumulated millings adjacent to stormwater drains. He has reached out to them to try to have them swept up.

H. Municipal Separate Storm Sewer System (MS4 Update) – Daniel Rybak

Mr. Rybak briefly went over the MS4 activity comparisons and rainfall charts. He mentioned that Lowcountry Stormwater Partners have been active in education and outreach and are working on the 5 year strategic plan. The Pond Conference is coming up in November.

In regards to the Able site, the most recent sampling event done by the County showed bacteria levels were lower than previous sampling. DHEC and Jasper County are currently implementing a monitoring plan associated with the site. In response to a question, Mr. Rybak explained that he doesn’t know the ultimate goal, but knows the EPA has extended their time onsite and will be transferring it over to Jasper County and DHEC. Comments were made about the huge difference that has been made with regards to the site cleanup.

Dr. Alan Warren mentioned that the lab looks at the Cypress Wetlands annually for the Town of Port Royal and monitor a dry and wet weather event in September. The analysis has been done.

I. Maintenance Projects Report – Daniel Rybak

Please reference the report, no additional updates.

5. Unfinished Business – None.

6. New Business –

A. Regional Stormwater Standards and Model Ordinance Update – Mr. Bill Hodgins with Center for Watershed Protection (CWP) provided the board with an update as the project is getting close to the public comment period for the draft manual and ordinance. ([See Attached](#))

Mr. Hodgins outlined what fuels stormwater management: ordinances and manuals, MS4 permits, public concerns and impaired waters. The project goal is to promote a consistent and effective approach stormwater management throughout the Lowcountry. Beaufort County, Jasper County, City of Beaufort, Town of Bluffton, Town of Port Royal and City of Hardeeville signed cooperative agreements for this project. The four major tasks are to develop a common stormwater ordinance (application through to maintenance of BMPs), develop a comprehensive stormwater design manual, facilitate stakeholder and public review and deliver and train on use of the manual and calculation tools. They are almost to the stakeholder and public review stage.

Task 1 was the model ordinance and a draft has been provided. It was worked on it through March and sat while work was being done on the design manual. The ordinance is the fuel that drives stormwater management. This ordinance allows for special water protection areas, insures future inspections and requires performance bonds to insure successful project completion.

Task 2 was the design manual. What has been developed includes work based on the State of Virginia and Washington DC. Regional standard stormwater design, incorporate green infrastructure and low impact development standards, seeking environmentally sensitive design, and standards at least as stringent as SCHEC MS4 permit. Ms. Jones commented that there may be questions about these, but there is a current RFP for source water protection elements that are addressing future impacts from climate change. She expressed that it is really insightful that CWP and McCormick Taylor to be ahead of this, to recognize where future funding for retrofit and water quality projects with grants and 319 projects will be.

The design manual is taking a watershed based approach. There are over 30 HUC 12 designations (local drainage) watersheds in the two counties. Water impairments are the distinctions between the watersheds which are primarily bacteria, but some sediment and metals. Also shows shellfish designated waters. The Savannah River watershed: Georgia has different standards and there are port activities. The Shellfish and impaired (green) Savannah River watershed (yellow) and general watershed (rose).

Each watershed will have design standards, include runoff reduction criteria and credits and hydrology and hydraulics criteria that are not much different than current standards. It will promote better site design, establish BMP design criteria and establish construction, inspection and maintenance requirements.

CWP will provide tools that reviewers can use to verify they are meeting requirements. Design tools, compliance calculator, and BMP design sheets (14 BMPS).

Task 3 will be the public comment period. There is a meeting next week to discuss jurisdiction comments. The document is about 400 pages.

Task 4 will be to deliver the final ordinance and design manual after January 1, 2020. The next step would then be for the jurisdictions to adopt them.

Mr. Rybak clarified that the information from Virginia and DC has standards and processes that are directly related in helping to get this document and that are applicable to the goals. The goal is to develop a manual and ordinance that is adopted by the jurisdictions and can be administered consistently. He provided a quick overview of the goals and processes provided in the presentation.

Discussion and comments took place regarding this project.

Mr. Bruggeman asked about the overall objective and commented that the utility has spent years developing the current one, expressing concerns about it being less strict. Mr. Hodgins shared that the Clean Water Act has a term called anti-degradation, no sliding backward, so the standard doesn't look the same but the result is to be better. Mr. Rybak explained there is more information that will make BMP performance better and can be incorporated into the design of them. Overall as you increase impervious surface, you introduce impairments in water quality.

Mr. Marc Feinberg commented that he hopes that the model ordinance is adopted and asked if the long term goal is to regionalize. Mr. Rybak explained that this is the first step toward the process and that regionalization discussions can occur once this initial step is complete.

Mr. Patrick Mitchell asked what the public comment process going to be to get into the hands of civil engineers and developers. Mr. Hodgins replied he is looking for representatives of the committee to reach out to their engineers and distribute via email (i.e. Dropbox). Mr. Rybak shared that the public comment period will involve public meetings and will be open for a minimum of six weeks.

In response to a question by Mr. Bruggeman, Mr. Hodgins explained that CWP did benchmarking ahead of the proposed ordinance. They borrowed language from Beaufort County and Jasper County design manuals. Mr. Rybak indicated this is a refinement of information, technology and practices that are being updated in the manual. Similar principals are being refined into a watershed approach.

Mr. Scott Liggett commented that he presumes the foundation of the new regulations are heavily invested into volumetric control measure. Mr. Hodgins explained there is currently a 1.95" inch requirement and it is not changing and is highest standards that you will find around the country. Asked if it was volumetric based vs peak runoff or hydrograph based.

Mr. Liggett commented that one of the beauties of the utility is to be able to respond to the needs within the jurisdictions and watersheds to the best they can. He asked if the extent of service would include operation and maintenance in any of the PUDs. Mr. Hodgins said that has not come forward, but there was some back and forth early on about maintenance of private systems.

Mr. Bruggeman asked if it was for new construction. It was clarified that it is for redevelopment as well, if the change is greater than 5,000 square feet.

B. Proposed 2020 Meeting Schedule – A motion was made to accept the proposed draft for 2020. The motion was approved (6/0).

7. Public Comment(s) – None.

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**

November 13, 2019

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Lowcountry Regional Board (SoLoCo)
 - a) The current schedule for completion and finalization on the document and activities of Center for Watershed Protection (CWP) is as follows:
 - Contract extension to March 31, 2020.
 - SoLoCo Committee met in Bluffton on October 16, 2019 to discuss comments received from Committee members on the Draft Ordinance and Design Manual. All participating members were present for the discussion; it was positive and productive in reaching a consensus on finalizing a final draft for public comment. About 1/4 of the documents have been discussed and a second meeting was scheduled for November 6, 2019 to continue comment review.

Remaining project milestones to be completed:

- Revised Manual for Public Comment
- Request for Public Comments
- Public Comment Period (required to be minimum of 6 weeks)
- Close of Public Comments Period
- CWP Review of Public Comments Due
- Committee Meeting to Review Public Comments
- Final Draft of Ordinance and Design Manual
- Final Delivery

Public Meetings

- 4-6 PM Public Stakeholder Meeting – Beaufort – Location TBA
- 4-6 PM Public Stakeholder Meeting – Bluffton – Location TBA
- 4-6 PM Public Stakeholder Meeting – Jasper – Location TBA

2. Regionalization
 - a) Regional Stormwater Design Standard and Model Ordinance Project – See update above.
 - b) Regionalization of programs – Pending finalization of the Regional Stormwater Design Standard and Model Ordinance it is hoped each participating jurisdiction will adopt these policy documents for implementation to provide consistent administration of Stormwater Management guidelines and policies in the region. Discussions of a

Regional Stormwater Authority to administer the adopted guidelines and policies holistically within the region/jurisdictions can be fostered.

3. Special presentations –
 - a) Suggestions for future presentations?
4. Military installation and other State and Federal properties SWU fees – See “Delinquent Accounts” below. Staff continues to work with GIS to update impervious area layers for the military installations.
5. Delinquent accounts – County Legal and County Council are having discussions whether to pursue Federal land delinquent SW fees based on current case law studies.
(State and Federal accounts make up approx. 97%-98% of the delinquent account value of approx. \$7 million on the ledger)
6. TY 2019 tax run – Working session was held on October 28, 2019 with Assessor’s Office and GIS Office to discuss Tax Year 2019 work process and items/processes that can be improved upon for Tax Year 2020.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
 - a) No information was available at the time of this 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 easement requests and meets monthly to review status. A few condemnations are still being pursued using outside legal counsel.
2. Complaints – Staff continually works numerous drainage related complaints each month.
 - a) Horse Island – No additional update at this time. Last update: The Stormwater Manager discussed preliminary design and construction cost with the County Administrator and Council member for the area and is awaiting direction.
 - b) Flyover bridge preventative maintenance and deferred maintenance repairs – No additional update at this time. Last update: Notice to Proceed was issued to JMT for design of erosion repair, traffic control and permitting.
 - c) Shell Point Community Meeting – Meeting was held in Town of Port Royal at Town Hall on October 29, 2019 to meet with community members to hear of areas of concern regarding drainage issues, flooding and king tide impacts.

Follow-up meeting with community is planned for January 2020.

3. Alljoy Subwatershed Flooding – The Hazard Mitigation Grant funding application that was for this project was denied.
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) – Construction on-going and estimated to be 60% complete.
5. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Construction on-going and estimated to be 80% complete.
6. Graves Property / Pepper Hall Public / private partnership – No additional update at this time. The last meeting was held on July 31, 2019.
7. Whitehall property purchase – No additional update at this time.
8. US 278 “super street” widening on Jenkins Island (Windmill Harbor area) – No update at this time.
9. Lady’s Island Plan, Sea Level Rise, and “no-fill” ordinance – The Committee met on October 8 and 29, 2019 to discuss comments presented on *DRAFT* Ordinance.

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 – 30% design review meeting held with consultant on November 5, 2019.
 - b) Brewer Memorial – County is seeking easement from adjoining property to allow diversion from SCDOT storm drain pipe to proposed fresh water wetland pond area.
2. Evergreen Regional Pond 319 grant project – (Design=\$89,286, Construction=\$590,000. Grant=\$229,124) – 90% design review meeting held with consultant on November 5, 2019.

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. The last meeting was held on July 18, 2019.

2. Mossy Oaks Task Force – (Design \$20,404, Construction \$205,000; County portions only). See Municipal Reports.
3. Charleston Area MS4 managers group – No additional update at this time. The last meeting was held on July 25th in Charleston.
4. Bluffton Ditch Task Force –. No additional update at this time. The group last met in July and discussed SCDOT, Town of Bluffton and County drainage issues and coordination.
5. May River Watershed Modeling – See municipal reports for more information.
6. Port Royal Sound Conservation Working Group – No additional update at this time. This group last met on June 14th.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzing, Stormwater Manager and Brian Eber, MS4 Coordinator)
 - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. [See attached report.](#)
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. [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

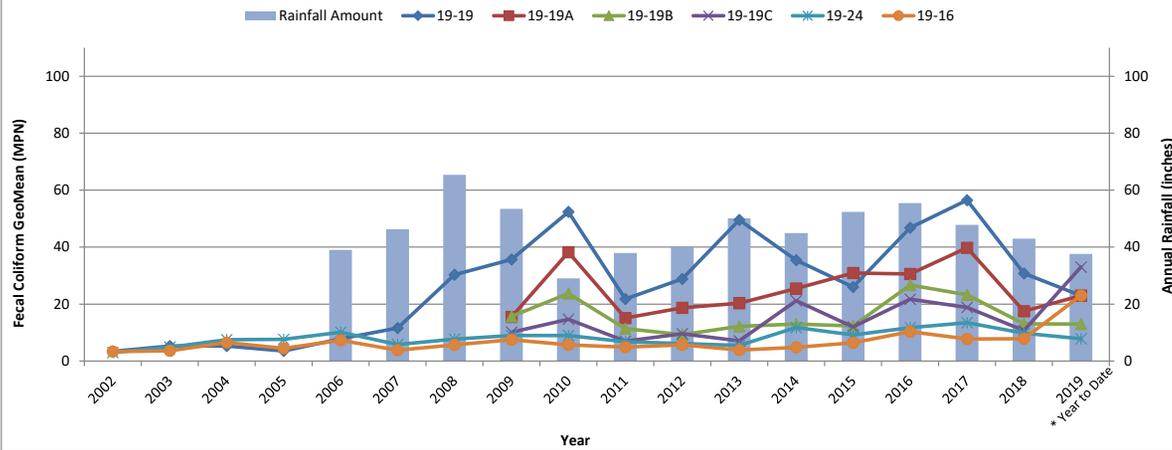
1. Plan Review – [See the attached chart](#) for Beaufort County Stormwater staff plan review workload for the past 12 months.
2. Stormwater Permits – [See the attached chart](#) for Beaufort County Stormwater permits issued for the past 12 months.
3. Monthly Inspection summary - [See the attached chart](#) 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 – The final version of the 2019 Lowcountry Stormwater Partners (LSP) Annual Report was received on November 4, 2019. It will be incorporated into the annual MS4 report for Beaufort County.
6. Energov permitting software – Stormwater department met with the Energov rep during the week of October 21st to review workflow processes.
7. MS4 Statewide General permit – No update at this time.
8. Statewide General permit for Construction – No update at this time.
9. Able Contracting Site – Beaufort County, Jasper County and Savannah River Keeper met with DHEC on November 6th for an update.

	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	2016	2017	2018	2019
	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		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		33.0	2.0	7.8	
October	NS	22.0	79.0	7.8	NS	49.0	23.0	4.5	NS	33.0	7.8	2.0	NS	23.0	7.8	4.5	NS	6.8	7.8	1.8	NS	2.0	2.0	2.0	NS	2.0	2.0	2.0
September	23.0	17.0	49.0	79.0	110.0	7.8	23.0	33.0	23.0	11.0	13.0	6.8	13.0	4.5	17.0	17.0	4.5	2.0	17.0	4.5	7.8	1.8	17.0	1.8	7.8	1.8	17.0	1.8
August	NS	79.0	70.0	70.0	NS	70.0	23.0	49.0	NS	21.0	13.0	33.0	NS	33.0	4.5	22.0	NS	33.0	7.8	7.8	NS	33.0	17.0	17.0	NS	33.0	17.0	17.0
July	79.0	350.0	23.0	4.5	17.0	110.0	33.0	13.0	22.0	130.0	11.0	7.8	17.0	49.0	7.8	17.0	49.0	49.0	13.0	22.0	13.0	22.0	4.5	13.0	13.0	22.0	4.5	13.0
June	79.0	23.0	11.0	33.0	130.0	49.0	23.0	49.0	70.0	13.0	23.0	49.0	110.0	17.0	7.8	46.0	33.0	7.8	4.5	13.0	23.0	4.5	1.8	4.5	23.0	4.5	1.8	4.5
May	70.0	17.0	17.0	7.8	23.0	23.0	33.0	9.2	49.0	7.8	17.0	7.8	49.0	2.0	13.0	2.0	14.0	23.0	23.0	6.8	17.0	4.5	13.0	4.5	17.0	4.5	13.0	4.5
April	23.0	7.8	33.0	23.0	23.0	23.0	13.0	13.0	13.0	4.5	17.0	7.8	13.0	7.8	17.0	6.8	7.8	13.0	49.0	23.0	1.8	4.5	17.0	6.8	1.8	4.5	17.0	6.8
March	33.0	350.0	22.0	23.0	33.0	11.0	21.0	23.0	33.0	33.0	4.5	6.8	17.0	13.0	11.0	13.0	11.0	13.0	7.8	7.8	7.8	33.0	9.3	4.5	7.8	33.0	9.3	4.5
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	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	17.0	33.0	4.5	23.0
Additional Samples																												
Average Annual GeoMean	46.8	56.5	30.8	22.9	30.6	39.8	17.5	19.9	26.7	23.3	13.1	10.8	21.7	18.8	10.7	13.7	11.7	13.5	9.8	8.1	10.3	7.7	7.9	6.6	10.3	7.7	7.9	6.6
** Truncated GeoMetric Mean	37.0	44.0	42.0	34.0	30.0	36.0	29.0	24.0	16.0	20.0	20.0	15.0	16.0	16.0	15.0	14.0	9.0	10.0	10.0	10.0	6.0	7.0	8.0	7.0	6.0	7.0	8.0	7.0
** Truncated 90th Percentile	105.0	203.0	176.0	164.0	89.0	133.0	115.0	93.0	69.0	83.0	71.0	57.0	65.0	57.0	56.0	52.0	29.0	37.0	44.0	40.0	21.0	29.0	30.0	27.0	21.0	29.0	30.0	27.0

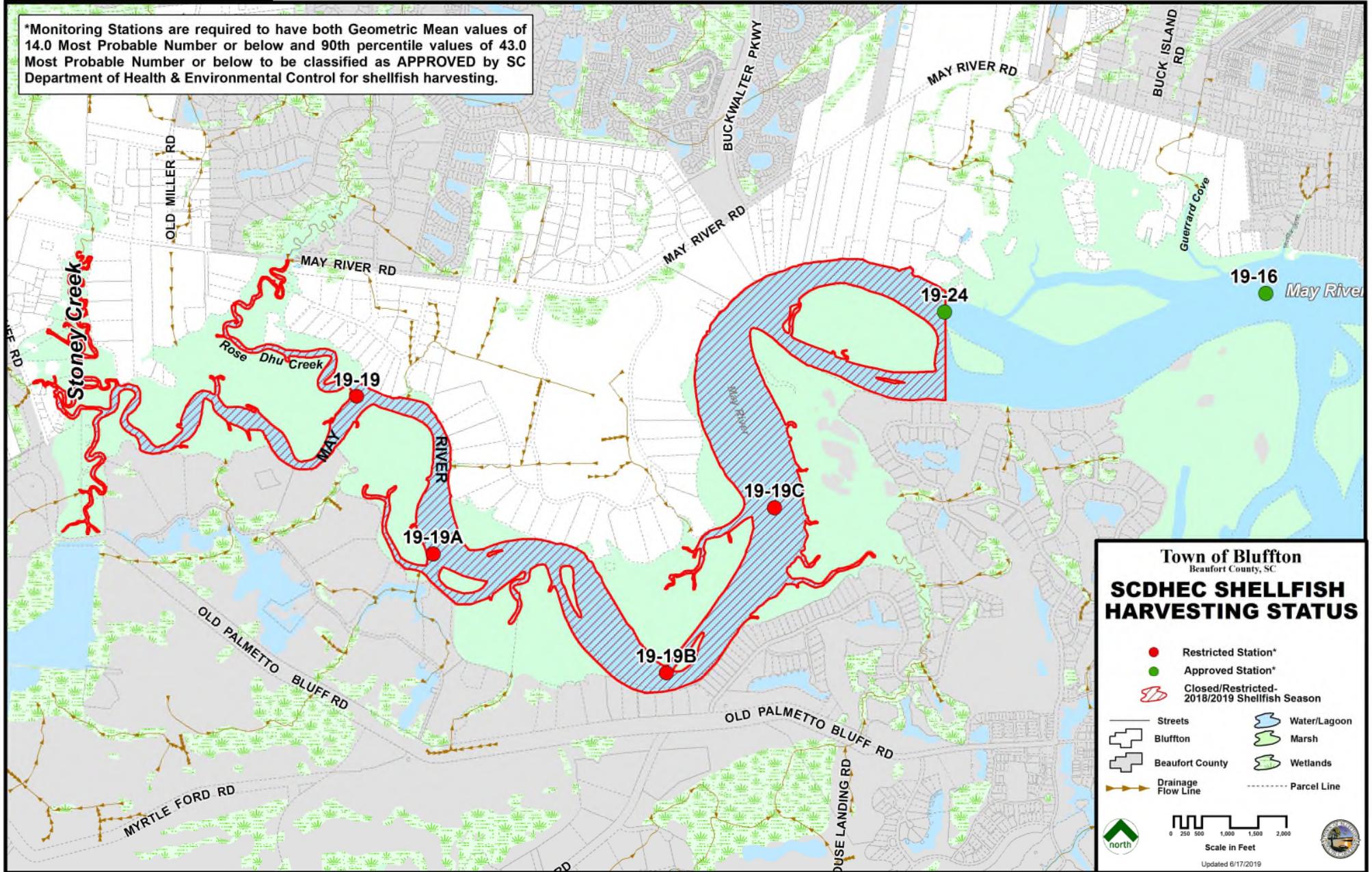
NS = No Sample
 AS = Additional Samples
 ** Town staff calculations utilizing DHEC statistics

SC DHEC May River Headwaters Shellfish Stations Average Annual Fecal Coliform



May River Headwaters

*Monitoring Stations are required to have both Geometric Mean values of 14.0 Most Probable Number or below and 90th percentile values of 43.0 Most Probable Number or below to be classified as APPROVED by SC Department of Health & Environmental Control for shellfish harvesting.



