



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, December 12, 2018
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
843.255.2805

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

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – November 14, 2018 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
 - A. Battery Creek 319 Update
6. NEW BUSINESS
 - A. Voting for Stormwater Management Utility Board Chairman and Vice Chairman
 - B. Best Management Practices Manual and Monitoring Plan Update
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. January 9, 2019 ([backup](#))
9. ADJOURNMENT



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

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

Draft Minutes 11/27/2018

Board Members

Present

Don Smith
Marc Feinberg
Allyn Schneider
William Bruggeman

Absent

James Fargher
Patrick Mitchell

Ex-Officio Members

Present

Andy Kinghorn
Scott Liggett
Kim Jones

Absent

Van Willis

Beaufort County Staff

Eric Larson
David Wilhelm
Melissa Allen
Amber Woods

Visitors

Dr. Alan Warren, USCB Lab
Alice Howard, County Council
Howard Heckrotte, Soil & Water Conservation District
Neil Desai, City of Beaufort
Jeff Netzing, Town of Hilton Head Island

1. Meeting called to order – Don Smith

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

2. Introductions – Completed.

3. Public Comment(s) – None.

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

<https://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2018/111418.pdf>

A. Utility Update – Eric Larson

In reference to item #3, the Town of Bluffton's annual financial report is attached. In reference to item #4a, Mr. Larson shared that he has toured one of the three installations to see what they are doing for stormwater management and commented that the tour of MCAS went well; they are doing a lot. Mr. Don Smith asked if the 2018 shellfish report was out. Mr. Larson indicated he hasn't seen it, but would watch for it.

B. Monitoring Update – Eric Larson

Please reference the report, no additional updates.

Mr. Andy Kinghorn asked if anything else has been done to determine what the problem with Battery Creek project might be. Routine maintenance is being done. A brief discussion took place about concerns and Mr. Larson indicated he would get with Mr. Neil Desai, Dr. Warren and Paul Moore (Ward Edwards) to address.

Mr. Smith asked about the historical stream sampling data project. Dr. Warren indicated hasn't done any work since his last presentation. He expressed it is a countywide problem, not isolated to a neighborhood. He mentioned Dr. Montie will be involved. Mr. Larson indicated the project is moving forward; the County signed the MOA to co-fund the project with Town of Bluffton.

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

Mr. Larson shared that County staff attended a Charleston group meeting to exchange ideas, as they are looking at regionalization as well.

D. Stormwater Related Projects – Eric Larson

Mr. Larson provided an update on the Evergreen project; a grant was awarded and the contract has been signed. The project will be diverting Highway 170 run off into a pond. The County is advertising for design consultants.

In reference to Wallace Road, two design options were rejected by SCDOT and a third option has been submitted. Mr. Larson explained that the reason the County is doing work on a state road is because in 2005 the County built an asphalt trail through encroachment permit. The outfall pipes that cross Wallace Road were covered. The proposed plan is to dig up the two places where pipes are covered and extend them out past the trail, where it will drain to Sam's Point Road. SCDOT will release conditions of 2005 permit [County responsibility] once the project is complete.

Mr. Marc Feinberg asked about DOT and County responsibility (referring to 170 as well). Mr. Larson explained DOT has a set of standards as does the County. Hwy 170 responsibilities are an evolution of the widening of the road, as it was temporarily owned by the County while it was widened from two to four lanes. The County committed voluntarily to apply County standards, there are seven ponds that have been left as water quality basins (County maintained). The State assumes responsibility of the road for routine maintenance such as mowing and fixing pot holes.

In response to question about Oyster Bluff development being a stakeholder with the situation on Wallace Road. Mr. Larson explained that there is an interceptor ditch that is supposed to divert to the development pond, in an investigation it was found that the interceptor ditch has been filled it, so it is discharging through the fence line. They are working to resolve this issue.

E. Professional Contracts Report – Eric Larson

In reference to item #1b, the Alljoy subwatershed flooding issue was brought up by a County Council member during the Brewer Memorial project change order discussion. The change order was denied by Council and the project is on hold. Mr. Larson indicated the County is working on a plan for Alljoy, but it is not an easy, quick, or cheap solution. He will be presenting the current Capital Plan next week. Mr. Kinghorn asked if there was a SWU rate increase, who it would affect; Mr. Larson responded it would be for all unincorporated Beaufort County. In response to a question about the stop-work order for Brewer Memorial project, Mr. Larson explained that the contract is for an hourly rate with an upper limit. Ward Edwards will bill out for the work they have done.

Mr. Larson noted that Ward Edwards is doing a cost benefit analysis on the Sawmill Creek / Forby project to see if the project should move forward. In response to a question, Mr. Larson explained that the Sawmill project land was initially purchased to prevent it from being developed.

F. Regional Coordination – Eric Larson

In reference to item #5, the Pepper Hall project (near Stokes Toyota and Mercedes) is moving forward and County Council will be taking final action. The stormwater portions of the project will be a 50/50 cost share with the County. This is being done to protect the Okatie and treat the run off. The County owns 18 acres, and the Pepper Hall project has run off coming from HWY 278 onto it and an argument was made that there is a lot of offsite contribution. There will possibly be a stormwater pond built on the 18 acres, but may not be needed since the project has a low impact development planned. An old farm pond on the property will need to be upgraded.

Mr. Feinberg asked if there will be public access to the park, Mr. Larson responded it will be a passive park. Mr. Larson explained that cost share will be for half of the public infrastructure that manages stormwater.

In reference to item #6, the County is involved in a “super street” widening project. The County will own and maintain the stormwater management system, which will be underground vaulting for infiltration and volume control. As a result of not wanting to expand the footprint and remove trees, in the interest of protecting the environment, this is the planned solution to meet stormwater standards.

G. Municipal Reports – Eric Larson

Mr. Neil Desai mentioned that he gave a brief on Friday to a SCDNR King Tide Public Education group. Mr. Andy Kinghorn mentioned that the City Council is getting ready to approve a bond to cover CIP projects.

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

Inspections - Mr. Larson noted that rain gardens, step two volume control, and grading are being checked to assure built per the design, as many complaints are about run off from one neighbor to the next.

Mr. Smith asked about repeat offenders. Brief discussion took place and Ms. Kim Jones commented about her experience with repeat violators and explained the escalating response plan and noted there are a number of opportunities to comply. Mr. Larson noted the process for the County is similar.

Mr. Larson commented on the BMP mapping of the County, indicating we are getting good coverage throughout the County on the project.

The video announcing the coloring contest to name the sweeper and vac trucks was shared. Mr. Larson said the Town of Bluffton will be naming their sweeper truck as well.

Mr. Larson informed the Board that a treebox BMP installation was taking place outside the admin building today if anyone wanted to stop and look at it. He also introduced Amber Woods, the new Stormwater Regulatory Inspector, who has been inspecting the project.

I. Maintenance Projects Report – David Wilhelm

Mr. David Wilhelm provided an update for the Marsh Road project near the Admin Building. Last week (Thursday and Friday) the contract lined 540 feet of pipe. The County

will try to seek reimbursement from SCDOT once the project is complete. The new lining for the pipe cost \$240 per foot (30" pipe), with the total project costing around \$200,000. The lining has a twenty year guarantee, but expected to last much longer.

Mr. Wilhelm shared the results of the Fall County Clean-up day on November 1st. SCDOT, all municipalities, eleven Adopt-A-Highway groups and other sponsors participated in the event. There were over three hundred workers and about 1,000 bags of litter (1,000 pounds) were picked-up. The event was a great success, and the County is hoping to hold two events a year; during the spring and fall.

5. Unfinished Business –

A. Brewer Memorial Park Stormwater Demonstration Project Expanded Scope Update

– This item was discussed under item #4E, Professional Contracts Report. Please see above.

6. New Business

A. Revised Capital Improvement Plan (CIP) – Mr. Larson will be presenting the plan to County Council, which shows revised budget for 2019. This budget assumes the Brewer Memorial Project was approved and has the next 10 years of CIP project budgeted out. It reflects the projects identified in the Master Plan and shows the costs broken out over several years; this shows the estimate of time it will take for completion (design, ROW acquisition and construction for each project). This CIP plan is a cash flow type of analysis, showing projects, operations/maintenance, and capital equipment, the \$5 million borrows, and utility fees projections. There is roughly \$2 million in capital per year.

There are three unplanned projects highlighted in the spreadsheet, but don't have a funding source; Evergreen Grant Project, Alljoy and May River Sanitary Sewer. Mr. Larson expressed that the utility will need more money to do everything on the list (potential rate increase) or start cutting projects.

A question was asked about priority based on watershed health and Mr. Larson commented that Okatie is number one as it is unincorporated County for the most part, then Battery Creek which is shared with the City, Beaufort River, and there are also concerns with Colleton River which is further downstream. He explained that if he was told by Council that Alljoy is to be made a top priority, the project would be moved above Salt Creek [projects are listed in order of priority on the CIP sheet]. Mr. Larson anticipates Alljoy will be an expensive project based on rough calculations (close to 6 million).

Staff needs the Council to define what the priority will be. Is it water quality, flooding, or public health? This is important for making decisions. Mr. Larson will be presenting the CIP plan to County Council to educate them, so they are able to make an informed decision about the projects. A packet will be provided along with the Capital Improvement Plan, so they are able to understand the intent of each project listed. [Capital Improvement Plan attached.](#)

7. Public Comment(s) – Mr. Larson thanked everyone for the opportunity to serve, as yesterday was his five year anniversary with Beaufort County.

8. Next Meeting Agenda – Approved with Addition.

Addition to Unfinished Business – Battery Creek 319 Pond Update

9. Meeting Adjourned



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

December 12, 2018

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Southern Lowcountry Regional Board (SoLoCo)
 - a) Nothing new to report.
 - b) See Regionalization below.
2. Regionalization
 - a) Regional Stormwater Design Standard and Model Ordinance Project – Nothing new to report.
 - b) Regionalization of programs – No action. This is pending additional discussion after the Reg. SW Std. is completed.
3. Annual Financial report from the Municipalities – Per the Intergovernmental Agreements for the Utility, each year on September 30th, the City and Towns are required to submit a summary of revenue and expenditures for the previous fiscal year.
 - a) Beaufort County – Actuals pending CAFR completion. (December 2018 or January 2019)
 - b) Town of Hilton Head Island – Received.
 - c) Town of Bluffton – Received.
 - d) Town of Port Royal – No response.
 - e) City of Beaufort – [Attached](#).
4. Special presentations – Staff has begun research on the various topics provided by the Board for future meetings:
 - a) Military Site's Stormwater management – Nothing new to report.
 - b) Living shorelines – No action at this time.
 - c) Other ideas?

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
 - a) Beaufort County:
 - i. Okatie Pond Bold & Gold: USCB finalizing proposal.
 - ii. Walmart Pond (Bluffton-278): Collection and analysis is finished. Focusing efforts in other areas/projects.

- iii. Port Royal Cypress Wetlands: Collection, analysis and reporting have been completed.
 - iv. Port Royal Redevelopment: Continue to collect wet event samples quarterly.
 - v. BC MS4: Finishing collection and analyses of fourth quarter.
 - vi. Review of new Beaufort County Comprehensive Water Quality Monitoring Plan, submitted comments and waiting to schedule meeting with Beaufort County and consultant.
- b) USCB Lab:
- i. Meeting with Hilton Head Island about USCB possibly providing collection and analyses for WQ sites, CIP sites, and MS4 sites.
 - ii. Discussions about sampling at Crystal Lake for fish. Putting together proposal and evaluating accessibility to capture 3-5 species of fish.
 - iii. Put together new analytical cost for 2019.
 - iv. Repair of equipment.
 - v. Accepting weekly compliance sample from Water Oak Utility for E.coli.
 - vi. Monthly (and as needed) calibration of equipment and instruments.
 - vii. Exploration of new TKN method approved for state certification.
 - viii. Certification Upkeep-including review of QA/QC, logbooks, COC's.
 - ix. On-going efforts to obtain additional certification; no new certs obtained during this Qtr.
 - x. Monthly sterility checks on Lab water for TOC, TRC, HPC, Conductivity, metals.
 - xi. New laboratory management system is up and we are training and inputting lab information (sample site, clients, analyses, results, QA/QC requirements, reporting requirements, report format, etc...)
 - xii. Account tracking for all accounts-expenditures, deposits, ledgers, PO's
 - xiii. Logistics, planning, scheduling of all activities.
 - xiv. Procurement of all required materials, supplies and equipment.
 - xv. Learning new University software for all expenses including purchases and travel.
- c) Town of Bluffton:
- i. Accepting samples to analyze for fecal coliform at same time as MST analysis.
 - ii. Continue with weekly sample analysis.
 - iii. Accepting samples for new project: EPA 319 Grant Town Hall Pervious Paving Parking Lot. Wet event samples but as often as possible before construction begins.
 - iv. Additional bi-monthly nutrient (T-N, T-P) parameter analysis for NRP-pond site.
 - v. 4th Qtr MS4 is complete. USCB Lab continues to collect and share data with TOB for the shared BC MS4 sites.
 - vi. Invoice/cost tracking for Town of Bluffton.
- d) Palmetto Bluff:
- i. Continued sampling efforts for wet and dry events (12x/year).
 - ii. Data reduction/reporting.
 - iii. Invoicing.
- e) GEL-HHI:
- i. GEL Engineering submitting a new proposal for HHI for project. USCB submitted required information; method, detection limits, costs.

2. Monitoring Plan updates – A final draft is being prepared. It includes new information based on the draft of the 2018 303(d) list from DHEC. Staff is still planning on a January 2019 implementation.

Stormwater Implementation Committee (SWIC) Report

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

Stormwater Related Projects

1. Evergreen Regional Pond 319 Grant Project (Design=\$100,000, Construction=\$590,000. Grant=\$229,124) – The County received a Clean Water Act Section 319 grant for the design and construction of this pond project. A kick off meeting with DHEC is scheduled for December 4. The RFQ for design was advertised November 2nd. SOQ are due December 10, 2018.
2. Okatie West / SC 170 Widening Retrofit (Construction = \$993,048, CO#1 Design \$8,000, CO#1 &2 Const. \$25,739) - Post construction monitoring plan continues. A proposal to ECS, the Bold and Gold vendor, for monitoring funding is still pending.
3. Wallace Road – The County’s revised permit request, including the most recent design option, is still pending.
4. Administration Building Parking Lot and SCDOT pipe failures – (Liner construction = \$131,625; remaining work in-house) – The work to safe load and abandon the unneeded second pipe is pending solicitation of quotes and selection of a contractor. The proposed plan is to use a “cellular” concrete. This light weight, flowable product reduces risk of settlement due to dead weight. (See sample).
5. Easements – Staff is working on numerous easement requests and meets monthly to review status. Several condemnations are still being pursued using outside legal counsel. The easement on Halifax Road has been cleared by the Court to proceed while the condemnation proceedings continue. The Easement in Shell Point on Hickory Street / Palmetto Ridge St. has settled and the condemnation action was withdrawn; the property owner has signed the easement.
6. Complaints – Staff continually works numerous drainage related complaints each month. The stormwater manager met with the superintendent to go over multiple projects earlier in the month. All complaints are managed through the Beaufort County Connect system. The Public Works Special Projects Engineer Tanner Powell is working with our superintendents to populate the database of SWIMS (Stormwater Information Management Systems) which will provide a means to score, rank, and schedule work orders that result from complaints by citizens and projects originated by our staff.

