



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, August 14, 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 – July 10, 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 – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. September 11, 2019 ([backup](#))
9. ADJOURNMENT

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

July 10, 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 7/22/2019

Board Members

Present

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

Absent

Ex-Officio Members

Present

Neil Desai
Van Willis
Scott Liggett

Absent

Kim Jones

Beaufort County Staff

Eric Larson
Melissa Allen
Katie Herrera
Daniel Rybak
David Wilhelm
Patty Wilson
Amber Woods

Visitors

Alice Howard, County Council
Denise Parsick, Beaufort Conservation District
Alan Warren, USCB
Danielle Mickel, USCB
Beth Lewis, Town of Bluffton
Bill Baugher, Town of Bluffton
Dr. John Weinstein, The Citadel
Lane Fargher, Centro de Investigacion y de Estudios Avanzados

1. Meeting called to order – William Bruggeman

- A. Agenda – Approved.
- B. June 12, 2019 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Special Presentation – Dr. John Weinstein with The Citadel, Department of Biology, shared a presentation on his ongoing research called Microplastics and Tire Particles in Our Coastal Waterways: The Role of Stormwater Runoff and Implications for Public Health. He referenced a paper and graphic from 2014 that shows that plastic debris is a global problem, as more than 5 trillion plastic pieces are estimated to be in the ocean. Most plastics are 5mm or less, the microplastics. The route of entry of microplastics into the coastal water ways are through point sources and non-point sources. He shared the fate of microplastics in coastal waters explaining in warm water they get a bio-film and sink down and they spend time the bio-film may change and they become re-suspended.

In 2014 the lab started studying microplastics by doing a survey of the harbor. Sampled intertidal sediments and the water. Found a harbor wide average of 23 particles per kilogram of

sediment. The levels of microplastics were not evenly distributed through the harbor, which peaked their interest. Daniel Island was 4 times higher than other sites. They wanted to identify sources, looking at shapes of particles (fibers, foam, fragments, spheres). Spheres are microbeads in toothpaste and facial scrubs were only 1% of what was found, which have now been banned. Fragments were where being found, most of them which were black, oblong fragments with a twisted shape. They spent two years trying to determine what they were. They suspect the source of these fragments are tire particles, based on analytical chemistry called further transformed infrared spectroscopy (FT-IR). If they are tire particles they should be able to go near roads and bridges drainages and found millions of these particles in the sediment.

Are tire particle an emerging concern? They contain zinc and PAH's and 30% of tread material ends up as tire particles.

Stormwater pond assessments to see what is found in pond, discharge point, and tidal creek (receiving water). River Landing (residential) pond, sediment lower levels at discharge, and lower at tidal creek suggesting they server as a sink for microplatics particles. Tidal creek was 8 times higher than harbor average, suggesting that the stormwater pond may be servings as a source to the harbor. Booz Allen Hamilton (commercial) and Bayview (residential) sediment; all trends were higher than the harbor.

The water, the trends were not as clear and may need to correlate data to rain events as it may get an impulse of microplastics and tire wear particles and they may be floating vs sinking.

Potential opportunity to mitigate inputs to coastal waters before they get into stormwater ponds and receiving waters. The have applied for funding to further look at stormwater ponds and their contribution to particles into coastal waters. Particle capture devices for water to go through before going into the pond.

The lab is looking at microplastics in oysters along the South Carolina Coast. It is a 5 year project, finishing up year one. Working with DNR to gain access to commercial and recreation shellfish beds. There are 15 sites along the coast to sample oysters. Oysters have 1.5-2 grams of tissue. Charleston Harbor was studied and compared to other studies that were done. They are going to look at potential public health concerns.

Discussion about stormwater ponds. Daniel Island truck and trailer from port. Mr. Scott Liggett commented about expecting tire wear to occur more significantly when turning, stopping and starting and focusing research where you have vehicles engaging in those maneuvers. Dr. Weinstein mentioned that the Mt. Pleasant bridge is steeper on one side. Work with the town of Mt Pleasants as they clean out boxes to see what they are capturing. Tire particles are between 63 and 150 is what they have been finding but can be up to 500 microns.

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

<https://www.beaufortcountysc.gov/stormwater-management-utility-board/agendas/2019/071019.pdf>

A. Utility Update – Eric Larson

In reference to item 2, regionalization, the project is slightly behind schedule, as there are more details that need addressed. The FY2020 Budget (item 5) was approved as proposed with the rate increase.

B. Monitoring Update – Eric Larson

Two points on the monitoring map errors were pointed out, OKWP3 should be labeled as OKW3A and BCCC2 point [by BCCC1] was not labeled. Mr. Larson mentioned there some elevated levels of bacteria in the Okatie and several samples were highly turbid.

Dr. Alan Warren shared that the wet and dry weather sampling for the second quarter is complete and third quarter monitoring has started. He commented on the Okatie West BMP and the effectiveness of the filtration media. The lab will be launching a new effort to study retention time in ponds by tracking a dye from the input point to the discharge. Mr. Larson commented on how the retention time may be some of the success of the Okatie pond, as they plugged it to saturate the bold and gold filter. Dr. Warren shared that there was no input, no output, lots of UV light penetration and a lot of time for sedimentation to occur and could not quantify fecal coliform bacteria and was previously fairly high.

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

Please reference the report, no additional updates.

D. Stormwater Related Projects – Daniel Rybak

In reference to Horse Island, item #2a, the scope and proposal has been received from the Consultant. Working on preliminary construction estimate. Item #2b, flyover bridge, the proposal has been received and submitted for approval.

Results of Alljoy meeting (item #3), submitted the hazard mitigation grant, expect approval within a year's time frame.

E. Professional Contracts Report – Daniel Rybak

Salt Creek it is at 30% design development and Brewer Memorial is at 70% design development. In reference to Evergreen, 30% design drawings were received from consultant, geotechnical investigation/report completed, and survey and wetland delineation complete.

F. Regional Coordination – Eric Larson

Item #1, County staff will be meeting BJWSA and Town of Bluffton to discuss projects. The Charleston MS4 group is meeting later in August; Berkeley County was recently audited by the EPA on their MS4 permit, so it will help to know what to expect in the event an auditor comes.

G. Municipal Reports – Eric Larson

Mr. Desai shared that Mossy Oaks Task Force met for an update. The City is waiting for regulatory approvals to begin some of the major maintenance and construction efforts. Mr. Larson is working with City on an MOA for the co-funding of the project.

Mr. Liggett commented that new projects are beginning with the new budget year.

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

Mr. Larson commented that the County does not report plan review for Single Family Homes, issue a lot more permits than what are showing.

Some weather stations were down and missed the rain event. Staff is out doing maintenance to get them back online.

I. Maintenance Projects Report – David Wilhelm

Mr. Billy Bruggeman asked about the Bellinger Bluff project drainage. Staff explained it improved the existing channel to help with some flooding.

Mr. David Wilhelm provided a litter update. He announced Mr. Marc Feinberg has created an Adopt a Highway Group has about 20-25 members to pick up along HWY278. Starting next Saturday the Public Works department will be overseeing the County Day Watch program where people can choose to pick up litter instead of serving time. There will be on average of 5-8 people for eight hours on Saturday and Sunday. The area of focus will be on HWY170 Lemon Island to Snake Road, it is a problem area.

In response to a comment, Mr. Wilhelm explained that in FY19 the focus was on getting a full time litter crew and expanding the Adopt-A-Highway program. This year the focus will be at looking on ways to create an enforcement officer. Ms. Katie Herrera commented that there is a Palmetto Pride mobile app where you can report “litter bug.”

6. Unfinished Business – None.

7. New Business – None.

8. Public Comment(s) – None.

9. Next Meeting Agenda – Approved.

10. Meeting Adjourned



**BEAUFORT COUNTY
STORMWATER UTILITY**

120 Shanklin Road

Beaufort, South Carolina 29906

Voice (843) 255-2805 Facsimile (843) 255-9436



August 14, 2019

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Lowcountry Regional Board (SoLoCo)
 - a) A *DRAFT* of the Regional Stormwater Design Standard and Model Ordinance was provided to the Committee for review and comment in mid-July. The current schedule for completion and finalization on the document and activities of Center for Watershed Protection (CWP) is as follows:
 - Draft of Manual delivered July 23.
 - Municipal Review period – until September 6 with a committee meeting scheduled to address comments ahead of that date.
 - SoLoCo presentation – September meeting.
 - Final draft of Manual for public comment – September 20.
 - Public comment period – September 20 – October 18.
 - CWP edits and final Ordinance and Manual complete – November 1.
 - Training scheduled after November 1 and complete by end of 2019.
 - The final ordinance adoption by the municipalities and implementation by each can affect the training schedule but the final documents will be available by November 1.

The above schedule of activities represents an extension in time of scheduled services performed by CWP. This Contract extension to December 31, 2019 is to be presented at the next NRC meeting scheduled for August 19, 2019.

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 – Staff has begun research on the various topics provided by the Board for future meetings:

- a) Military Site's Stormwater management – A site to the Naval Hospital is still pending.
 - b) Other topics? - It is recommended that CWP provide presentation on the *DRAFT* Regional Stormwater Design Standard and Model Ordinance at September SWUB meeting.
4. Military installation and other State and Federal properties SWU fees – See “Delinquent Accounts” below. Staff is working with GIS to update impervious area layers for military installations.
 5. Delinquent accounts – Last update: The letters to delinquent federal accounts have been mailed out. A second round of state agency letters went out also. We have had very good response from most state agencies. We are working through several inquiries from SCDOT on properties associated to ROW acquisition.
No additional update at this time.

(State and Federal accounts make up approx. 97%-98% of the delinquent account value of approx. \$7 million on our ledger)

6. TY 2019 tax run – Staff continues to work on reviewing account data for the next tax run.

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 numerous easement requests and meets monthly to review status. Several condemnations are still being pursued using outside legal counsel.
2. Complaints – Staff continually works numerous drainage related complaints each month.
 - a) Horse Island – Last update: The neighborhood has requested assistance with roadside drainage conveyance improvements, road overtopping and pond outfall upgrades. The Stormwater Manager has 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 – Last update: Design solution is to cure erosion problem under the east bound terminus ramp. This work will be bid out due to the complexity of the solution and traffic control needs. Crew is also working on scheduling some deferred

maintenance needs.

Maintenance of Stormceptor BMPs placed SWM maintenance crew schedule. Design contract with JMT pending Legal review/approval.

3. Alljoy subwatershed flooding – Last Update: Release of the RFQ and funding pending outcome of approval/denial of FEMA Hazard Mitigation Grant Application. The Hazard Mitigation Grant funding application was submitted to South Carolina Emergency Management Division on May 31, 2019 and the County is waiting for determination of acceptance/award.

No additional update at this time.

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) – Last Update: Construction on-going and estimated to be 50% complete.

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) – Last Update: Construction on-going and estimated to be 80% complete.

No additional update at this time.

6. Graves Property / Pepper Hall Public / private partnership – Meeting with Mr. Ling, Mr. Robert Graves and Eric Greenway of Community Development was held on July 31 to discuss existing ponds on Park Property and utilization for stormwater management.

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 – Last Update: The committee met June 18th to continue to define a purpose statement. Stormwater staff was unable to attend the meeting; therefore, there is no update at this time.

- Task force is schedule to meet August 13, 2019.

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 – Last Update: Consultant proceeding with 30% design development drawings. Met on-site with Consultant May 31st to formalize final design direction. **Salt Creek** - Ramsey Tract BMP being pursued and in 30% design development. **Shanklin** - Roseida SD Tract BMP and Shady Oaks/Beachwood Tract BMPs being pursued and in 30% design development.

- No additional update at this time.

- b) Brewer Memorial – Last Update: 70% design development drawings being developed. Staff is considering a slight change in scope to make the small pond a restored freshwater wetland.
 - Freshwater wetland feasibility being evaluated. SCDOT Encroachment permit Application # 200066160 has been approved. Draft Joint Ownership and Operating Policy Agreements developed with BCOLT, Parks and Stormwater sent to legal review. Pending Legal approval, Agreements are tentatively scheduled to be presented at PFC meeting in September.
- 2. Evergreen Regional Pond 319 grant project – (Design=\$89,286, Construction=\$590,000. Grant=\$229,124) – Last Update: Received 30% design drawings from consultant, geotechnical investigation/report completed, survey and wetland delineation complete. These items were reviewed and County review comments presented to Consultant. USACE Nationwide permit completed and submitted to USACE. Consultant advised to pursue 70% design development drawings and obtain required permits for construction. Quarterly reporting for the grant was submitted July 1, 2019.
 - DHEC NOI and Town of Bluffton SWPPP permit applications submitted. Town of Bluffton DRC meeting held on 7/16 and comments presented will be addressed.

Regional Coordination

1. Town of Bluffton and Beaufort County Joint meetings on Sanitary Sewer in the May River watershed – Staff from the County and Town met with BJWSA staff July 18, 2019 to discuss status of the various projects in the plan.

BJWSA 4 year and 10 year CIP plan adopted as part of their FY 20 budget process. BJWSA has put funding in the 10 year plan to cover 1/3 of the estimate cost for each phase, assuming participation from the Town and County. They have not scheduled the projects into a particular FY but will do so once funding commitment is made by the Town and County. This could be as early as FY 21. The 4 year plan has the Stoney Creek project in it. This project is a subset of the first phase in that area

Here are the most recent cost estimates from BJWSA presented cost estimates for all phases of work:

- Alljoy Gravity Sewer - \$12,500,000
- Old Town Gravity Sewer - \$2,600,000
- Cahill Low Pressure Sewer - \$3,700,000
- Gascoigne Low Pressure Sewer – \$2,100,000
- Stoney Creek Vacuum - \$4,700,000
- Pritchardville Vacuum - \$9,500,000

County Council will need to consider and approve County portion of funding for all work. The Stoney Creek project can be considered in FY 21. It is considered the highest priority project. Cost share participation with the Town of Bluffton needs to

be discussed and confirmed as the project locations are not within incorporated areas of Town, but are within May River drainage area.

Funding of these projects is a policy decision by Council. BJWSA begins the CIP process for the budget as early as October each year. Therefore, the Council should reach out to the Town Council and continue the discussions that last occurred in June 2018. Be advised that the Town Staff will be presenting an update on this topic to the May River Watershed Action Plan Advisory Committee (WAPAC) on August 29, 2019. Multiple Town Council members are on that committee.

The above information has been provided to the County Administrator for review and consideration.

2. Mossy Oaks Task Force – (Design \$20,404, Construction \$205,000; County portions only). See Municipal Reports.
3. Charleston Area MS4 managers group – Meeting was held on July 25th in Charleston. Meeting presentations from Hamed Majidzadeh of S.C. Sea Grant Consortium on the [2018 State of Knowledge Report](#) and Denise Sanger of SCDNR will be presenting information from their tidal creeks study of impacts from upland development and stormwater management. Also Biohabitats, Inc. provided a presentation on examples of better site design through integrated stormwater management approaches (LID/GI and enhanced pond design).
4. Bluffton Ditch Task Force –. The group 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 – Last Update: Met June 14th with representatives of the Nature Conservancy. At the meeting, they discussed common points of interest and means to protect water quality and land in the Port Royal Sound region as we continue to grow and prosper as a community. They plan to meet again in 2 months and discuss: Resolution/agreement to support land protection; Review funding opportunities to finance land protection; Review comprehensive plan and related ordinances for compatibility with land protection goals; and Establish goals and leadership for this initiative.