Town of Bluffton
Beaufort County, SC
SCDHEC SHELLFISH HARVESTING STATUS

- Restricted Station*
- Approved Station*
- Closed/Restricted-2018/2019 Shellfish Season
- Streets
- Bluffton
- Beaufort County
- Drainage Flow Line
- Water/Lagoon
- Marsh
- Wetlands
- Parcel Line

Scale in Feet
0 250 500 1,000 1,500 2,000

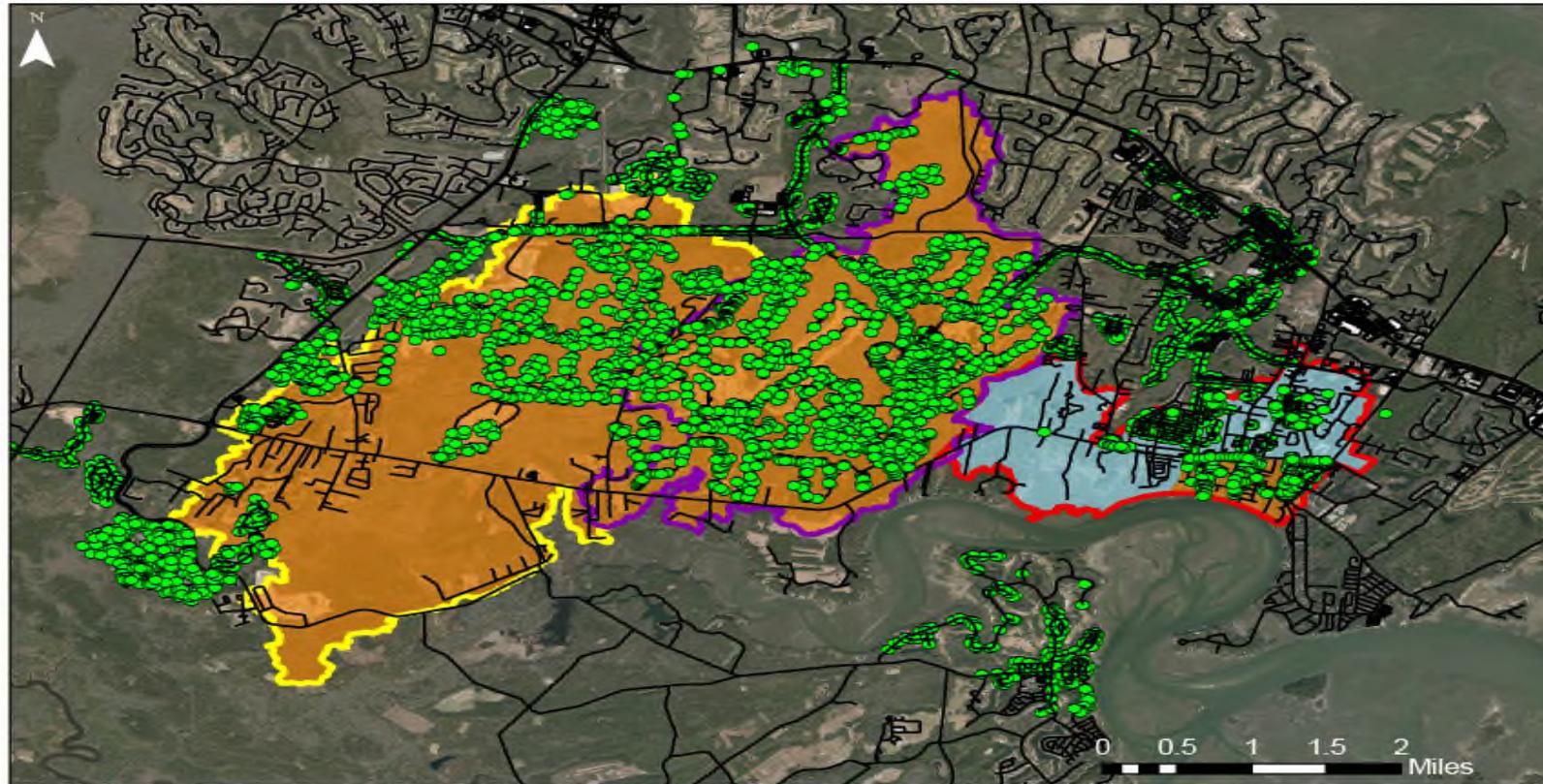
Updated 6/17/2019

ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update	Contract to McCormick Taylor to complete MRWAP Update - Water Quality Model, current project assessment, and proposed new projects is underway with final deliverables anticipated 3/20. Staff submitted an initial application on 10/10/19 for \$24,900 in response to SCDHEC's call for proposals for Watershed-based Plan development to cohesively package the MRWAP Update.
Sewer Connection & Extension Policy	Completed 2018. Council adopted the Sewer Connection & Extension Policy on 9/26/17. Ordinance amendment and Septic to Sewer Conversion Program adopted on 9/20/18.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Completed Buck Island/Simmons Road (BIS) Phases I, II, III, IV; Toy Fields; and Jason/Able. 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."
May River 319 Grant Phase 1 - New Riverside Pond (Grant award of \$483,500 in 2009)	Completed in 2013.
May River 319 Grant Phase 2 - Pine Ridge (Grant award of \$290,000 in 2011)	Completed in 2016.
May River 319 Grant Phase 3 - Town Hall Parking Retrofit (Grant award of \$231,350 in 2016)	Completed 2019.
Stoney Creek Wetlands Restoration: Preliminary Design Phase	Project on hold following Council direction on 5/31/17.
May River Watershed Water Quality Model	Contract awarded to McCormick Taylor with final deliverables anticipated 3/20.
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Staff anticipates applying for a Rural Infrastructure Authority grant in March 2020 in support of drainage improvements and stormwater runoff treatment along Pritchard and Bridge Streets. Received SCDHEC and EPA final approval for 319 Grant Phase IV - sewer connection for \$365,558.36 to construct 49 sewer lateral connections in Poseys Court, Little Aaron and Historic District Phases 1 and 2. Contract received and signed on 9/25/19. Staff submitted an initial application on 10/10/19 for \$24,900 in response to SCDHEC's call for proposals for Watershed-based Plan development to cohesively package the MRWAP Update.
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.

ACTIVITY - PROGRAMS continued	STATUS continued
Water Quality Monitoring Program (MS4 Minimum Control Measure #3)	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 1a, 1b, 4b - 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	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.
Septic to Sewer Conversion Program	Completed 2018. On-going implementation following sewer extension projects.

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

Stormwater Inventory Collection



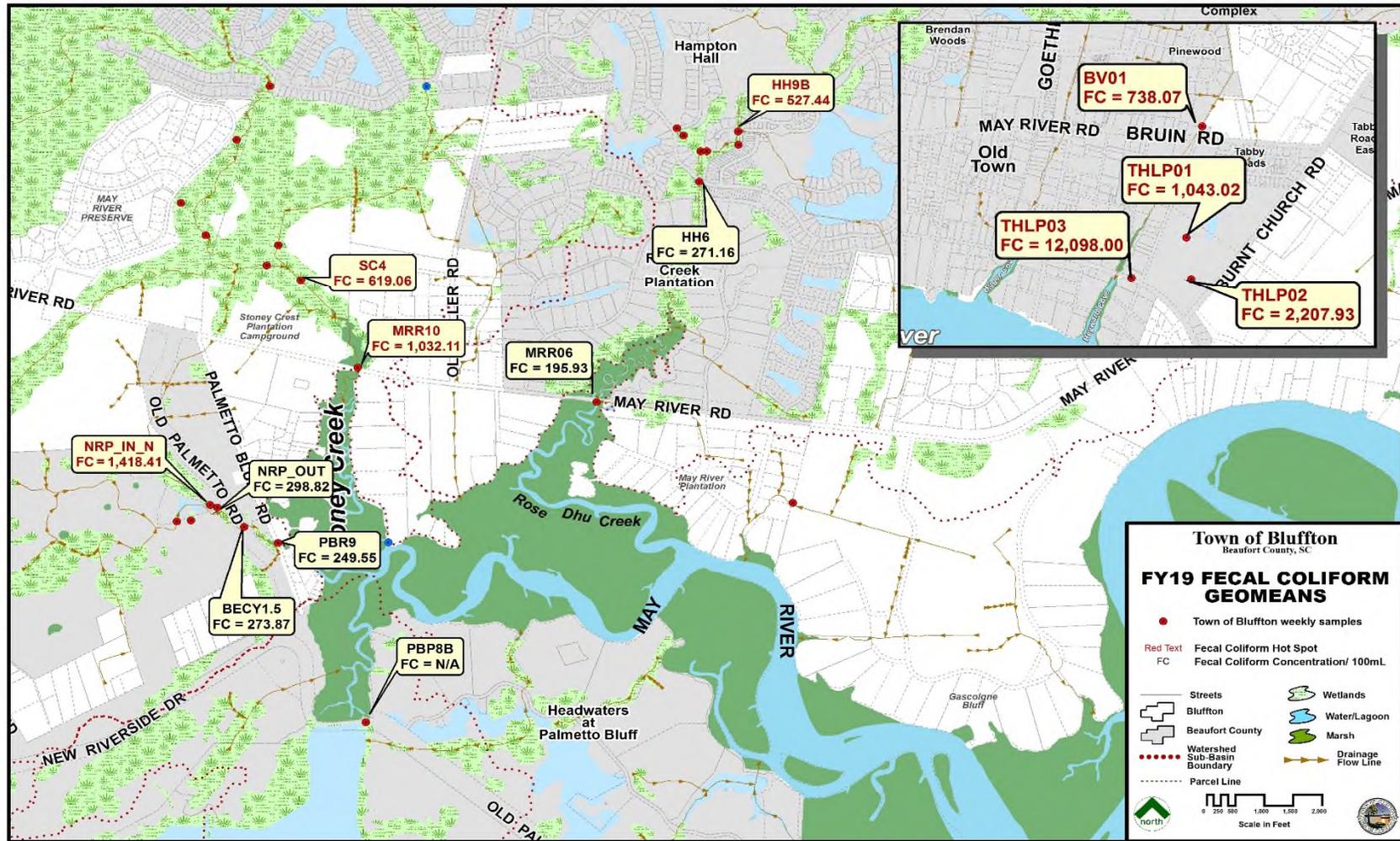
Collection Status

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

DISCLAIMER
This is a preliminary map of the Town of Bluffton's Stormwater Inventory. It is subject to change as more information is gathered. The Town of Bluffton is not responsible for any errors or omissions in this map. The Town of Bluffton is not responsible for any damages or injuries resulting from the use of this map. The Town of Bluffton is not responsible for any legal actions taken against it as a result of its use.

Stormwater Infrastructure Inventory Collection Status	
FY 2020 YTD Collection Totals	1,928
FY 2019 Collection Totals	2,925
FY 2018 Collection Totals	3,777

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

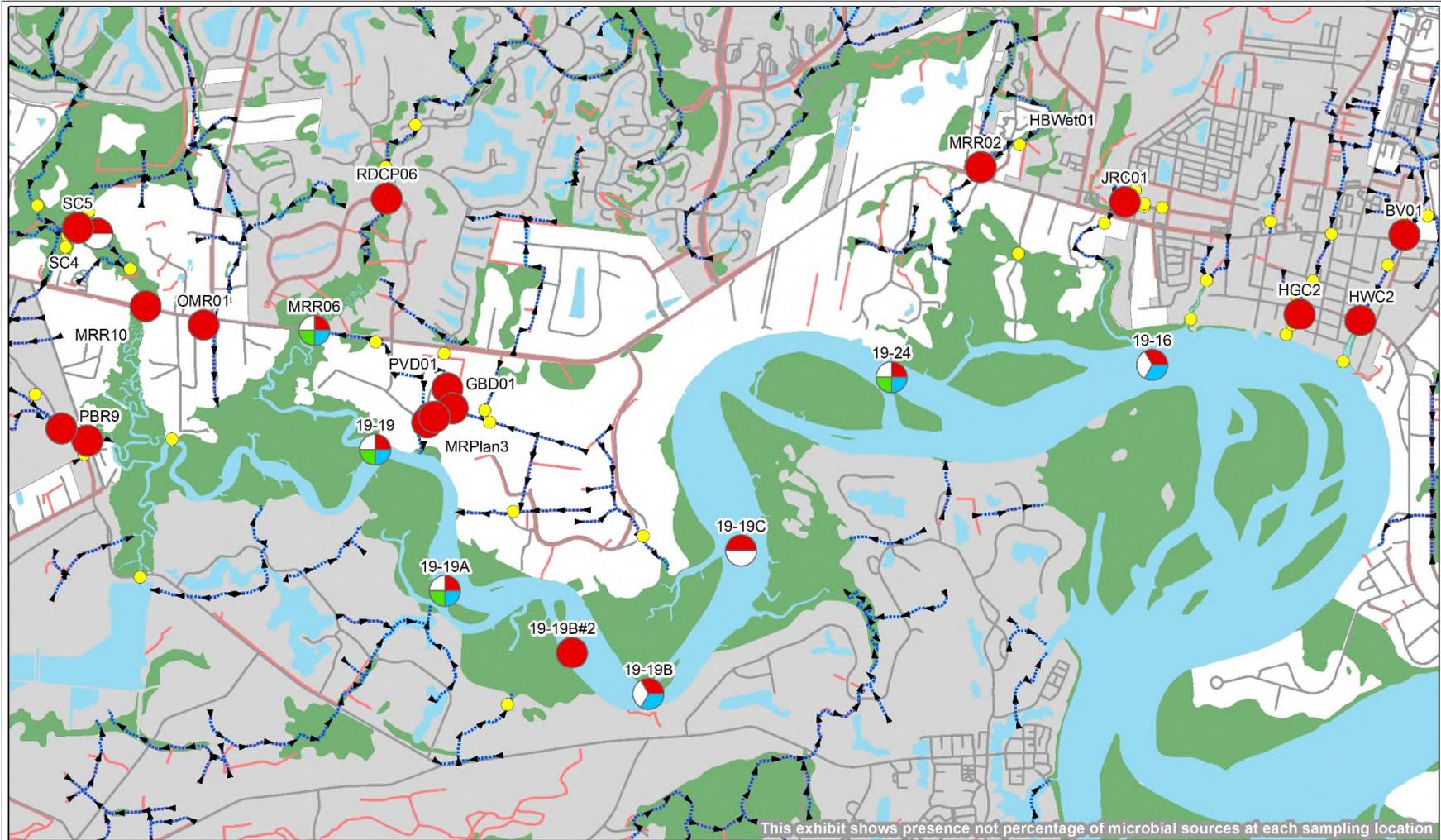


	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2020 YTD Totals	70	24	28
FY 2019 Totals	280	193	264
FY 2018 Totals	216	217	224
FY 2017 Totals	307	179	224

10/23/2019

- 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: Microbial Source Tracking (MST) All Sources Trend Map



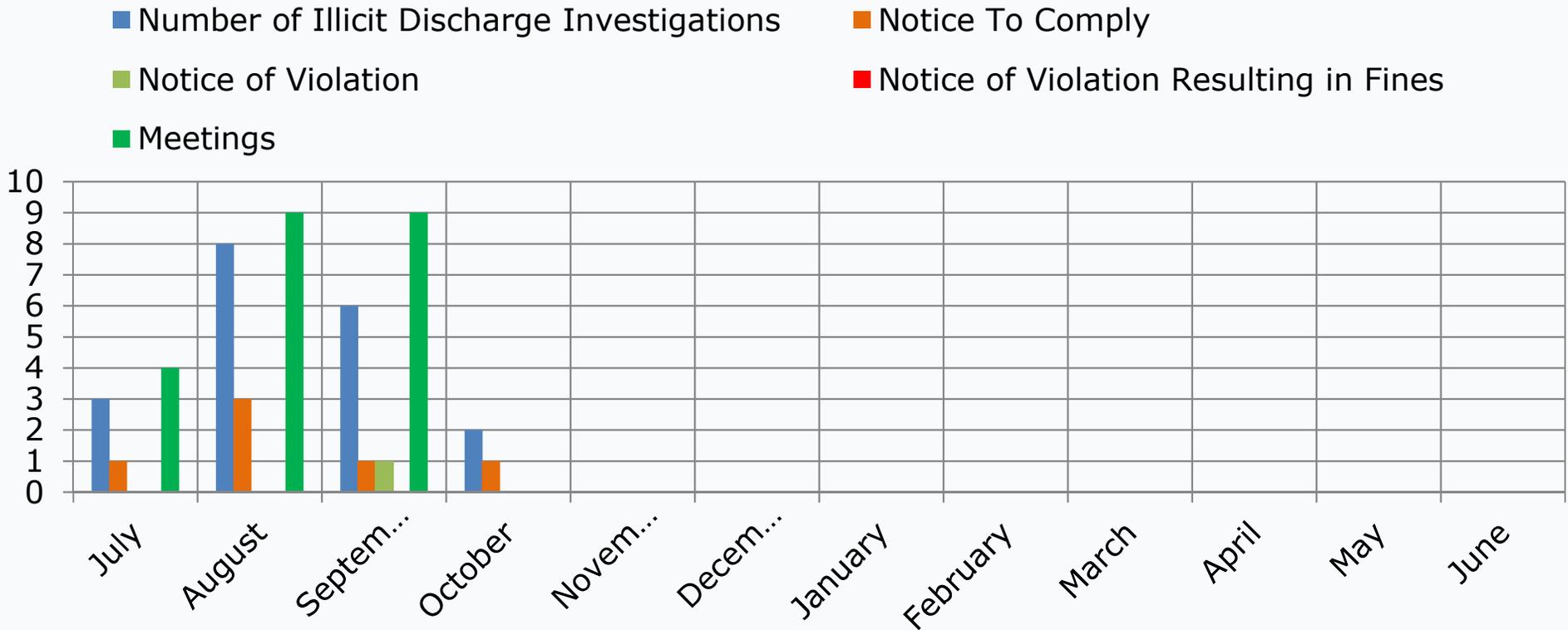
- Microbial Sources
- MST Sampling Location Without Detection
- Human
- Bird
- Deer
- Dog
- Flowline
- Drainage Ditch
- Street
- Town Jurisdiction

Microbial Sources Detected Within the May River
2017 - 2019
 Town of Bluffton
 Beaufort County, SC

THIS MAP WAS PREPARED BY THE TOWN OF BLUFFTON, SOUTH CAROLINA, AS PART OF THE MS4 MINIMUM CONTROL MEASURE #3 - IDDE: MICROBIAL SOURCE TRACKING (MST) ALL SOURCES TREND MAP. THE TOWN OF BLUFFTON, SOUTH CAROLINA, IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS MAP. THE TOWN OF BLUFFTON, SOUTH CAROLINA, IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS MAP. THE TOWN OF BLUFFTON, SOUTH CAROLINA, IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS MAP.