7. Alljoy subwatershed flooding – In the November Natural Resources Committee meeting, Council members directed staff to prepare a cost estimate for a regional stormwater study of the subwatershed and propose a funding source, from SWU fees or general revenue, to pay for the study. The proposal will be presented to the Finance Committee in December or January.
8. Driveway pipes and encroachment permits – The County has had an unwritten policy to install driveway pipes and an asphalt apron for \$399 if requested. A simple problem with handling cash led to a larger discussion of the policy. \$399 doesn't nearly cover the costs. We began discussing how to formalize the process, adjust the prices, and set up accounting software and permitting staff in the Administration building. However, we only received 10 requests in the past 12 months. Therefore, it is recommended we discontinue this unwritten policy and require all driveway pipe installations on County ROW to apply for an encroachment permit and be inspected by staff. This avoids the handling of money or the inconvenience of scheduling the work to be done in-house. SWUB concurrence is requested.

Professional Contracts Report

1. CIP FY 18 Grouping Stormwater Projects – (Design - Ward Edwards \$202,000, Andrews Engineering \$560,490, Const. est. \$5,512,900) – All projects are in early design phase.
 - a) Concept plans for Salt Creek and Shanklin Road sites have been received and approved for full design.
 - b) Brewer Memorial - The change order to expand the design and scope of the Brewer project is anticipated to be reconsidered by County Council at the December 10th meeting.
 - c) Sawmill / Forby – The cost benefit analysis of the project to determine if it is feasible to go forward with design and construction is [attached to this report](#). It is the recommendation for SWUB action to cancel the project as outlined in the report.

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase I” & Academy Park Subdivision (Design Cost \$49,873, Tree Mitigation Cost \$18,200 & \$18,200, Construction Cost by the Developer) – No additional update at this time.
2. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – No additional update at this time.
3. Town of Bluffton and Beaufort County Joint meetings on Sanitary Sewer in the May River watershed – No additional update at this time.
4. Mossy Oaks Task Force – (Design \$20,404, Construction \$205,000; County portions

only). See Municipal Reports.

5. Graves Property / Pepper Hall Public / private partnership – The Development Agreement between the developer and County has had the first of two public hearings by County Council. Third and final hearing / reading is scheduled for December 10. There has been a lot of negative comment about the cost share for stormwater. Many other issues also exist. County Council and the developer continue to negotiate.
6. US 278 “super street” widening on Jenkins Island (Windmill Harbor area) – The County has given preliminary approval of the drainage plan, pending minor revisions and clarification, and issued the stormwater permit so that the County can apply to DHEC for NPDES coverage. DOT has stated they will require a maintenance agreement with the County prior to completion of the project.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager and Brian Eber, MS4 Coordinator)
 - i. [See attached report.](#)
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. [See attached report.](#)
 - ii. County Staff did not attend the monthly May River WAPAC meeting in November.
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. Mossy Oaks Task Force – Nothing new to report.
 - ii. Battery Creek 319 Grant / Gray pond project – City and County staff met on site and determine five action items for routine maintenance needed. Staff will be setting up a meeting with the design engineer to discuss remodeling the pond using as-built information to determine if modification of the outlet box weirs, emergency spillways, or pipe valves are needed to improve performance.
 - iii. [See attached report.](#)
4. Town of Port Royal (From Van Willis, Town Manager and Tony Maglione, consultant)
 - i. No information was available at the time of this report.

MS4 Report

1. Plan Review – [See the attached chart](#) for Beaufort County Stormwater staff plan review workload for the past 12 months.
2. Stormwater Permits – [See the attached chart](#) for Beaufort County Stormwater permits issued for the past 12 months.

3. Monthly Inspection summary - [See the attached chart](#) for Beaufort County Stormwater staff inspection, complaint, IDDE, and violations summary for the past 12 months.
4. Weather Station data. [See attached chart.](#)
5. Public Education – Lowcountry Stormwater Partners (LSP), via Carolina Clear, continues to work on several initiatives towards public education and outreach.
 - a) “That’s my Truck” naming contest for our new street sweeper and vac trucks, as well as Bluffton’s sweeper. The “celebrity” panel of judges met on December 4 to pick the names and coloring contest winner. The winner gets a school visit from the trucks and their picture and name prominently displayed on the truck. Dates have not been date for the school visits at this time.
 - b) A LSP stakeholder quarterly meeting was held November 28, 2018. A special presentation was given on the topic of sea level rise given by staff from SC Seagrant.
 - c) No additional information available to report.
6. Construction permitting – County staff received training from Charles Jarman with Clemson Extension on completing a DHEC NPDES NOI. This was done to better understand the permitting needs of the State compared to our own.
7. Monitoring plan update – See Monitoring Update.
8. MS4 Statewide General permit – DHEC presented the concept of 2 general permits, coastal and non-coastal, to the SCASM membership in November. Still no time frame on when draft permits will be available to review or if any public stakeholder meetings will be held.
9. Statewide General permit for Construction – DHEC plans to publish the draft permit at the first of the year. The draft was distributed to the SCASM membership in November for their information. However, DHEC seems unwilling to accept comments and make changes until after the public notice.
10. BMP Manual update – Staff is still working on a minor amendment to the BMP manual. Draft available to review:
<https://www.bcgov.net/departments/Engineering-and-Infrastructure/stormwater-management/documents/Manuals--Plans-page/Beaufort%20County%20BMP%20Manual%20DRAFT%2012.04.18.pdf>

Stormwater Utility Annual Report of Revenue and Expenditures	
Fiscal Year:	2018
Jurisdiction reporting:	CITY OF BEAUFORT, SC
Revenue	
Total Amount of Fees billed	\$ 1,289,287.00
Gross Fees received	\$ 850,119.00
Collection rate	66%
- (minus) SW Mgt. fees retained by the County	
Bonds, Borrowed funds, etc.	\$ -
Net Revenue	\$ 850,119.00
Expenditures	
Personnel (salary and benefits)	\$ 137,966.00
Number of staff funded by SWU Fees (fully or partially)	
Administrative expenses (supplies, office space, etc.)	\$ 9,114.00
Monitoring (sampling, Lab analysis)	
Operations (inventory, inspections, etc.)	
MS4 Related activities	
Equipment Expenses (Maintenance, fuel, etc.)	\$ 42,884.00
Capital Equipment Depreciation	
New Capital Equipment Purchases in FY	\$ 55,000.00
Operations and Maintenance	
Public Works expenses (materials, etc.)	\$ 48,602.00
Contracted design costs	\$ 338,068.00
Easement / Property Acquisition	\$ -
Contracted construction costs	\$ 129,198.00
Special Studies (modeling, etc.)	
Projects	
Number of projects started	7.0
Number of projects completed	2.0
Contracted design costs	
Easement / Property Acquisition	\$ -
Contracted construction costs	\$ 31,327.00
Debt Service	
Total Expenditures	\$ 760,832.00
Net Balance	\$ 89,287.00
Carryover from previous FY	\$ 307,240.00
Carryover into next FY	\$ 396,527.00

November 29, 2018

Sawmill Creek Stormwater Project (Forby Tract)

Cost-Benefit Analysis.

The Forby Tract is a parcel of land located between Hilton Head BMW and Tanger Outlets 1 and it consists mostly of jurisdictional wetlands. Beaufort County has plans to construct a frontage road to connect the two commercial developments and desired secondary stormwater benefits from the road construction. The stormwater component of the project concept was to construct the road causeway across the wetland in a manner that would provide water quality treatment in the upstream wetlands and provide flood mitigation for the undersized Highway 278 culverts located downstream. Ward Edwards performed a series of numeric hydrologic/hydraulic (H&H) models to analyze existing conditions and to model potential beneficial scenarios.

The H&H models showed that by careful selection and design of the proposed road culverts, there are some potential water quality benefits possible through storage in the wetlands upstream of the proposed causeway. However, the amount of storage available is relatively small given the estimated construction cost. The model determined that 9,230 ft³ of water quality detention could be achieved in the wetland without wetland excavation impacts. With wetland excavation, 61,000 ft³ of storage could be achieved, however that level of wetland impacts would not likely be approved by the US Army Corps of Engineers. An Engineer's Estimate of Probable Construction Cost (attached) was prepared for use in the cost-benefit analysis and resulted in an estimated construction cost of \$342,864. This information was used to compare the Forby Project to other recently completed Beaufort County Stormwater quality projects.

Forby (realistic scenario):

WQ Storage provided	= 9,230 CF
Estimated Construction Cost	= \$342,864
Cost/CF Storage	= \$37.14 / CF

Forby (maximum storage scenario):

WQ Storage provided	= 61,000 CF
Estimated Construction Cost	= \$342,864
Cost/CF Storage	= \$4.68 / CF

Okatie West Pond:

WQ Storage provided	= 502,430 CF
Actual Construction Cost	= \$993,048
Cost/CF Storage	= \$1.97 / CF

Battery Creek Pond:

WQ Storage provided	= 542,322 CF
Actual Construction Cost	= \$746,769
Cost/CF Storage	= \$1.37 / CF

Okatie East Wetland Enhancement:

WQ Storage provided	= 184,000 CF
Estimated Construction Cost	= \$50,000
Cost/CF Storage	= \$0.27 / CF

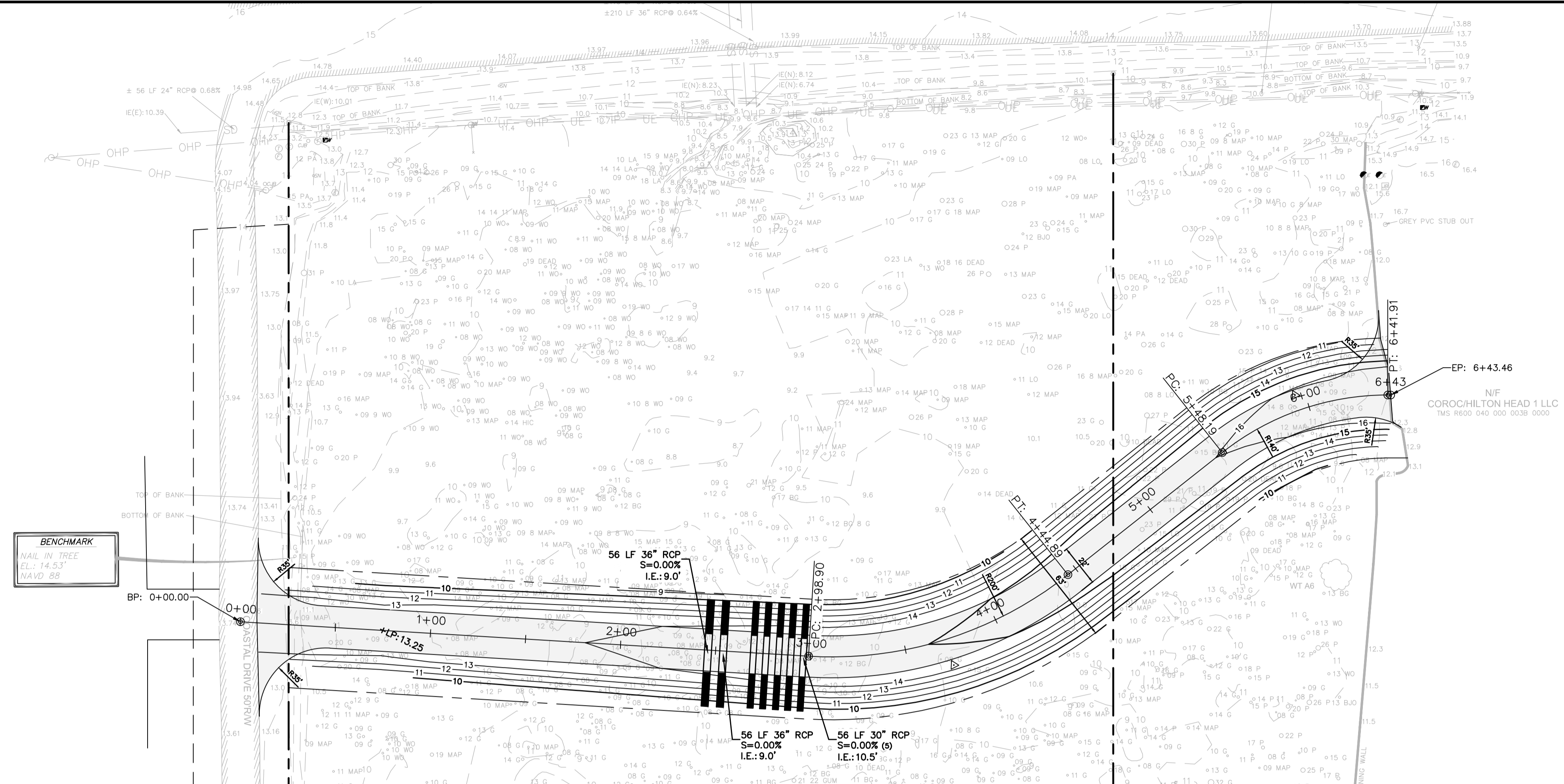
Recommendation:

Based on the limited water quality and flood mitigation benefits possible for the project and based on the high cost to benefit ratio, when compared to the County's other projects; Ward Edwards recommends stopping work on the remainder of the stormwater-funded scope of this project. Should the frontage road project be implemented in the future, the selection and placement of the road culverts could be done to provide some stormwater benefit, but the project is not viable as a stand-alone stormwater project.