No additional update at this time

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 – [See attached update from LSP.](#)
6. Energov permitting software – Stormwater department is in final stages of uploading all required documents, as well as finishing defining the process and permit outlines for Energov staff. On July 30th, Stormwater staff had a conference call with the implementation consultant to make sure there was a clear understanding of final tasks. The to-do list created from that call is approximately 90% complete, with all documents ready for signed approval upon completion.
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 - [See attached update.](#)

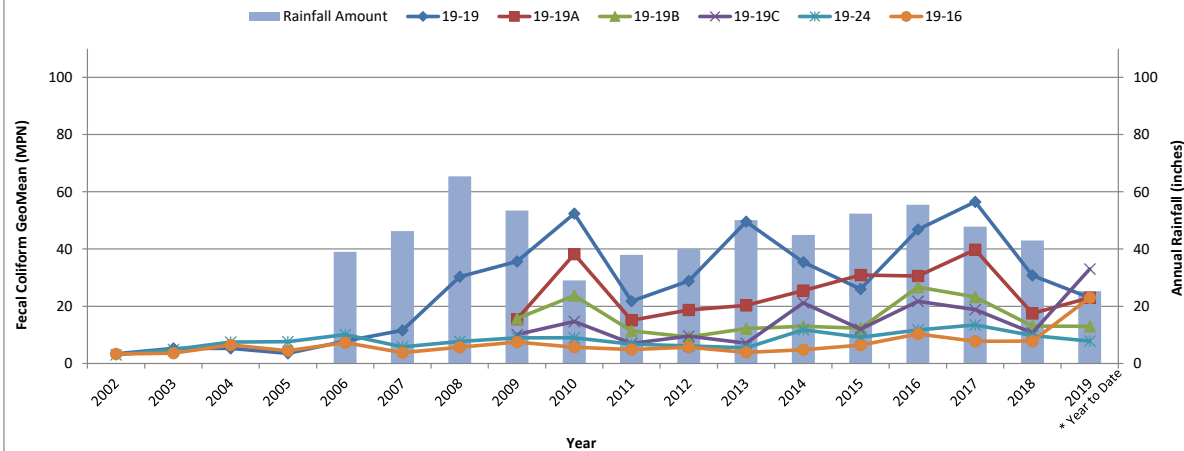
	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	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	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
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
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
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
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																								
Additional Samples																								
Average Annual GeoMean	46.8	56.5	30.8	24.2	30.6	39.8	17.5	21.6	26.7	23.3	13.1	13.5	21.7	18.8	10.7	14.2	11.7	13.5	9.8	9.7	10.3	7.7	7.9	7.6
** Truncated GeoMetric Mean	37.0	44.0	42.0	37.0	30.0	36.0	29.0	25.0	16.0	20.0	20.0	16.0	16.0	16.0	15.0	14.0	9.0	10.0	10.0	11.0	6.0	7.0	8.0	7.0
** Truncated 90th Percentile	105.0	203.0	176.0	169.0	89.0	133.0	115.0	99.0	69.0	83.0	71.0	60.0	65.0	57.0	56.0	55.0	29.0	37.0	44.0	43.0	21.0	29.0	30.0	28.0

NS = No Sample

AS = Additional Samples

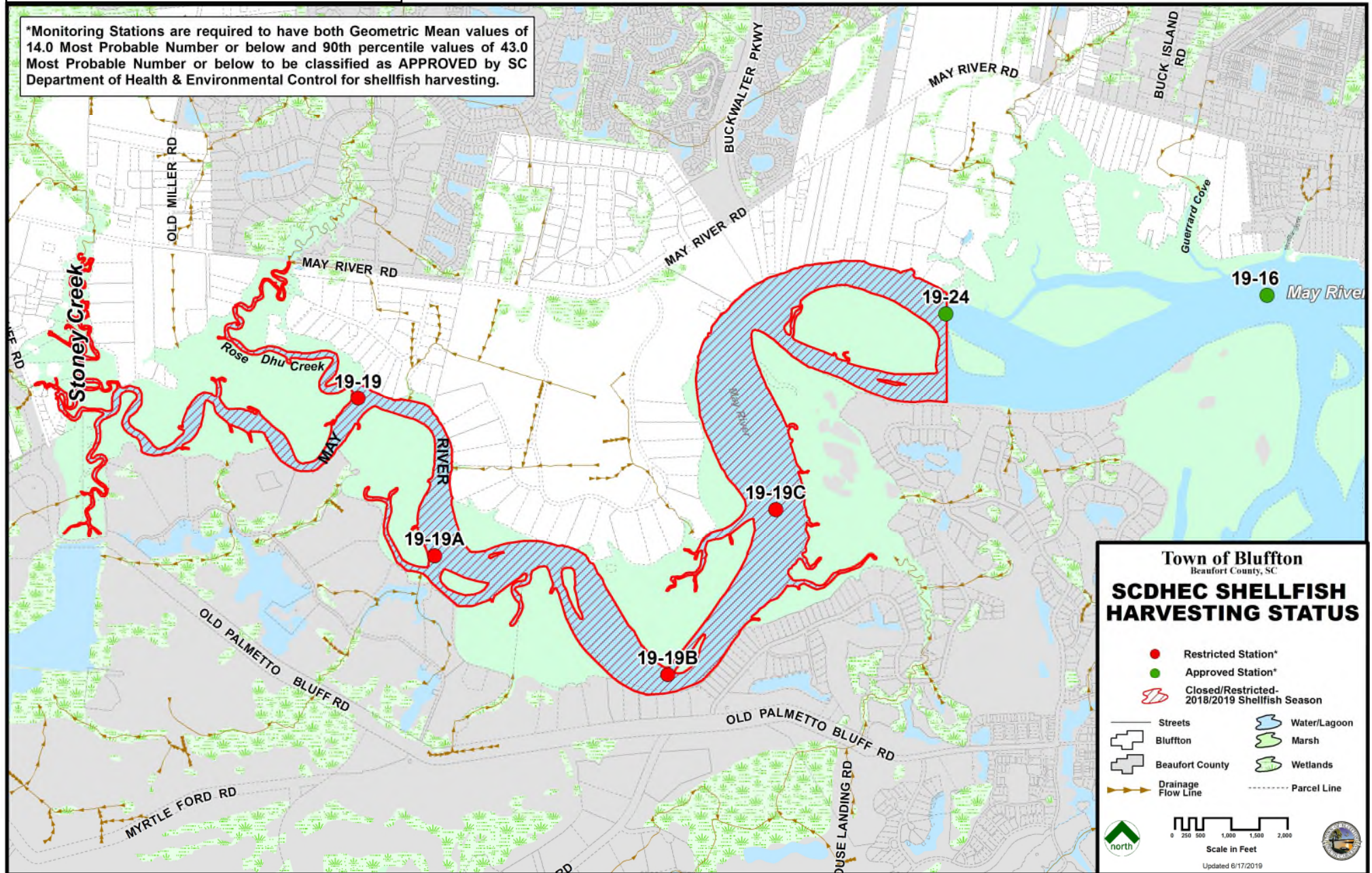
** Town staff calculations utilizing DHEC statistics

SC DHEC May River Headwaters Shellfish Stations Average Annual Fecal Coliform



May River Headwaters Stations

*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.

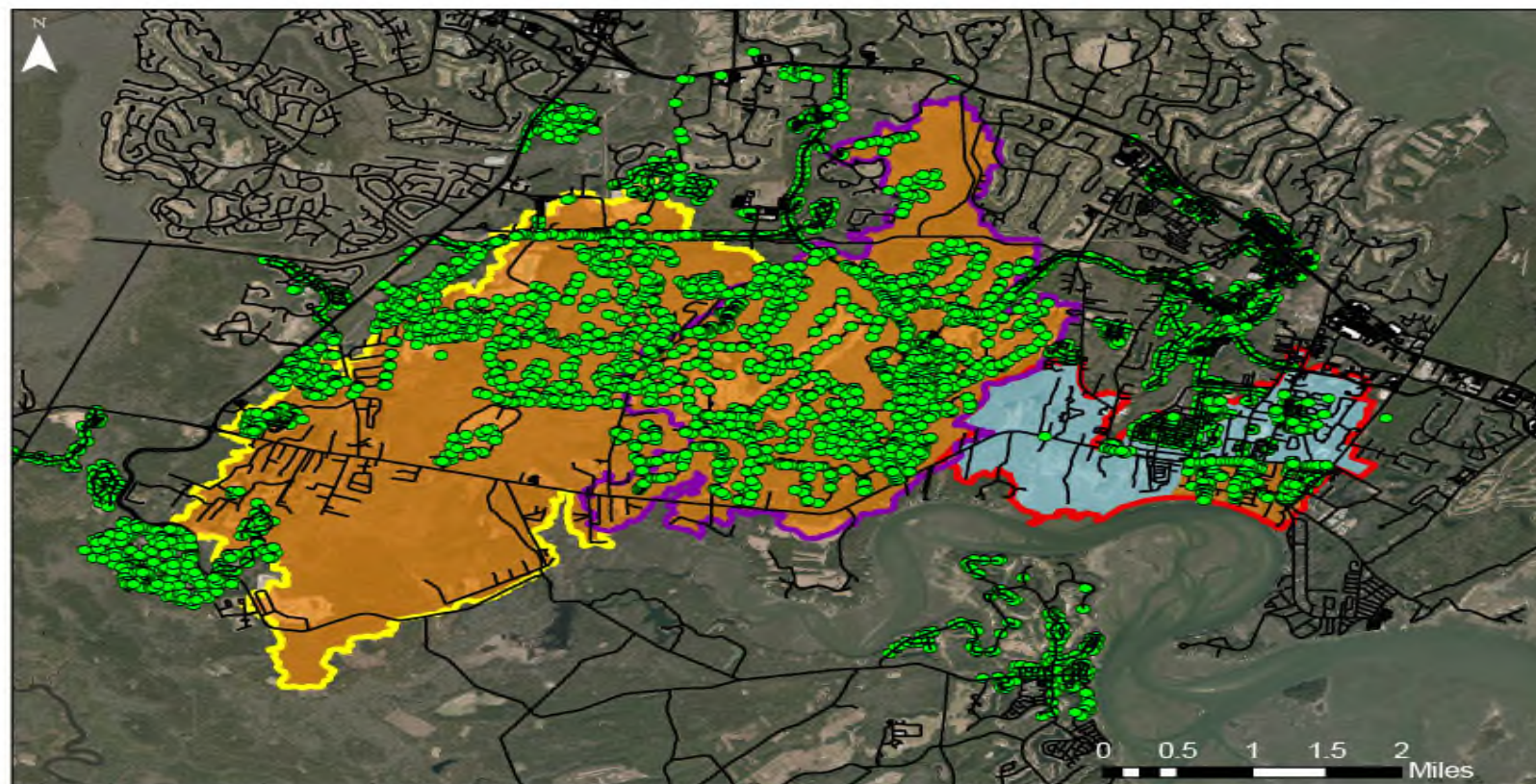


ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update	Contract to McCormick Taylor to complete MRWAP Update - Water Quality Model, current project assessment, and proposed new projects was approved by Council on 5/14/19. Notice to Proceed issued 6/20/19.
Sewer Connection & Extension Policy	Completed 2018. Council adopted the Sewer Connection & Extension Policy on 9/26/17. Ordinance and Septic to Sewer Conversion Program completed 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 Notice to Proceed on 6/20/19 with final deliverables anticipated 1/20.
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Attended Rural Infrastructure Authority grant workshop on 7/10/19. Received SCDHEC notification of intent to award \$58,212.96 more than requested, following EPA approval, for 319 Grant Phase IV. Increased grant amount is \$365,558.36 and supports 12 additional connections for a total of 49 sewer lateral connections in Poseys Court, Little Aaron and Historic District Phases 1 and 2. Final approval is anticipated by 8/31/19.
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

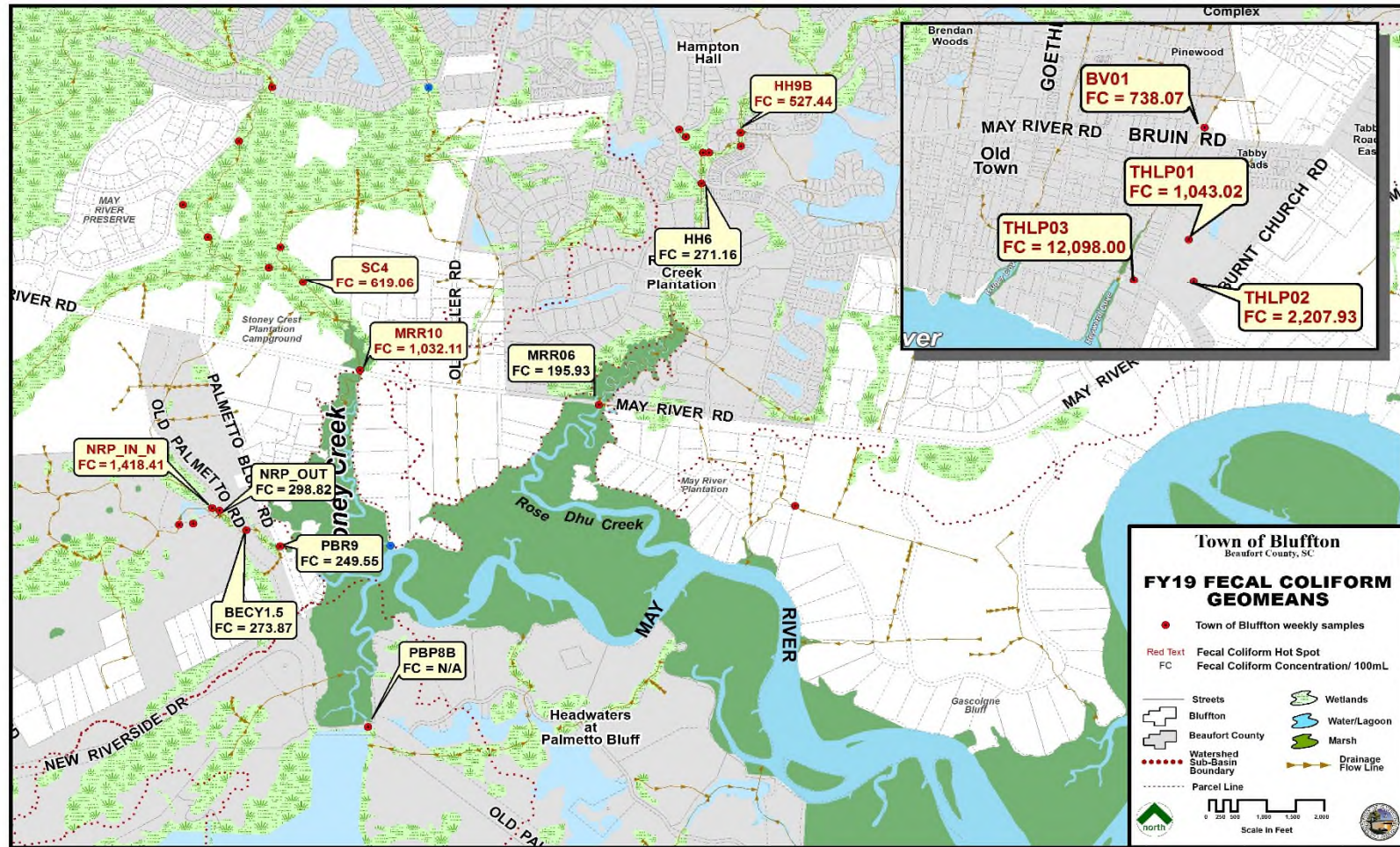
- Completed
- In Progress
- Inventoried SW Utilities
- Mid River/Old Town
- Rose Dhu Watershed
- Stoney Creek Watershed

DISCLAIMER
This map was created by the Town of Bluffton's Stormwater Department in collaboration with the Town of Bluffton's GIS Department. It is intended to be used as a general reference only and does not constitute a warranty or representation of any kind. 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 liabilities resulting from the use of this map. The Town of Bluffton is not responsible for any damages or liabilities resulting from the use of this map.

Stormwater Infrastructure Inventory Collection Status

FY 2020 YTD Collection Totals	0
FY 2019 Collection Totals	2,925
FY 2018 Collection Totals	3,777

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

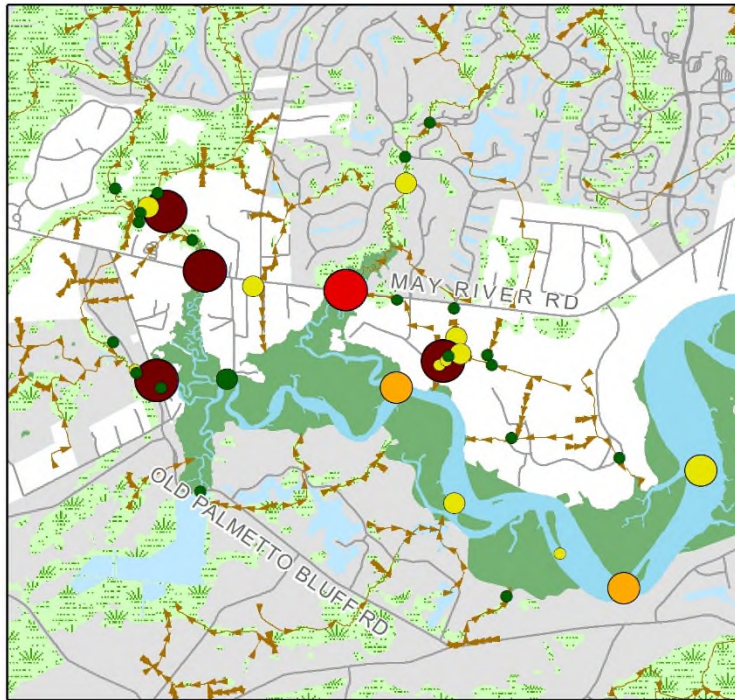


	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2020 YTD Totals	0	0	0
FY 2019 Totals	280	193	264
FY 2018 Totals	216	217	224
FY 2017 Totals	307	179	224