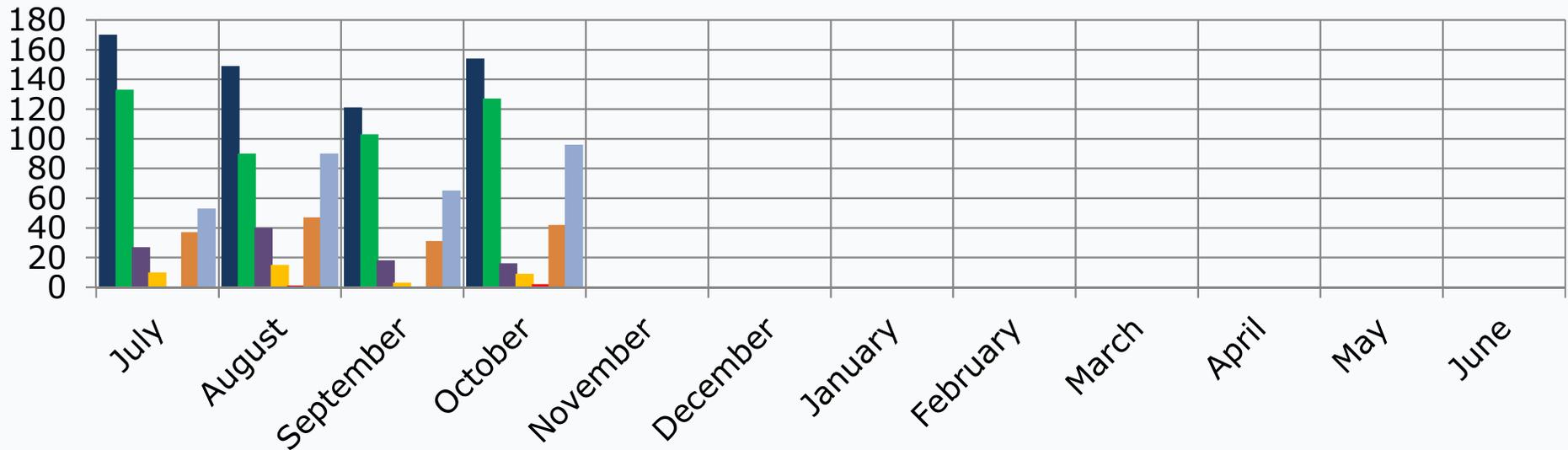
MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	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 2020 YTD Totals	19	6	1	1	22
FY 2019 Totals	38	20	3	1	61
FY 2018 Totals	48	20	4	2	60

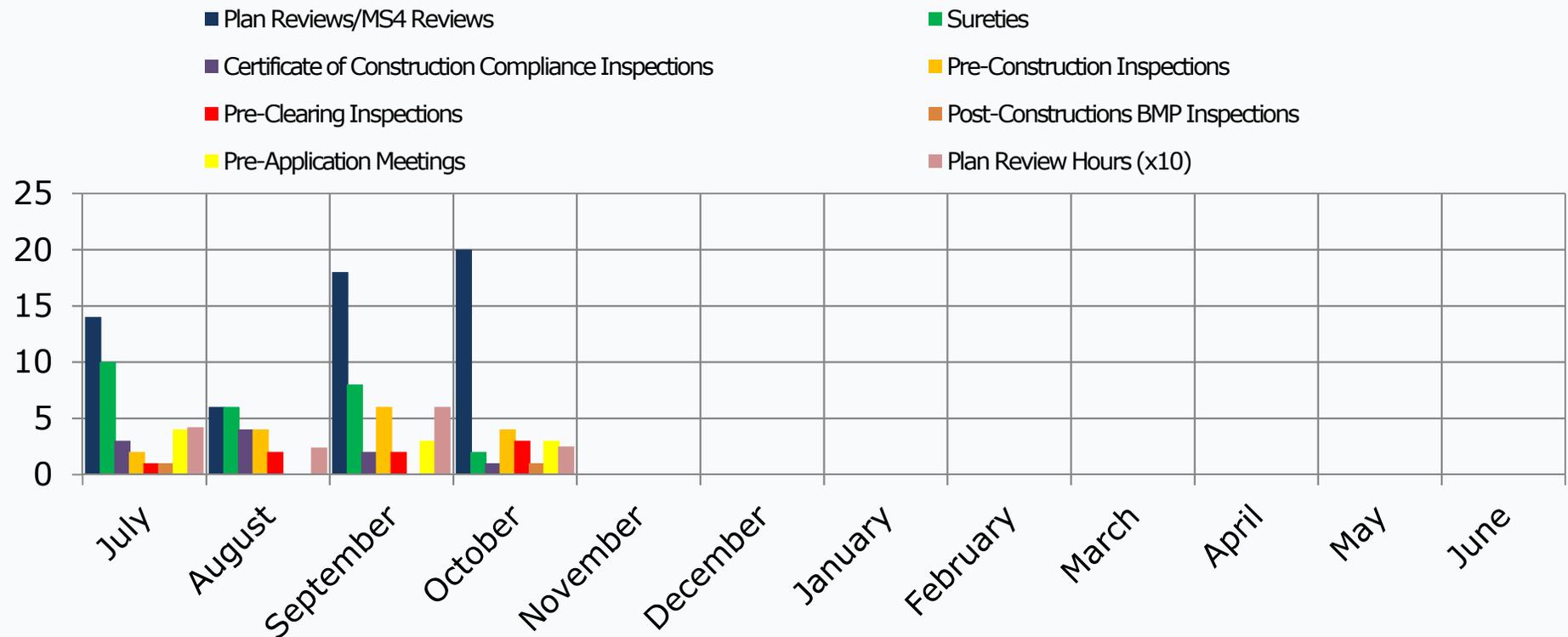
MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control

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



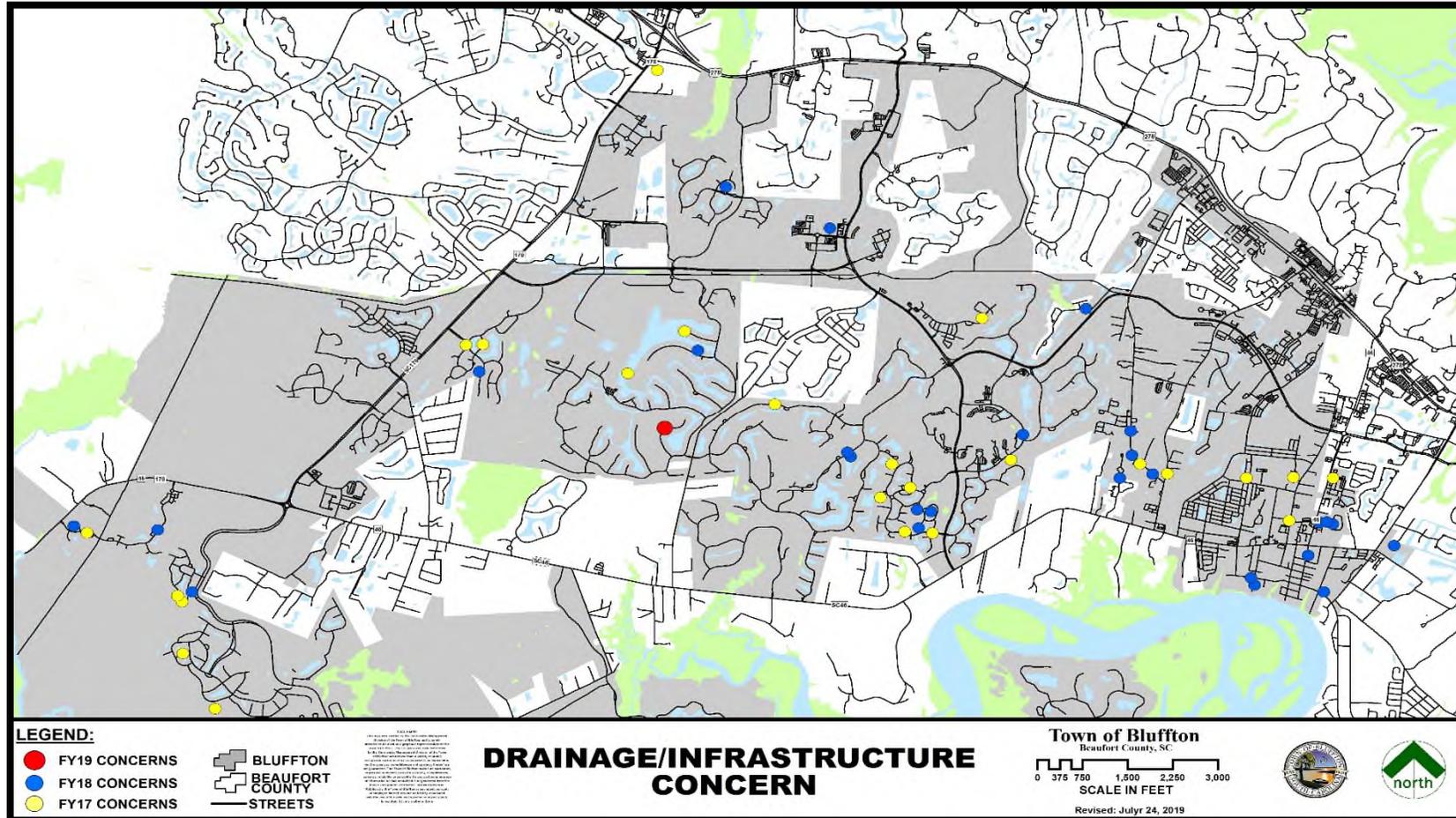
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2020 YTD Totals	594	453	101	37	3	157
FY 2019 Totals	1,688	1,384	254	72	7	403
FY 2018 Totals	1,504	1,159	300	83	10	499

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



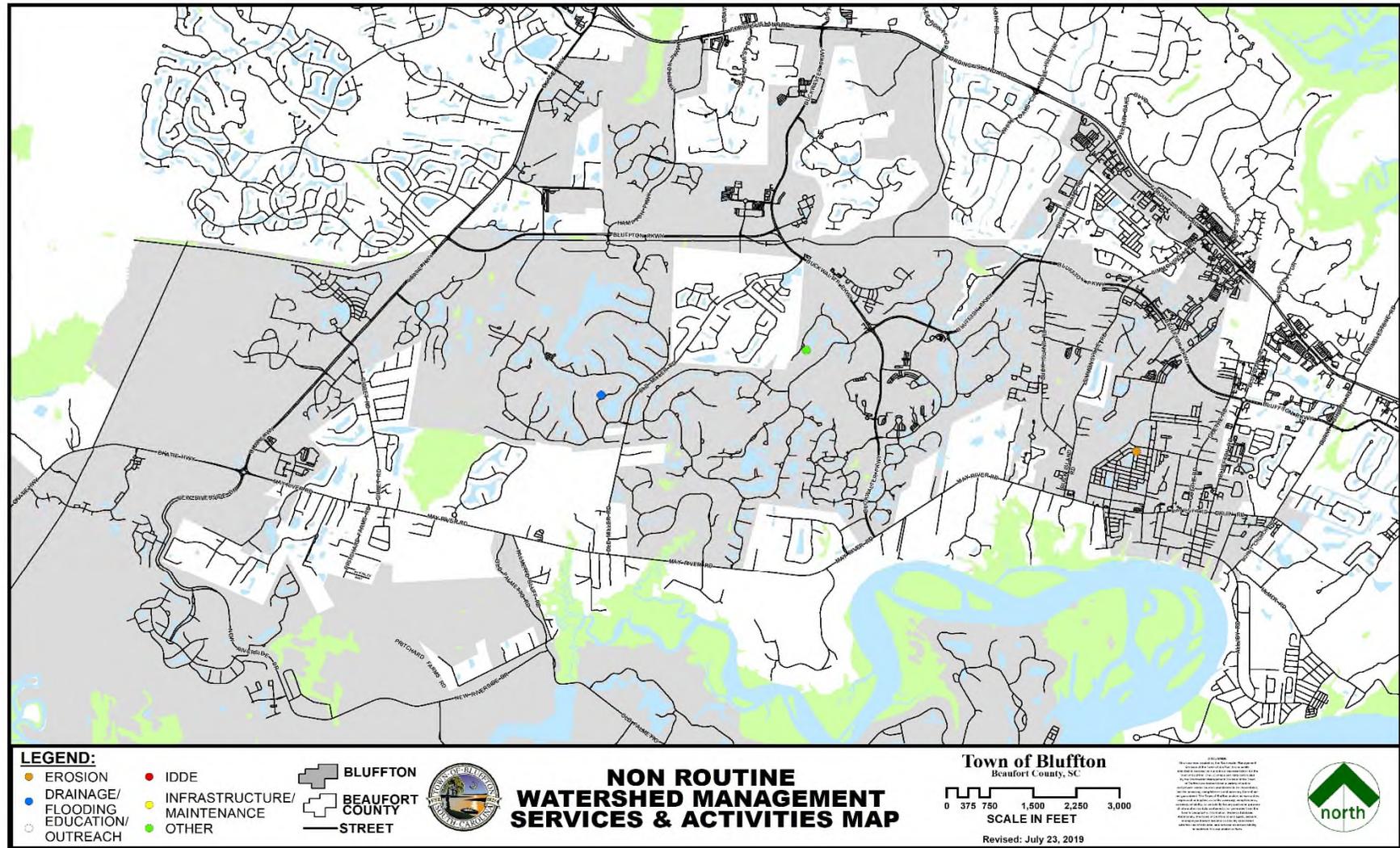
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2020 YTD Totals	58	26	10	16	8	2	10	151 Hrs.
FY 2019 Totals	208	52	53	47	37	27	63	1,040 Hrs.
FY 2018 Totals	242	59	50	32	32	88	88	1,210 Hrs.

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



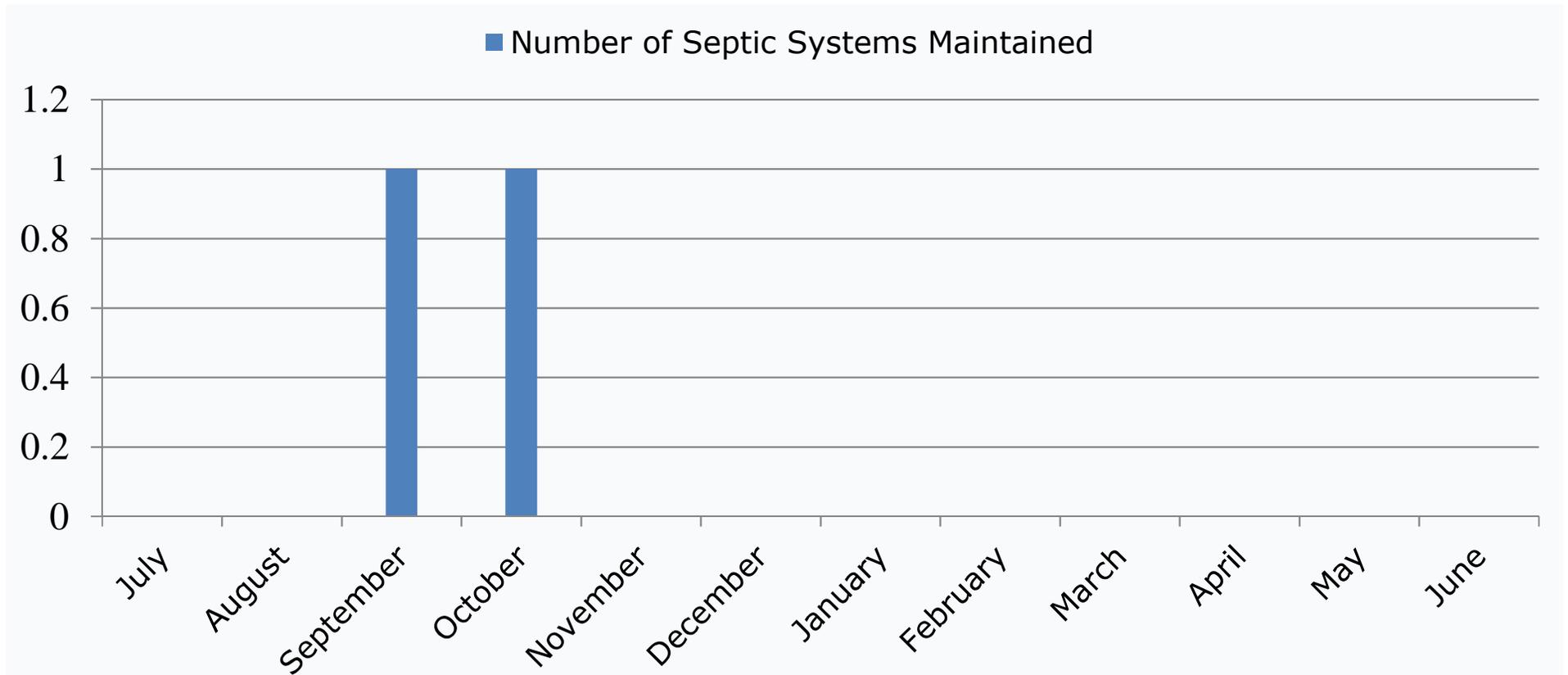
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2020 YTD Totals	25	22
FY 2019 Totals	54	59
FY 2018 Totals	48	75

Citizen Request for Watershed Mngt. Services & Activities Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2019 YTD Totals	63	66
FY 2018 Totals	75	79
FY 2017 Totals	53	82

Septic System Maintenance Assistance



	Number of Septic Systems Maintained
FY 2020 YTD Totals	2
FY 2019 Totals	4
FY 2018 Totals	16



CITY OF BEAUFORT

TO: Dan Rybak

FROM: Neil Desai, P.E.