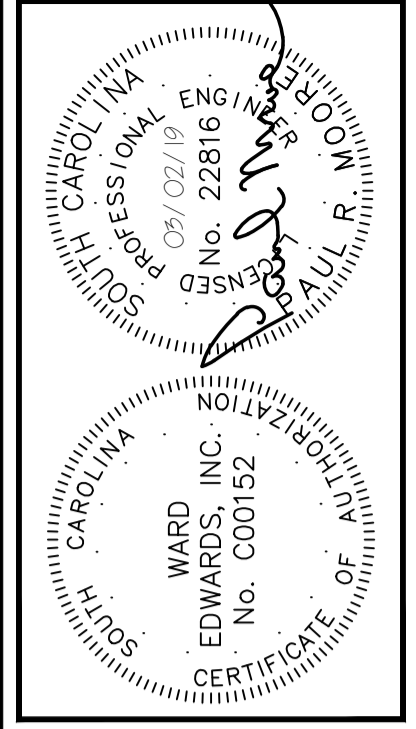
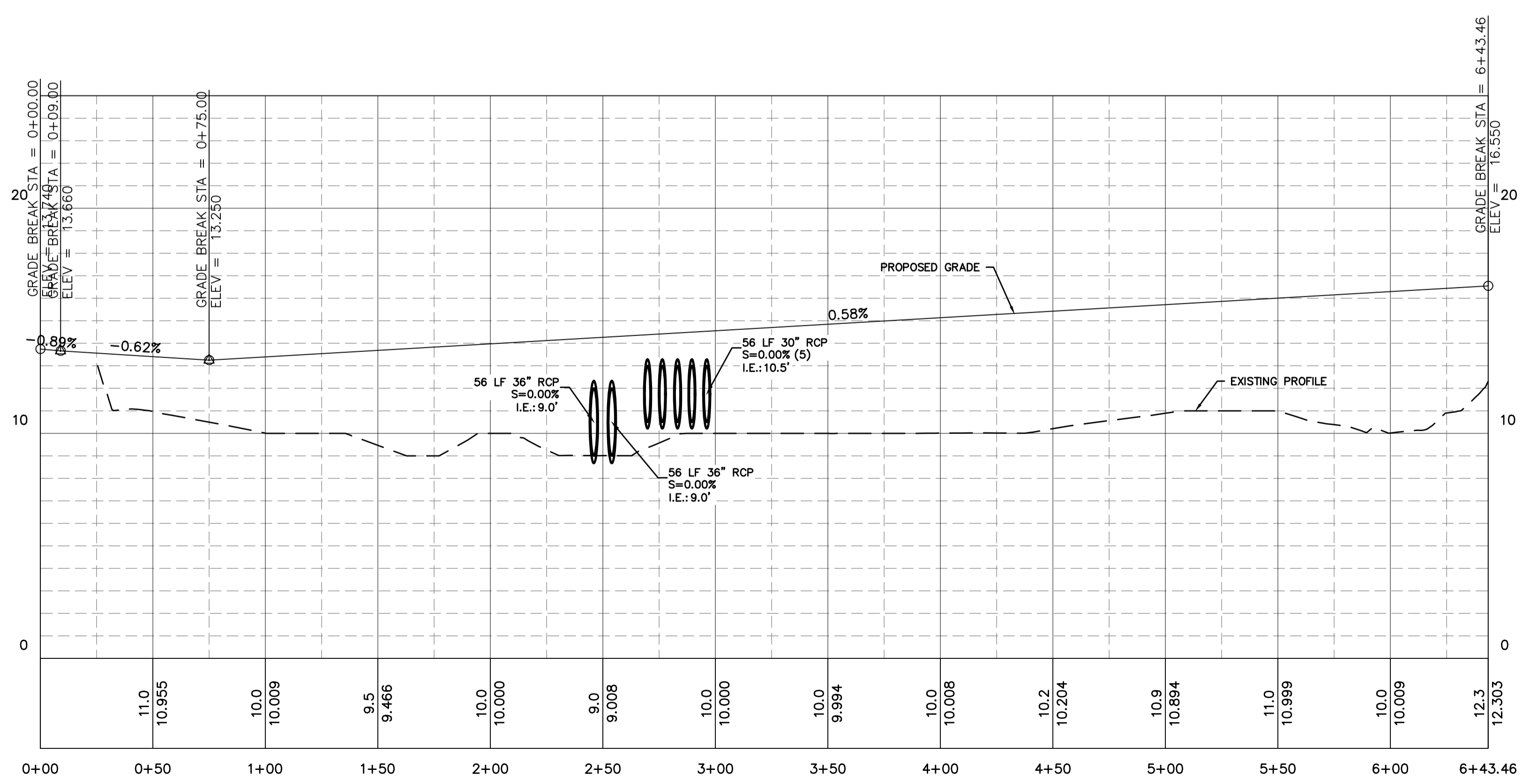
Attachments:

Site Survey
Conceptual Site Plan
Engineer's Estimate of Probable Construction Cost
Model inundation maps

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ROAD B PROFILE
SCALE: 1" = 40' HORIZ
1" = 4' VERT



NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3		
2		
1		

Ward Edwards
ENGINEERING
P.O. BOX 381, BILFINGTON, SOUTH CAROLINA 29910
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SAWMILL CREEK DRAINAGE IMPROVEMENTS
BEAUFORT COUNTY, SOUTH CAROLINA
ROAD PROFILES

PROJECT #:	1704008
DATE:	07/05/18
DESIGNED BY:	PRM
CHECKED BY:	HED
SCALE:	AS NOTED

SHEET C9XX

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Engineer's Estimate of Probable Construction Costs for Sawmill Creek (Forby Tract) - 17400B

Site Work for Pritchardville Fire-EMS



Date:
11/29/2018

CLEARING AND DEMOLITION

Item	Description	Quantity	Unit	Unit Price	Total
1	Mobilization	1	LS	\$ 10,000.00	\$ 10,000.00
2	Layout Surveying	1	LS	\$ 10,000.00	\$ 10,000.00
3	Tree Removal	1	AC	\$ 10,000.00	\$ 10,000.00
4	Temporary Traffic Control	1	LS	\$ 2,000.00	\$ 2,000.00
CLEARING & DEMOLITION, TOTAL					\$ 32,000.00

EROSION CONTROL

Item	Description	Quantity	Unit	Unit Price	Total
1	Construction Entrance	1	LS	\$ 3,500.00	\$ 3,500.00
2	Silt Fence	2400	LF	\$ 3.00	\$ 7,200.00
3	Tree Protection Fencing	1200	LF	\$ 3.00	\$ 3,600.00
4	Concrete Washout	1	EA	\$ 4,000.00	\$ 4,000.00
5	Seeding	3200	SY	\$ 1.00	\$ 3,200.00
6	Inlet Protection	2	EA	\$ 200.00	\$ 400.00
EROSION CONTROL, TOTAL					\$ 21,900.00

EARTHWORK

Item	Description	Quantity	Unit	Unit Price	Total
1	Stripping	1300	CY	\$ 12.00	\$ 15,600.00
2	Site Excavation, Off-site Borrow	4330	CY	\$ 30.00	\$ 129,900.00
3	Site Excavation (muck), Off-site Disposal	2000	CY	\$ 20.00	\$ 40,000.00
4	Fine Grading	4800	SY	\$ 3.00	\$ 14,400.00
WATER, TOTAL					\$ 199,900.00

STORM DRAINAGE

Item	Description	Quantity	Unit	Unit Price	Total
1	30" RCP	280	LF	\$ 80.00	\$ 22,400.00
2	36" RCP	112	LF	\$ 85.00	\$ 9,520.00
STORM DRAINAGE, TOTAL					\$ 31,920.00

PAVING - Excluded					
Item	Description	Quantity	Unit	Unit Price	Total
1	7" Stabilized Aggregate Base Course	0	SY	\$ 24.00	\$ -
2	2" Hot-Mix Asphalt Paving	0	SY	\$ 12.50	\$ -
3	Concrete Roll Curb	0	LF	\$ 25.00	\$ -
4	6" Concrete Paving (Reinforced) on Compacted Subgrad	0	SY	\$ 65.00	\$ -
5	4" Concrete Sidewalk (Unreinforced)	0	SY	\$ 45.00	\$ -
6	Concrete Wheelstop	0	EA	\$ 65.00	\$ -
7	Striping, Signage, & Marking	0	LS	\$ 2,500.00	\$ -
8	6" PVC Conduits	0	LF	\$ 12.00	\$ -
PAVING, TOTAL					\$ -

SUB-TOTAL	\$ 285,720.00
20% CONTINGENCY	\$ 57,144.00
TOTAL	\$ 342,864.00

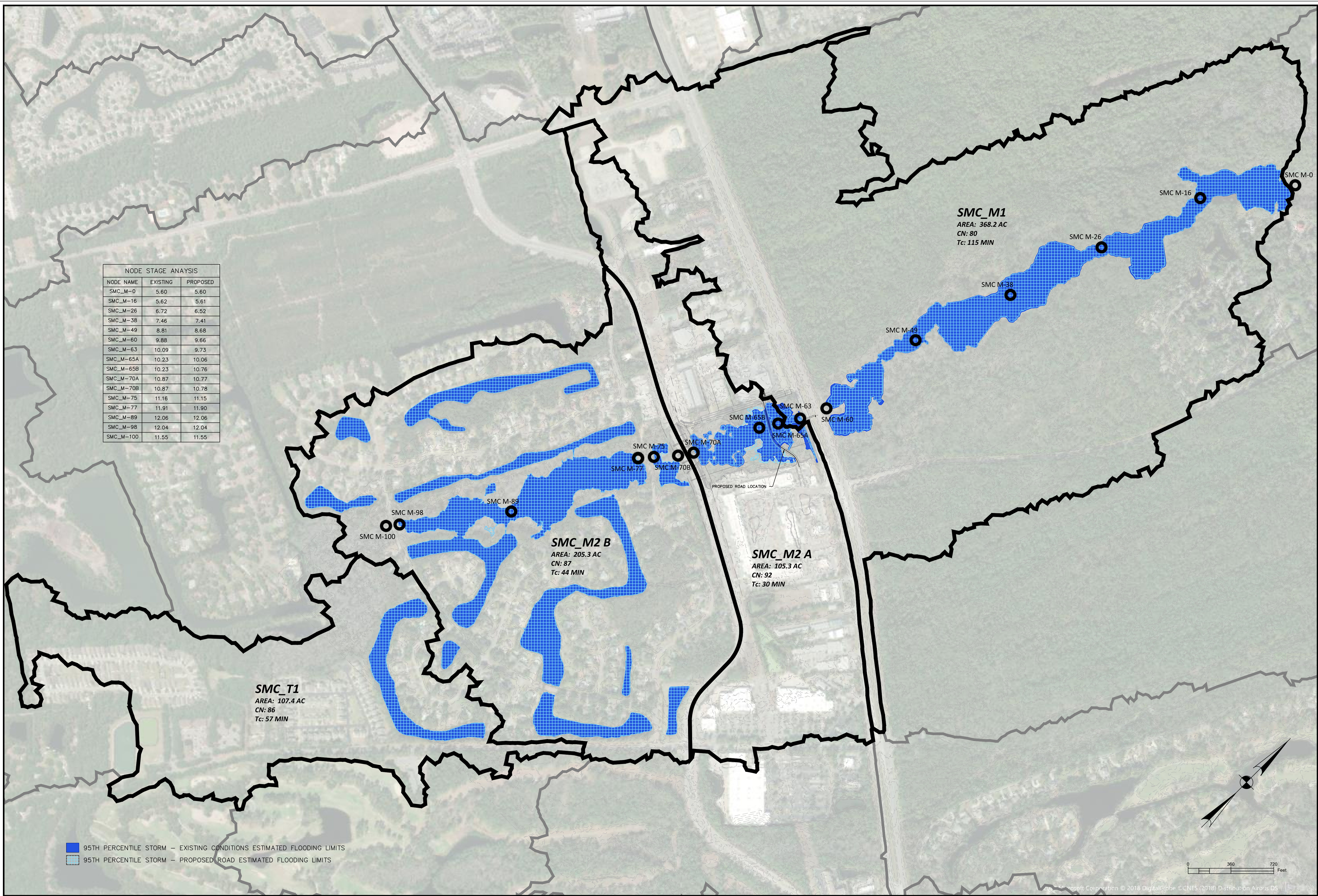
Assumptions

Existing soil material underneath the proposed causeway is unsuitable for structural sub-base and would require 2-ft depth of muck & fill. The causeway would be constructed to the future top of road elevation but wouldn't be paved. Road construction and paving would occur as a separate project.

Disclaimer:

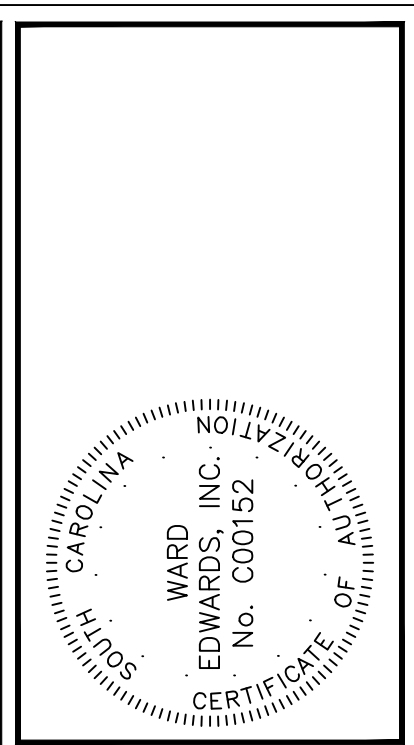
The opinions of probable cost presented in this section are based on the experience and qualifications of Ward Edwards' professional engineering staff and its familiarity with the construction industry. Ward Edwards, Inc. has no control over the cost of labor, materials, equipment or services furnished by others or over contractors' methods for determining prices, or over competitive bidding or market conditions; therefore, Ward Edwards, Inc. cannot and does not guarantee that proposals, bids or actual total construction costs will not vary from the opinions of probable cost provided.