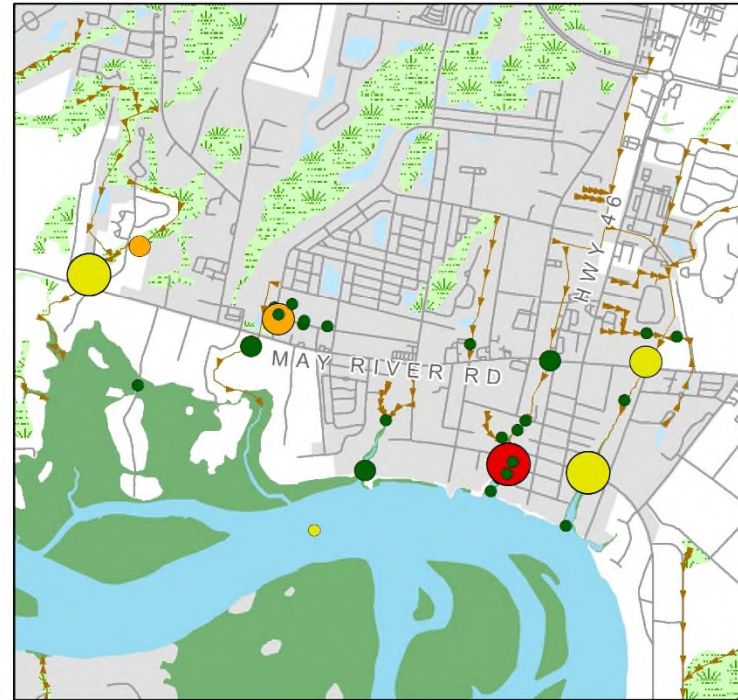
7/24/2019

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

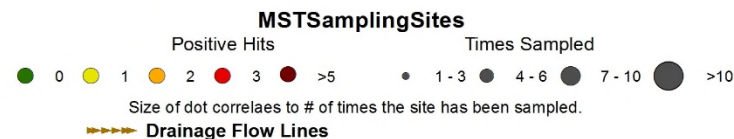
MS4 Minimum Control Measure #3 – IDDE: Microbial Source Tracking (MST) Human Sources Trend Map



Microbial Source Tracking Trend Map
Headwaters May River



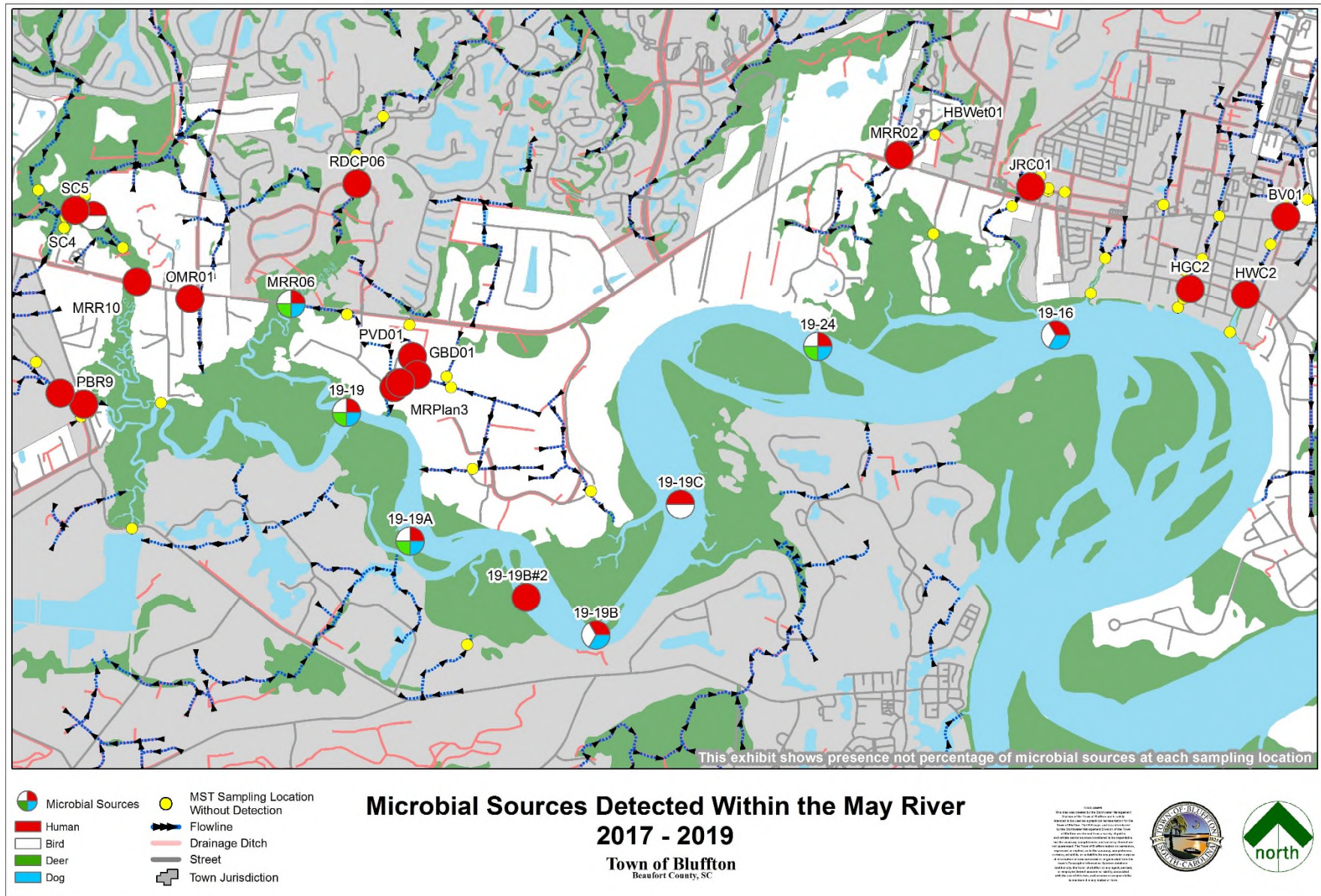
Microbial Source Tracking Trend Map
Old Town May River



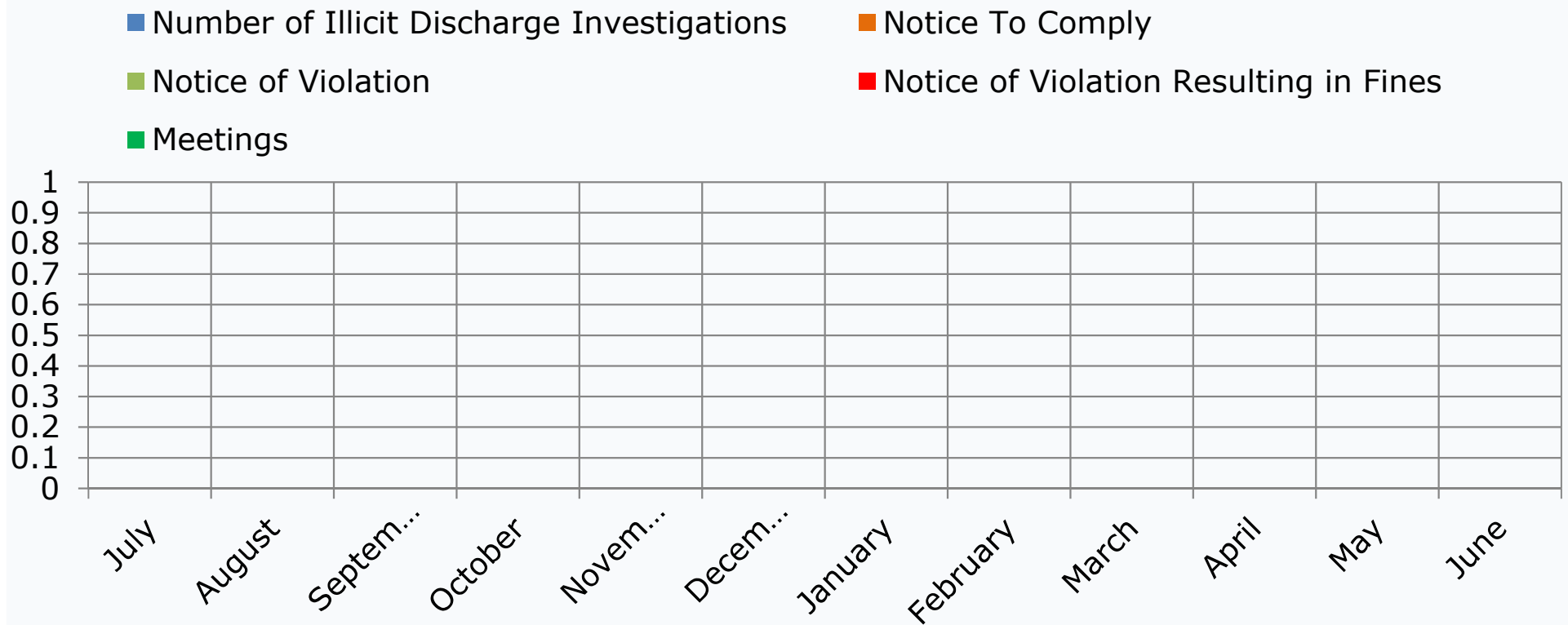
Updated: 6/19/2018



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

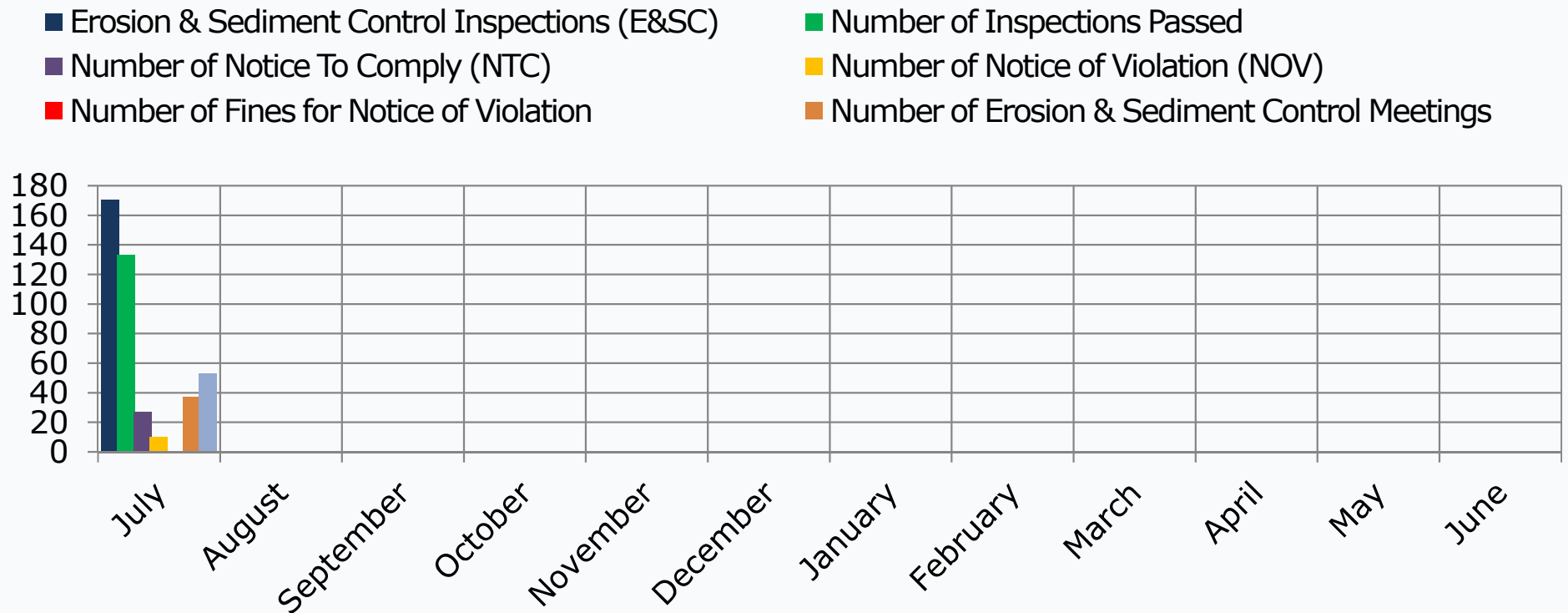


MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



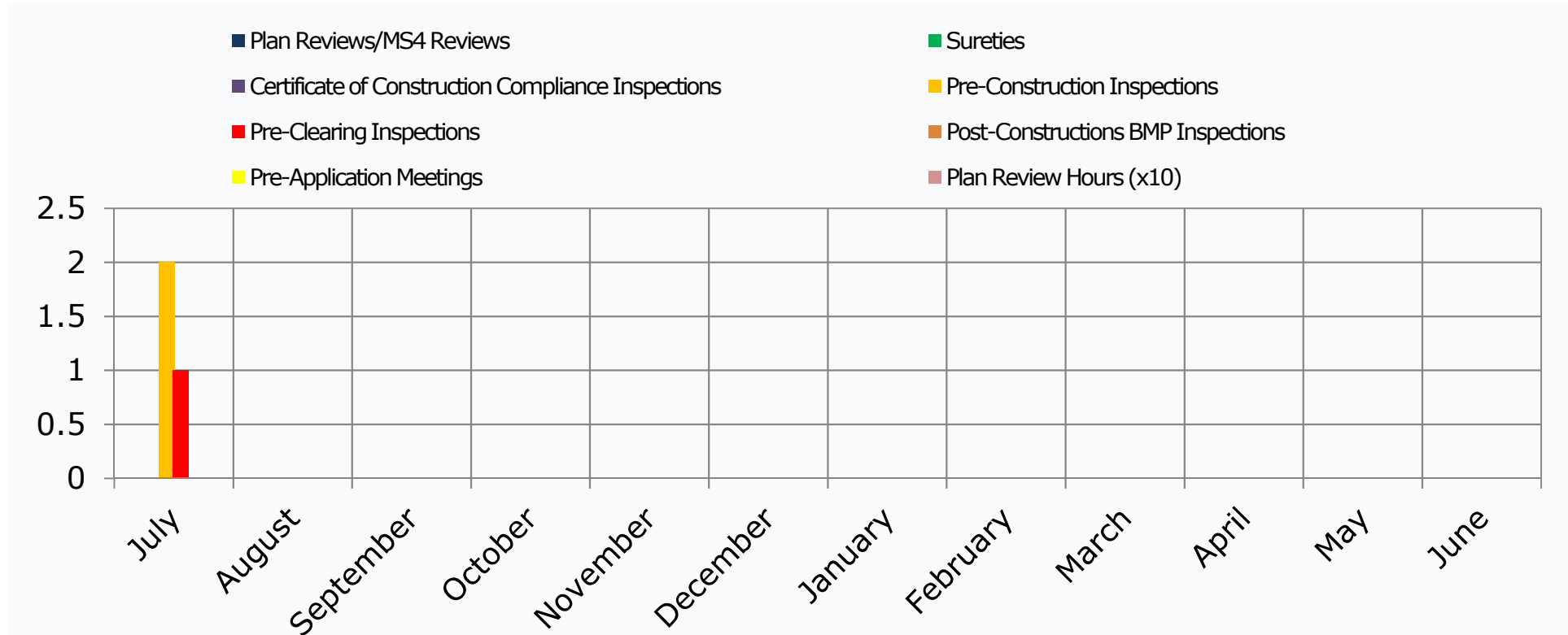
	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2020 YTD Totals	0	0	0	0	0
FY 2019 Totals	38	20	3	1	61
FY 2018 Totals	48	20	4	2	60

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



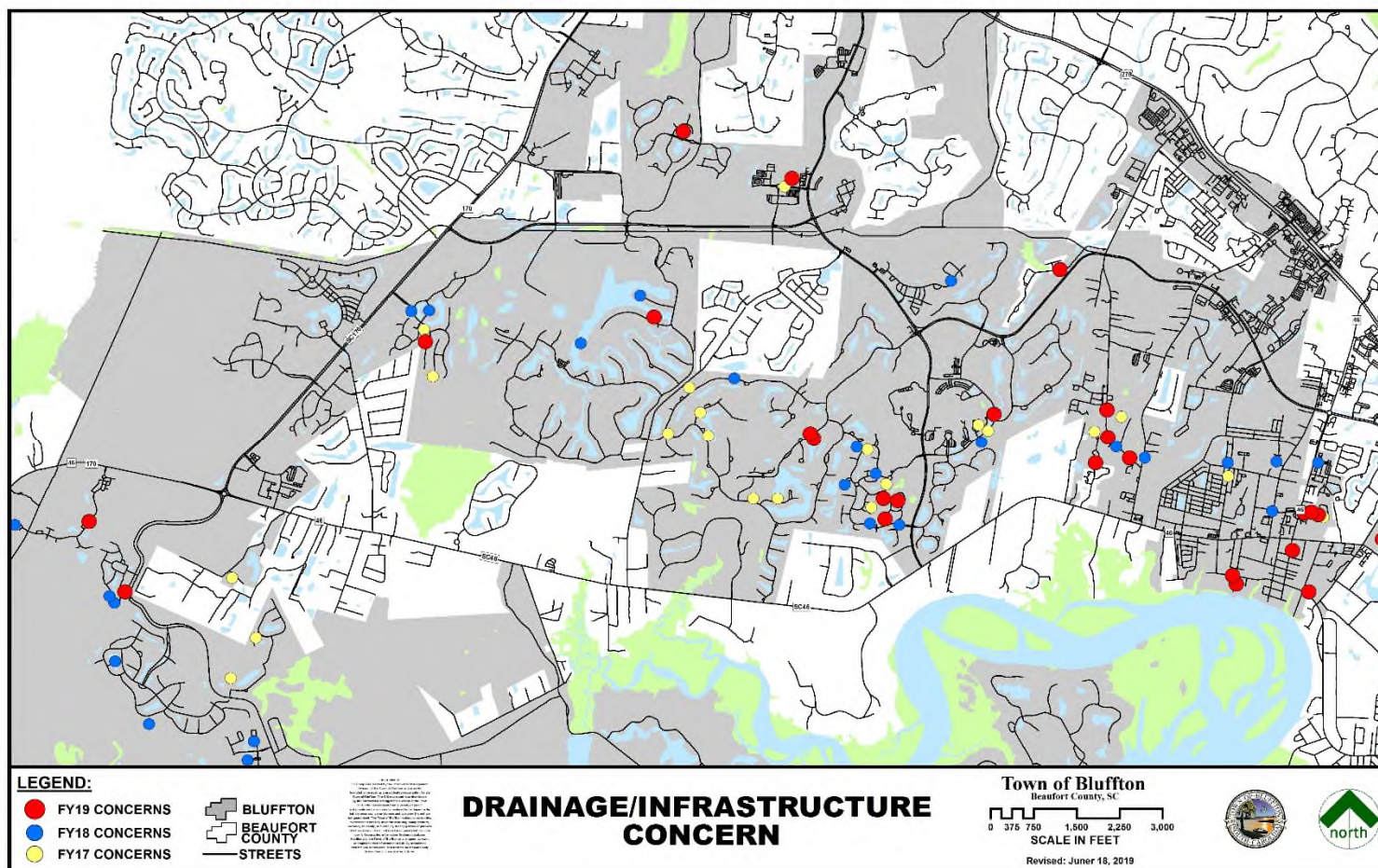
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOVs Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2020 YTD Totals	170	133	27	10	0	39
FY 2019 Totals	1,688	1,384	254	72	7	403
FY 2018 Totals	1,504	1,159	300	83	10	499