DATE: November 1, 2019

SUBJECT: Stormwater Utility Board Report

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

1) CAPITAL IMPROVEMENTS UPDATE

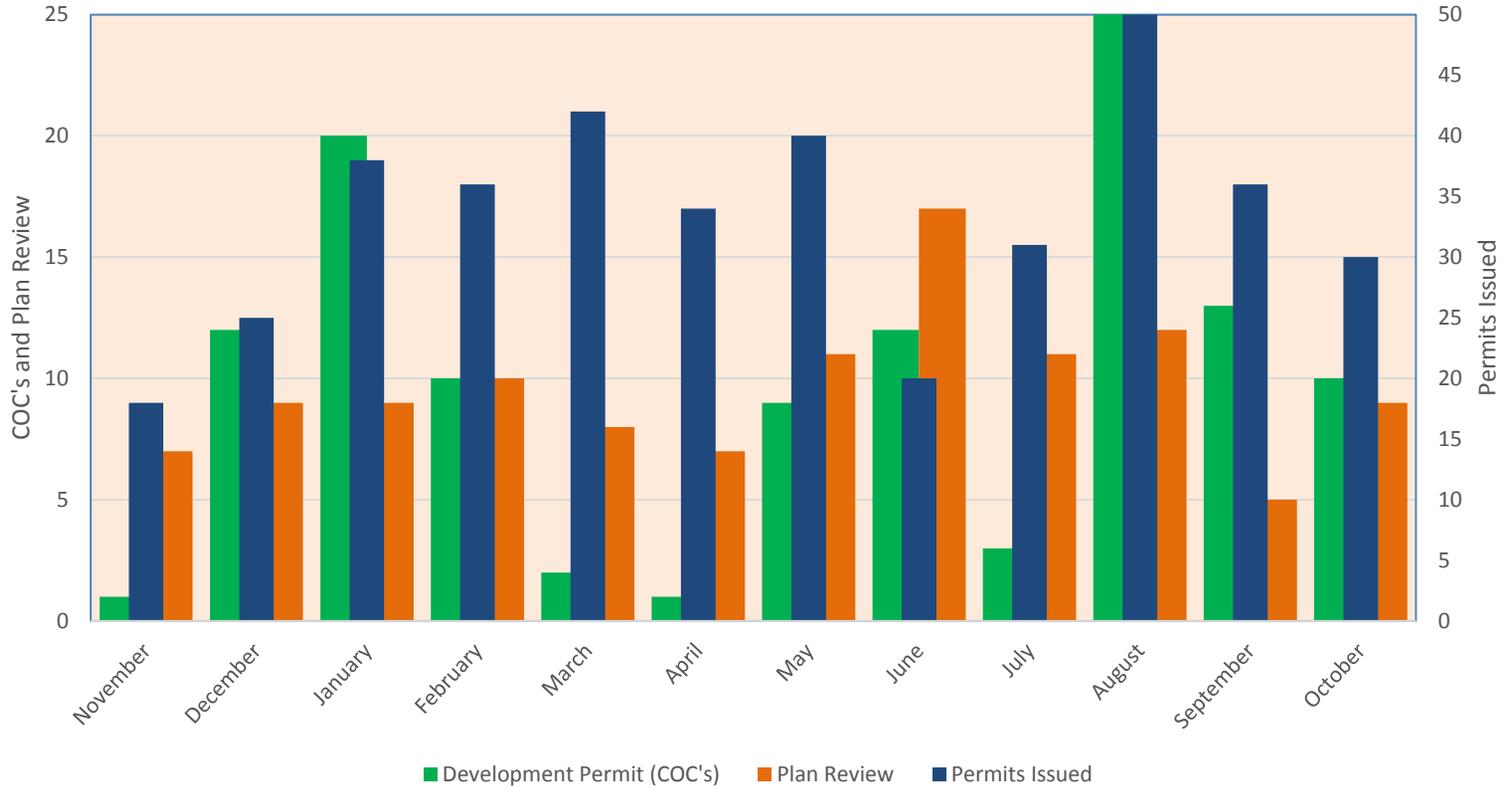
- a) Mossy Oaks Drainage Project – City has submitted to Army Corps of Engineers and SC DOT for permitting. Comments received from SC DOT. Proposed Mossy Oaks Task Force brief to neighborhood tentatively scheduled for December 2019.
- b) Battery Shores Drainage Improvement – project will be redesigned to align pipe on City’s property. Project delayed till November due to Hurricane Dorian.

- c) Greenlawn Streetscape – construction under way currently.
- d) Twin Lakes Drainage Project – construction substantially completed.
- e) Aster Street & Camellia Road drainage project – PW staff ordering materials, project delayed till November due to Hurricane Dorian.

2) MAINTANCE & REPAIR UPDATE

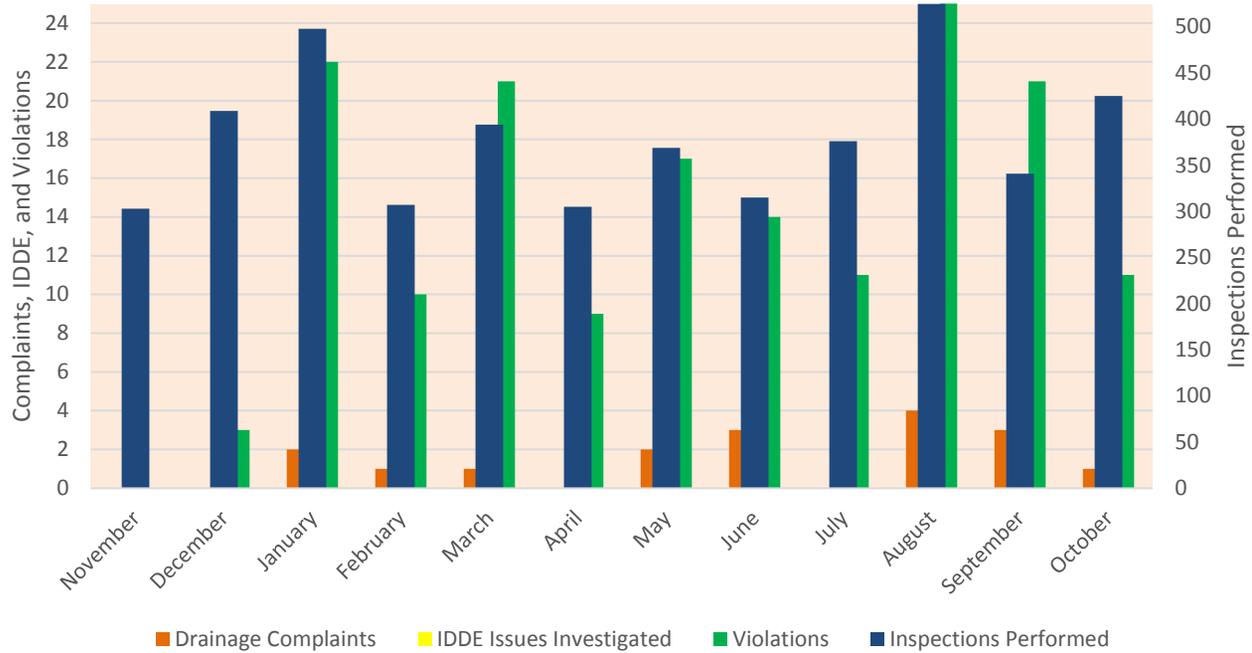
- a) Reynolds Street debris clean up completed.
- b) Routine maintenance of drainage easement City wide.
- c) City wide street sweeping scheduled for early November.

MS4 Minimum Control Measure #5 Stormwater Plan Review



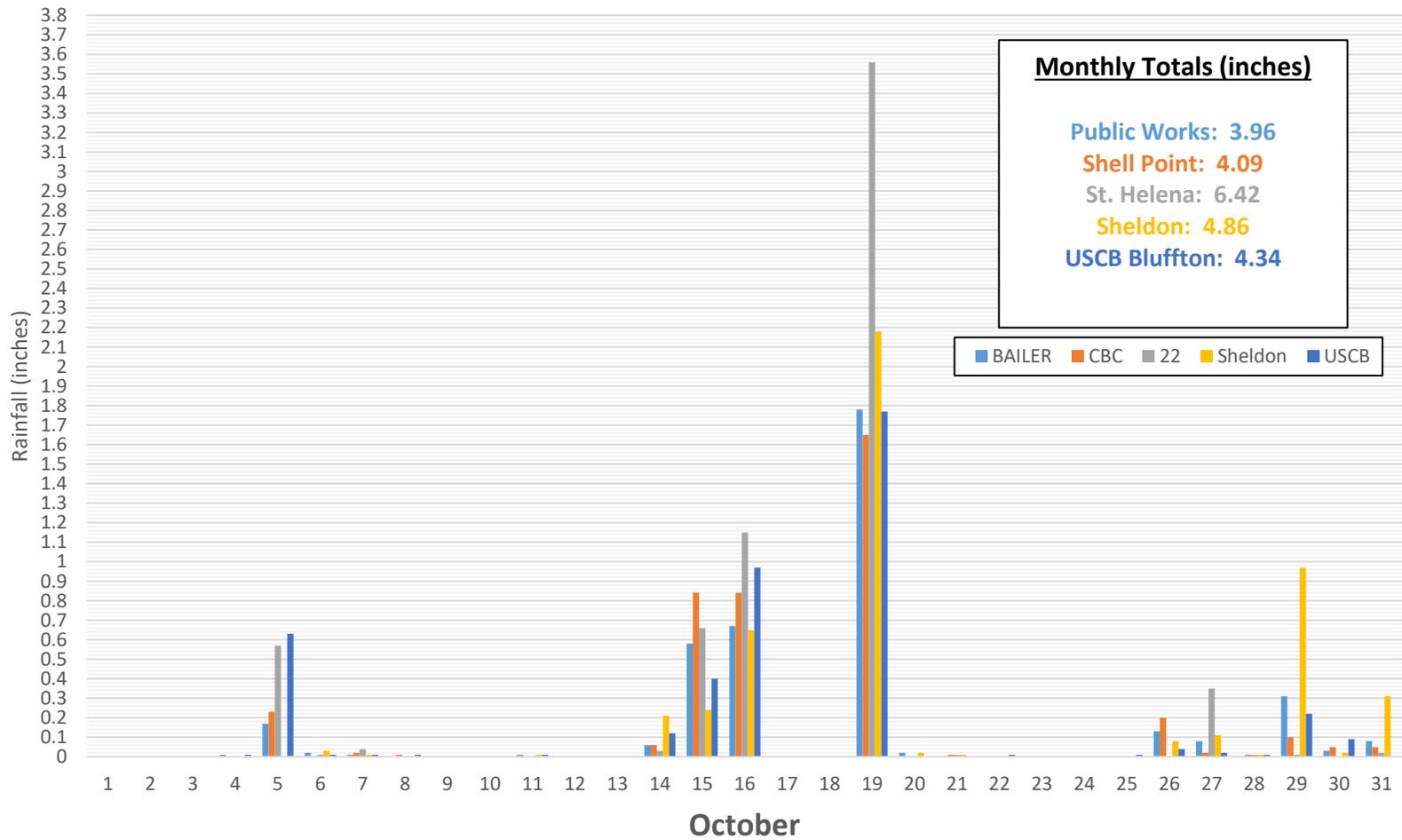
TYPE	November	December	January	February	March	April	May	June	July	August	September	October	Last 12 Months
Development Permit (COC's)	1	12	20	10	2	1	9	12	3	39	13	10	132
Plan Review	7	9	9	10	8	7	11	17	11	12	5	9	115
Permits Issued	18	25	38	36	42	34	40	20	31	50	36	30	400

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	303	409	498	307	394	305	369	315	376	525	341	425	4567
Drainage Complaints	0	0	2	1	1	0	2	3	0	4	3	1	17
IDDE Issues Investigated	0	1	0	1	0	1	2	3	2	2	1	1	14
Violations	0	3	22	10	21	9	17	14	11	29	21	11	168

Beaufort County Weather Stations Daily Rainfall Amounts - October 2019





MEMORANDUM

Date: November 13, 2019

To: Stormwater Management Utility Board

From: Matthew Rausch, Stormwater Infrastructure Superintendent

Re: **Maintenance Project Report**

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

Major Project:

- **Beaufort County Government Center – City of Beaufort (SWUD 1):** This project improved 242 feet of drainage system. The scope of work included cleaning out 1 catch basin, jetting 242 feet of channel pipe, repairing sinkholes, installing grout and a reinforced liner to prevent future pipeline failures, replacing brick pavers in the parking lot and handseeding for erosion control. The total cost was **\$170,469.05**.

Minor or Routine Projects:

- **Lady's Island Bush Hog – (SWUD 7):** This project improved 36,113 feet of drainage system. The scope of work included bush hogging 33,000 feet of channel and 3,113 feet of roadside ditch. The total cost was **\$22,533.08**.
- **Bluffton Vacuum Truck – Bluffton (SWUD 4):** This project improved 661 feet of drainage system. The scope of work included cleaning out 16 catch basins, 1 manhole, jetting 661 feet of channel pipe and 2 crossline pipes. The total cost was **\$9,712.29**.
- **Rivers End Drive – Bluffton (SWUD 4):** The scope of work included replacing 1 driveway pipe, installing sod, rip rap and handseeding for erosion control. The total cost was **\$8,393.90**.
- **St. Helena Island Vacuum Truck – St. Helena Island (SWUD 8):** This project improved 568 feet of drainage system. The scope of work included cleaning out 26 catch basins, jetting 408 feet of channel pipe, 160 feet of roadside pipe, 13 crossline pipes, 4 access pipes and 11 driveway pipes. The total cost was **\$7,556.40**.
- **Lawson Road – Port Royal Island (SWUD 6):** This project improved 630 feet of drainage system. The scope of work included cleaning out 500 feet of channel and 130 feet of roadside ditch. The total cost was **\$3,981.52**.
- **Possum Hill Road – Port Royal Island (SWUD 6):** This project improved 20 feet of drainage system. The scope of work included upsizing 20 feet of roadside pipe and installing rip rap for erosion control. The total cost was **\$2,632.82**.

- **Rivers End Drive – Bluffton (SWUD 4):** The scope of work included removing blockages from flowline by hand. The total cost was **\$954.67**.
- **Port Royal Island Valley Drains – Port Royal Island (SWUD 6):** This project improved 2,840 feet of drainage system. The scope of work included cleaning out 2,840 feet of valley drains. The total cost was **\$895.59**.



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Beaufort County Government Center

Activity: Routine/Preventive Maintenance

Duration: 11/16/18-08/26/19

Narrative Description of Project:

Project improved 242 L.F. of drainage system. Cleaned out (1) catch basin. Jetted 242 L.F. of channel pipe. Repaired sinkholes. Installed grout and a reinforced liner to prevent future pipeline failures. Replaced brick pavers in parking lot. Handseeded for erosion control.