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NODE STAGE ANALYSIS		
NODE NAME	EXISTING	PROPOSED
SMC_M-0	5.60	5.60
SMC_M-16	5.62	5.61
SMC_M-26	6.72	6.52
SMC_M-38	7.46	7.41
SMC_M-49	8.81	8.68
SMC_M-60	9.88	9.66
SMC_M-63	10.09	9.73
SMC_M-65A	10.23	10.06
SMC_M-65B	10.23	10.76
SMC_M-70A	10.87	10.77
SMC_M-70B	10.87	10.78
SMC_M-75	11.16	11.15
SMC_M-77	11.91	11.90
SMC_M-89	12.06	12.06
SMC_M-98	12.04	12.04
SMC_M-100	11.55	11.55

■ 95TH PERCENTILE STORM - EXISTING CONDITIONS ESTIMATED FLOODING LIMITS
■ 95TH PERCENTILE STORM - PROPOSED ROAD ESTIMATED FLOODING LIMITS



NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3		
2		
1		

Ward Edwards
ENGINEERING

P.O. BOX 381, BLUFFTON, SOUTH CAROLINA 29910
PH: (803) 837-5555 FAX: (803) 837-2536
WWW.WARDEDWARDS.COM

SAWMILL CREEK DRAINAGE ANALYSIS
BEAUFORT COUNTY, SOUTH CAROLINA

PREPARED FOR BEAUFORT COUNTY

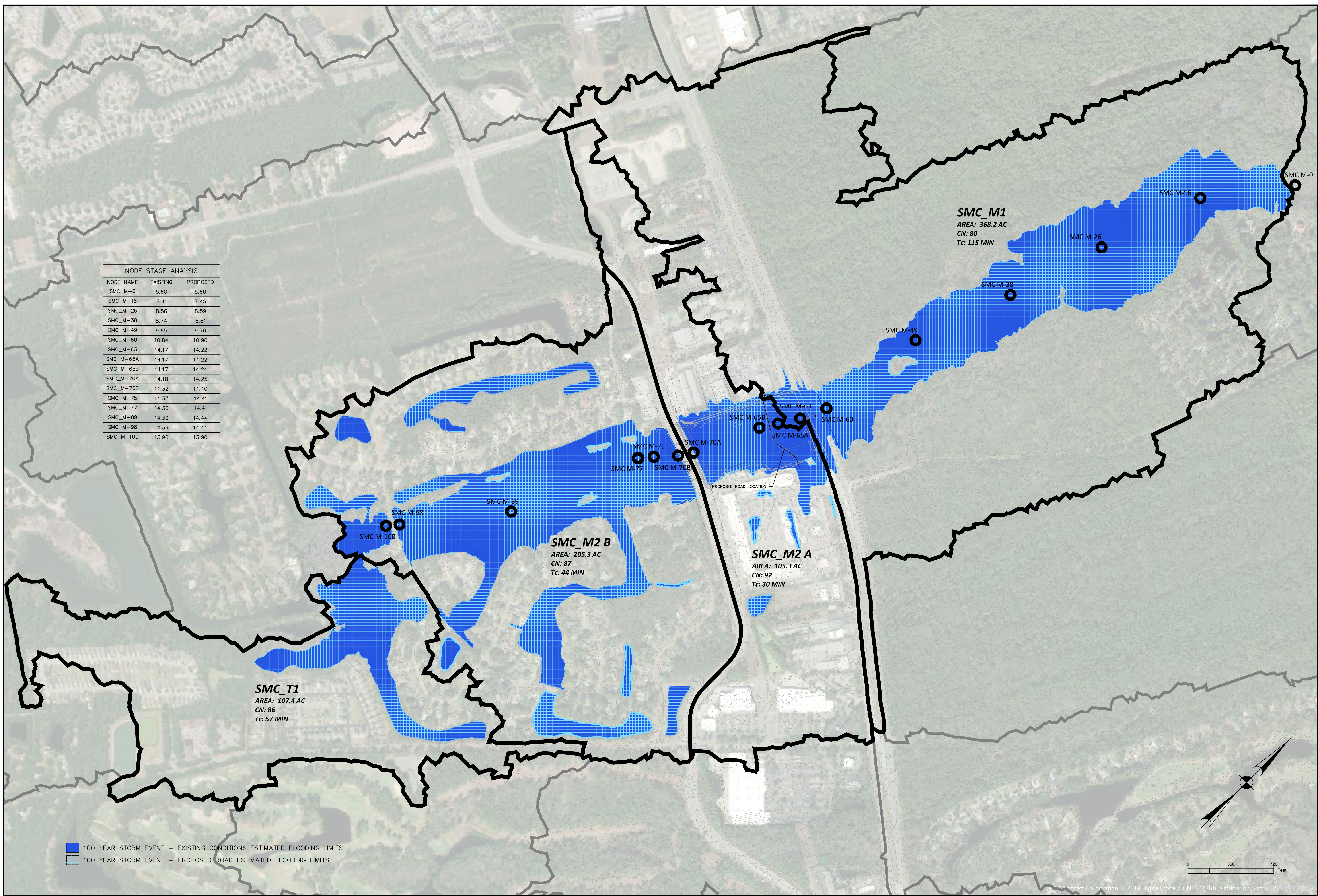
95TH PERCENTILE STORM FLOOD LIMITS

<input checked="" type="checkbox"/> NOT FOR CONSTRUCTION	<input type="checkbox"/> RELEASED FOR CONSTRUCTION
PROJECT #:	1704.008
DATE:	06/18/18
DESIGNED BY:	CPB
CHECKED BY:	PRM
SCALE:	1"=360'

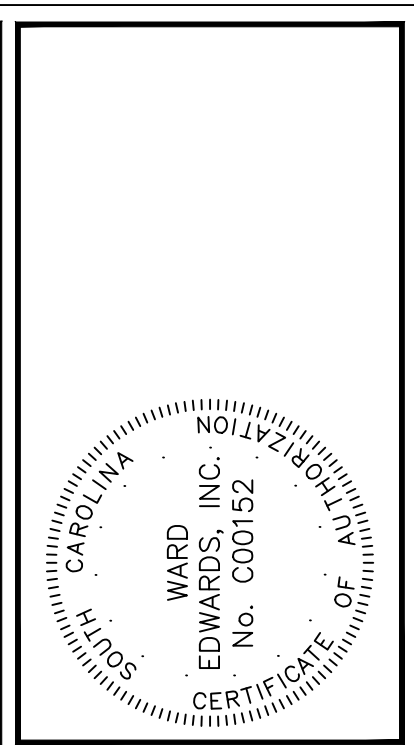
SHEET EXHIBIT

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NODE STAGE ANALYSIS		
NODE NAME	EXISTING	PROPOSED
SMC_M-0	5.60	5.60
SMC_M-16	7.41	7.45
SMC_M-26	8.56	8.59
SMC_M-38	8.74	8.81
SMC_M-49	9.65	9.76
SMC_M-60	10.84	10.90
SMC_M-63	14.17	14.22
SMC_M-65A	14.17	14.22
SMC_M-65B	14.17	14.24
SMC_M-70A	14.18	14.25
SMC_M-70B	14.32	14.40
SMC_M-75	14.33	14.41
SMC_M-77	14.36	14.41
SMC_M-89	14.39	14.44
SMC_M-98	14.39	14.44
SMC_M-100	13.90	13.90



NO.	DESCRIPTION	DATE
7		
6		
5		
4		
3		
2		
1		

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SAWMILL CREEK DRAINAGE ANALYSIS
BEAUFORT COUNTY, SOUTH CAROLINA
PREPARED FOR BEAUFORT COUNTY
100 YEAR STORM EVENT FLOOD LIMITS

<input checked="" type="checkbox"/> NOT FOR CONSTRUCTION	<input type="checkbox"/> RELEASED FOR CONSTRUCTION
PROJECT #:	1704.008
DATE:	06/18/18
DESIGNED BY:	CPB
CHECKED BY:	PRM
SCALE:	1"=360'

SHEET EXHIBIT

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

Reporting Period: November 1 to November 30, 2018

1. MS4 Update

MCM1 Public Education & Outreach	• Drafting update to stormwater page on Town's website
MCM2 Public Involvement & Participation	• Prep underway for meeting w/ HHP POA & golf courses regarding WQ, pond management & illicit discharges (meeting 2 of 9 planned with large PUDs)
MCM3 Illicit Discharge Detection & Elimination	1 Complaints received via Code Enforcement 1 Investigated 1 Eliminated or resolved
MCM4 Construction Site SW Runoff Control	2 Plan reviews w/ corrections required 11 Plan reviews approved 2 New LD Permit issued 10 Active permitted construction sites 9 Inspections completed 1 NOV issued
MCM5 Post-Construction SW Management	• No LDP permitted construction completed as of Oct 31, 2018. • Testing procedures for tracking and inspecting using Cartegraph when system is implemented
MCM6 Pollution Prevention/Good Housekeeping	• Building Dept. PP/GH presentation completed • CD PP/GH scheduled for December

2. Service Requests

	Total Open as of <u>10/31</u>	Received in October	Closed in October	Total Open as of <u>11/30</u>
Qualifying	197	3	19	181
Referrals	22	0	1	21
Enforcement	1	1	0	2
Non-qualifying		2	2	
Under Evaluation	3	0		3
Totals	223	6	22	207

3. Capital Improvements Update

A. Jarvis Creek SW Pump Station

Planning for major improvements including raising elevation of emergency power cutoff switch boxes, upgrades to electrical distribution, transfer switch and control systems, various safety improvements, and installation of mechanical debris screens to improve operational efficiency. Project is in conceptual design phase. No change is status this month.

B. Sea Pines SW Pump Station

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

C. Wexford SW Pump Station

Mitigation project to raise and reinforce upstream channel levee to repair damage caused by Hurricane's Matthew and Irma. Project is in preliminary design phase. No change is status this month.

D. Wren Pond Emergency Spillway

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

E. Main Street Weir Safety & Operational Improvements

Installation of deck grating and handrails to improve safety and installation of hardware to improve weir operations. Design underway; installation planned for FY19/Q3.

4. Maintenance, Repair & Rehabilitation Projects

A. Completed in October (\$122,700)

- Port Royal Trunk Line Channel Restoration – Phase VII (Grasslawn Avenue Area) - \$72,200
- 50 Sedge Fern Drive – system cleaning, CCTV & sinkhole repairs - \$38,100
- 9 Junket – sinkhole repair- \$3,400
- Conservancy Court – sinkhole repairs - \$5,400
- 2 Fife Lane – structure repair - \$3,600

B. Completed in November (\$56,400)

- 15 Marshland Road – channel maintenance - \$3,600
- 2 Iron Clad – sinkhole repair - \$9,700
- Sol Blatt Pkwy – pathway flumes: outfall capacity restoration - \$5,800
- Yacht Cove lagoon – sediment removal - \$7,600
- 11 Spotted Sandpiper – pipe & structure replacement - \$15,300
- 79 Fort Walker Drive – channel maintenance (sediment removal) - \$9,000
- Leamington – sinkhole repairs at 3 locations - \$5,400

C. Underway as of November 30 (\$64,400)

- Jarvis Creek Pump Station – Electrical System Repairs - \$15,700
- Channel Maintenance, workshelf/vegetation – Oakview Channel, Jarvis Creek Channel, Palmetto Headlands Ditches, Gum Tree Channel, Wexford/RV Resort Channel, Arrow Road Channel - \$45,700
- Palmetto Hall - Weir Maintenance adjacent to pump station - \$3,000

D. Planned for December/January (\$220,500)

- Channel Maintenance, workshelf/vegetation – Old Woodlands, Folly Field Fiddlers Cove Outfall, Ashmore Channel, - \$35,000
- 12 Canvas Back Road – pipe installation - \$20,000
- 37 Deerfield Road – survey & drainage system improvements - \$25,000
- 271 Seabrook Drive – CCTV - \$8,000
- 82 Myrtle Bank Road – CCTV & clean - \$10,000
- Mathews Drive – Pathway erosion mitigation- \$7,500
- Ruddy Turnstone – CCTV and Pipe Repair - \$80,000
- 12 Valencia Road- Joint Repair - \$30,000
- 9 Harbourside Lane – Sinkhole Repair - \$5,000

5. Master Planning & Modeling Program

A. Palmetto Hall/Mitchelville Inventory & Modeling Project

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

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

Town is drafting an RFQ for advertisement. Project will develop inundation maps for various design storms for several watersheds where inventory and modeling tasks have previously been completed. No change is status this month.

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

FY19 budgeted project planned for advertisement in Q4. No change is status this month.

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

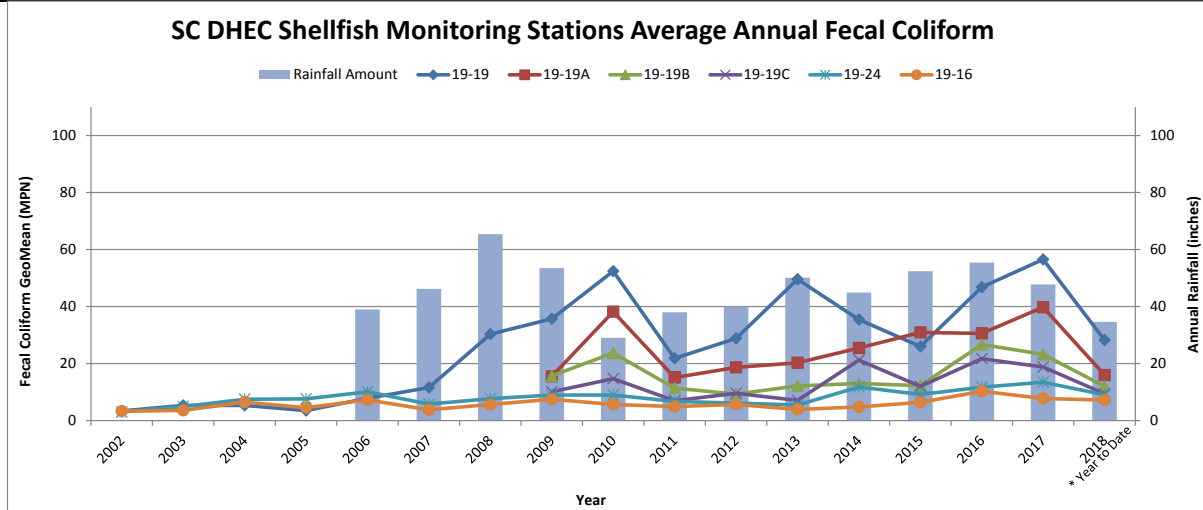
FY19 budgeted project planned for advertisement in Q4. No change is status this month.

6. Other Activities / Items of Interest

- Standardization of PUD Maintenance Agreements – Draft boilerplate document to be shared with Town Council Finance and Administrative Committee for review in December. Process by which other (smaller) POAs can apply for service will also be discussed.