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



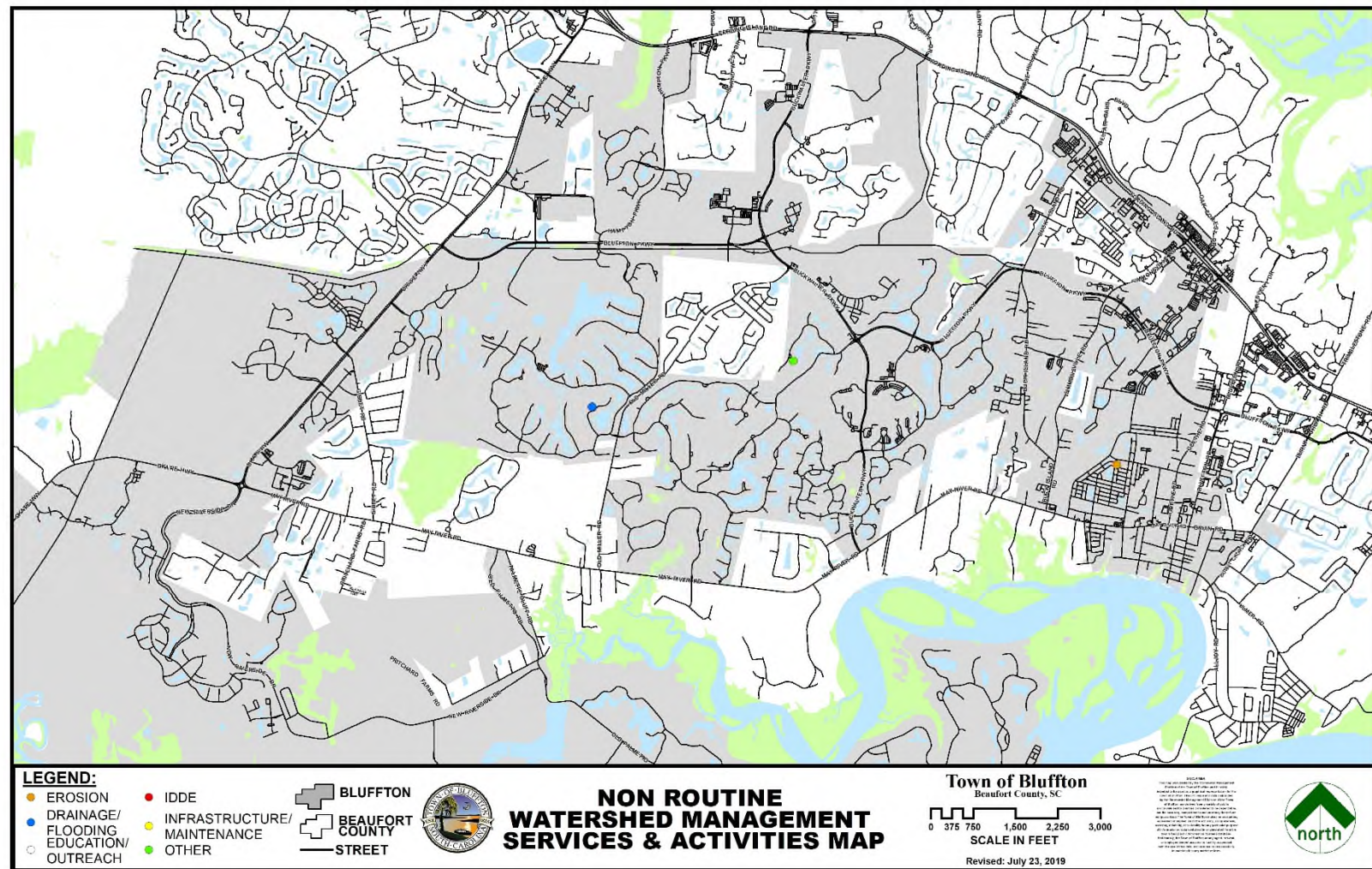
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre- Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2020 YTD Totals	0	0	0	2	1	0	0	0 Hrs.
FY 2019 Totals	208	52	53	47	37	27	63	1,040 Hrs.
FY 2018 Totals	242	59	50	32	32	88	88	1,210 Hrs.

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



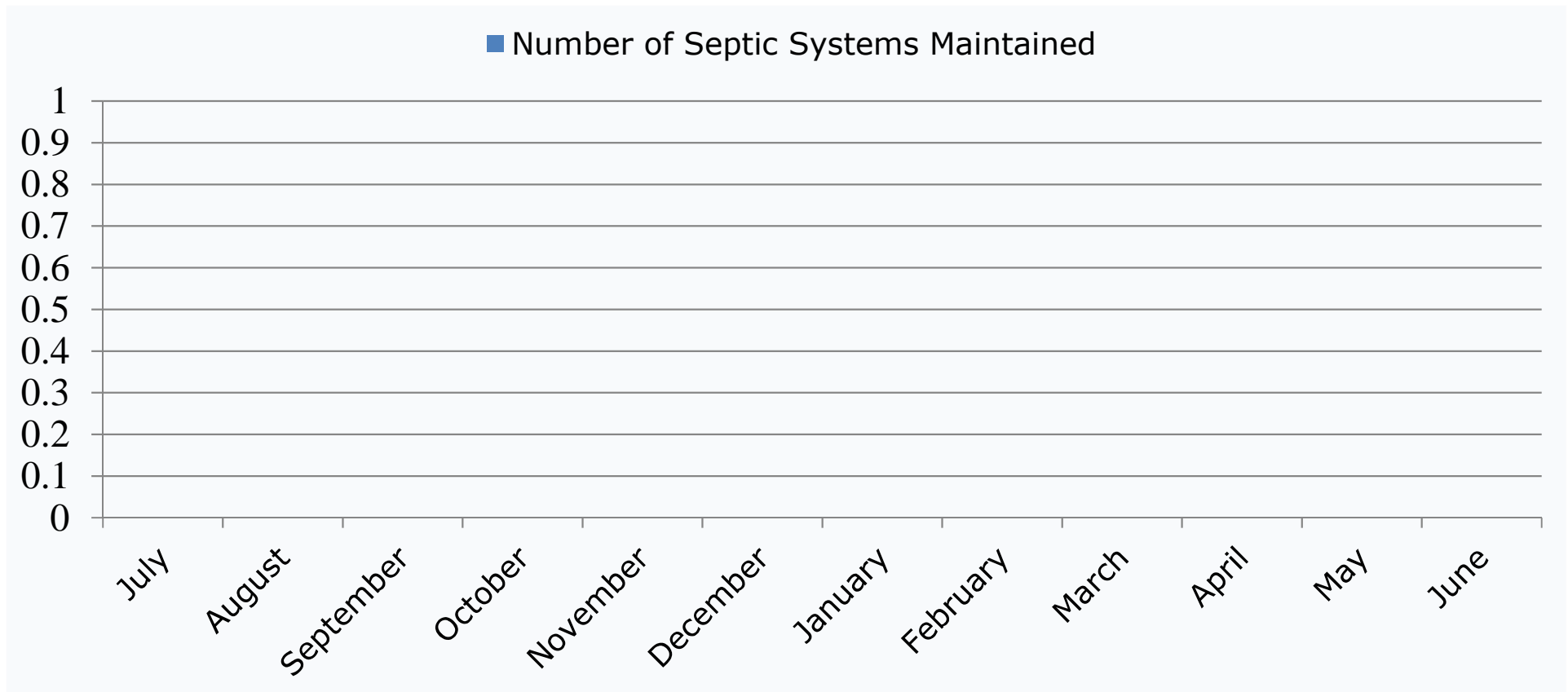
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2020 YTD Totals	2	2
FY 2019 Totals	54	59
FY 2018 Totals	48	75

Citizen Request for Watershed Mngt. Services & Activities Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2020 YTD Totals	2	1
FY 2019 Totals	75	79
FY 2018 Totals	75	79

Septic System Maintenance Assistance



	Number of Septic Systems Maintained
FY 2020 YTD Totals	0
FY 2019 Totals	4
FY 2018 Totals	16



CITY OF BEAUFORT

TO: Eric Larson, P.E.

FROM: Neil Desai, P.E.

DATE: August 1, 2019

SUBJECT: Stormwater Utility Board Report

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

1) CAPITAL IMPROVEMENTS UPDATE

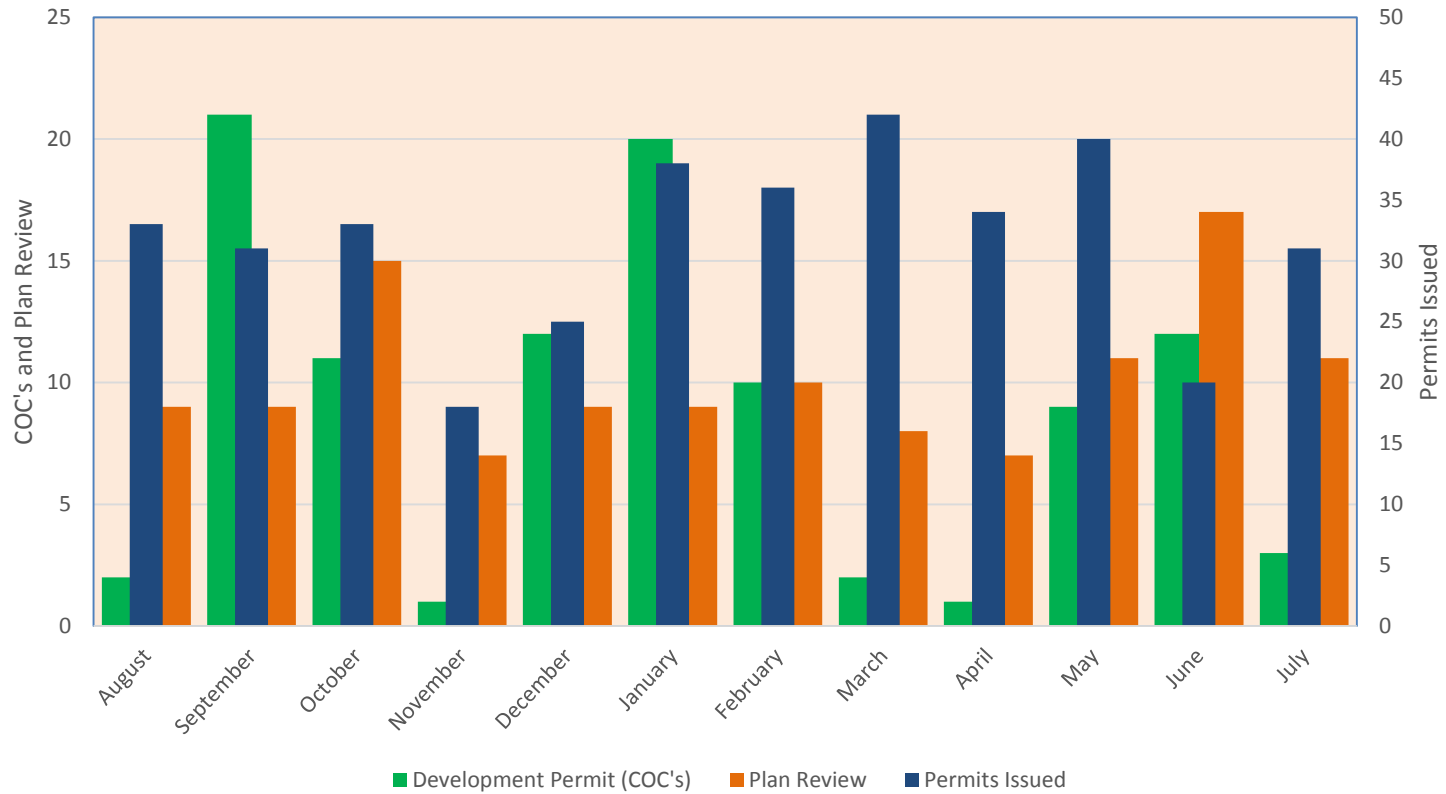
- a) Mossy Oaks Drainage Project – City has received approval from OCRM for State M&R permits where applicable. Jane Way Canal drainage improvements completed. Regulatory meeting held with all respective agencies to discuss submittals and timelines.

- b) Mossy Oaks Drainage Project – City has sent out applicable forms & agreements to residents affected along West Royal Oak drainage sub-basin. Awaiting completion of agreements before work can start.
- c) Battery Shores Drainage Improvement – project will be redesigned to align pipe on City's property. Work to start end of August.
- d) Greenlawn Streetscape – Water Quality component with manufactured device at outfall. Utility companies working out final design of utility banks.
- e) Twin Lakes Drainage Project – contractor ordering materials.
- f) Aster Street & Camellia Road drainage project – PW staff ordering materials

2) **MAINTANCE & REPAIR UPDATE**

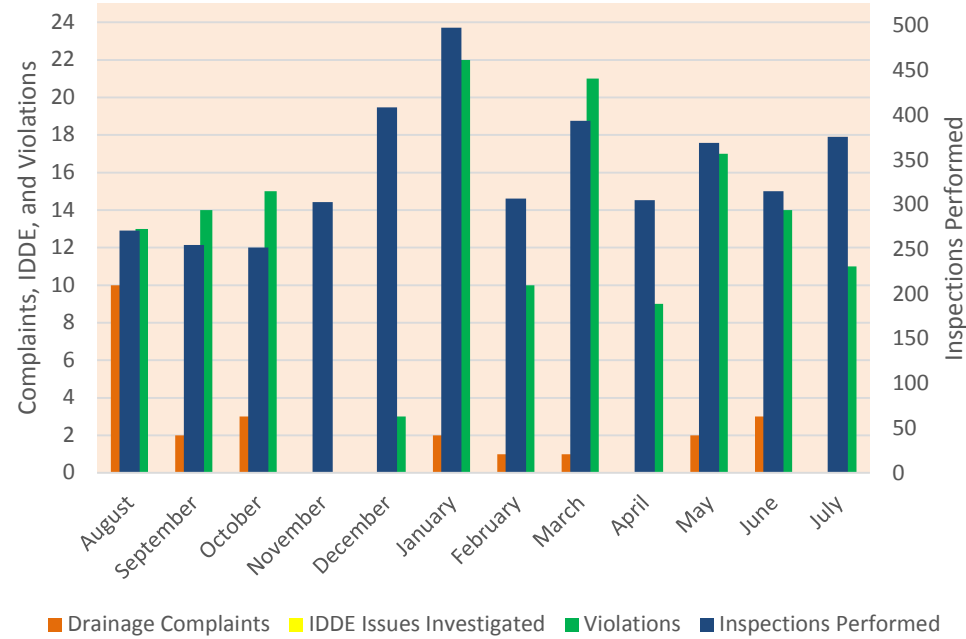
- a) Routine maintenance of drainage easement City wide.