2018-564A / Beaufort County Government Center

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	3.0	\$65.37	\$0.00	\$0.00	\$0.00	\$0.00	\$65.37
CLJS / Cleaned up jobsite	10.0	\$198.60	\$82.28	\$34.20	\$0.00	\$122.10	\$437.18
CPJ / Channel Pipe - Jetted	6.0	\$133.68	\$114.96	\$25.80	\$0.00	\$86.04	\$360.48
DEBRIS / Debris Removal	32.0	\$679.76	\$73.12	\$16.32	\$0.00	\$309.36	\$1,078.56
HAND / HANDSEEDDED	75.0	\$1,800.03	\$517.42	\$314.39	\$0.00	\$397.38	\$3,029.22
HAUL / Hauling	30.0	\$652.23	\$288.30	\$1,068.42	\$0.00	\$294.55	\$2,303.50
LR / Level Road	18.0	\$391.56	\$36.42	\$15.96	\$0.00	\$178.20	\$622.14
NONPRO / Non-Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$26,315.00	\$0.00	\$26,315.00
PP / Project Preparation	36.0	\$734.62	\$115.20	\$59.88	\$0.00	\$191.70	\$1,101.40
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$131,625.00	\$0.00	\$131,625.00
PRRECON / Project Reconnaissance	15.0	\$297.90	\$82.28	\$92.54	\$0.00	\$122.10	\$594.82
RDSW / Street/Road Sweep	15.0	\$329.95	\$18.00	\$6.84	\$0.00	\$82.35	\$437.14
SC / Sediment Control	15.0	\$318.54	\$22.32	\$15.00	\$0.00	\$165.42	\$521.28
SPSWI / Special Project - SWI	20.0	\$393.50	\$36.00	\$37.59	\$0.00	\$0.00	\$467.09
SR / Sinkhole repair	43.0	\$911.82	\$95.11	\$104.72	\$0.00	\$380.25	\$1,491.90
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2018-564A / Beaufort County Government Center Sub Total	318.5	\$6,919.91	\$1,481.41	\$1,791.66	\$157,940.00	\$2,336.06	\$170,469.05
Grand Total	318.5	\$6,919.91	\$1,481.41	\$1,791.66	\$157,940.00	\$2,336.06	\$170,469.05

Before

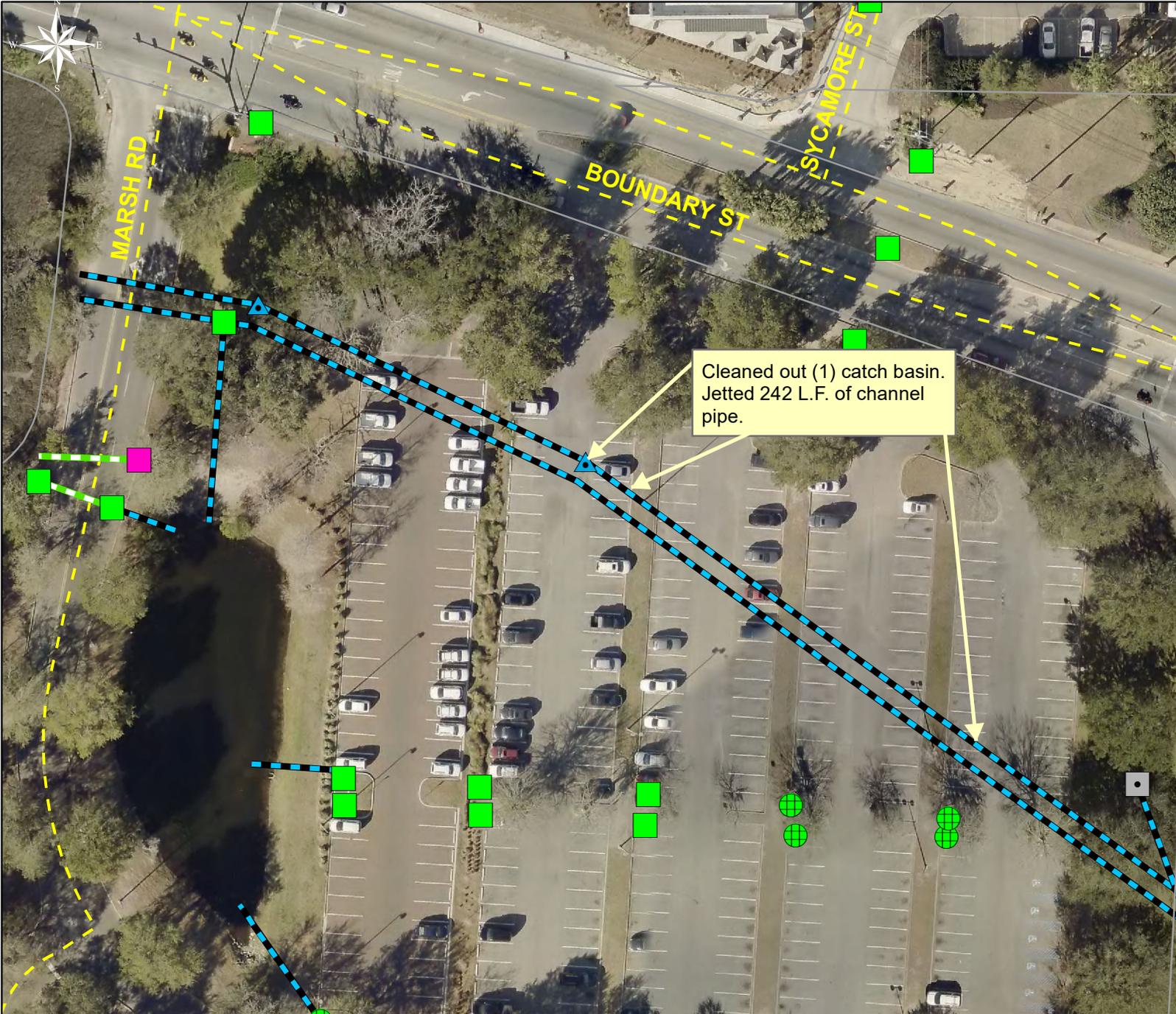


During



After





Project: Beaufort
 County
 Government
 Center Map #1

Activity: Routine/
 Preventive
 Maintenance

Project #:
 2018-564A

Township/SW Dist:
 City Of Beaufort/1

Completed:
 August 2019

Legend

Drainage Type

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

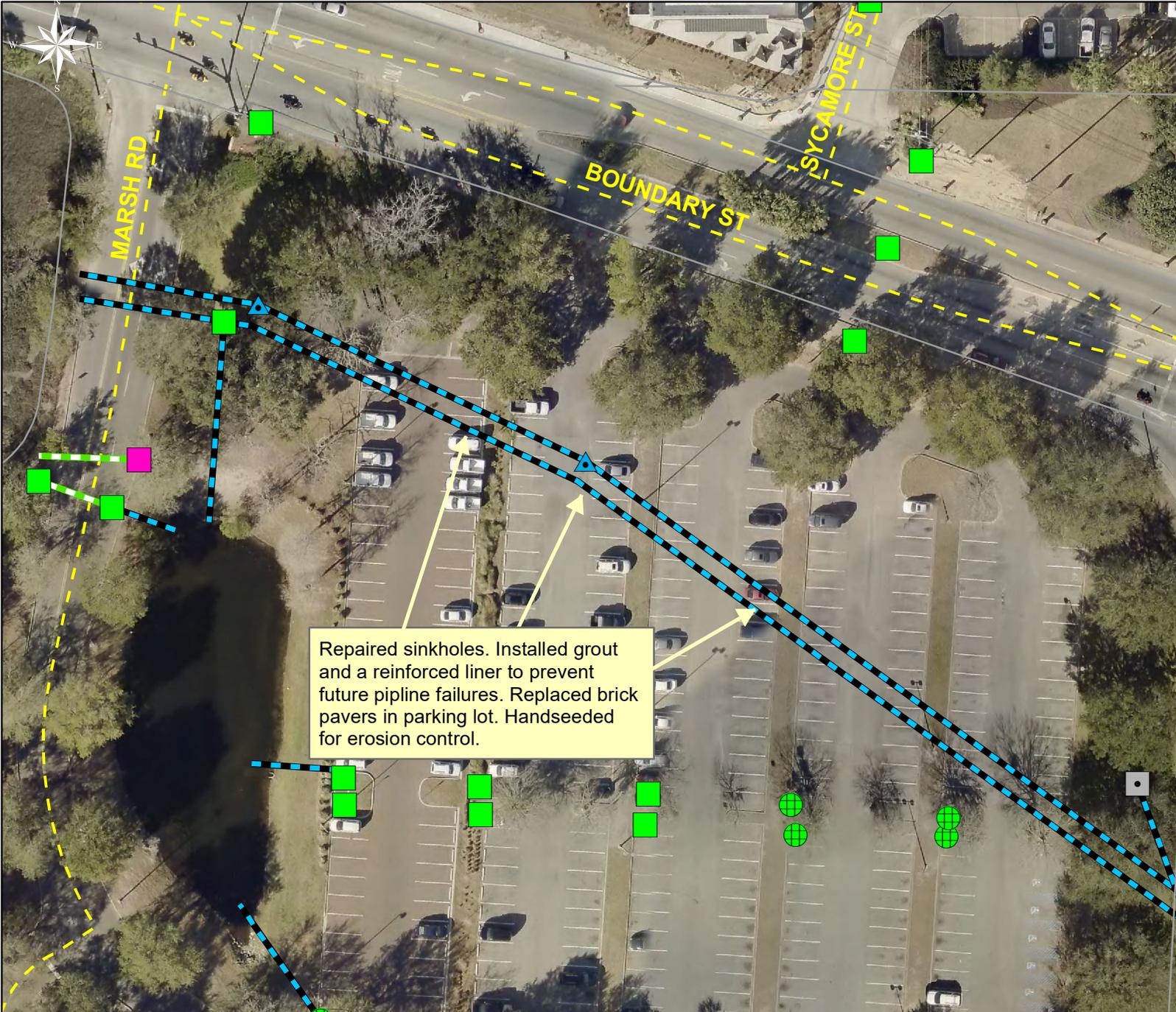


1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/30/19

File: C:\project summaries map\Beaufort County Government Center Map #1_2018-564A



Project: Beaufort
County
Government
Center Map #2

Activity: Routine/
Preventive
Maintenance

Project #:
2018-564A

Township/SW Dist:
City Of Beaufort/1

Completed:
August 2019

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 15 30 60 90 120
Feet

1 inch = 67 feet

Prepared By: BC Stormwater Management Utility
Date Print: 09/30/19

File: C:\project summaries map\Beaufort County Government Center Map #2_2018-564A



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Lady's Island Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 10/10/18-12/06/18

Narrative Description of Project:

First Rotation: 10/10/18-12/06/18 Project improved 36,113 L.F. of drainage system. Bush hogged 33,000 L.F. of channel and 3,113 L.F. of roadside ditch. This project consisted of the following areas: Beauty Berry Lane (2,399 L.F.), Eustis Landing Road (825 L.F.), Old Distant Island Road (3,457 L.F.), Airport Circle (12,943 L.F.), Faculty Drive (1,900 L.F.), Alumni Road (1,936 L.F.), Little Capers Road (400 L.F.), Sheppard Road (310 L.F.), Holly Hall Road (430 L.F.), Thomas Sumpter Road (2,880 L.F.), Francis Marion Circle (528 L.F.), Jasper Lane (620 L.F.), Wade Hampton Drive (1,016 L.F.), Royal Pines Boulevard (1,518 L.F.), Honeysuckle Lane (750 L.F.) Braeburn Lane (500 L.F.), Token Lane (1,026 L.F.), Sams Point Road (525 L.F.), Brickyard Point N (700 L.F.), Pleasant Point Drive (600 L.F.), Deveaux Road (850 L.F.)

2019-302 / Ladys Island Bush Hog

	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	446.0	\$9,952.83	\$3,894.95	\$1,270.61	\$0.00	\$6,407.97	\$21,526.35
HAUL / Hauling	14.0	\$311.78	\$403.04	\$57.34	\$0.00	\$201.88	\$974.04
2019-302 / Ladys Island Bush Hog Sub Total	461.5	\$10,297.29	\$4,297.99	\$1,327.95	\$0.00	\$6,609.85	\$22,533.08
Grand Total	461.5	\$10,297.29	\$4,297.99	\$1,327.95	\$0.00	\$6,609.85	\$22,533.08

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Vacuum Truck

Lost Hollow Lane, Fording Island Road, Parkside Drive, Buckwalter Parkway, Buck Point Road

Activity: Routine/Preventive Maintenance

Duration: 02/25/19-06/27/19

Narrative Description of Project:

Project improved 661 L.F. of drainage system. Cleaned out (16) catch basins and (1) manhole. Jetted (2) crossline pipes and 661 L.F. of channel pipe.

2019-310A / Bluffton Vacuum Truck

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	2.0	\$43.58	\$0.00	\$0.00	\$0.00	\$0.00	\$43.58
CBCO / Catch basin - clean out	39.0	\$871.34	\$766.40	\$198.76	\$0.00	\$561.39	\$2,397.89
CLPJT / Crossline Pipe - Jetted	28.0	\$634.36	\$536.48	\$134.24	\$0.00	\$362.88	\$1,667.96
CPJ / Channel Pipe - Jetted	30.0	\$668.40	\$574.80	\$111.94	\$0.00	\$430.20	\$1,785.34
DEBREM / Debris Removal - Jobsite	8.0	\$178.24	\$153.28	\$28.56	\$0.00	\$114.72	\$474.80
DPJT / Driveway Pipe - Jetted	20.0	\$445.60	\$383.20	\$72.36	\$0.00	\$286.80	\$1,187.96
PRRECON / Project Reconnaissance	6.0	\$133.68	\$114.96	\$28.56	\$0.00	\$86.04	\$363.24
SD / Soft Digging	30.0	\$668.40	\$574.80	\$118.12	\$0.00	\$430.20	\$1,791.52
2019-310A / Bluffton Vacuum Truck Sub Total	163.0	\$3,643.60	\$3,103.92	\$692.54	\$0.00	\$2,272.23	\$9,712.29
Grand Total	163.0	\$3,643.60	\$3,103.92	\$692.54	\$0.00	\$2,272.23	\$9,712.29

Before



During



After





Cleaned out (2) catch basins.

Jetted 193 L.F. of channel pipe.

Cleaned out (1) catch basin.

Jetted 142 L.F. of channel pipe.

Project: Bluffton Vacuum Truck - Lost Hollow Lane Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-310A

Township/SW Dist: Bluffton/4

Completed: June 2019

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: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Lost Hollow Lane Map #1_2019-310A

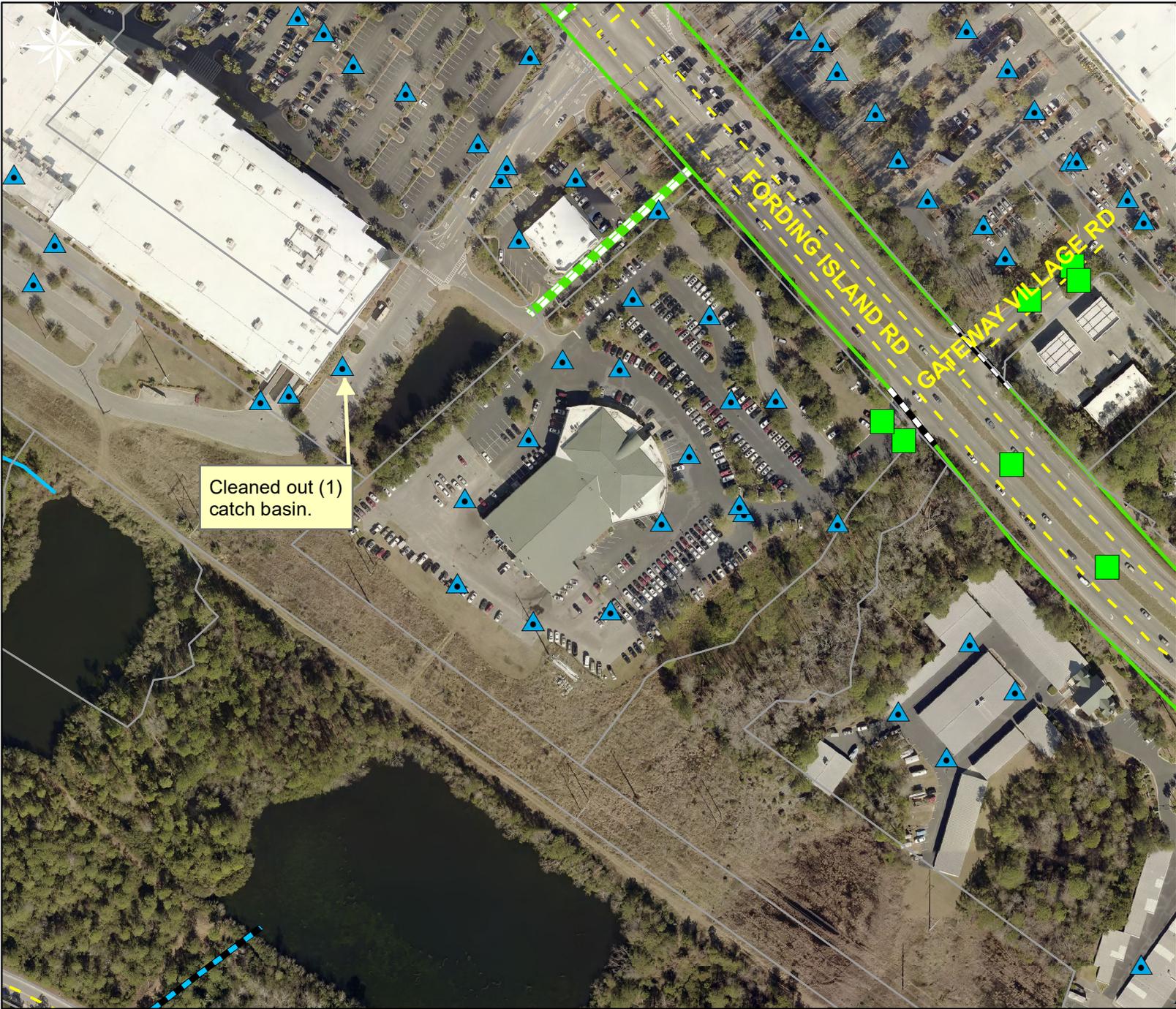
Project: Bluffton
Vacuum Truck -
Fording Island
Road Map #2