	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)
December	110.0	79.0	1600.0		33.0	23.0	920.0		27.0	49.0	540.0		7.8	33.0	240.0		6.8	7.8	220.0		4.5	23.0	49.0	
November	NS	33.0	49.0	49.0	NS	13.0	33.0	13.0	NS	7.8	7.8	23.0	NS	14.0	31.0	17.0	NS	13.0	2.0	17.0	NS	33.0	2.0	7.8
October	23.0	NS	22.0	79.0	49.0	NS	49.0	23.0	4.5	NS	33.0	7.8	23.0	NS	23.0	7.8	7.8	NS	6.8	7.8	4.5	NS	2.0	2.0
September	46.0	23.0	17.0	49.0	17.0	110.0	7.8	23.0	9.3	23.0	11.0	13.0	17.0	13.0	4.5	17.0	23.0	4.5	2.0	17.0	4.5	7.8	1.8	17.0
August	6.8	NS	79.0	70.0	17.0	NS	70.0	23.0	13.0	NS	21.0	13.0	13.0	NS	33.0	4.5	24.0	NS	33.0	7.8	4.0	NS	33.0	17.0
July	17.0	79.0	350.0	23.0	7.8	17.0	110.0	33.0	6.8	22.0	130.0	11.0	11.0	17.0	49.0	7.8	2.0	49.0	49.0	13.0	4.5	13.0	22.0	4.5
June	33.0	79.0	23.0	11.0	46.0	130.0	49.0	23.0	11.0	70.0	13.0	23.0	14.0	110.0	17.0	7.8	4.5	33.0	7.8	4.5	11.0	23.0	4.5	1.8
May	NS	70.0	17.0	17.0	NS	23.0	23.0	33.0	NS	49.0	7.8	17.0	6.8	49.0	2.0	13.0	6.8	14.0	23.0	23.0	23.0	17.0	4.5	13.0
April	1.8	23.0	7.8	33.0	33.0	23.0	23.0	13.0	17.0	13.0	4.5	17.0	17.0	13.0	7.8	17.0	13.0	7.8	13.0	49.0	17.0	1.8	4.5	17.0
March	170.0	33.0	350.0	22.0	130.0	33.0	11.0	21.0	49.0	33.0	33.0	4.5	17.0	17.0	13.0	11.0	13.0	11.0	13.0	7.8	6.8	7.8	33.0	9.3
February	13.0	23.0	13.0	17.0	14.0	17.0	7.8	7.8	1.8	13.0	13.0	17.0	1.8	11.0	9.3	17.0	7.8	6.8	4.5	2.0	2.0	1.8	1.8	7.8
January	79.0	110.0	95.0	13.0	79.0	33.0	79.0	2.0	49.0	49.0	31.0	4.5	33.0	17.0	49.0	2.0	17.0	7.8	27.0	1.8	7.8	17.0	33.0	4.5
Additional Samples																								
Average Annual GeoMean	26.0	46.8	56.5	28.3	30.9	30.6	39.8	15.9	12.3	26.7	23.3	12.0	12.0	21.7	18.8	9.4	9.2	11.7	13.5	9.0	6.4	10.3	7.7	7.2
** Truncated GeoMetric Mean	37.0	37.0	44.0	41.0	21.0	30.0	36.0	28.0	11.0	16.0	20.0	20.0	11.0	16.0	16.0	15.0	7.0	9.0	10.0	10.0	4.0	6.0	7.0	7.0
** Truncated 90th Percentile	205.0	105.0	203.0	175.0	95.0	89.0	133.0	115.0	51.0	69.0	83.0	71.0	55.0	65.0	57.0	54.0	30.0	29.0	37.0	43.0	13.0	21.0	29.0	29.0

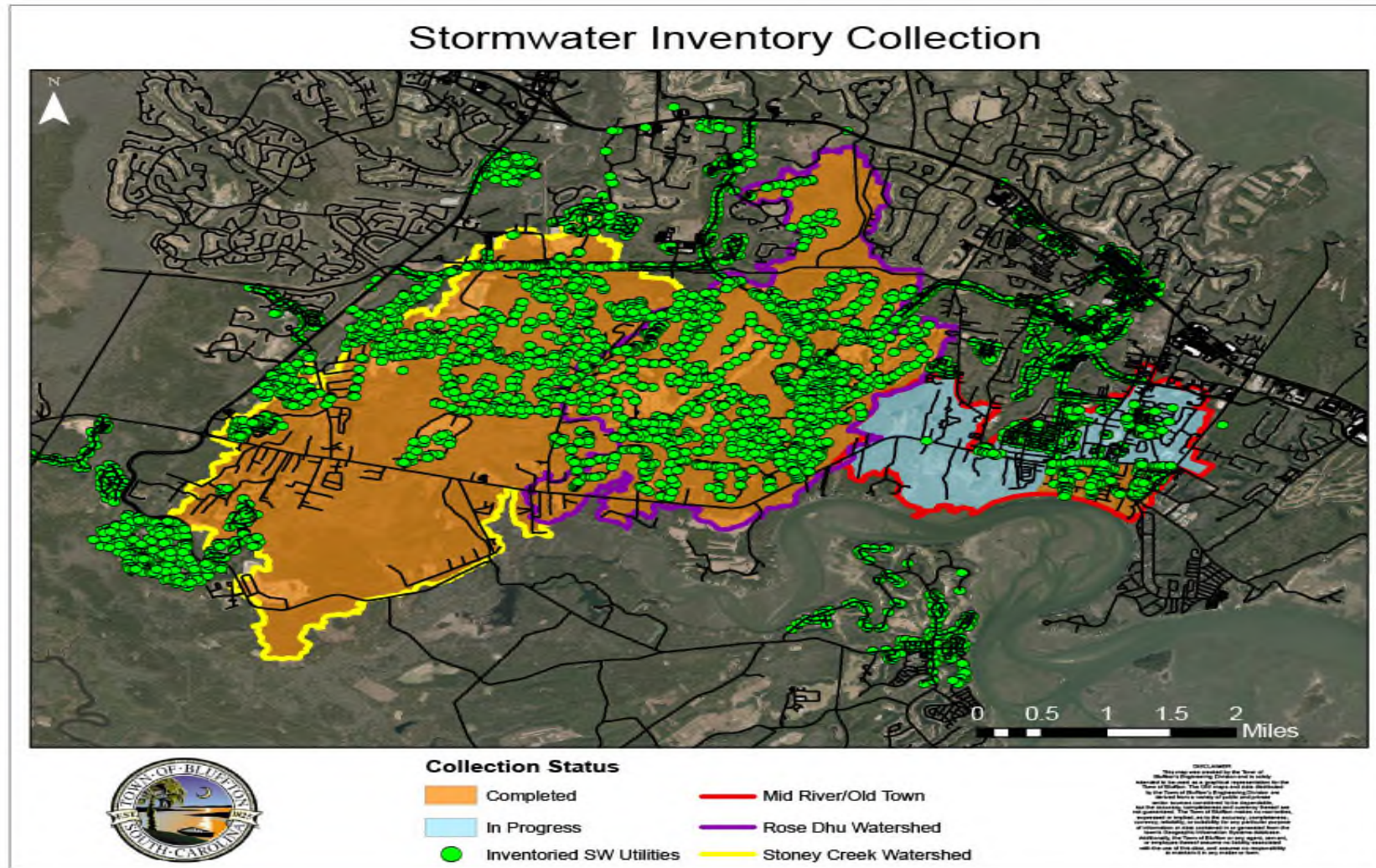
NS = No Sample
 AS = Additional Samples
 ** Town staff calculations utilizing DHEC statistics



ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update	To be completed with direction and input from Water Quality Technical Advisory Committee, May River Watershed Advisory Committee, and Town Council, public and staff. Action Plan Update is a FY19-20 priority of WAPAC and Council. WAPAC scope direction provided 2/22/18 to include watershed health indicators of bacteria, biotic & abiotic parameters and social/cultural/economic indicators. Staff met with SCDHEC to confirm hybrid 5R and traditional watershed-based plan approach will be accepted. To be initiated at start of FY19 with anticipated completion in mid-FY20.
Sewer Connection & Extension Policy	Council adopted the Sewer Connection & Extension Policy on 9/26/17. WAPAC proposed prioritization phases for sewer extension in Historic District for FY 19-23 and recommended revisions to Sewer Connection Ordinance on 2/22/18. Staff has initiated septic system maintenance education via outreach and with Lowcountry Stormwater Partners. Town Council considered WAPAC recommended amendments to Sewer Connection Program on 4/10/18. Will consider for 2nd & Final Reading upon Septic to Sewer Conversion Program establishment. Town Council Workshop of Septic to Sewer Conversion Program on 7/17/18. Ordinance and Program adoption completed 9/20/18.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Buck Island/Simmonsville Road (BIS) Phases I, II, III and IV are completed. Toy Fields is completed. Six phases of sewer extension are proposed in the 5-year Capital Improvement Program. Current project updates are included in Engineering Consent Agenda under "Sewer & Water." Current project updates are included in Engineering Consent Agenda.
May River 319 Grant Phase 1 - New Riverside Pond (Grant award of \$483,500 in 2009)	Completed in 2013. Per water quality tests, a statistically significant reduction in fecal coliform bacteria concentration exists pre-pond versus post-pond. However, bacteria levels re-load prior to discharging into the May River, leading to additional BMP installation of Filtrexx proprietary filter socks. Installed 12/12/17 to maintain bacteria reduction. Downstream failing septic system was located by Staff and reported to County & SCDHEC for remediation.
May River 319 Grant Phase 2 - Pine Ridge (Grant award of \$290,000 in 2011)	Completed in 2016. In post-construction monitoring phase to assess project efficacy.
May River 319 Grant Phase 3 - Town Hall Parking Retrofit (Grant award of \$231,350 in 2016)	EPA & DHEC permitted a workplan amendment for this grant award to include stormwater retrofits at Town Hall. Current project updates are included in Engineering Consent Agenda.
Stoney Creek Wetlands Restoration: Preliminary Design Phase	Wetlands restoration project with the goal to reduce stormwater volume reaching the May River. Conceptual design completed and approved by property owners. Current project updates are included in Engineering Consent Agenda.
May River Watershed Water Quality Model	2002 Palmetto Bluff Duck Pond Drainage area watershed model complete. Completed New Riverside BMP model for comparison to field observations. Rose Dhu Creek sub-watershed "Existing Conditions" portion of the Headwaters Water Quality Model initiated. Staff is obtaining quotes to complete the water quality model as part of Action Plan Update from ATM, McCormick Taylor, and JMT.

ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Exploring partnership opportunities with BJWSA for future sewer phases. WAPAC FY19-20 priority to assess Stormwater Utility Fee. SWU Fee Rate Model Update has commenced with Raftelis. Completion anticipated by 12/31/18.
ACTIVITY - PROGRAMS	STATUS
Public Outreach/Participation/Involvement (MS4 Minimum Control Measure #1 & 2)	Outreach and involvement efforts continue through county-wide partnership with Carolina Clear as Lowcountry Stormwater Partners - Neighbors for Clean Water, through local cleanups, civic group presentations, and the May River Watershed Action Plan Advisory Committee. Current updates are included in Engineering Consent Agenda and Attachment 3.
Infrastructure Mapping/GIS (MS4 Minimum Control Measure #3)	Data points continue to be collected with new development to meet MS4 requirements & populate water quality model. Current updates are included in Engineering Consent Agenda Attachment 4a.
Water Quality Monitoring Program (MS4 Minimum Control Measure #3)	<ol style="list-style-type: none"> 1. SCDHEC Shellfish monitoring results 2. Fecal coliform bacteria "hot spot" concentrations 3. Microbial Source Tracking of human sources of bacteria 4. Illicit Discharge investigation and monitoring 5. BMP efficacy monitoring 6. MS4 monitoring Current updates are included in Engineering Consent Agenda Attachments 1, 4b, 4c, and 4d.
Construction Site Stormwater Runoff Control Program (MS4 Minimum Control Measure #4)	Sediment and erosion control inspections with escalating enforcement response. Current updates are included in Engineering Consent Agenda Attachment 5.
Stormwater Plan Review & Related Activity Program (MS4 Minimum Control Measure #5)	SCDHEC delegated plan review-related activities. Current updates are included in Engineering Consent Agenda Attachment 6.
Ditch Inspection/Maintenance Program (MS4 Minimum Control Measure #6)	Continued coordination with SCDOT, Beaufort County and Town Public Works to inspect and maintain ditches within the Town's jurisdiction. Current updates are included in Engineering Consent Agenda Attachment 7 and under "Public Works."
Septic System Maintenance Program	FY18 funding is \$10,000 and administered by Growth Management via the Neighborhood Assistance Program (NAP). On-going assistance offered to Town residents regardless of financial status through Neighborhood Assistance Program. Current updates, as reported by NAP, are included in Engineering Consent Agenda Attachment 9.
Sewer Connection Program	In FY18 Council allocated \$200,000 for a Sewer Connection Program as well as \$10,000 for assistance to connect income-qualified individuals to existing sanitary sewer as part of the Neighborhood Assistance Program. Council adopted the Sewer Connection & Extension Policy at 9/26/17 meeting. CIP projects were prioritized as part of FY19 Budgeting Process. Sewer Connection Ordinance 1st Reading 4/10/18. Septic to Sewer Conversion Program discussed at Council's Quarterly Workshop on 7/17/18. Second & final Ordinance changes and Program adoption completed at 9/20/18.

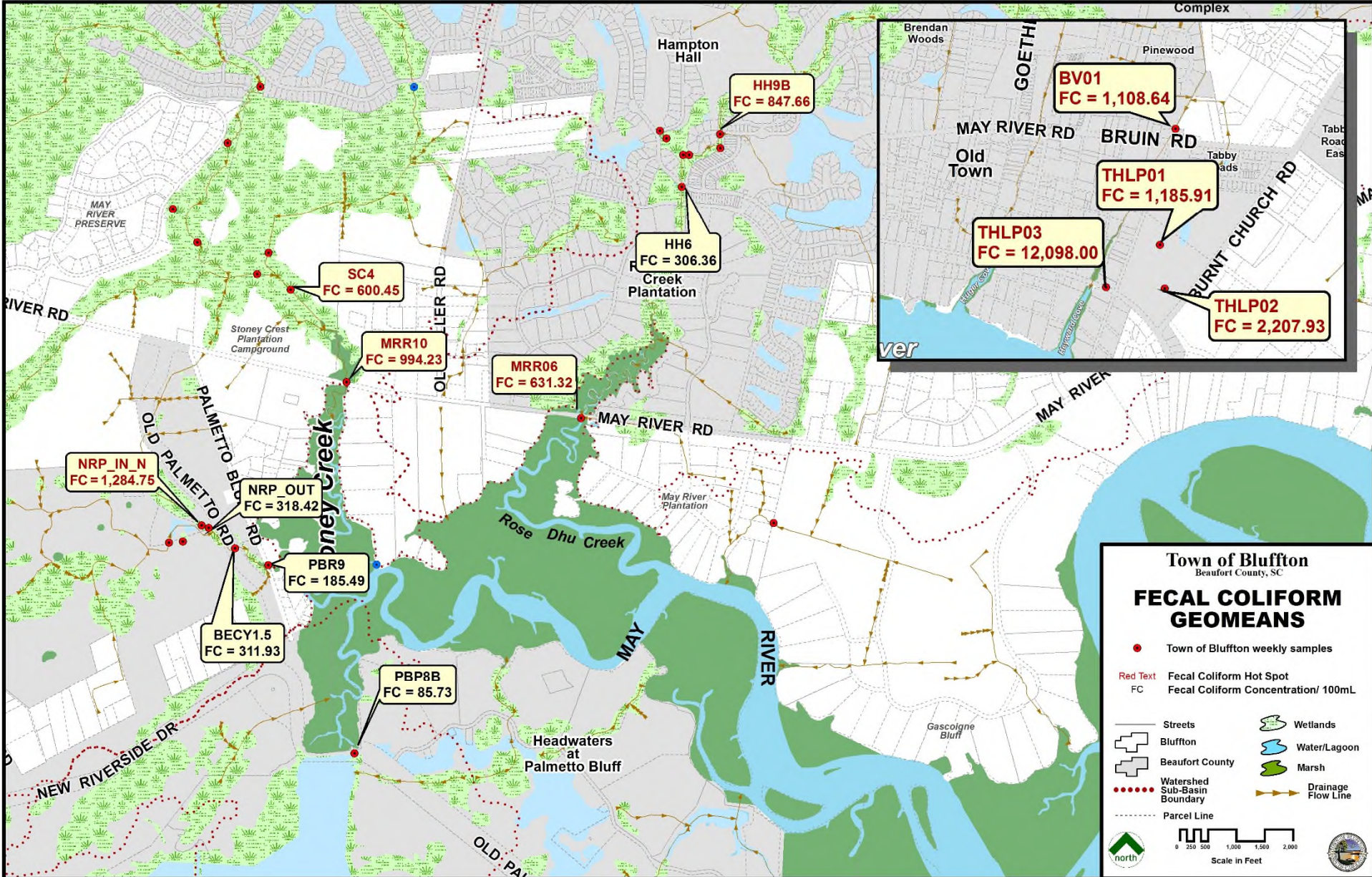
MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory



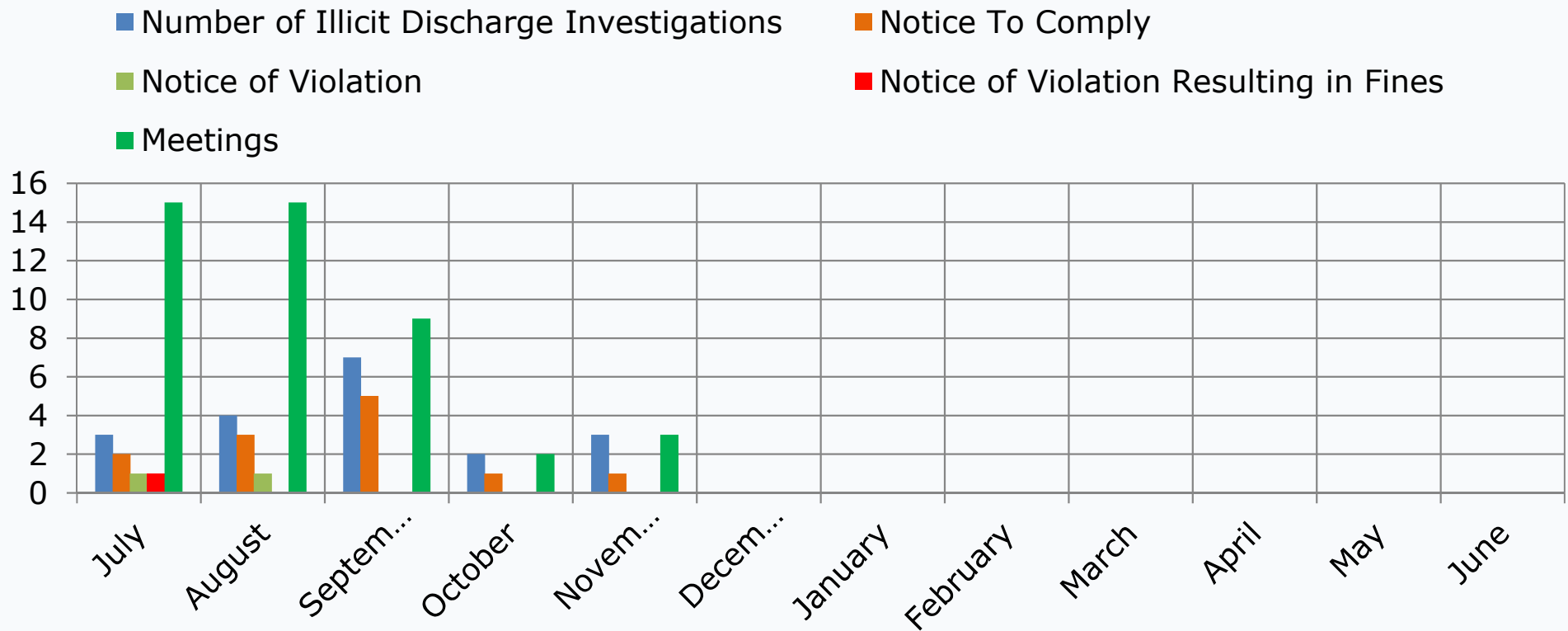
Stormwater Infrastructure Inventory Collection Status

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

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



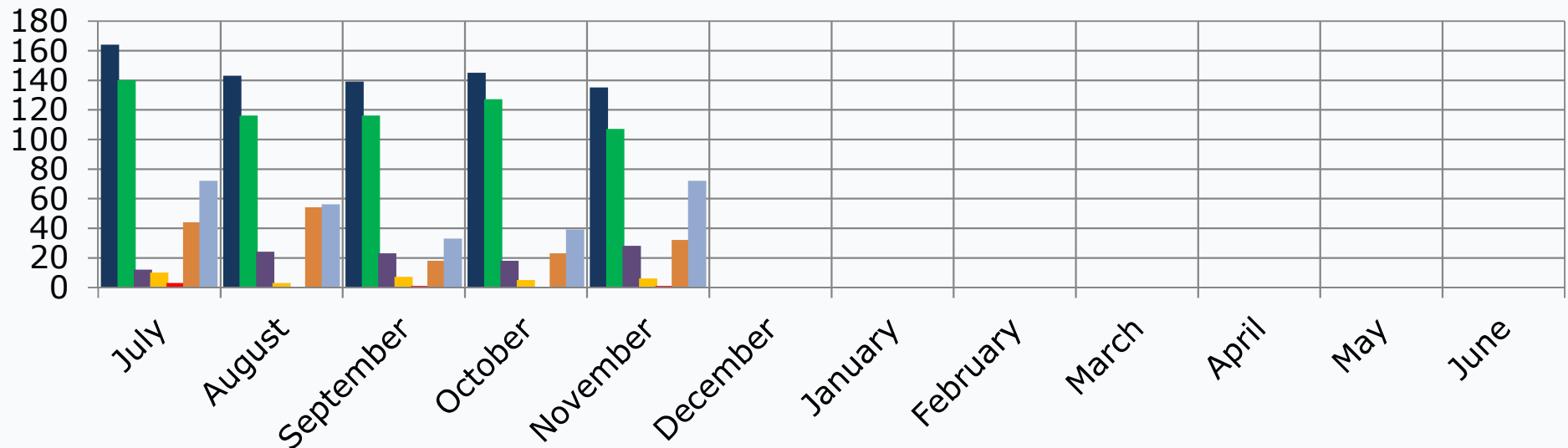
MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2019 YTD Totals	19	12	2	1	41
FY 2018 Totals	48	20	4	2	60
FY 2017 Totals	50	19	8	13	67

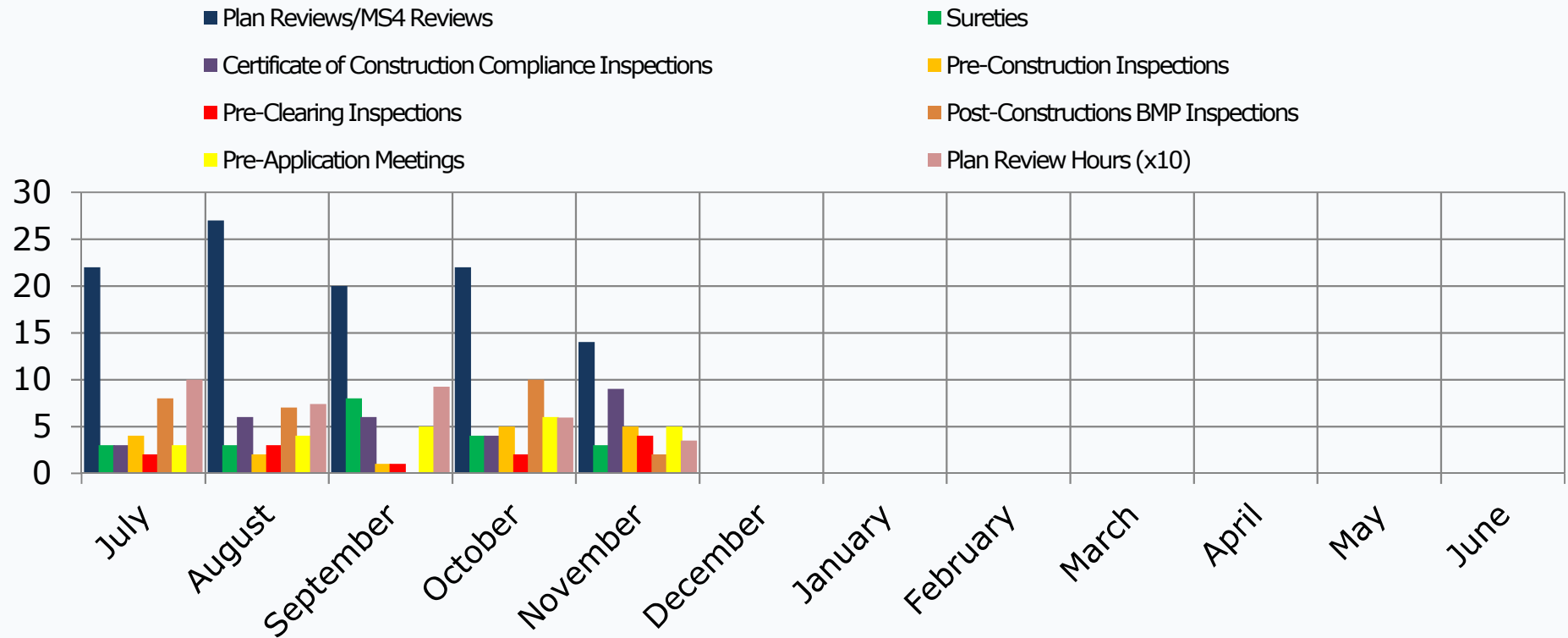
MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control

- Erosion & Sediment Control Inspections (E&SC)
- Number of 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



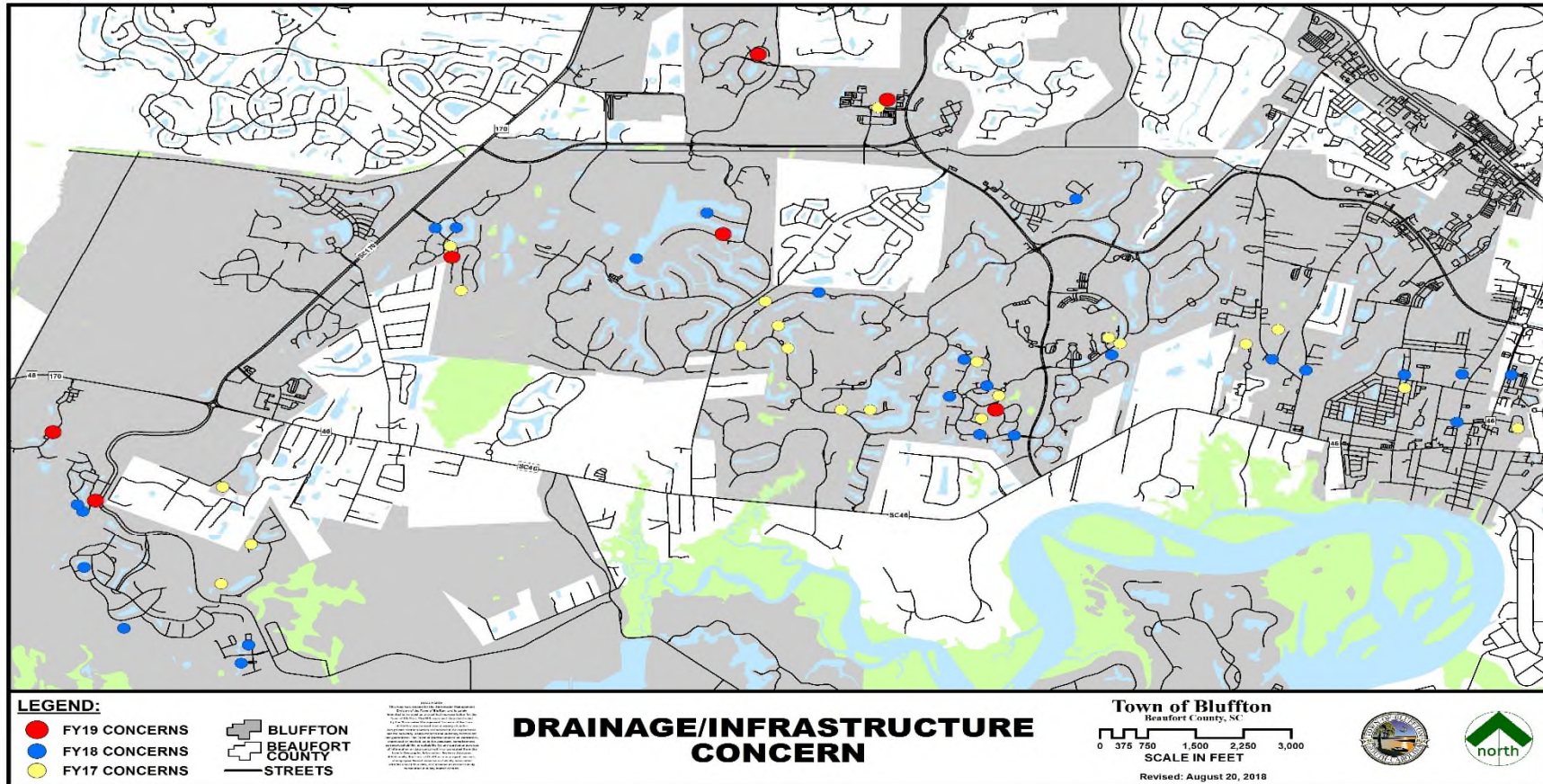
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2019 YTD Totals	726	606	105	31	5	171
FY 2018 Totals	1504	1159	300	83	10	499
FY 2017 Totals	1,219	862	233	58	10	237