MS4 Minimum Control Measure #5 Stormwater Plan Review



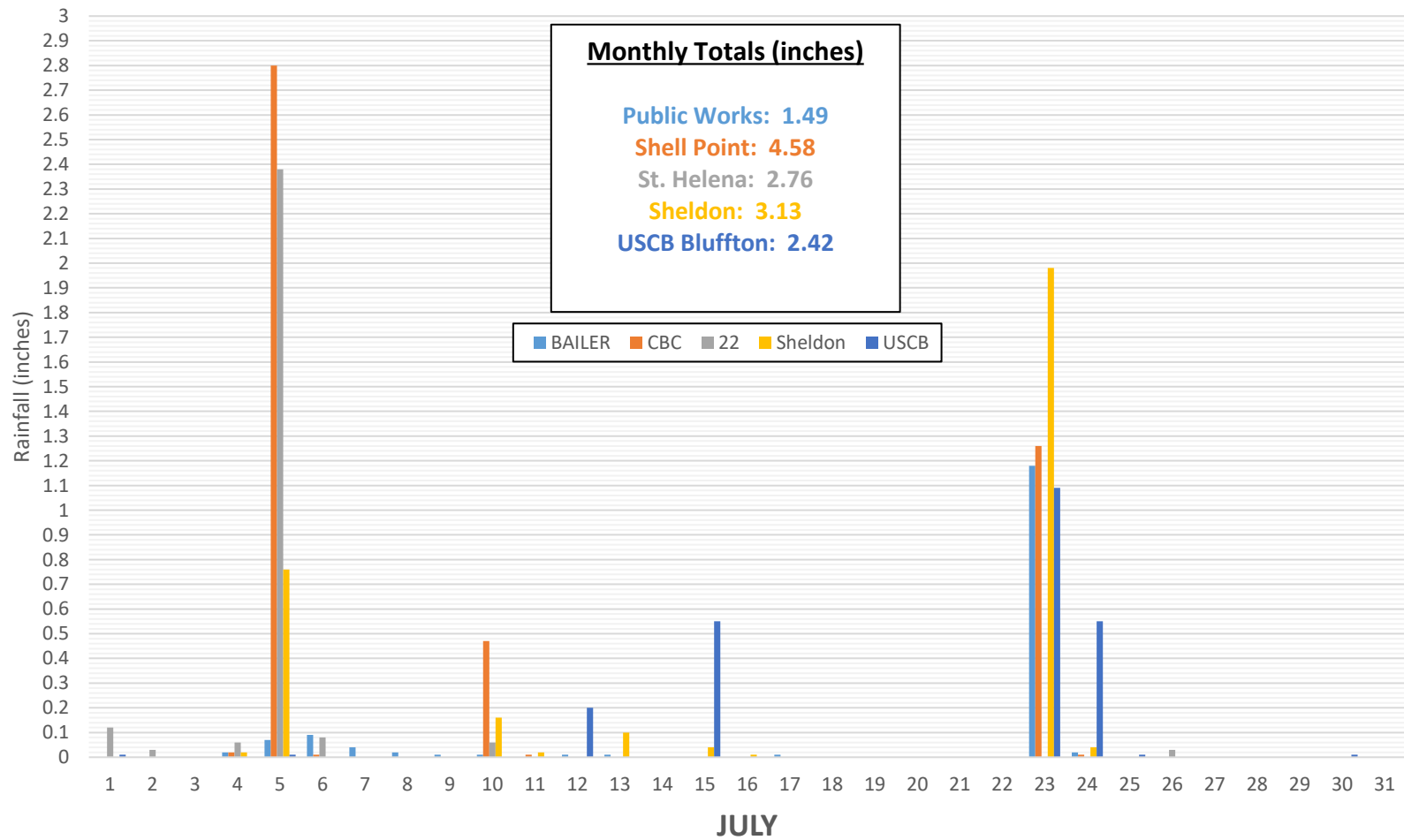
TYPE	August	September	October	November	December	January	February	March	April	May	June	July	Last 12 Months
Development Permit (COC's)	2	21	11	1	12	20	10	2	1	9	12	3	35
Plan Review	9	9	15	7	9	9	10	8	7	11	17	11	76
Permits Issued	33	31	33	18	25	38	36	42	34	40	20	31	115

MS4 Minimum Control Measure #4 Erosion Sediment Control Inspections



TYPE	August	September	October	November	December	January	February	March	April	May	June	July	Last 12 Months
Inspections Performed	271	255	252	303	409	498	307	394	305	369	315	376	4054
Drainage Complaints	10	2	3	0	0	2	1	1	0	2	3	0	15
IDDE Issues Investigated	2	1	2	0	1	0	1	0	1	2	3	2	15
Violations	13	14	15	0	3	22	10	21	9	17	14	11	42

Beaufort County Weather Stations Daily Rainfall Amounts - July 2019



Lowcountry Stormwater Partners (LSP) Stormwater Utility Board Monthly Report
4/1/19 - 8/14/19

Stormwater outreach/involvement activities completed:

- Earth Day at Port Royal Farmers Market
 - LSP tabled alongside Master Gardeners and handed out information about BMPs.
 - 4/13/19, Port Royal, 50 contacts
- Soft Shell Crab Fest
 - LSP tabled with information about BMPs and gave away branded merchandise.
 - 4/20/19, Port Royal, 250 contacts
- May River Clean-Up
 - LSP provided enviroscape demonstrations to the youth and information regarding BMPs to the volunteers in attendance.
 - 5/27/19, Bluffton, 50 contacts
- Carolina Yards Overview
 - Ellen Sturup Comeau presented an overview of the Clemson Extension Carolina Yards program as part of the Lowcountry Master Gardener Association's Annual Symposium. The Carolina Yards program teaches homeowners sustainable landscaping practices with a watershed-friendly focus.
 - 5/11/19, Okatie, 27 attendees
- Stormwater and the Saltmarsh presentation
 - Ellen Sturup Comeau gave this presentation to the Dawtaw Island Garden Club on how stormwater works and how it affects the environment in Beaufort County as well as actions that homeowners can take to reduce their stormwater footprint.
 - 5/14/19, Dawtaw, 29 attendees
- Natural Resources County Council Meeting
 - Ellen Sturup Comeau gave an overview of the LSP and its accomplishments to the Beaufort County Council Natural Resources Committee.
 - 5/20/19, Beaufort, 30 attendees
- Brewer Memorial Park Planning Meeting
 - Ellen Sturup Comeau attended this meeting regarding the design plans for the Brewer Memorial Park project. She provided insights onto potential BMPs as well as a native plant list for those BMPs.
- 4H2O Youth Camp
 - 4-H2O is a hands-on science inquiry program that provides children and adults with knowledge about their local water resources and teaches them the field, analytical and critical thinking skills they need to intelligently participate in making decisions that affect the quality of these aquatic systems.
 - Program offerings included: 5/23/19, Beaufort, 5 attendees, 6/25/19, Port Royal, 8 attendees, 7/9/19, Bluffton, 7 attendees, 7/16/19, St. Helena, 6 attendees
- LSP Strategic Planning Meeting
 - As part of the new permit cycle, the LSP will be rewriting the current strategic plan and develop the 2019-2023 LSP Strategic Plan. This meeting was the next step after an on-line survey and will be followed up by an additional online survey and meeting.
 - 7/23/19, Beaufort, 11 attendees

Stormwater outreach/involvement activities planned to take place:

- LSP Newsletter
 - An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events related to the LSP.
 - 8/9/19, online, 90
- Keep Broad Creek Clean Festival
 - The LSP will provide enviroscape demonstrations for youth at this festival
 - 8/15/19, Hilton Head.
- LSP Consortium Meeting
 - The LSP will meet with its partners and discuss current and upcoming events.
 - 8/20/19, Okatie
- Interview with Kecil Johns
 - Kecil Johns, a grad student currently working with Clemson Extension to research the effectiveness of septic system outreach campaigns, will be interviewing Ellen Sturup Comeau and other stormwater professionals.
 - 8/21/19, Various Locations
- Presenting to the WAPAC Committee
 - Ellen Sturup Comeau will give an overview of the LSP and its accomplishments to the Town of Bluffton WAPAC committee.
 - 8/29/19, Bluffton
- Cultivating a Carolina Yard: Part 1
 - Ellen Sturup Comeau will give the first part of her Carolina Yard workshop, which teaches homeowners sustainable landscaping practices with a watershed-friendly focus. This offering will focus on building healthy soil, nutrient management, and stormwater runoff. This workshop is being offered for the residents of the Indigo Run Plantation per the request of the property manager.
 - 9/4/19, Hilton Head
- LSP Newsletter
 - An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
 - 9/13/19, online, 90
- Cultivating a Carolina Yard: Part 2
 - Ellen Sturup Comeau will give the second part of her Carolina Yard workshop, which teaches homeowners sustainable landscaping practices with a watershed-friendly focus. This presentation will focus upon yard waste management and irrigation practices. This workshop is being offered for the residents of the Indigo Run Plantation per the request of the property manager.
 - 9/11/19, Hilton Head
- Cultivating a Carolina Yard: Part 3
 - Ellen Sturup Comeau will give the third part of her Carolina Yard workshop, which teaches homeowners sustainable landscaping practices with a watershed-friendly focus. This presentation will focus upon pest management and harvesting rainwater. This workshop is being offered for the residents of the Indigo Run Plantation per the request of the property manager.
 - 9/18/19, Hilton Head
- Cultivating a Carolina Yard: Part 4
 - Ellen Sturup Comeau will give the fourth part of her Carolina Yard workshop, which teaches homeowners sustainable landscaping practices with a watershed-friendly focus. This offering will focus upon native plants and

waterwise garden planning. This workshop is being offered for the residents of the Indigo Run Plantation per the request of the property manager.

- 9/24/19, Hilton Head
- Healthy Ponds Workshop
 - Ellen Sturup Comeau will present to homeowners on the basics of stormwater pond function, design, maintenance, and potential solutions to common issues. This workshop is being offered for the residents of the Indigo Run Plantation per the request of the property manager.
 - 10/1/19, Hilton Head
- LSP Newsletter
 - An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
 - 10/11/19, online, 90
- Carolina Yards Overview
 - Ellen Sturup Comeau will present an overview of the Clemson Extension Carolina Yards program as part of the OLLI program. The Carolina Yards program teaches homeowners sustainable landscaping practices with a watershed-friendly focus.
 - 10/4/19, Bluffton
- LSP Annual Report Draft
 - Ellen Sturup Comeau will have a draft of the 2019 LSP Annual Report to community partners for their comment and review.
 - 10/21/19, none
- LSP Annual Report
 - Ellen Sturup Comeau will submit a final draft of the 2019 LSP Annual Report.
 - 11/4/2019, none
- LSP Newsletter
 - An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
 - 11/8/19, online, 90
- 2019 Beaufort Area Stormwater Pond Conference
 - The 2019 Beaufort Area Stormwater Pond Management Conference will provide a forum to give the latest information, resources, and tools on stormwater pond management for the Lowcountry community. Topics include a plenary session, the current state of the knowledge on stormwater ponds, integrated pest management, aquatic weed management, wildlife habitat, sea level rise, and upland management. The conference is a partnership between Clemson Extension, S.C. SeaGrant Consortium, SC Dept. of Natural Resources, and the ACE Basin NERR Coastal Training Program.
 - 11/14/19, Beaufort
- LSP Consortium Meeting
 - The LSP will meet with its partners and discuss current and upcoming events.
 - 11/19/19, Okatie
- Stormwater and the Saltmarsh presentation
 - Ellen Sturup Comeau will give this presentation to the Lowcountry Master Gardener Association on how stormwater works and how it affects the environment in Beaufort County as well as actions that homeowners can take to reduce their stormwater footprint.
 - 11/21/19, Beaufort
- LSP Newsletter
 - An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
 - 12/13/19, online, 90

Other related activities performed/considered:

- 4H2O Planning and Prep (complete)
- LSP 2019-2023 Strategic Plan writing (ongoing)
- 2019 Beaufort Area Stormwater Pond Conference planning (ongoing)
- LSP Annual Report data gathering (ongoing)

Able Recycling Suspected IDDE Investigation - Update as of August 7, 2019

2018 –

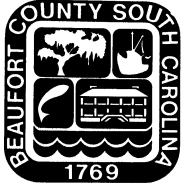
Beaufort County was first alerted to an issue occurring at the Able Recycling facility in August of last year (2018). By August 21st, County staff had sampled water coming under 170 that leads to the Okatie River. Bacteria levels were over 12k mpn/mL. Acceptable levels for shellfish consumption are under 43 mpn/mL. County staff also sampled for metals, Aluminum and Iron. Due to elevated bacteria levels, samples were taken again on September 5th and September 18th. The last two samples showed a major reduction in levels of bacteria (less than 500 mpn/mL). The case was closed.

2019 –

County staff was alerted to a fire and water pumping occurring onsite at Able Recycling again in early July 2019. Runoff was observed on the Able property, but the ditch had a berm that prevented water from exiting the property to the left, which eventually leads to the Okatie. After checking in at the outfall on a regular basis, black smelly water was observed at the outfall under 170 on July 15th. On July 16th County staff sampled the ditch leaving the property, as well as the outfall, for bacteria, e.coli and metals. Bacteria levels were over 120k at 50X dilution. Metal samples above EPA standards were Arsenic and Magnesium. Drone footage was taken during high tide and low tide to show the impacts of the water working its way through the ditch line. County staff continuously monitored the situation and worked closely with DHEC staff to stay informed.

On July 26th, Beaufort County staff: Eric Larson, Katie Herrera, Dan Rybak, John Miller, Tanner Powell, Robert McFee, Chris Inglese, and Laura Fanelli, participated in a meeting with DHEC staff: Richard Threatt (Beaufort Area Office Manager), Jill Stewart (Stormwater Permitting), Brian Wisnewski (Compliance Section Coordinator) and Ann Clark (Assistant Bureau Chief – Bureau of Water). This call was to inform us of the short and long-term goals Jasper County, DHEC, and the EPA had in order to control the fire, mitigate runoff from the site, and how to prevent the situation from happening again. It was made very clear to the MS4 staff there would be no responsibility that falls on the County to remediate the situation. The County expressed their concerns for impacts not seen now, but potentially years down the road if the closures of the Okatie progress into the Colleton. DHEC staff explained this was not a Stormwater issue, in that the runoff has not been generated by weather. Ann Clark said “there are a lot of unanswered questions on this site” as DHEC staff could not answer many questions being asked. On August 2nd, Jill Stewart placed a follow up call to the County to inform them the berm currently in place to prevent water from flowing to the left of the property into the Okatie was to be removed to allow for natural flow in the ditch line. This could potentially contribute to further problems for the Okatie TMDL.

Monitoring occurred again on August 7, 2019 to see how bacteria levels may have changed after a rainfall event and the opening of the berm. Results are TBD at the time of this summary. County staff will continue to monitor the site on a triweekly basis so that nothing is going unnoticed and can be forwarded to the appropriate authorities.



MEMORANDUM

Date: August 14, 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 six minor projects. The Project Summary Reports are attached.

Major Project:

- **Central Drive – Lady’s Island (SWUD 7):** This project improved 6,040 feet of drainage system. The scope of work included cleaning out 2 catch basins, 5,840 feet of roadside ditch, jetting 57 driveway pipes, 6 crossline pipes, 3 access pipes, 30 feet of channel pipe, 170 feet of roadside pipe and hydroseeding for erosion control. The total cost was **\$42,485.47.**
- **Pearl Lane – Port Royal Island (SWUD 6):** This project improved 496 feet of drainage system. The scope of work included grubbing and clearing 466 feet of workshelf, reconstructing 30 feet of channel, cleaning out 466 feet of channel, repairing a washout, installing 1 access pipe, rip rap and hydroseeding for erosion control. The total cost was **\$27,045.57.**
- **Sea Island Parkway – St Helena Island (SWUD 8):** This project improved 1,458 feet of drainage system. The scope of work included grubbing and clearing 120 feet of lateral ditch and 1,338 feet of workshelf, cleaning out 120 feet of lateral ditch and 1,338 feet of channel, installing 2 access pipes and hydroseeding for erosion control. The total cost was **\$26,670.81.**

Minor or Routine Projects:

- **Sheldon Bush Hog – Sheldon (SWUD 5):** This project improved 61,317 feet of drainage system. The scope of work included bush hogging 57,791 feet of channel and 3,526 feet of roadside ditch. The total cost was **\$26,613.81.**
- **Port Royal Island Bush Hog – Port Royal Island (SWUD 6):** This project improved 27,150 feet drainage system. The scope of work included bush hogging 27,150 feet of channel. The total cost was **\$19,719.75.**
- **St Helena Island Bush Hog – St Helena Island (SWUD 8):** This project improved 29,049 feet of drainage system. The scope of work included bush hogging 27,989 feet of channel and 1,060 feet of roadside ditch. The total cost was **\$16,950.61.**

- **Mint Farm Subdivision – Port Royal Island (SWUD 6):** This project improved 3,228 feet of drainage system. The scope of work included cleaning out 3,228 feet of roadside ditch, jetting 54 driveway pipes and handseeding for erosion control. The total cost was **\$11,515.25.**
- **Sheldon Vacuum Truck – Sheldon (SWUD 5):** The scope of work included removing blockages from flowline, jetting 1 access pipe, 9 driveway pipes and 3 crossline pipes. The total cost was **\$3,646.98.**
- **Marsh Drive – Lady’s Island (SWUD 7):** This project improved 280 feet of drainage system. The scope of work included bush hogging and cleaning out 150 feet of channel and jetting 130 feet of channel pipe. The total cost was **\$1,489.47.**



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Central Drive, E River Drive, Windy Point Drive and W River Drive

Activity: Routine/Preventive Maintenance

Duration: 01/08/19-02/07/19

Narrative Description of Project:

Project improved 6,040 L.F. of drainage system. Cleaned out 5,840 L.F. of roadside ditch and (2) catch basins. Jetted (57) driveway pipes, (6) crossline pipes, (3) access pipes, 30 L.F. of channel pipe and 170 L.F. of roadside pipe. Hydroseeded for erosion control.