Activity: Routine
Preventive
Maintenance

Project #:
2019-310A

Township/SW Dist:
Bluffton/4

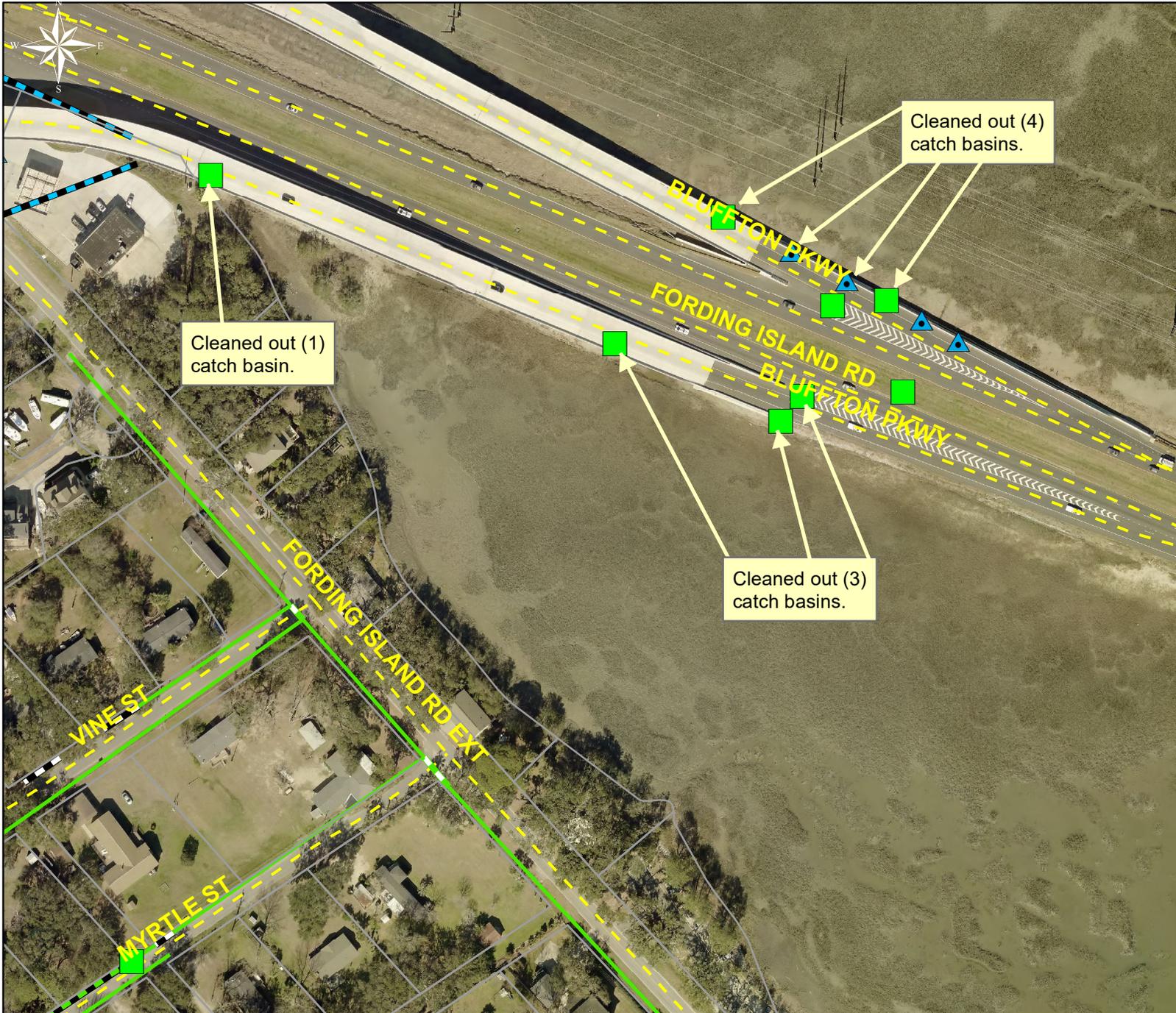
Completed:
June 2019



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



Project: Bluffton Vacuum Truck - Fording Island Road Map #3

Activity: Routine Preventive Maintenance

Project #: 2019-310A

Township/SW Dist: Bluffton/4

Completed: June 2019

Legend

Drainage Type

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

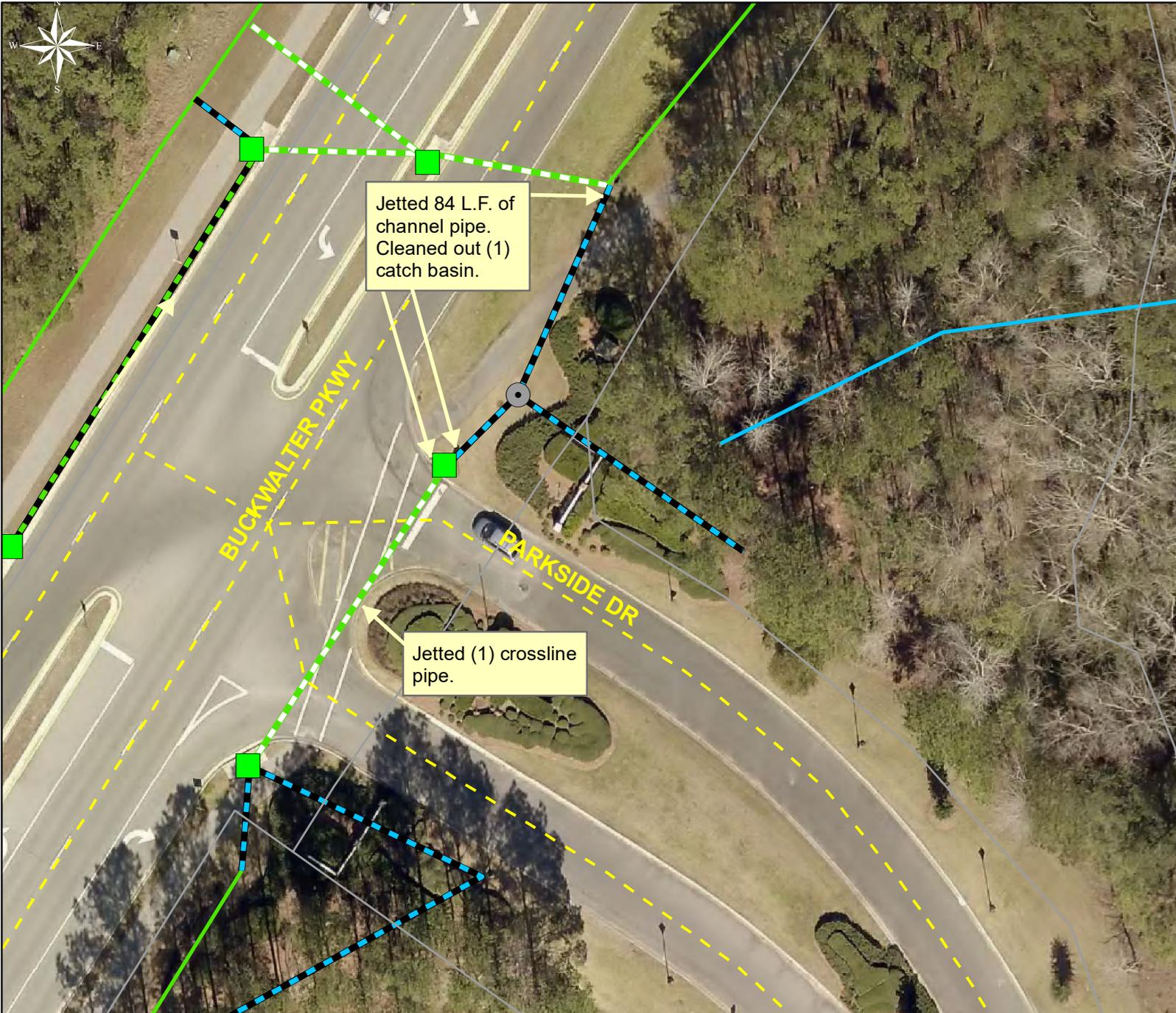


1 inch = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Fording Island Road Map #3_2019-310A



Project: Bluffton Vacuum Truck - Parkside Drive Map #4

Activity: Routine/ Preventive Maintenance

Project #: 2019-310A

Township/SW Dist: Bluffton/4

Completed: June 2019

Legend

Drainage Type

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

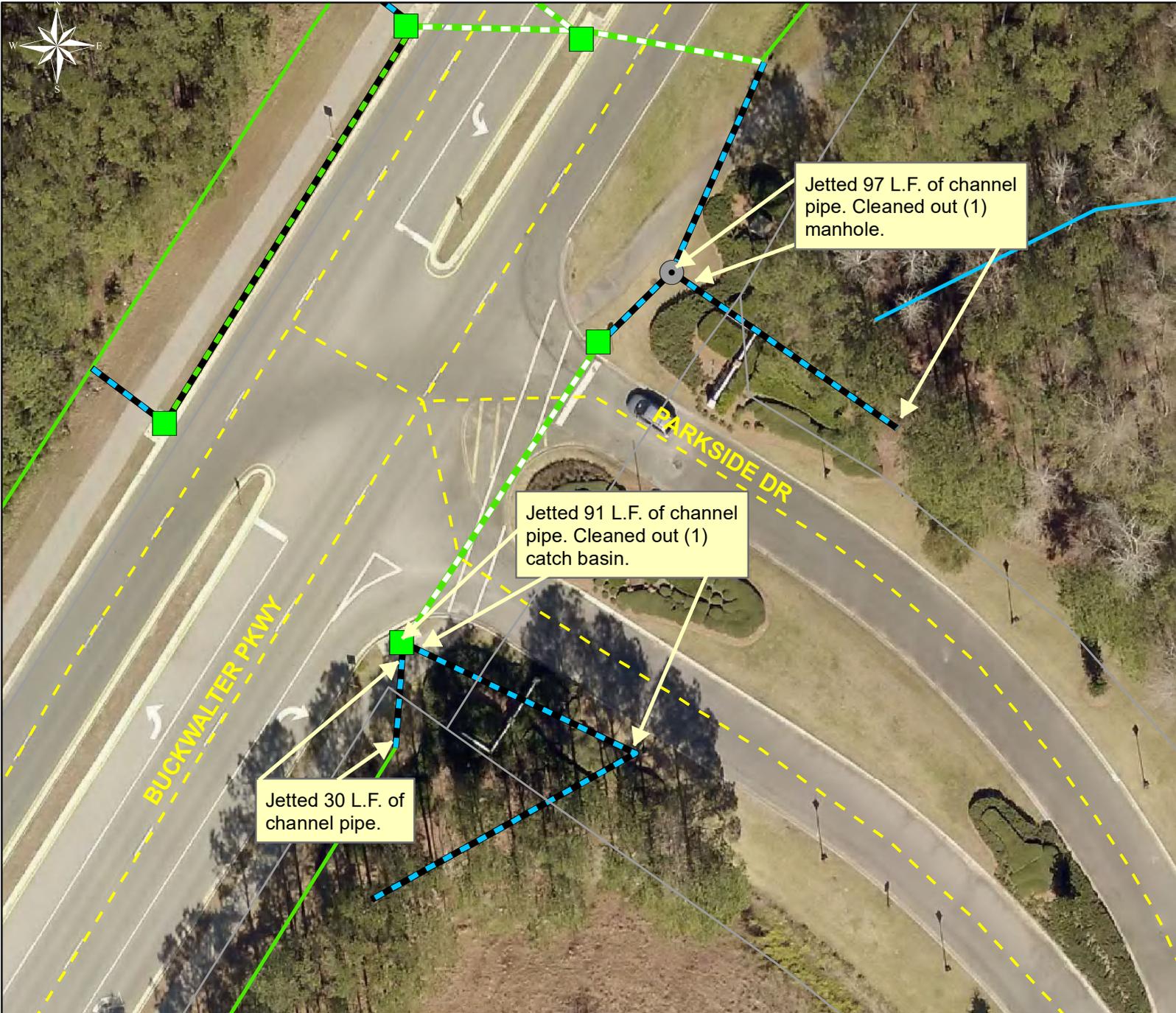


1 inch = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Parkside Drive Map #4_2019-310A



Project: Bluffton Vacuum Truck - Parkside Drive Map #5

Activity: Routine/ Preventive Maintenance

Project #: 2019-310A

Township/SW Dist: Bluffton/4

Completed: June 2019

Legend

Drainage Type

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

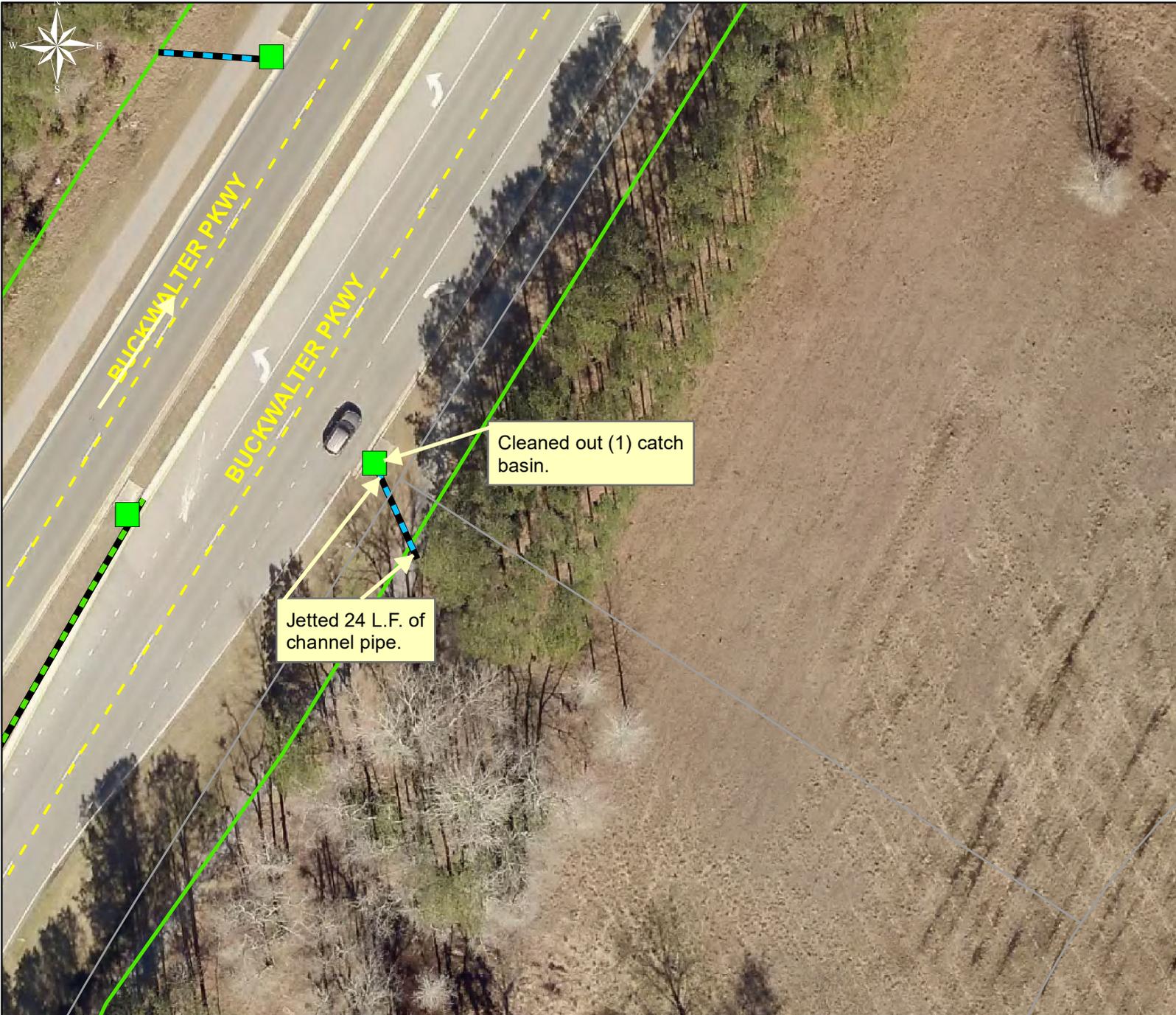


1 inch = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Parkside Drive Map #5_2019-310A



Project: Bluffton
Vacuum Truck -
Buckwalter
Parkway Map #6

Activity: Routine/
Preventive
Maintenance

Project #:
2019-310A

Township/SW Dist:
Bluffton/4

Completed:
June 2019

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 = 42 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Buckwalter Parkway Map #6_2019-310A



Project: Bluffton Vacuum Truck - Buck Point Road Map #7

Activity: Routine/ Preventive Maintenance

Project #: 2019-310A

Township/SW Dist: Bluffton/4

Completed: June 2019

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: 09/11/19

File: C:\project summaries map\Bluffton Vac Truck - Buck Point Road Map #7_2019-310A



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Rivers End Drive

Activity: Routine/Preventive Maintenance

Duration: 09/19/19-09/27/19

Narrative Description of Project:

Replaced (1) driveway pipe. Installed sod, rip rap and handseeded for erosion control.

2020-011 / Rivers End 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
DPRPL / Driveway Pipe - Replaced	110.0	\$2,382.60	\$336.88	\$1,327.85	\$0.00	\$891.00	\$4,938.33
HAND / HANDSEEDED	34.0	\$735.38	\$46.80	\$84.61	\$0.00	\$237.60	\$1,104.39
HAUL / Hauling	25.0	\$563.95	\$354.00	\$580.27	\$0.00	\$216.30	\$1,714.52
SI / Sod - Installation	15.0	\$326.30	\$61.08	\$78.98	\$0.00	\$148.50	\$614.86
2020-011 / Rivers End Drive Sub Total	185.0	\$4,030.02	\$798.76	\$2,071.72	\$0.00	\$1,493.40	\$8,393.90
Grand Total	185.0	\$4,030.02	\$798.76	\$2,071.72	\$0.00	\$1,493.40	\$8,393.90

Before

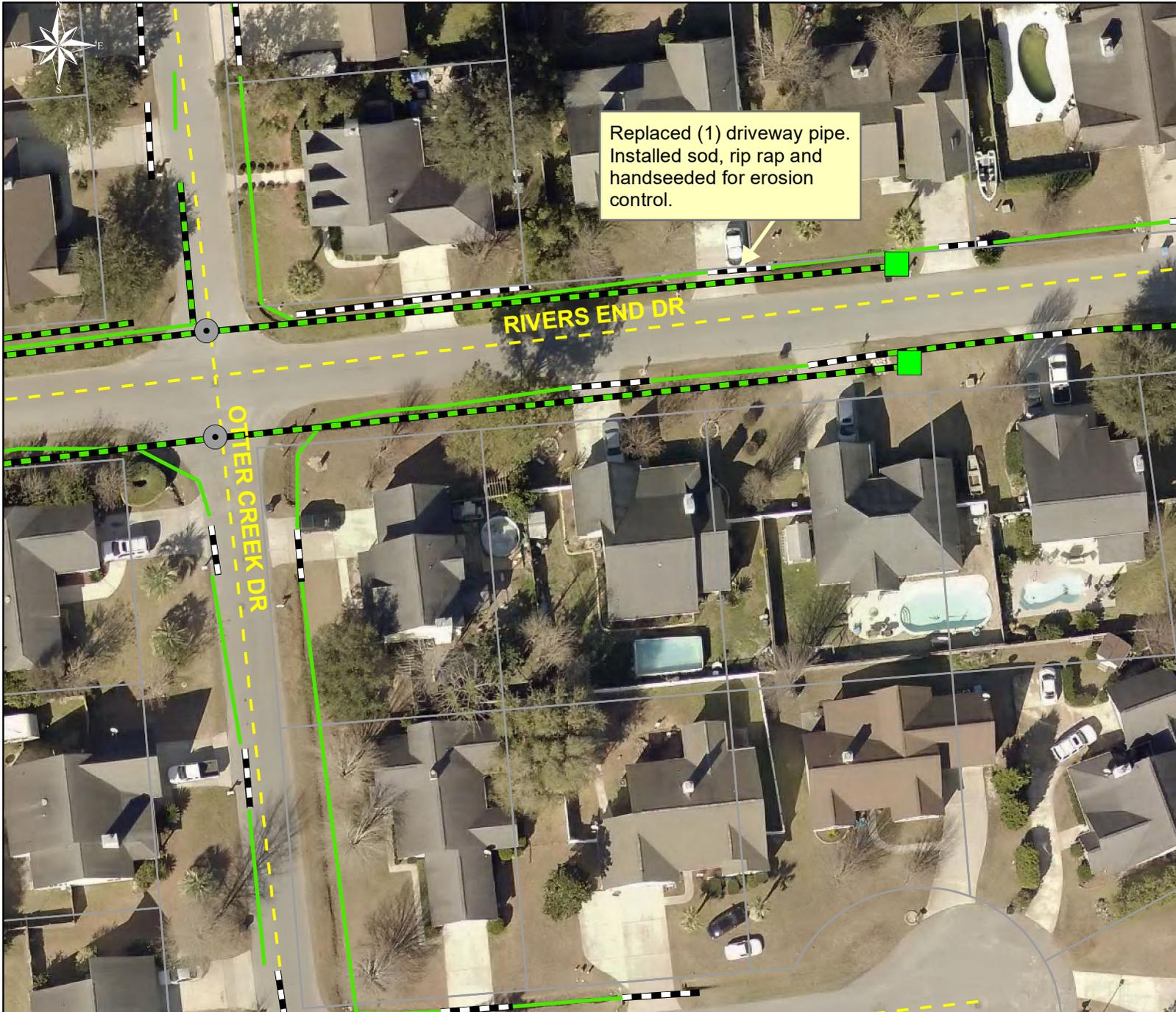


During



After





Project: Rivers End Drive

Activity: Routine/ Preventive Maintenance

Project #: 2020-011

Township/SW Dist: Bluffton/4

Completed: September 2019

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



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: St. Helena Island Vacuum Truck
 Sea Island Parkway, Mattis Drive, Pineland Avenue, Tombee Road, Luther Warren Drive, Levant Byas Road, Cuffy Road, Hunters Grove Road, Cusabo Road, Harold Rivers Road and Lands End Road

Activity: Routine/Preventive Maintenance
Duration: 01/29/19-06/19/19

Narrative Description of Project:

Project improved 568 L.F. of drainage system. Cleaned out (26) catch basins. Jetted (11) driveway pipes, (13) crossline pipes, (4) access pipes, 408 L.F. of channel pipe and 160 L.F. of roadside pipe.