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



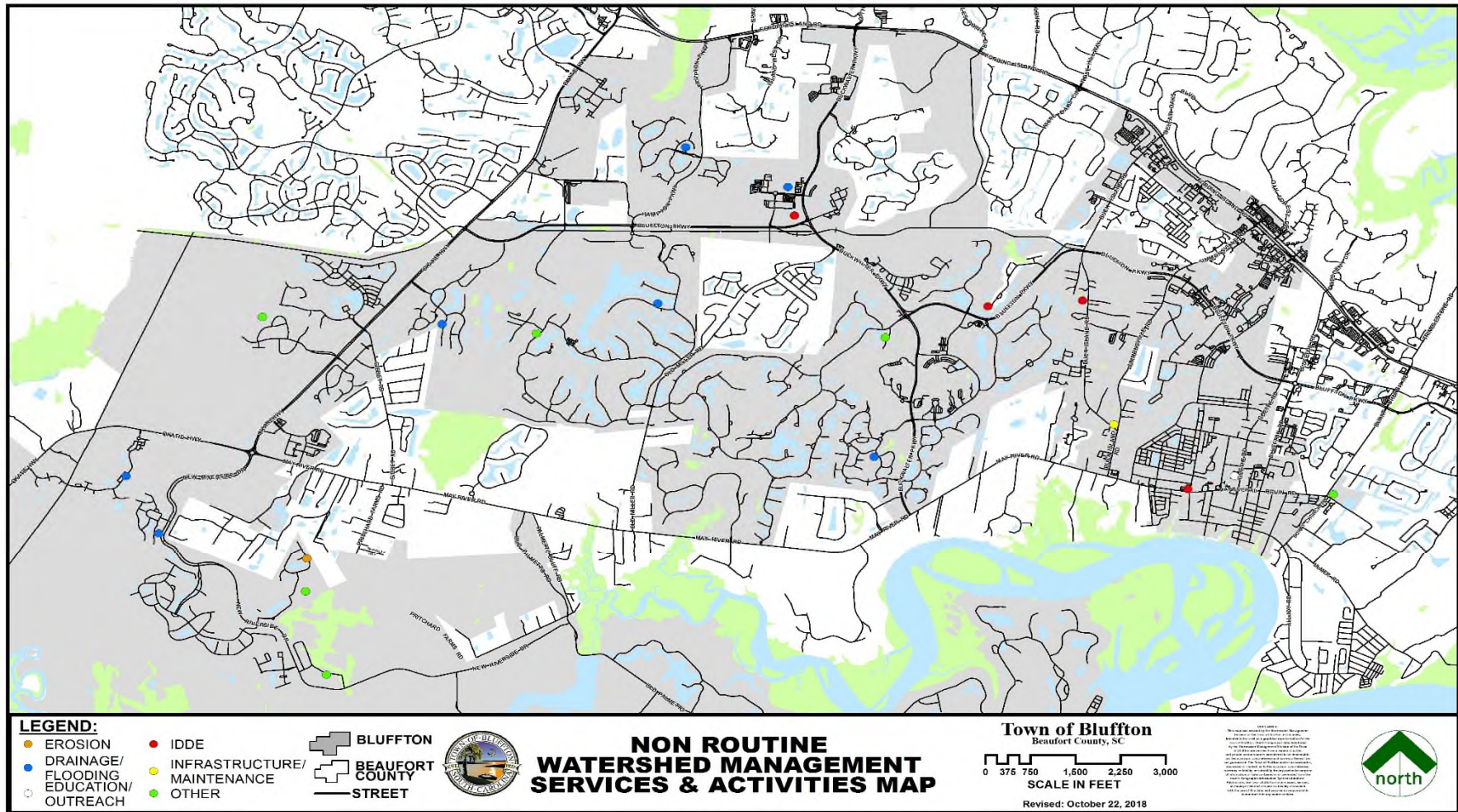
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2019 YTD Totals	105	21	28	17	12	27	18	360 Hrs.
FY 2018 Totals	242	59	50	32	32	88	88	1,210 Hrs.
FY 2017 Totals	253	62	96	47	45	7	23	1,265 Hrs.

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



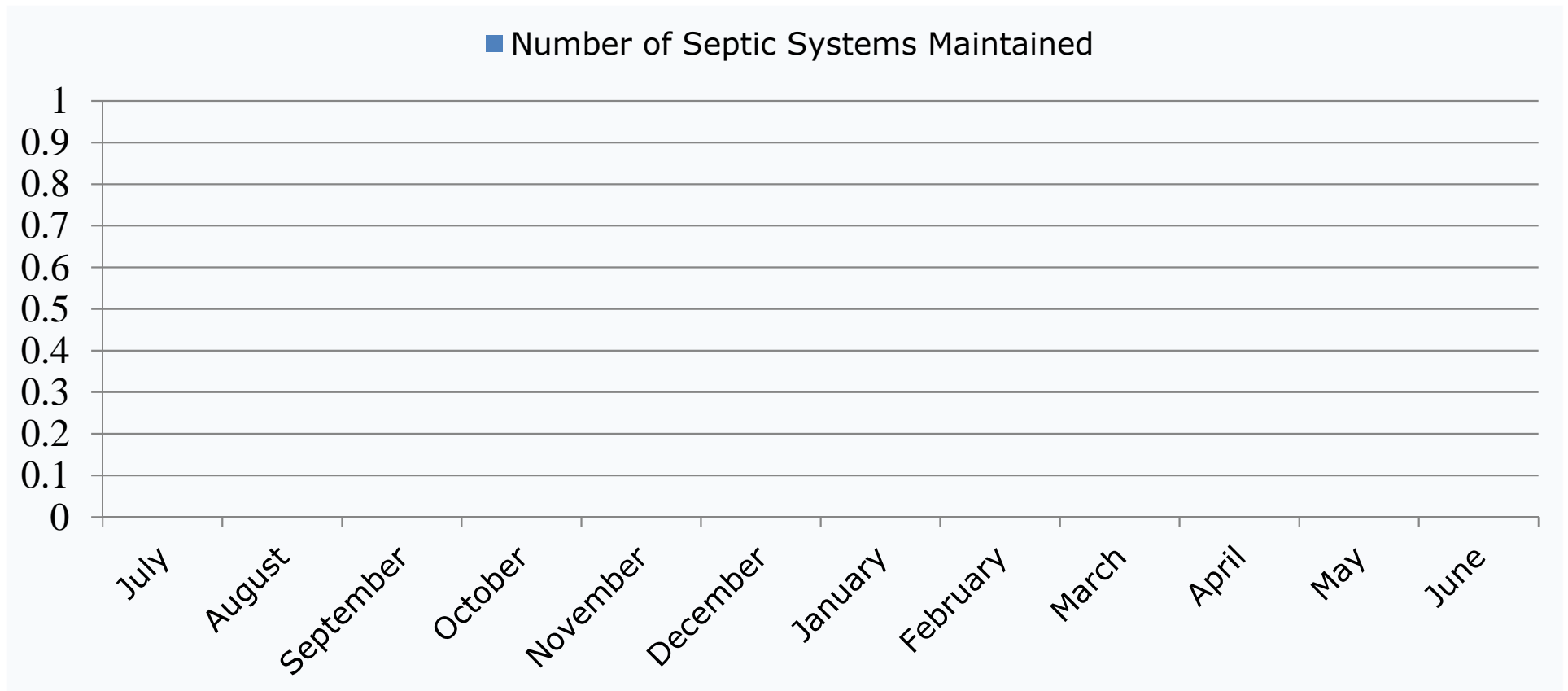
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2019 YTD Totals	20	24
FY 2018 Totals	48	75
FY 2017 Totals	72	80

Citizen Request for Watershed Mngt. Services & Activities Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2019 YTD Totals	34	34
FY 2018 Totals	75	79
FY 2017 Totals	53	82

Septic System Maintenance Assistance



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



CITY OF BEAUFORT

TO: Eric Larson, P.E.

FROM: Neil Desai, P.E.

DATE: December 4, 2018

SUBJECT: Stormwater Utility Board Report

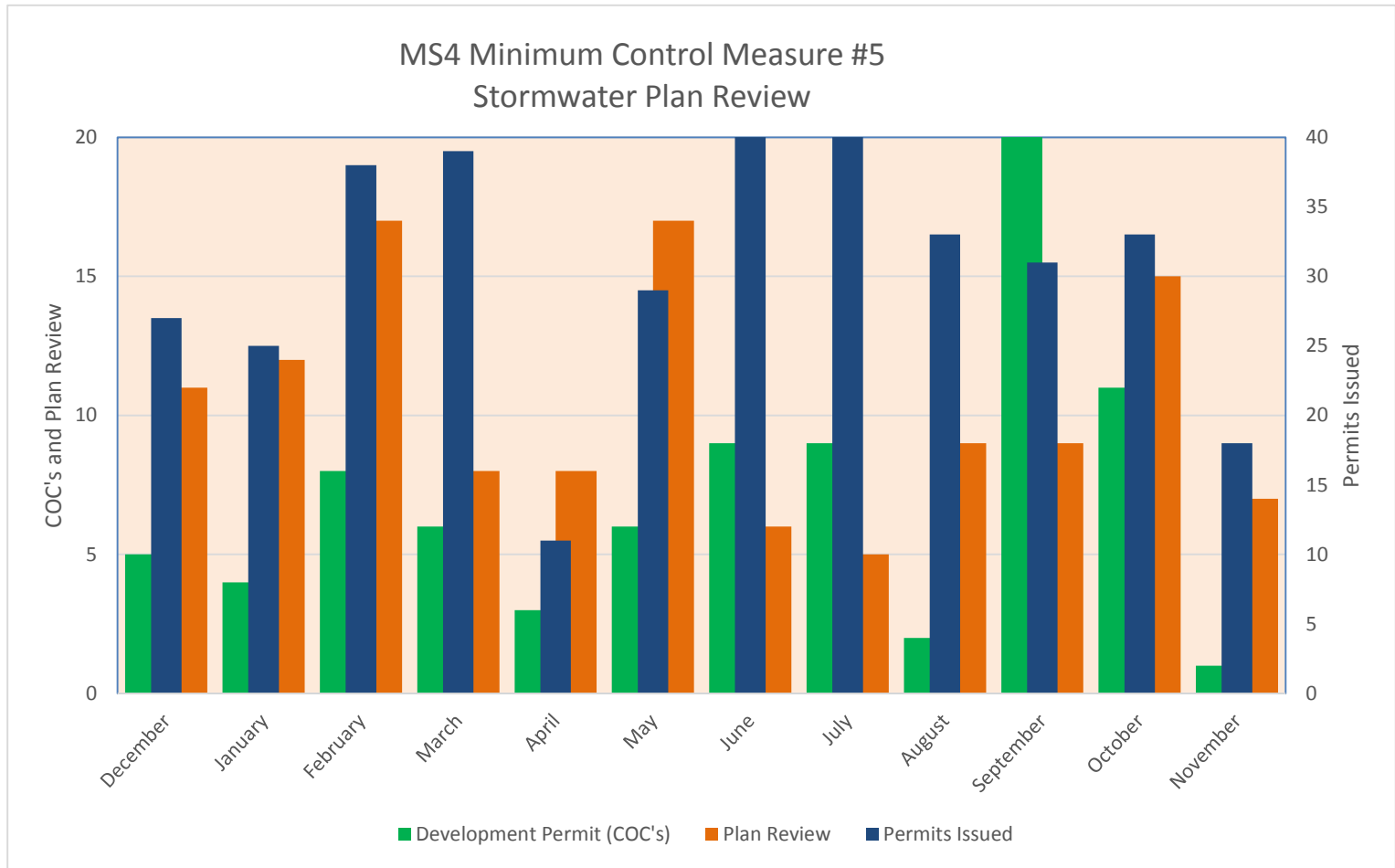
The following is the City of Beaufort Public Works Department monthly report from November 1 to November 30, 2018

1) CAPITAL IMPROVEMENTS UPDATE

- a) Mossy Oaks Drainage Project – City staff met with regulatory agencies to establish timelines and outline the permitting procedure for the overall project
- b) Azalea Project – Public Works staff has begun preparation for this project with preparatory work including contacting adjacent property owners, securing legal documentations, removing trees and ordering materials to prepare for the project.

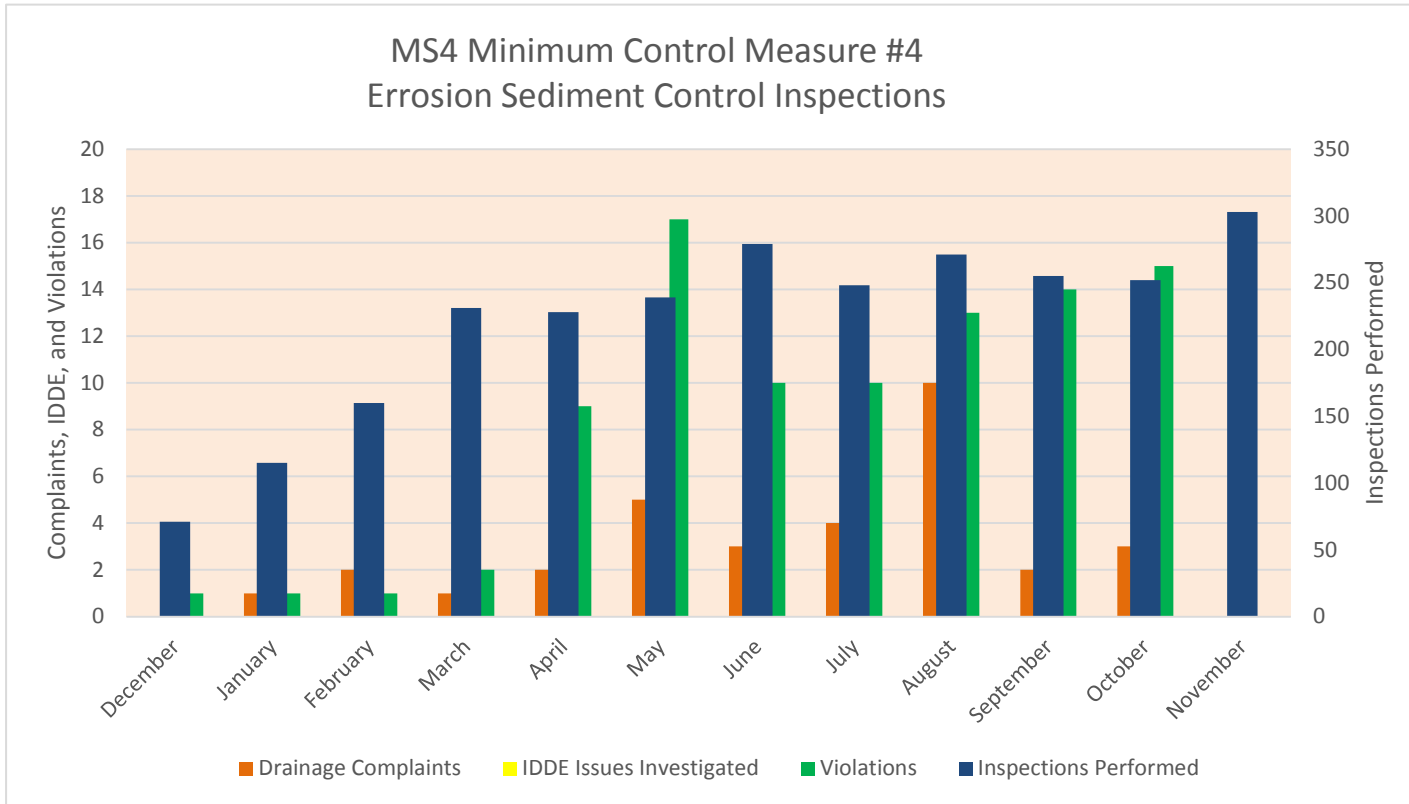
2) **MAINTANCE & REPAIR UPDATE**

- a) Public Works staff participated in the Beaufort County initiative of the County Wide clean up. The following areas were addressed during the initiative:
 - (1) Spanish Point: 4 dump truck loads of debris / 1 small U-dump of trash and foreign debris
 - (2) Pigeon Pt. Area & Landing: 2 dump truck loads of debris / 1 small U-dump of trash and foreign debris
 - (3) Marina Landing & Bay St. Bluff: 1 large U-dump of trash and foreign debris
- b) Routine maintenance of drainage easement – primary concentration in the Mossy Oaks Area.
- c) Met with Beaufort County to discuss ongoing maintenance for the Battery Creek 319 Project.