2019-532 / Central Dr., W. River Dr. & E River Dr.

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APJT / Access pipe - jetted	20.0	\$445.60	\$383.20	\$65.84	\$0.00	\$286.80	\$1,181.44
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CBCO / Catch basin - clean out	20.0	\$445.60	\$383.20	\$83.76	\$0.00	\$286.80	\$1,199.36
CCO / Channel - cleaned out	12.0	\$267.32	\$71.66	\$12.75	\$0.00	\$171.72	\$523.45
CLPJT / Crossline Pipe - Jetted	20.0	\$445.60	\$383.20	\$55.84	\$0.00	\$286.80	\$1,171.44
DPJT / Driveway Pipe - Jetted	50.0	\$1,114.00	\$958.00	\$144.18	\$0.00	\$717.00	\$2,933.18
SPSWI / Special Project - SWI	6.0	\$144.54	\$11.52	\$14.08	\$0.00	\$82.95	\$253.09
HAUL / Hauling	228.0	\$4,871.96	\$3,301.04	\$1,675.67	\$0.00	\$1,508.15	\$11,356.82
HYDR / Hydroseeding	8.0	\$183.08	\$51.72	\$1,574.46	\$0.00	\$118.80	\$1,928.06
RSDCL / Roadside Ditch - Cleanout	487.5	\$13,224.72	\$2,227.24	\$517.30	\$0.00	\$4,788.30	\$20,757.56
UTLOC / Utility locates	28.5	\$806.15	\$26.88	\$21.12	\$0.00	\$294.24	\$1,148.39
2019-532 / Central Dr., W. River Dr.& E River Dr. Sub Total	881.5	\$21,981.26	\$7,797.66	\$4,164.99	\$0.00	\$8,541.56	\$42,485.47
Grand Total	881.5	\$21,981.26	\$7,797.66	\$4,164.99	\$0.00	\$8,541.56	\$42,485.47

Before

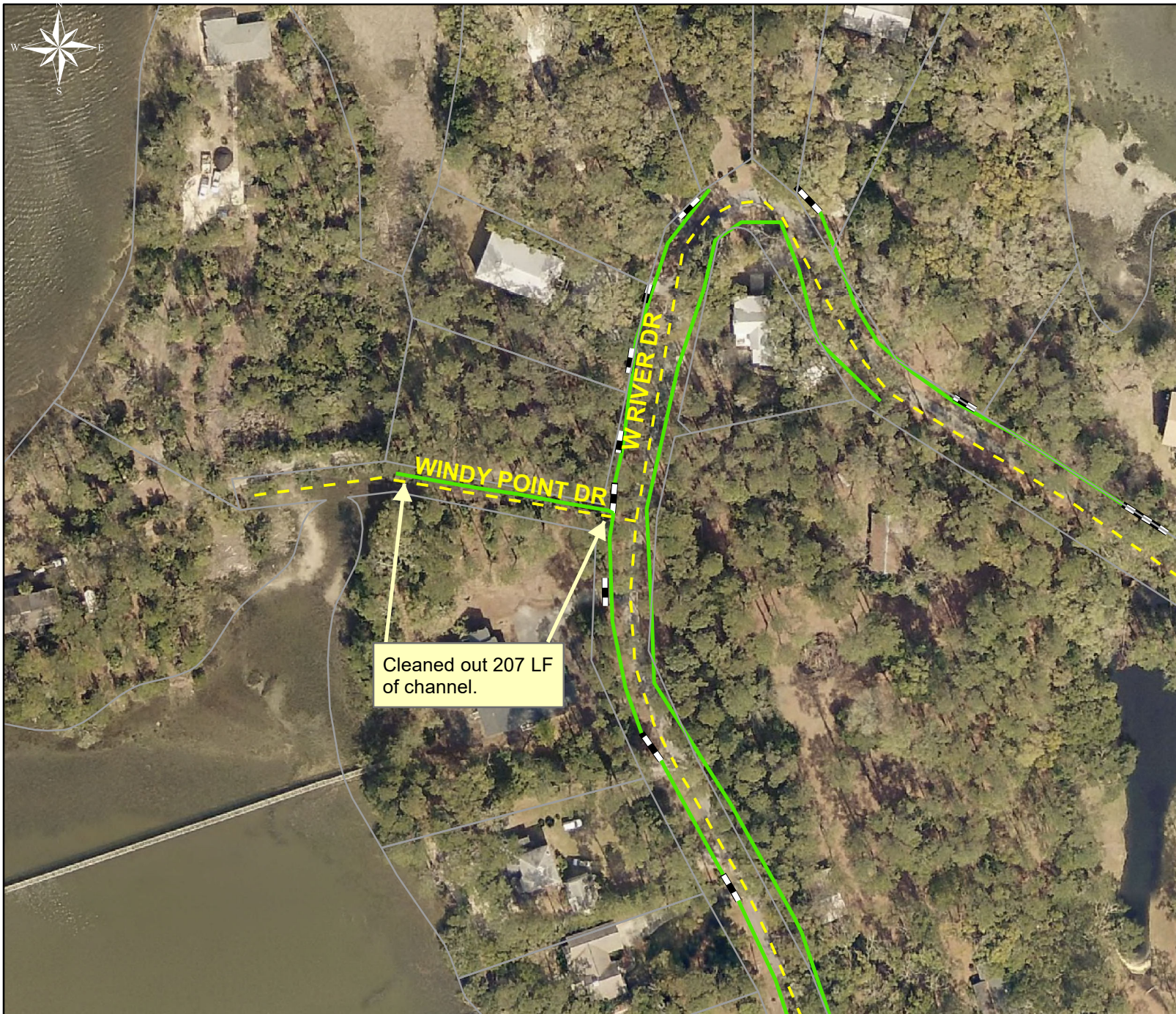


During



After





Project: Central Drive-Windy Point Dr Map #1

Activity: Routine/ Preventive Maintenance














Project #: 2019-532

Township/SW Dist: Lady's Island/7

Completed: February 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print:06/06/19

File:C:\project summaries map\Central Drive-Windy point Dr Map #1_2019-546



Project: Central Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2019-532

Township/SW Dist: Lady's Island/7

Completed: February 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility
Date Print: 06/06/19
File: C:\project summaries map\Central Drive Map #2_2019-546



Project: Central
Drive Map #3

Activity: Routine/
Preventive
Maintenance

Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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 40 80 160 240 320
Feet

1 inch = 170 feet

Prepared By: BC Stormwater Management Utility
Date Print: 06/06/19
File: C:\project summaries map\Central Drive Map #3_2019-546



Project: Central Drive,
E River Drive, Windy
Point Drive and W
River Drive Map #4

Activity: Routine/
Preventive
Maintenance

Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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: 06/13/19

File: C:\project summaries map\Central Drive- W River Drive Map #4_2019-532



Project: Central Drive, E River Drive, Windy Point Drive and W River Drive Map #5

Activity: Routine/ Preventive Maintenance

Project #: 2019-532

Township/SW Dist: Lady's Island/7

Completed: February 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 60 120 240 360 480 Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print:06/13/19

File:C:\project summaries map/Central Drive- W River Drive Map #5_2019-532



Project: Central Drive,
E River Drive, Windy
Point Drive and E
River Drive Map #6

Activity: Routine/
Preventive
Maintenance

Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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

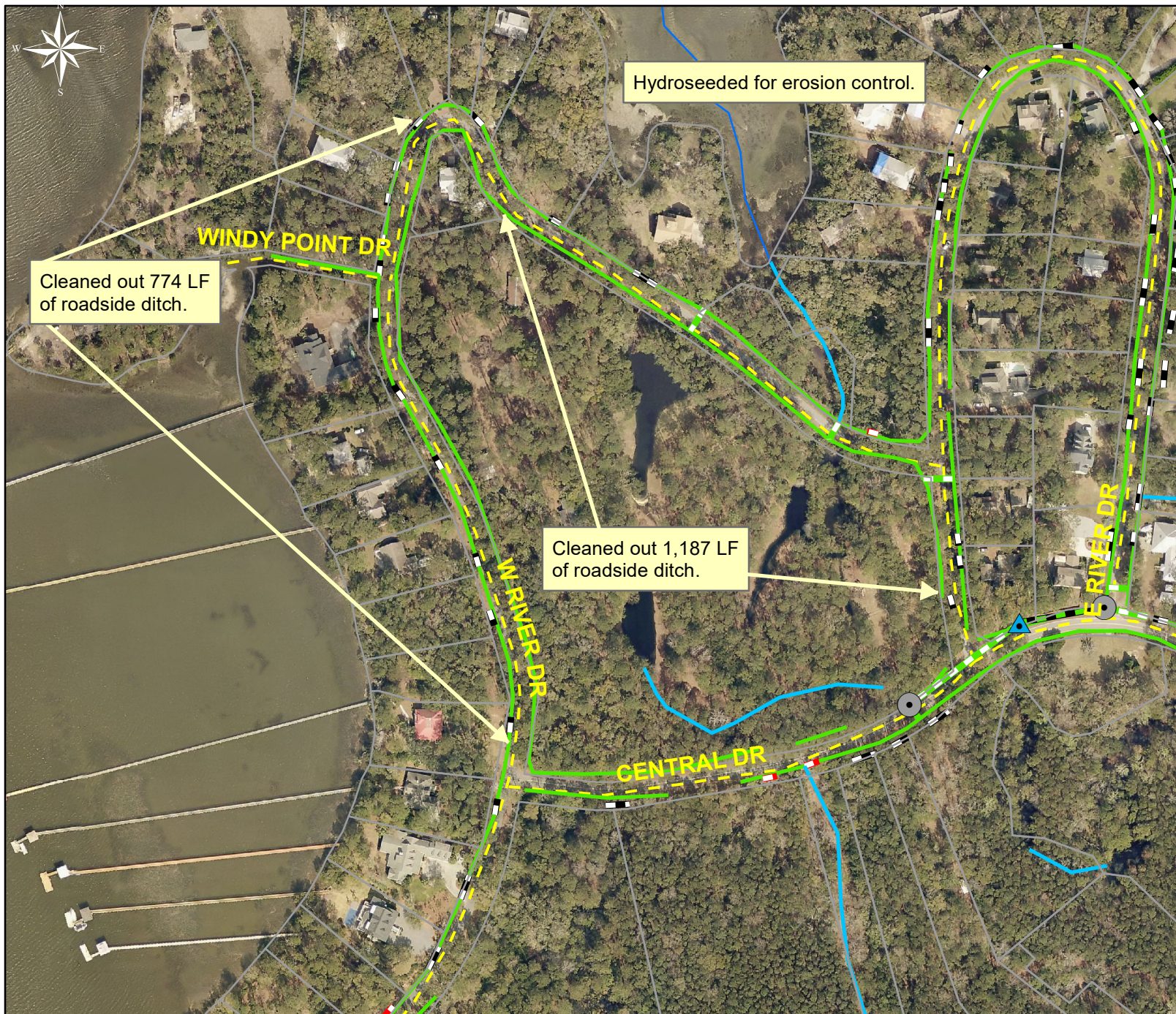
0 60 120 240 360 480
Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print: 06/13/19

File: C:\project summaries map\Central Drive- W River Drive Map #6_2019-546



Project: Central Drive,
E River Drive, Windy
Point Drive and W
River Drive
Map #7

Activity: Routine/
Preventive
Maintenance

Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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

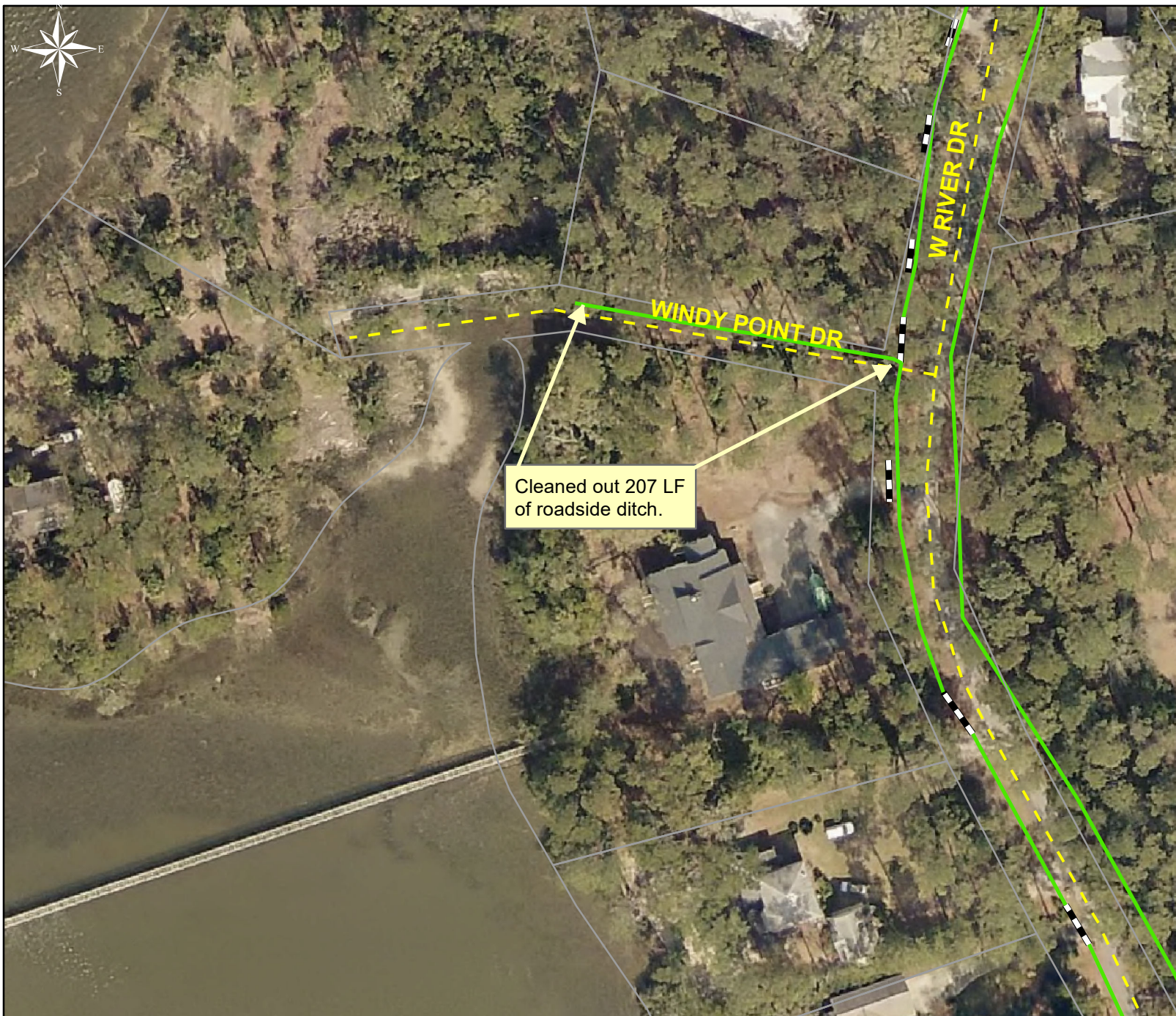
0 60 120 240 360 480
Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print: 06/13/19

File: C:\project summaries map\Central Drive- W River Drive Map #7_2019-532



Project: Central Drive,
E River Drive, Windy
Point Drive and W
River Drive Map #8

Activity: Routine/
Preventive
Maintenance














Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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: 06/13/19

File: C:\project summaries map\Central Drive- Windy Point Drive Map #8_2019-532



Project: Central Drive,
E River Drive, Windy
Point Drive and W
River Drive Map #9

Activity: Routine/
Preventive
Maintenance

Project #:
2019-532

Township/SW Dist:
Lady's Island/7

Completed:
February 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 60 120 240 360 480
Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print: 06/13/19