2019-309A / St. Helena Island Vacuum Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APJT / Access pipe - jetted	10.0	\$222.80	\$191.60	\$21.41	\$0.00	\$143.40	\$579.21
AUDIT / Audit Project	2.0	\$43.58	\$0.00	\$0.00	\$0.00	\$0.00	\$43.58
CBCO / Catch basin - clean out	16.0	\$356.48	\$306.56	\$72.02	\$0.00	\$229.44	\$964.50
CLPJT / Crossline Pipe - Jetted	32.0	\$712.96	\$613.12	\$115.44	\$0.00	\$458.88	\$1,900.40
CPJ / Channel Pipe - Jetted	20.0	\$445.60	\$383.20	\$120.96	\$0.00	\$286.80	\$1,236.56
DPJT / Driveway Pipe - Jetted	24.0	\$534.72	\$459.84	\$98.75	\$0.00	\$344.16	\$1,437.47
SD / Soft Digging	8.0	\$178.24	\$153.28	\$30.94	\$0.00	\$114.72	\$477.18
WSL / Workshelf - Level	20.0	\$445.60	\$86.80	\$98.30	\$0.00	\$286.80	\$917.50
2019-309A / St. Helena Island Vacuum Truck Sub Total	132.0	\$2,939.98	\$2,194.40	\$557.82	\$0.00	\$1,864.20	\$7,556.40
Grand Total	132.0	\$2,939.98	\$2,194.40	\$557.82	\$0.00	\$1,864.20	\$7,556.40

Before

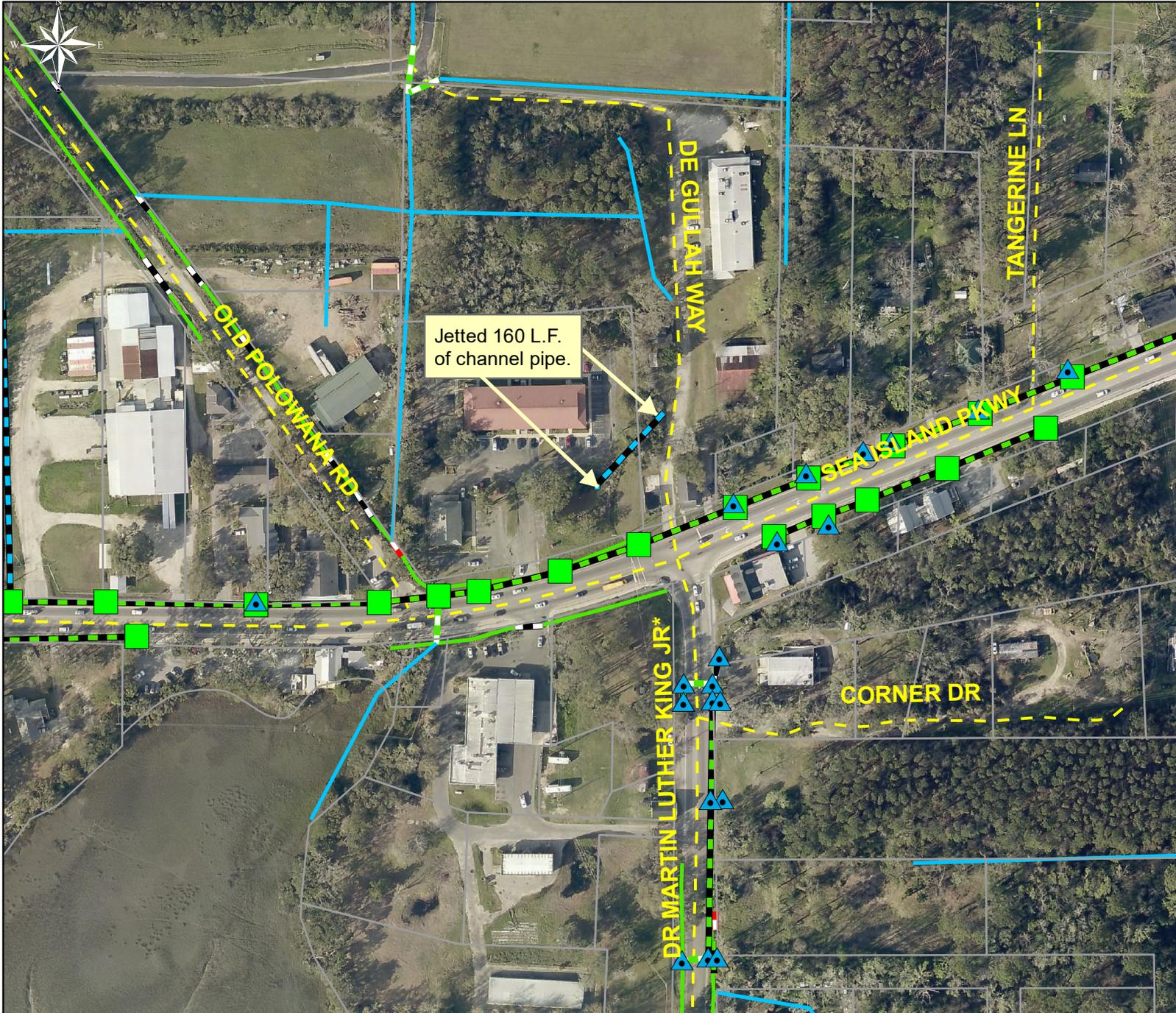


During



After





Project: St. Helena
Island Vacuum
Truck - Sea Island
Parkway Map #1

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Sea Island Parkway Map #1_2019-309A



Project: St. Helena
Island Vacuum
Truck - Mattis
Drive Map #2

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Mattis Drive Map #2_2019-309A



Project: St. Helena
Island Vacuum
Truck - Mattis
Drive Map #3

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Mattis Drive Map #3_2019-309A



Project: St. Helena
Island Vacuum
Truck - Mattis
Drive Map #4

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Mattis Drive Map #4_2019-309A

Project: St. Helena
Island Vacuum
Truck - Pineland
Avenue Map #5

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019



Legend

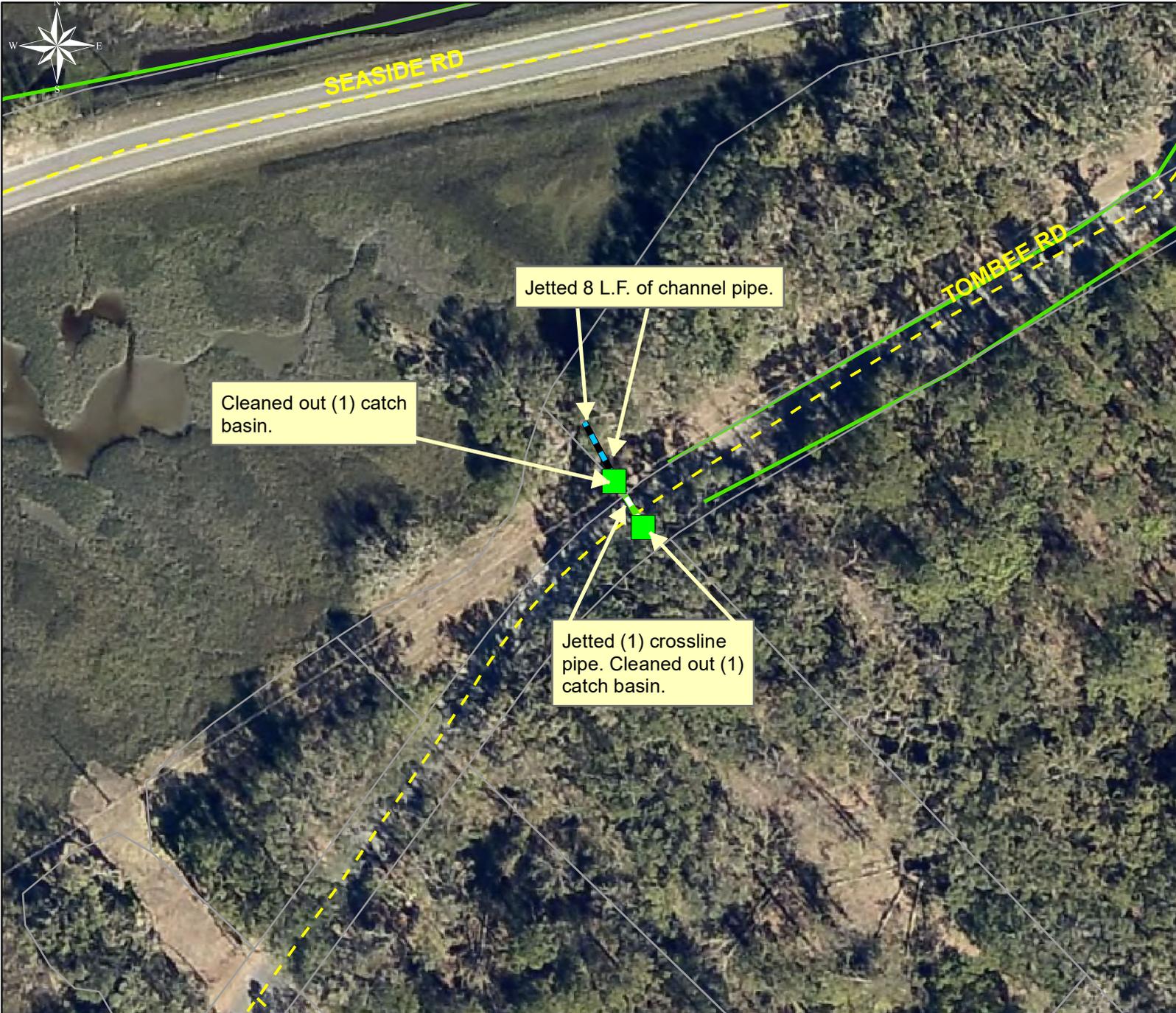
Drainage Type

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



1 inch = 210 feet

Prepared By: BC Stormwater Management Utility
Date Print: 09/30/19
File: C:\project summaries map\SHI Vac Truck - Pineland Avenue Map #5_2019-309A



Project: St. Helena
Island Vacuum
Truck - Tombee
Road Map #6

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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 15 30 60 90 120
Feet

1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Tombee Road Map #6_2019-309A



Project: St. Helena
Island Vacuum
Truck - Tombee
Road Map #7

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Tombee Road Map #7_2019-309A



Project: St. Helena
Island Vacuum
Truck - Tombee
Road Map #8

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019



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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Tombee Road Map #8_2019-309A



Project: St. Helena
Island Vacuum
Truck - Luther
Warren Drive
Map #9

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Luther Warren Drive Map #9_2019-309A



Project: St. Helena
Island Vacuum
Truck - Luther
Warren Drive
Map #10

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Luther Warren Drive Map #10_2019-309A



Project: St. Helena Island Vacuum Truck - Luther Warren Drive Map #11

Activity: Routine/ Preventive Maintenance

Project #: 2019-309A

Township/SW Dist: St. Helena Island/8

Completed: June 2019

Legend

Drainage Type

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

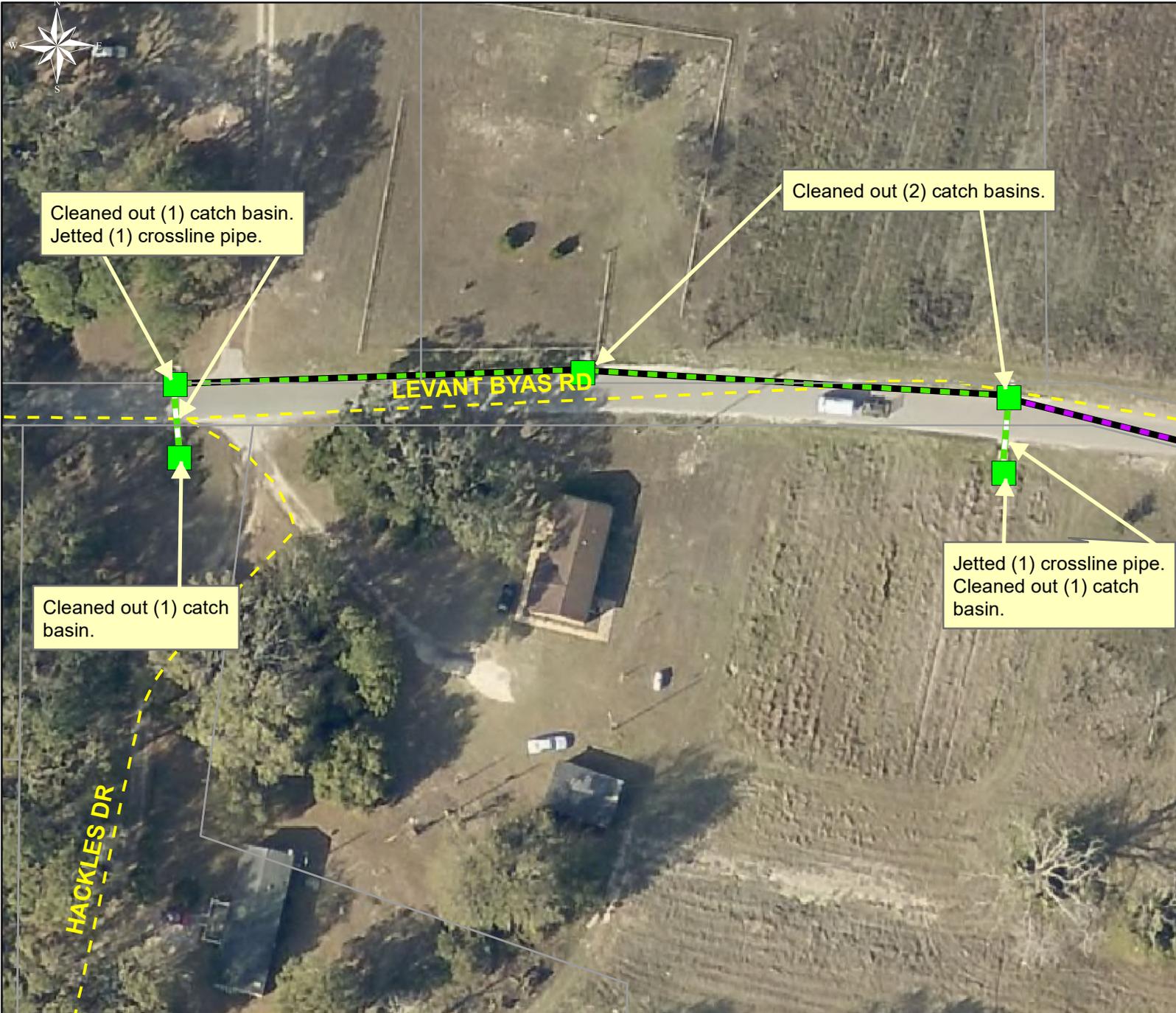


1 inch = 25 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Luther Warren Drive Map #11_2019-309A



Project: St. Helena
Island Vacuum
Truck - Levant
Byas Road
Map #12

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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 15 30 60 90 120
Feet

1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Levant Byas Road Map #12_2019-309A



Project: St. Helena
Island Vacuum
Truck - Levant
Byas Road
Map #13

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

Legend

Drainage Type

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

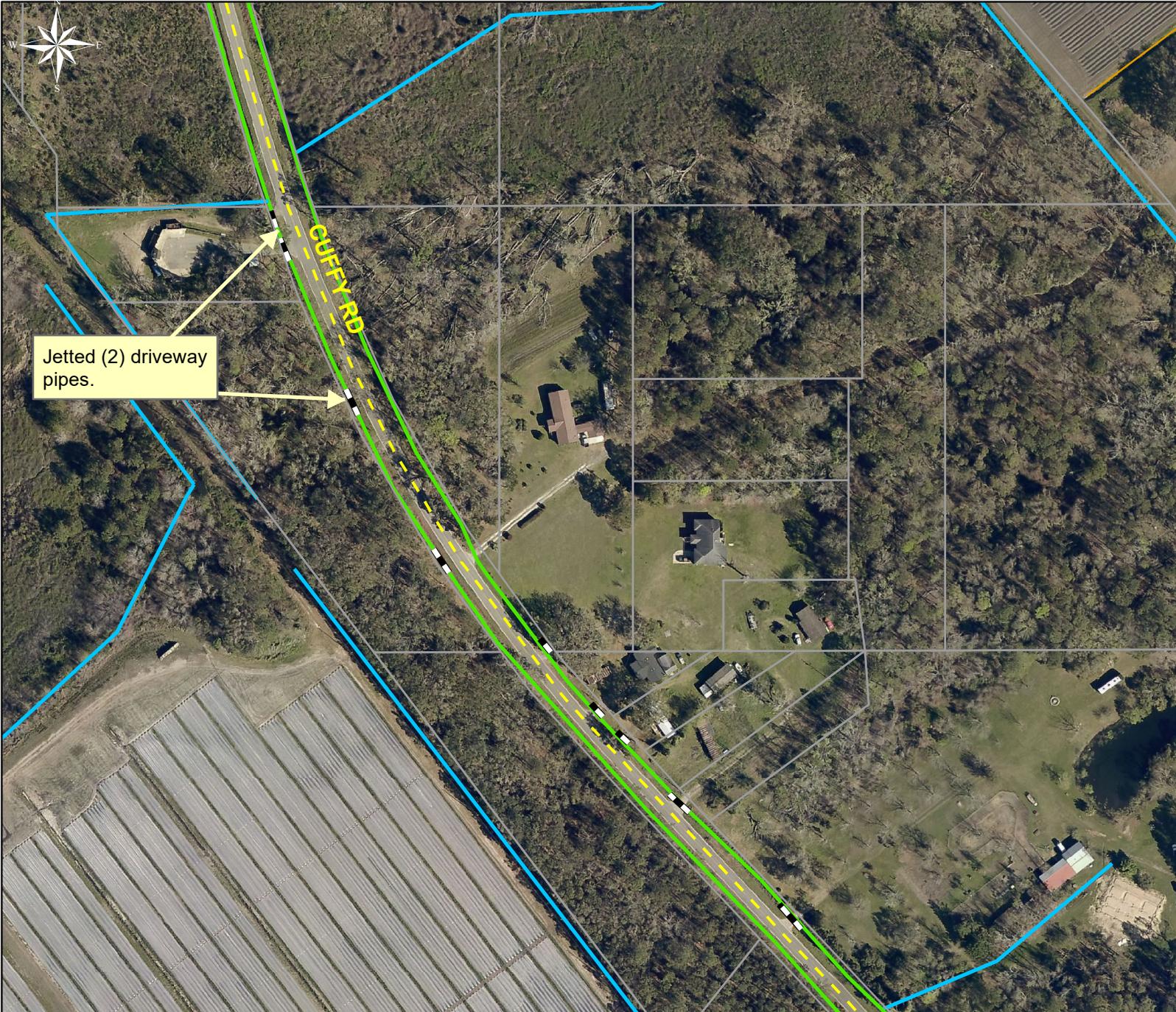


1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Levant Byas Road Map #13_2019-309A



Project: St. Helena
Island Vacuum
Truck - Cuffy
Road Map #14

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Cuffy Road Map #14_2019-309A



Project: St. Helena Island Vacuum Truck - Hunters Grove Road Map #15

Activity: Routine/ Preventive Maintenance

Project #: 2019-309A

Township/SW Dist: St. Helena Island/8

Completed: June 2019

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: 09/30/19

File: C:\project summaries map\SHI Vac Truck - Hunters Grove Road Map #15_2019-309A



Project: St. Helena
Island Vacuum
Truck - Cusabo Road
Map #16

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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:09/30/19

File:C:\project summaries map\SHI Vac Truck - Cusabo Road Map #16_2019-309A



Project: St. Helena
Island Vacuum
Truck - Harold
Rivers Road
Map #17

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 10/01/19

File: C:\project summaries map\SHI Vac Truck - Harold Rivers Road Map #17_2019-309A



Project: St. Helena
Island Vacuum
Truck - Harold
Rivers Road
Map #18

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

Legend

Drainage Type

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

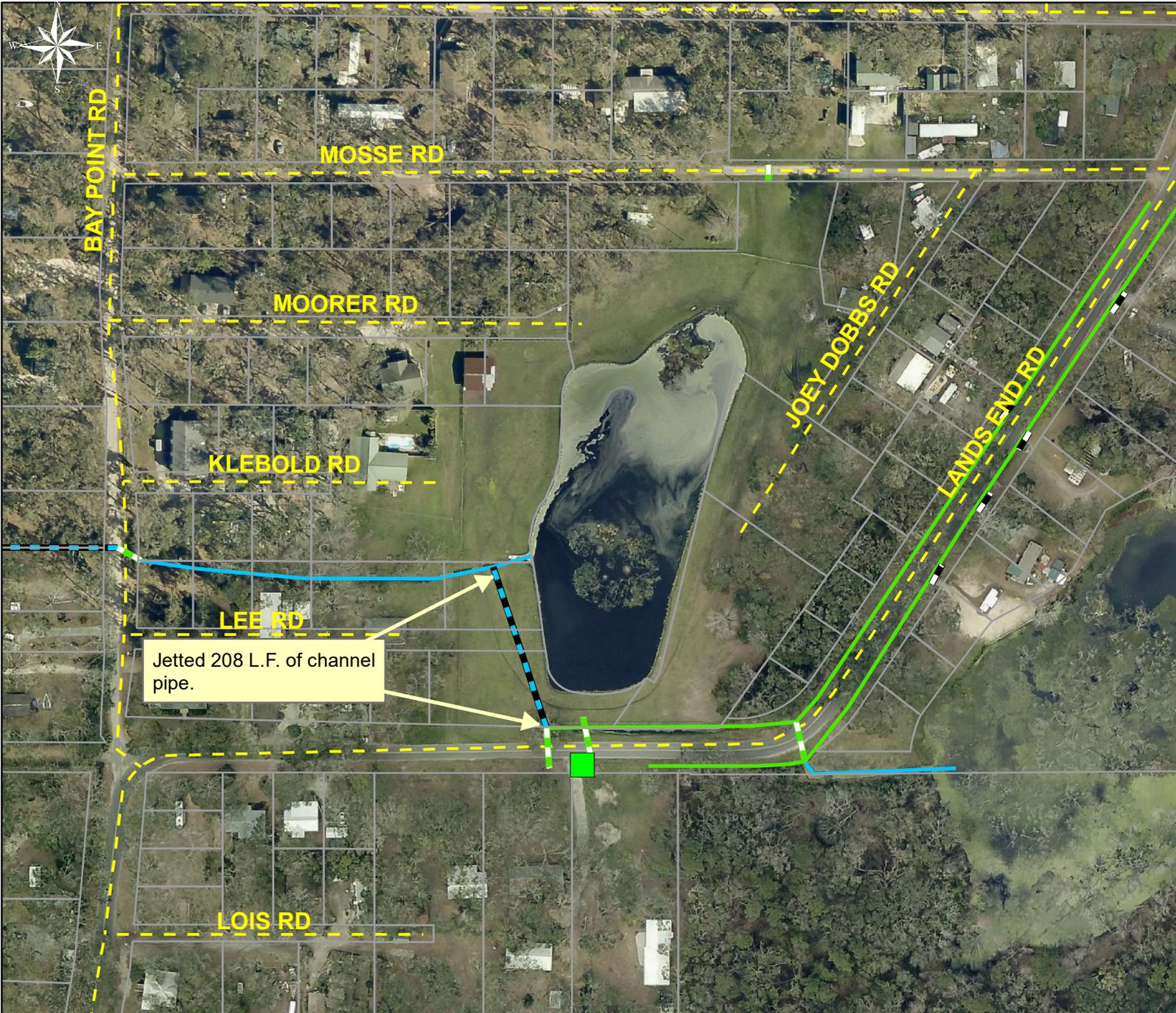


1 inch = 83 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/01/19

File: C:\project summaries map\SHI Vac Truck - Harold Rivers Road Map #18_2019-309A



Project: St. Helena
Island Vacuum
Truck - Lands
End Road
Map #19

Activity: Routine/
Preventive
Maintenance

Project #:
2019-309A

Township/SW Dist:
St. Helena Island/8

Completed:
June 2019

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: 10/01/19

File: C:\project summaries map\SHI Vac Truck - Lands Ends Road Map #19_2019-309A



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Lawson Road

Activity: Routine/Preventive Maintenance

Duration: 09/16/19-09/18/19

Narrative Description of Project:

Project improved 630 L.F. of drainage system. Cleaned out 500 L.F. of channel and 130 L.F. of roadside ditch.

2020-010 / Lawson Road

	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	80.0	\$2,115.40	\$242.09	\$83.61	\$0.00	\$533.40	\$2,974.50
HAUL / Hauling	22.0	\$505.78	\$311.52	\$167.93	\$0.00	\$0.00	\$985.23
2020-010 / Lawson Road Sub Total	103.0	\$2,642.97	\$553.61	\$251.54	\$0.00	\$533.40	\$3,981.52
Grand Total	103.0	\$2,642.97	\$553.61	\$251.54	\$0.00	\$533.40	\$3,981.52

Before



During



After



Project: Lawson Road

Activity: Routine/
Preventive
Maintenance

Project #:
2020-010

Township/SW Dist:
Port Royal Island/6

Completed:
September 2019



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: Possum Hill Road

Activity: Drainage Improvement

Duration: 09/12/19-09/25/19

Narrative Description of Project:

Upsized 20 L.F. of roadside pipe. Installed rip rap for erosion control.

2020-004 / Possum Hill Road

	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	4.0	\$89.08	\$56.64	\$451.84	\$0.00	\$57.68	\$655.24
RDUP / Roadside Pipe - Upsized	40.0	\$847.50	\$214.72	\$400.95	\$0.00	\$297.00	\$1,760.17
STBY / Stand By	3.5	\$77.95	\$49.56	\$6.75	\$0.00	\$50.47	\$184.73
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2020-004 / Possum Hill Road Sub Total	49.0	\$1,047.21	\$320.92	\$859.54	\$0.00	\$405.15	\$2,632.82
Grand Total	49.0	\$1,047.21	\$320.92	\$859.54	\$0.00	\$405.15	\$2,632.82

Before



During



After





Project: Possum Hill Road

Activity: Drainage Improvement

Project #: 2020-004

Township/SW Dist: Port Royal Island/9

Completed: September 2019

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: 10/01/19

File: C:\project summaries map\ Possum Hill Road _2020-004



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Rivers End Drive

Activity: Routine/Preventive Maintenance

Duration: 10/09/18-10/16/18

Narrative Description of Project:

Removed blockages from flowline by hand.

2019-527 / Rivers End 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
RB / Remove blockage from flowline	24.0	\$534.64	\$28.80	\$26.00	\$0.00	\$343.44	\$932.88
2019-527 / Rivers End Drive Sub Total	25.0	\$556.43	\$28.80	\$26.00	\$0.00	\$343.44	\$954.67
Grand Total	25.0	\$556.43	\$28.80	\$26.00	\$0.00	\$343.44	\$954.67

(No Pictures Available)

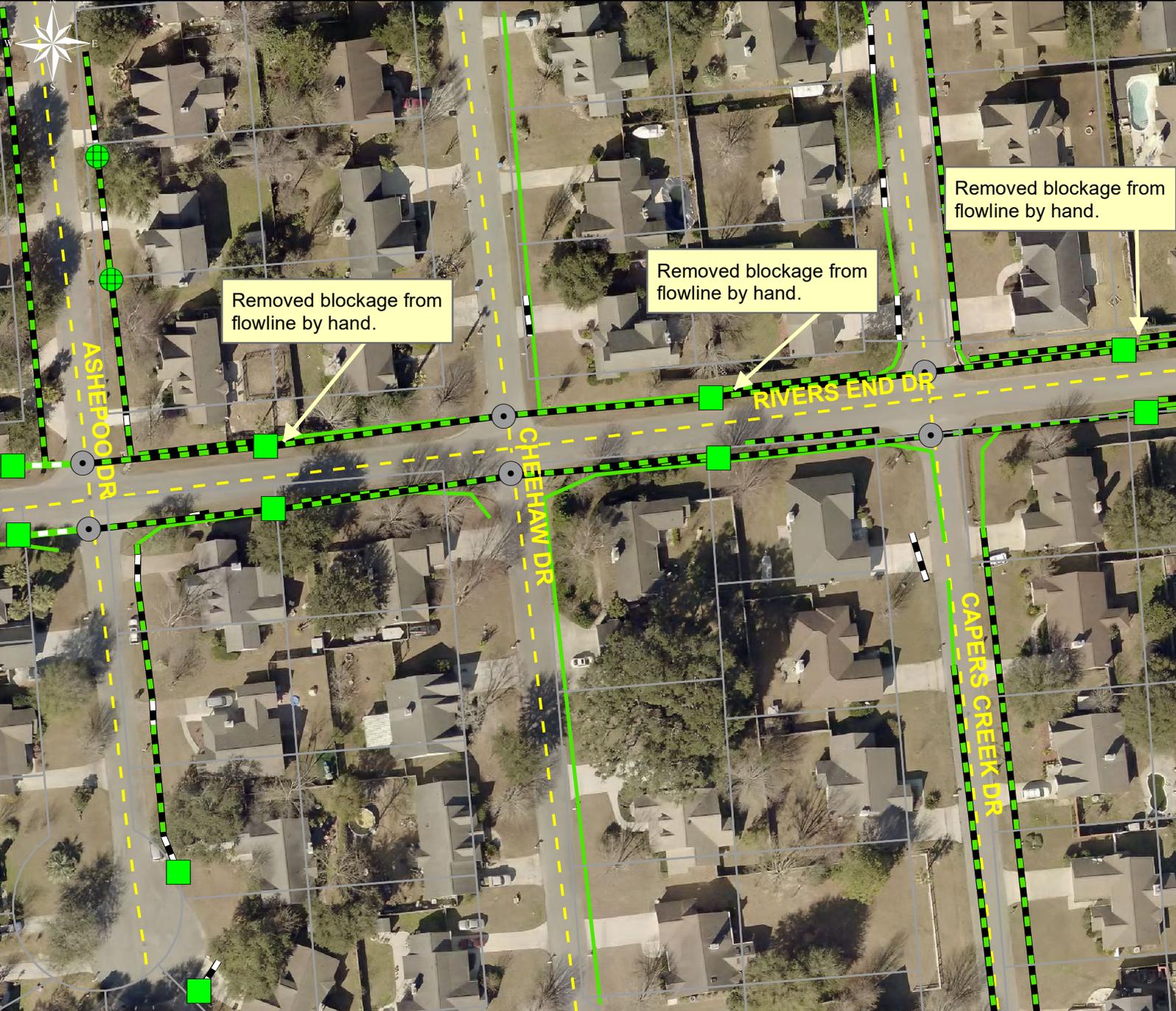
Project: Rivers End Drive Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-527

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 = 83 feet

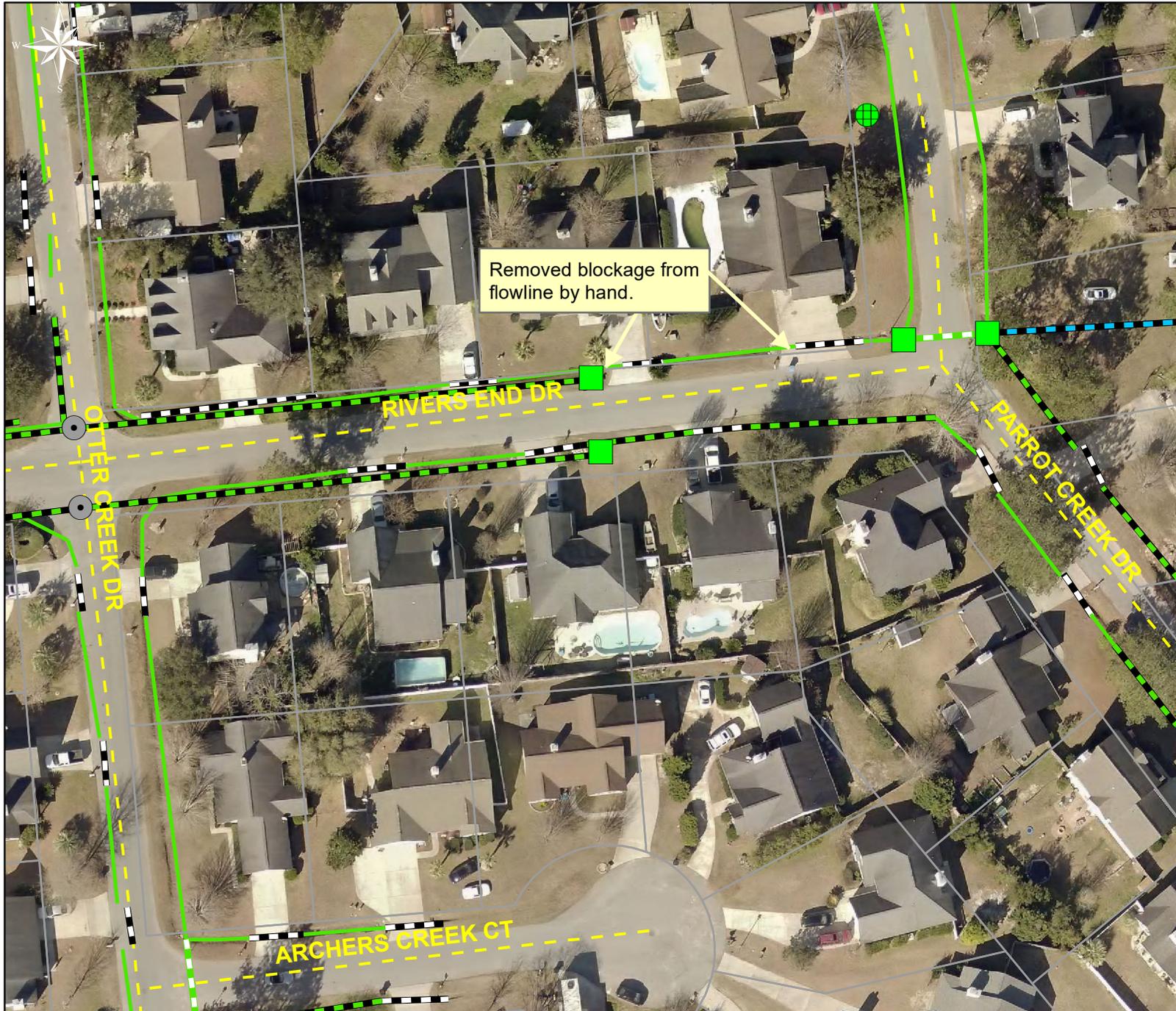
Project: Rivers End Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2019-527

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: 08/14/19

File: C:\project summaries map\Rivers End Drive Map #2_2019-527



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Valley Drains- Horton Drive

Activity: Routine/Preventive Maintenance

Duration: 01/10/2019

Narrative Description of Project:

Project improved 2,840 L.F. of drainage system. Cleaned 2,840 L.F. of valley drains. This project consisted of the following area: Horton Drive (2,840 L.F)

2019-314A / Port Royal Island Valley Drains	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
COVD / Cleaned Out Valley Drains	16.0	\$327.36	\$73.12	\$45.24	\$0.00	\$203.52	\$649.24
HAUL / Hauling	4.5	\$100.22	\$63.72	\$6.63	\$0.00	\$64.89	\$235.46
2019-314A / Port Royal Island Valley Drains Sub Total	21.0	\$438.47	\$136.84	\$51.87	\$0.00	\$268.41	\$895.59
Grand Total	21.0	\$438.47	\$136.84	\$51.87	\$0.00	\$268.41	\$895.59

(No Pictures Available)



Project: Port Royal Island Valley Drains - Horton Drive

Activity: Routine/ Preventive Maintenance

Project #: 2019-314A

Township/SW Dist: Port Royal Island/6

Completed: January 2019

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: 08/14/19

File: C:\project summaries map\Port Royal Island Valley Drains- Horton Drive_2019-314A



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, December 11, 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 – November 13, 2019 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Daniel Rybak ([backup](#))
 - B. Monitoring Update – Daniel Rybak ([backup](#))
 - C. Stormwater Implementation Committee Report – Daniel Rybak ([backup](#))
 - D. Stormwater Related Projects – Daniel Rybak ([backup](#))
 - E. Upcoming Professional Contracts Report – Daniel Rybak ([backup](#))
 - F. Regional Coordination – Daniel Rybak ([backup](#))
 - G. Municipal Reports – Daniel Rybak ([backup](#))
 - H. MS4 Update – Daniel Rybak ([backup](#))
 - I. Maintenance Projects Report – Matthew Rausch ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. January 8, 2020 ([backup](#))
9. ADJOURNMENT