File: C:\project summaries map\Central Drive- W River Drive Map #9_2019-532



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Pearl Lane Channel #1

Activity: Routine/Preventive Maintenance

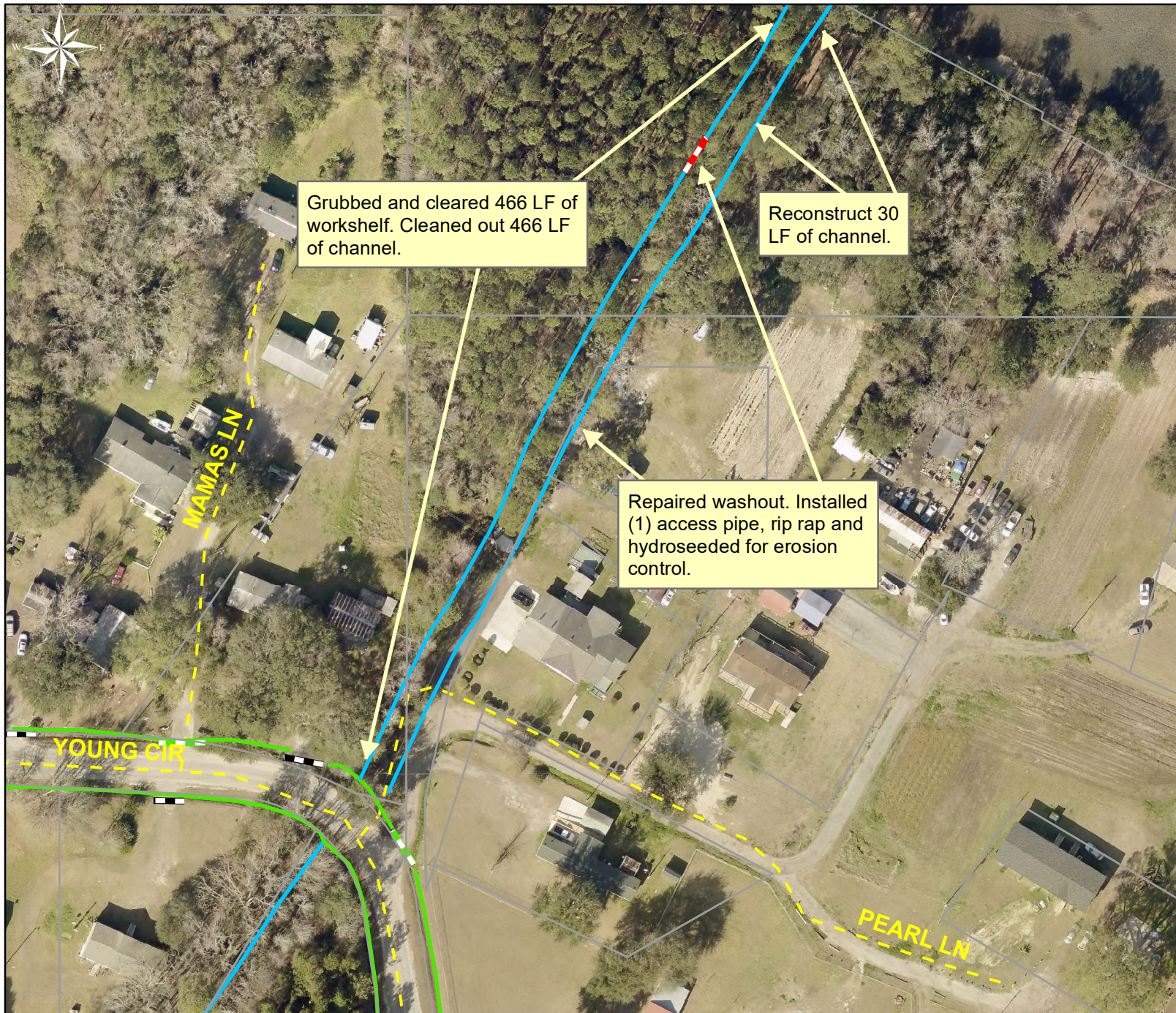
Duration: 10/15/18-02/20/19

Narrative Description of Project:

Project improved 496 L.F. of drainage system. Grubbed and cleared 466 L.F. of workshelf. Reconstruct 30 L.F. of channel. Cleaned out 466 L.F. of channel. Repaired washout. Installed (1) access pipe, rip rap and hydroseeded for erosion control.

2019-525 / Pearl Lane Channel #1	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
CCO / Channel - cleaned out	60.0	\$1,336.60	\$754.26	\$999.94	\$0.00	\$858.60	\$3,949.40
HAUL / Hauling	116.0	\$2,517.62	\$1,806.40	\$3,781.08	\$0.00	\$1,355.48	\$9,460.58
HYDR / Hydroseeding	20.0	\$423.75	\$30.44	\$827.69	\$0.00	\$148.50	\$1,430.38
LM / Loading Materials	16.0	\$366.16	\$200.31	\$50.98	\$0.00	\$237.60	\$855.05
RPWO / Repaired Washout	40.0	\$847.50	\$150.52	\$59.77	\$0.00	\$297.00	\$1,354.79
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
WSDR / Workshelf - Dressed	113.0	\$2,507.48	\$1,012.94	\$276.07	\$0.00	\$1,608.39	\$5,404.88
WSGRB / Workshelf - Grubbed	78.0	\$1,737.58	\$665.66	\$196.04	\$0.00	\$1,116.18	\$3,715.46
WSL / Workshelf - Level	19.0	\$410.54	\$180.62	\$30.80	\$0.00	\$201.42	\$823.38
2019-525 / Pearl Lane Channel #1 Sub Total	464.0	\$10,192.27	\$4,801.15	\$6,222.37	\$0.00	\$5,829.78	\$27,045.57
Grand Total	464	\$10,192.27	\$4,801.15	\$6,222.37	\$0.00	\$5,829.78	\$27,045.57
	Before		During			After	





Project: Pearl Lane Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-525

Township/SW Dist: Port Royal Island/6

Completed: February 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: 06/20/19

File: C:\project summaries map\Pearl Lane Channel #1_2019-525



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sea Island Parkway

Activity: Routine/Preventive Maintenance

Duration: 03/26/19-05/23/19

Narrative Description of Project:

Project improved 1,458 L.F. of drainage system. Grubbed and cleared 120 L.F. of lateral ditch and 1,338 L.F. of workshelf. Cleaned out 120 L.F. of lateral ditch and 1,338 L.F. of channel. Installed (2) access pipes. Handseeded for erosion control.

2019-559 / Sea Island Parkway	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	20.0	\$652.20	\$75.26	\$171.00	\$0.00	\$134.40	\$1,032.86
AUDIT / Audit Project	2.0	\$43.58	\$0.00	\$0.00	\$0.00	\$0.00	\$43.58
CCO / Channel - cleaned out	54.0	\$1,629.74	\$322.01	\$108.17	\$0.00	\$295.68	\$2,355.60
DEBREM / Debris Removal - Jobsite	30.0	\$862.80	\$150.34	\$32.67	\$0.00	\$266.70	\$1,312.51
HAND / HANDSEEDED	15.0	\$431.40	\$18.00	\$217.97	\$0.00	\$133.35	\$800.72
HAUL / Hauling	40.5	\$898.97	\$446.64	\$381.45	\$0.00	\$300.85	\$2,027.91
RMTRW / Remove trees - Workshelf	10.0	\$210.60	\$246.68	\$95.18	\$0.00	\$132.30	\$684.76
WSDR / Workshelf - Dressed	104.0	\$2,888.35	\$962.89	\$346.92	\$0.00	\$892.71	\$5,090.87
WSGRB / Workshelf - Grubbed	288.0	\$8,267.18	\$2,233.02	\$393.78	\$0.00	\$2,428.02	\$13,322.00
2019-559 / Sea Island Parkway Sub Total	563.5	\$15,884.82	\$4,454.84	\$1,747.14	\$0.00	\$4,584.01	\$26,670.81
Grand Total	563.5	\$15,884.82	\$4,454.84	\$1,747.14	\$0.00	\$4,584.01	\$26,670.81

Before

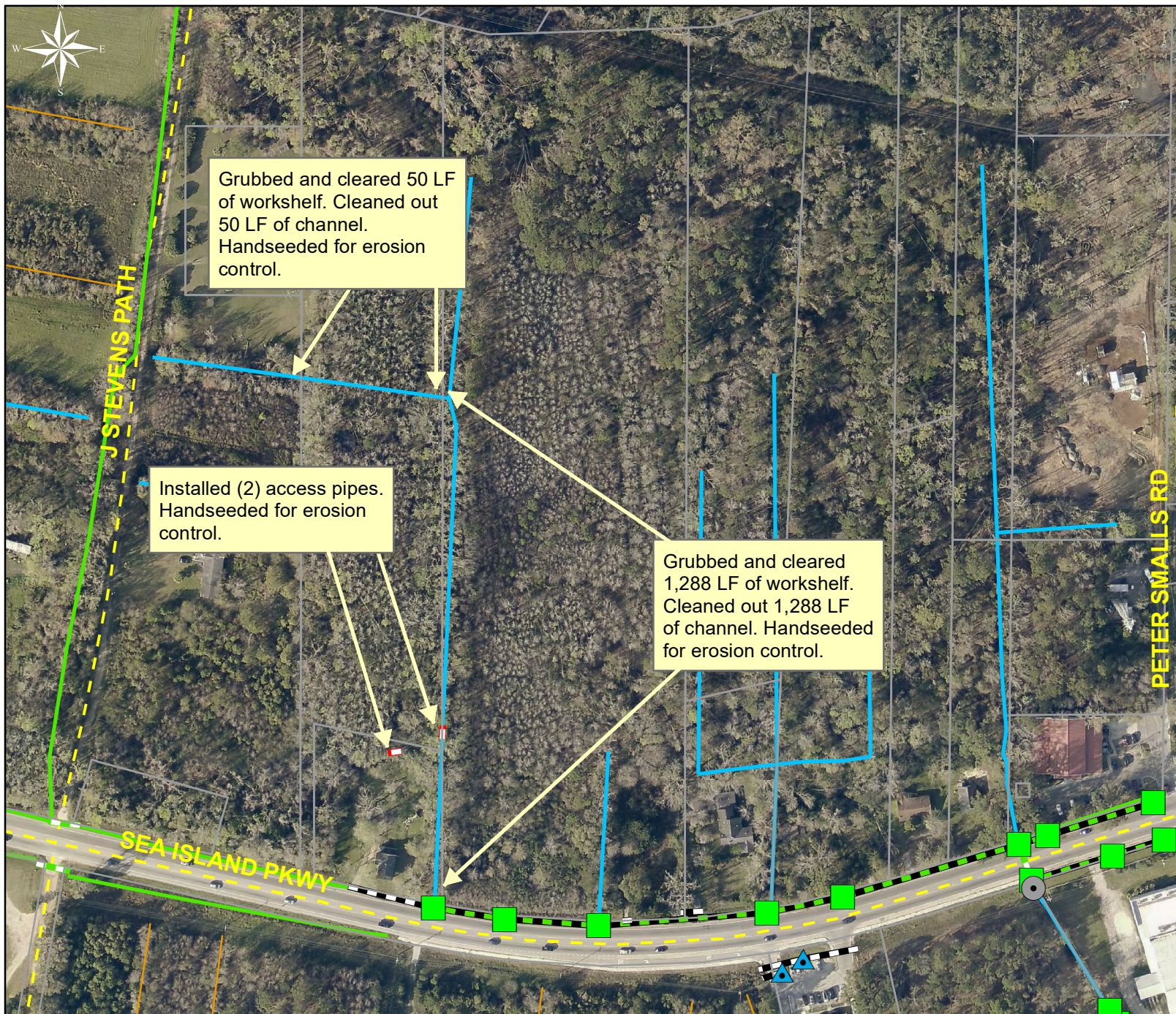
During

After

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(No Picture Available)





Project: Sea
Island Parkway
Map #1

Activity: Routine/
Preventive
Maintenance

Project #:
2019-559

Township/SW Dist:
St Helena Island/8

Completed:
May 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: 06/20/19

File: C:\project summaries map\ Sea Island Parkway Map #1_2019-559

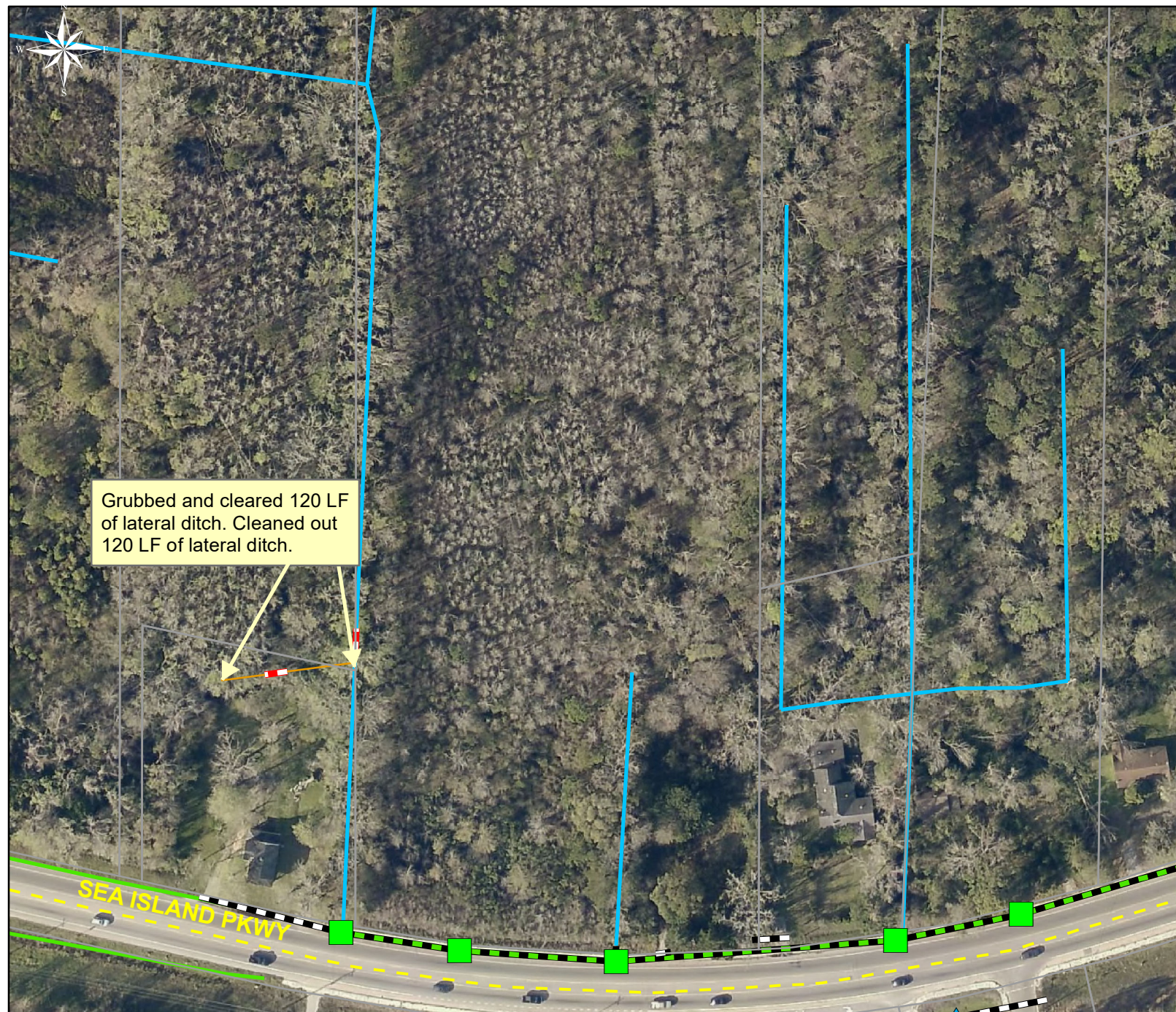
Project: Sea
Island Parkway
Map #2

Activity: Routine/
Preventive
Maintenance

Project #:
2019-559

Township/SW Dist:
St Helena Island/8

Completed:
May 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 06/20/19

File: C:\project summaries map\ Sea Island Parkway Map #2_2019-559



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sheldon Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 05/06/19-06/27/19

Narrative Description of Project:

Third Rotation: 05/06/19-06/27/19 Project improved 61,317 L.F. of drainage system. Bush hogged 57,791 L.F. of channel and 3,526 L.F. of roadside ditch. This project consisted of the following areas: Gum Tree Lane (3,738 L.F.), Browns Island Road (3,429 L.F.), Stroup Road (1,688 L.F.), Hunt Ter (3,642 L.F.), Middlefield Circle (5,712 L.F.), Keans Neck Road (1,025 L.F.), Coker Lane (3,051 L.F.), Dan Drive (812 L.F.), Coakley Drive (747 L.F.), Albany Drive (396 L.F.), Oakhurst Road (1,383 L.F.), Spann Circle (1,796 L.F.), Lightsey Road (4,894 L.F.), Honeybee Island Road (808 L.F.), Wimbee Landing Road (17,361 L.F.), Butler Farm Road (1,926 L.F.), Old Dawson Acres (812 L.F.), Jasmine Hall Road (2,402 L.F.) Dale Drop Off Center (505 L.F.)

2019-303B / Sheldon Bush Hog

	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
CBH / Channel- bushhogged	518.0	\$10,959.39	\$6,574.98	\$1,144.10	\$0.00	\$6,939.16	\$25,617.63
RDBH / Roadside ditch - bushhogged	20.0	\$421.40	\$215.58	\$49.32	\$0.00	\$266.30	\$952.60
2019-303B / Sheldon Bush Hog Sub Total	540.0	\$11,424.37	\$6,790.56	\$1,193.42	\$0.00	\$7,205.46	\$26,613.81

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 05/06/19-06/26/19

Narrative Description of Project:

Third Rotation: 05/06/19-06/26/19 Project improved 27,150 L.F. of drainage system. Bush hogged 27,150 L.F. of channel. This project consisted of the following areas: Shell Point Recreation Park (2,129 L.F.), Shell Point Marina (923 L.F.), Nelson Lane (3,159 L.F.), Hale Drive (2,707 L.F.) Castle Rock Drop Off Center (178 L.F.), Baynard Road (330 L.F.), Hamrick Drive (601 L.F.), Cleveland Drive (1,645 L.F.), St Paul Church Road (4,607 L.F.), Forest Field Road (4,005 L.F.), Providence Road (2,970 L.F.), Parris Island Gateway (875 L.F.), Mink Point Boulevard (1,021 L.F.), Harding Street (230 L.F.), Walker Circle (865 L.F.), Broad River Boulevard (410 L.F.), Chesterfield Lake Drive (320 L.F.), Oakmont Drive (175 L.F.)

2019-301B / Port Royal Isl Bush Hog

	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
CBH / Channel- bushhogged	460.0	\$9,391.55	\$5,059.08	\$1,373.69	\$0.00	\$3,851.85	\$19,676.17
2019-301B / Port Royal Isl Bush Hog Sub Total	462.0	\$9,435.13	\$5,059.08	\$1,373.69	\$0.00	\$3,851.85	\$19,719.75
Grand Total	462.0	\$9,435.13	\$5,059.08	\$1,373.69	\$0.00	\$3,851.85	\$19,719.75

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: St. Helena Island Bush Hog

Activity: Routine/Preventive Maintenance

Duration: 05/06/19-06/27/19

Narrative Description of Project:

Third Rotation: 05/06/19-06/27/19 Project improved 29,049 L.F. of drainage system. Bush hogged 27,989 L.F. of channel and 1,060 L.F. of roadside ditch. This project consisted of the following areas: Halifax Drive (3,200 L.F.), Ernest Drive (1,000 L.F.), Penn Center Circle E (2,570 L.F.), Faith Memorial Church (1,481 L.F.), Orange Grove Road (2,801 L.F.), Thompson Estate Circle (1,168 L.F.), James D Washington Road (396 L.F.), Jack Johnson Drive (1,404 L.F.), Bridgewood Road (1,550 L.F.), Storyteller Road (610 L.F.), Sycamore Hill Drive (1,493 L.F.), David Green Road (1,862 L.F.), Capers Island Road (200 L.F.), James Grant Road (900 L.F.), Mattis Drive (1,691 L.F.), St Helena Drop Off Center (1,585 L.F.), Scott Ball Field (2,888 L.F.) and Candy Johnson Drive (1,706 L.F.)

2019-300B / St. Helena Bush Hog

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Cost	Total Cost
AUDIT / Audit Project	2.0	\$43.58	\$0.00	\$0.00	\$0.00	\$0.00	\$43.58
CBH / Channel- bushhogged	340.0	\$7,649.15	\$3,508.80	\$809.58	\$0.00	\$4,939.50	\$16,907.03
2019-300B / St. Helena Bush Hog Sub Total	342.0	\$7,692.73	\$3,508.80	\$809.58	\$0.00	\$4,939.50	\$16,950.61
Grand Total	342.0	\$7,692.73	\$3,508.80	\$809.58	\$0.00	\$4,939.50	\$16,950.61

Before



During



After





Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Mint Farm Subdivision-
Mint Farm Drive, Julep Street, Spearmint Circle, Applemint
Lane and Wintergreen Drive

Activity: Routine/Preventive Maintenance

Duration: 03/02/19-05/20/19

Narrative Description of Project:

Project improved 3,228 L.F. of drainage system. Cleaned out 3,228 L.F. of roadside ditch. Jetted (54) driveway pipes. Handseeded for erosion control.

2019-558 / Mint Farm Subdivision

	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
DPJT / Driveway Pipe - Jetted	40.0	\$891.20	\$766.40	\$126.96	\$0.00	\$573.60	\$2,358.16
HAND / HANDSEDED	6.0	\$195.66	\$10.80	\$532.26	\$0.00	\$40.32	\$779.04
HAUL / Hauling	46.5	\$1,077.77	\$658.44	\$145.20	\$0.00	\$180.18	\$2,061.59
RSDCL / Roadside Ditch - Cleanout	166.0	\$3,412.17	\$704.43	\$192.76	\$0.00	\$1,909.05	\$6,218.41
UTLOC / Utility locates	3.0	\$65.37	\$0.00	\$0.00	\$0.00	\$0.00	\$65.37
2019-558 / Mint Farm Subdivision Sub Total	263.0	\$5,674.85	\$2,140.07	\$997.18	\$0.00	\$2,703.15	\$11,515.25
Grand Total	263.0	\$5,674.85	\$2,140.07	\$997.18	\$0.00	\$2,703.15	\$11,515.25

Before

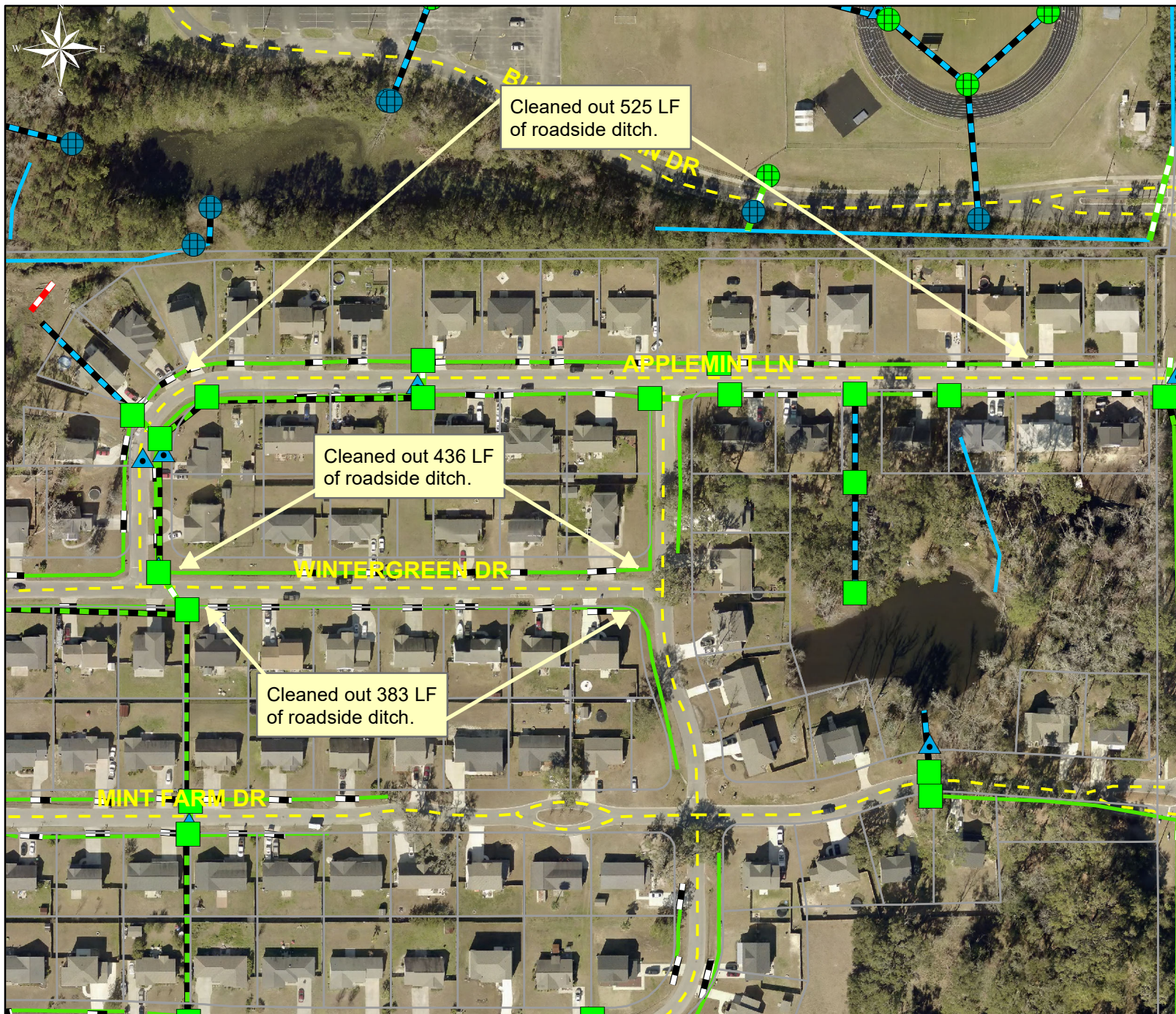


During



After





Project: Mint Farm Subdivision- Mint Farm Drive, Julep Street, Spearmint Circle, Applemint Lane and Wintergreen Drive Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2019-558

Township/SW Dist: Port Royal Island/6

Completed: May 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

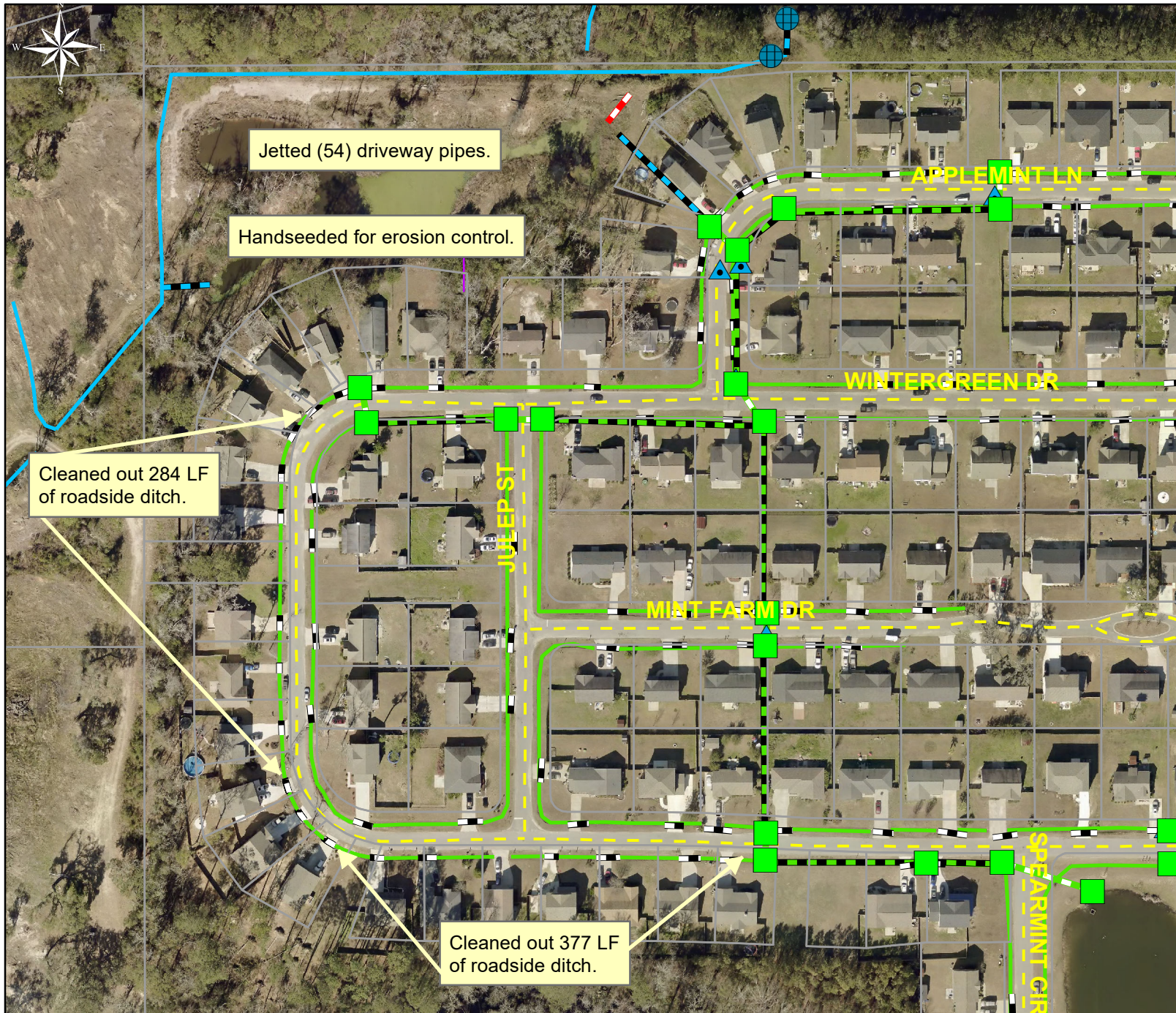
0 40 80 160 240 320 Feet

1 inch = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print: 06/27/19

File: C:\project summaries map\Mint Farm Subdivision- Mint Farm Drive Map #1_2019-558



Project: Mint Farm Subdivision- Mint Farm Drive, Julep Street, Spearmint Circle, Applemint Lane and Wintergreen Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2019-558

Township/SW Dist: Port Royal Island/6

Completed: May 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 40 80 160 240 320 Feet

1 inch = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print:06/27/19

File:C:\project summaries map\Mint Farm Subdivision- Mint Farm Drive Map #2_2019-558



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sheldon Vacuum Truck
George Williams Lane, Paige Point Bluff, Jasmine Hall Road, Big Estate Road,
Johnson Road and Witsell Road

Activity: Routine/Preventive Maintenance
Duration: 01/03/19-04/03/19

Narrative Description of Project:

Removed blockages from flowline. Jetted (1) access pipe, (9) driveway pipes and (3) crossline pipes.

2019-308A / Sheldon Vacuum Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Overhead Cost	Total Cost
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CLPJT / Crossline Pipe - Jetted	36.0	\$802.08	\$689.76	\$107.86	\$0.00	\$516.24	\$2115.94
DPJT / Driveway Pipe - Jetted	18.0	\$401.04	\$344.88	\$84.06	\$0.00	\$258.12	\$1,088.10
RB / Remove blockage from flowline	4.0	\$89.12	\$76.64	\$23.30	\$0.00	\$57.36	\$246.42
STBY / Stand By	4.0	\$89.12	\$17.36	\$0.00	\$0.00	\$57.36	\$163.84
2019-308A / Sheldon Vacuum Truck Sub Total	63.5	\$1,414.05	\$1,128.64	\$215.22	\$0.00	\$889.08	\$3,646.98
Grand Total	63.5	\$1,414.05	\$1128.64	\$215.22	\$0.00	\$889.08	\$3,646.98

Before



During

(No Picture Available)

After





Project: Sheldon
Vacuum Truck-
George Williams
Lane Map #1

Activity: Routine/
Preventive
Maintenance

Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck-George Williams Lane Map #1_2019-308A



Project: Sheldon
Vacuum Truck-
George Williams
Lane Map #2

Activity: Routine/
Preventive
Maintenance














Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck-George Williams Lane Map #2_2019-308A



Project: Sheldon
Vacuum Truck-
Paige Point Bluff
Map #3

Activity: Routine/
Preventive
Maintenance

Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck- Paige Point Bluff Map #3_2019-308A



Project: Sheldon
Vacuum Truck-
Jasmine Hall
Road Map #4

Activity: Routine/
Preventive
Maintenance

Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck- Jasmine Hall Road Map #4_2019-308A



Project: Sheldon
Vacuum Truck-
Big Estate
Road Map #5

Activity: Routine/
Preventive
Maintenance

Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck- Big Estate Road Map #5_2019-308A



Project: Sheldon
Vacuum Truck-
Johnson Road
Map #6

Activity: Routine/
Preventive
Maintenance

Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck- Johnson Road Map #6_2019-308A



Project: Sheldon
Vacuum Truck-
Witsell Road
Map #7

Activity: Routine/
Preventive
Maintenance














Project #:
2019-308A

Township/SW Dist:
Sheldon/5

Completed:
April 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 30 60 120 180 240
Feet

1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 07/24/19

File: C:\project summaries map\Sheldon Vacuum Truck- Witsell Road Map #7_2019-308A



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Marsh Drive

Activity: Routine/Preventive Maintenance

Duration: 06/11/19-06/26/19

Narrative Description of Project:

Project improved 280 L.F. of drainage system. Bush hogged 150 L.F. of channel. Cleaned out 150 L.F. of channel. Jetted 130 L.F. of channel pipe.

2019-573 / Marsh Drive

	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
CBH / Channel- bushhogged	2.0	\$49.40	\$50.44	\$0.00	\$0.00	\$32.94	\$132.78
CCO / Channel - cleaned out	15.0	\$431.40	\$39.47	\$21.16	\$0.00	\$133.35	\$625.38
CPJ / Channel Pipe - Jetted	4.0	\$88.38	\$76.64	\$40.34	\$0.00	\$32.94	\$238.30
HAUL / Hauling	7.0	\$157.33	\$140.08	\$69.02	\$0.00	\$72.10	\$438.53
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2019-573 / Marsh Drive Sub Total	30.5	\$780.99	\$306.63	\$130.52	\$0.00	\$271.33	\$1,489.47
Grand Total	30.5	\$780.99	\$306.63	\$130.52	\$0.00	\$271.33	\$1,489.47

Before



During

(No Pictures Available)

After





Project: Marsh Drive

Activity: Routine/ Preventive Maintenance

Project #: 2019-573

Township/SW Dist: Lady's Island/7

Completed: June 2019



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, September 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 – August 14, 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 – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. October 9, 2019 ([backup](#))
9. ADJOURNMENT