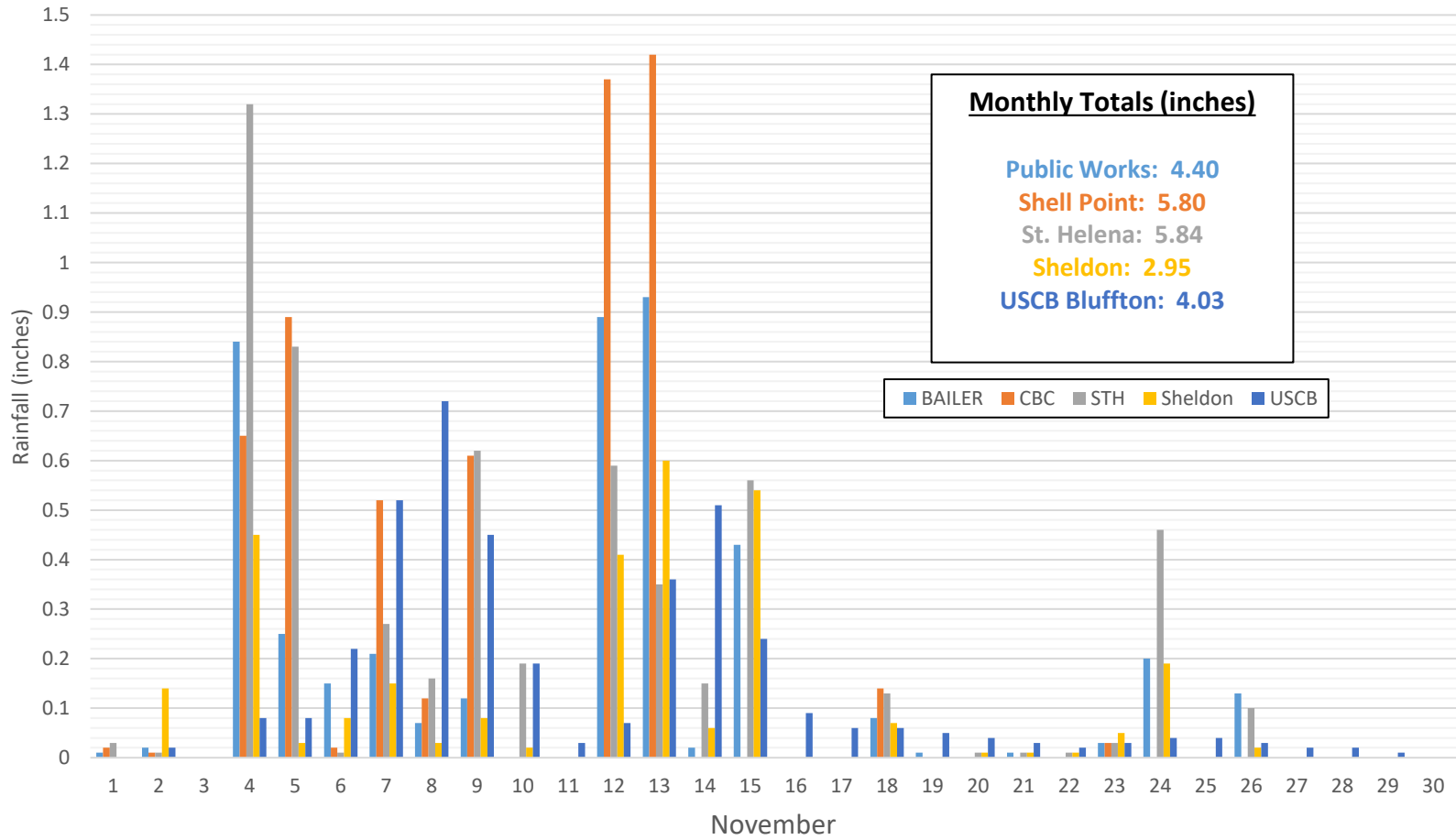
TYPE	December	January	February	March	April	May	June	July	August	September	October	November	Last 12 Months
Development Permit (COC's)	5	4	8	6	3	6	9	9	2	21	11	1	85
Plan Review	11	12	17	8	8	17	6	5	9	9	15	7	124
Permits Issued	27	25	38	39	11	29	47	45	33	31	33	18	376

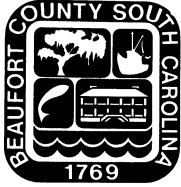
MS4 Minimum Control Measure #4 Erosion Sediment Control Inspections



TYPE	December	January	February	March	April	May	June	July	August	September	October	November	Last 12 Months
Inspections Performed	71	115	160	231	228	239	279	248	271	255	252	303	2652
Drainage Complaints	0	1	2	1	2	5	3	4	10	2	3	0	33
IDDE Issues Investigated	2	0	1	0	0	1	0	1	2	1	2	0	10
Violations	1	1	1	2	9	17	10	10	13	14	15	0	93

Beaufort County Weather Stations Daily Rainfall Amounts - November 2018





MEMORANDUM

Date: December 12, 2018

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

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

Minor or Routine Projects:

- **First Coleman Road – St Helena Island (SWUD 8):** This project improved 60 feet of drainage system. The scope of work included cleaning out 60 feet of roadside ditch, installing 1 driveway pipe and repairing a washout. The total cost was **\$10,806.69.**
- **Sheldon Vacuum Truck - Sheldon (SWUD 5):** This project improved 20 feet of drainage system. The scope of work included Jetting 19 crossline pipes, 52 driveway pipes, 6 access pipes and 20 feet of channel pipe. The total cost was **\$9,658.84.**
- **Old Polowana Road – St Helena Island (SWUD 8):** This project improved 2,151 feet of drainage system. The scope of work included grubbing and clearing 60 feet of workshelf, cleaning out 585 feet of channel and 1,506 feet roadside ditch, jetting 1 crossline pipe and 7 driveway pipes. The total cost was **\$8,349.45.**
- **Gum Tree Lane – Sheldon (SWUD 5):** The scope of work included installing 1 access pipe and rip rap for erosion control. The total cost was **\$4,252.89.**
- **Polite Drive/Burton Wells Road – Port Royal Island (SWUD 6):** This project improved 1,662 feet of roadside ditch and hydroseeding for erosion control. The total cost was **\$4,085.17.**



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: First Coleman Road

Activity: Routine/Preventive Maintenance

Duration: 05/22/18-07/23/18

Narrative Description of Project:

Project improved 60 L.F. of drainage system. Cleaned out 60 L.F. of roadside ditch. Installed (1) driveway pipe. Repaired washout.

2018-614 / First Coleman Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APREP / Asphalt Preparation	40.0	\$861.10	\$58.36	\$38.01	\$0.00	\$429.30	\$1,386.77
ASI / Asphalt Installation	15.0	\$334.15	\$65.98	\$83.78	\$0.00	\$214.65	\$698.56
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
DPINS / Driveway Pipe - Installed	24.0	\$559.32	\$123.10	\$560.91	\$0.00	\$325.92	\$1,569.25
HAUL / Hauling	60.0	\$1,305.25	\$568.59	\$2,158.46	\$0.00	\$718.67	\$4,750.97
RPWO / Repaired Washout	64.0	\$1,377.76	\$185.51	\$80.38	\$0.00	\$686.88	\$2,330.53
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2018-614 / First Coleman Road Sub Total	205.5	\$4,494.97	\$1,001.54	\$2,921.53	\$0.00	\$2,388.65	\$10,806.69
Grand Total	205.5	\$4,494.97	\$1,001.54	\$2,921.53	\$0.00	\$2,388.65	\$10,806.69

Before



During



After





Project: First Coleman Road

Activity: Routine/ Preventive Maintenance














Project #: 2018-614

Township/SW Dist: St. Helena Island/8

Completed: July 2018

Legend

Drainage Type

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



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility

Date Print: 11/27/18

File: C:\project summaries map\First Coleman Road_2018-614



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sheldon Vacuum Truck
 Big Estate Road, Paige Point Bluff, Twickenham Road, George Williams Lane, Nix Road, Bailey Cirlce, Vidalia Road, Lightsey Road, Witsell Road and Half Moon Island Road

Activity: Routine/Preventive Maintenance
Duration: 12/13/17-05/17/18

Narrative Description of Project:

Project improved 20 L.F. of drainage system. Jetted (19) crossline pipes, (52) driveway pipes, (6) access pipes and 20 L.F. of channel pipe.

2018-308 / Sheldon Vacuum Truck	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
CLPJT / Crossline Pipe - Jetted	172.0	\$3,808.16	\$740.56	\$460.53	\$0.00	\$2,351.76	\$7,361.01
CPJ / Channel Pipe - Jetted	20.0	\$445.60	\$86.80	\$39.46	\$0.00	\$286.80	\$858.66
DPJT / Driveway Pipe - Jetted	20.0	\$445.60	\$86.80	\$72.20	\$0.00	\$286.80	\$891.40
SD / Soft Digging	12.0	\$267.36	\$52.08	\$34.46	\$0.00	\$172.08	\$525.98
2018-308 / Sheldon Vacuum Truck Sub Total	225.0	\$4,988.51	\$966.24	\$606.65	\$0.00	\$3,097.44	\$9,658.84
Grand Total	225.0	\$4,988.51	\$966.24	\$606.65	\$0.00	\$3,097.44	\$9,658.84

Before



During



After





Project: Sheldon Vacuum Truck-Big Estate Road Map #1

Activity: Routine/ Preventive Maintenance














Project #: 2018-308

Township/SW Dist: Sheldon/5

Completed: May 2018

Legend

Drainage Type

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

Jetted (1) crossline pipe.



1 inch = 420 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vac Truck-Big Estate Road Map #1_2018-308



Project: Sheldon Vacuum Truck-Paige Point Bluff Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

Township/SW Dist: Sheldon/5

Completed: May 2018

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

0 120 240 480 720 960 Feet

1 inch = 500 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vac Truck-Paige Point Road Map #2_ 2018-308



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

Activity: Routine/
Preventive
Maintenance














Project #:
2018-308

Township/SW Dist:
Sheldon/5

Completed:
May 2018

Legend

Drainage Type

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

Jetted (1) crossline pipe
and (1) access pipe.

Jetted (1) crossline
pipe.

0 80 160 320 480 640
Feet

1 inch = 330 feet

Prepared By: BC Stormwater Management Utility
Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vac Truck-Paige Point Road Map #3_2018-308



Project: Sheldon Vacuum Truck - Twickenham Road Map #4

Activity: Routine/ Preventive Maintenance














Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

Legend

Drainage Type

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

0 80 160 320 480 640 Feet

1 inch = 330 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Twickenham Road Map#4_2018-308



Project: Sheldon Vacuum Truck - George Williams Lane Map #5

Activity: Routine/ Preventive Maintenance














Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

Legend

Drainage Type

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

0 65 130 260 390 520 Feet

1 inch = 280 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- George Williams Lane Map#5_2018-308



Project: Sheldon Vacuum Truck - Nix Road Map #6

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

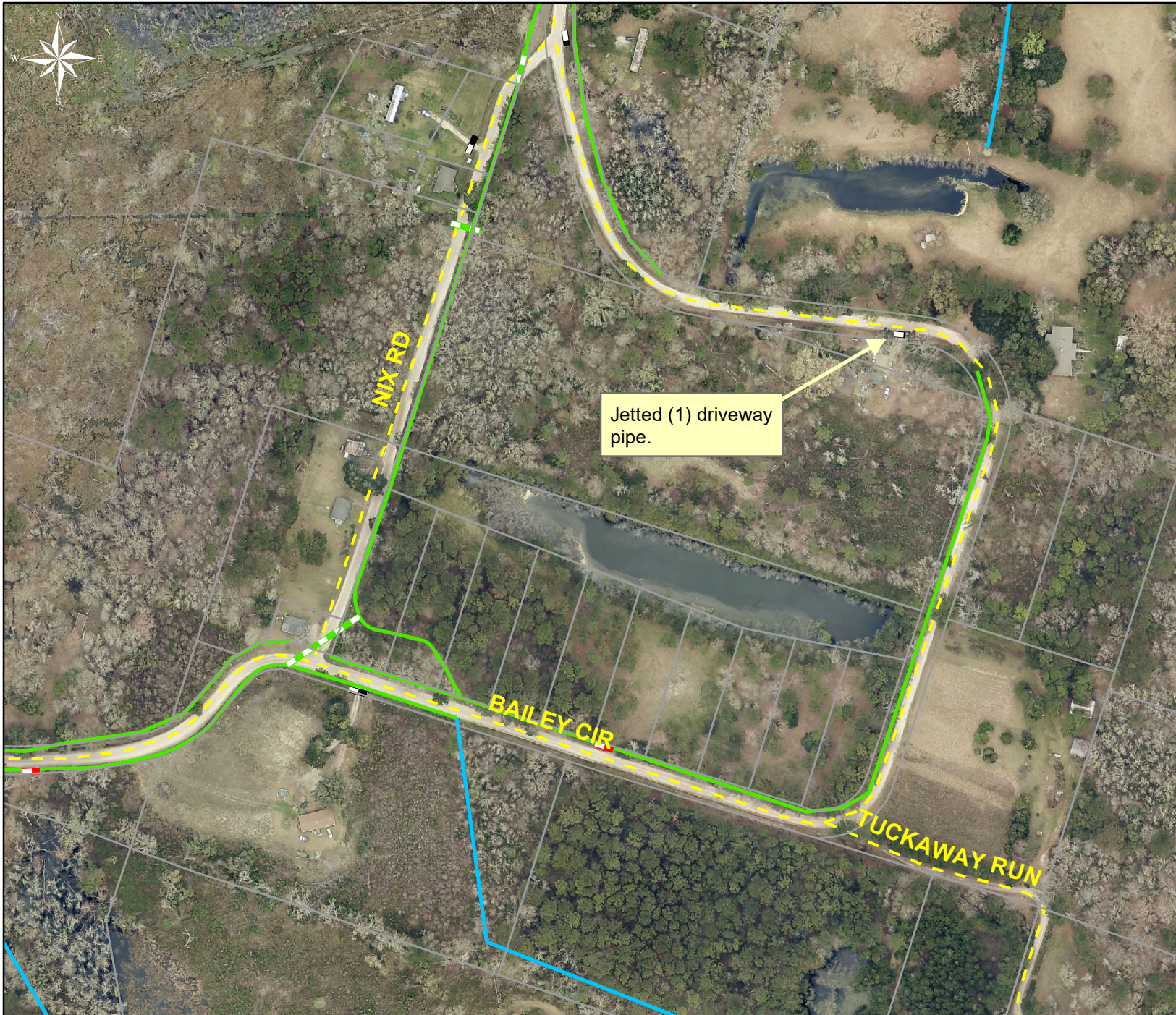
Township/SW Dist: Sheldon/7

Completed: May 2018

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



1 inch = 330 feet



Project: Sheldon Vacuum Truck - Bailey Circle Map #7

Activity: Routine/ Preventive Maintenance














Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

Legend

Drainage Type

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

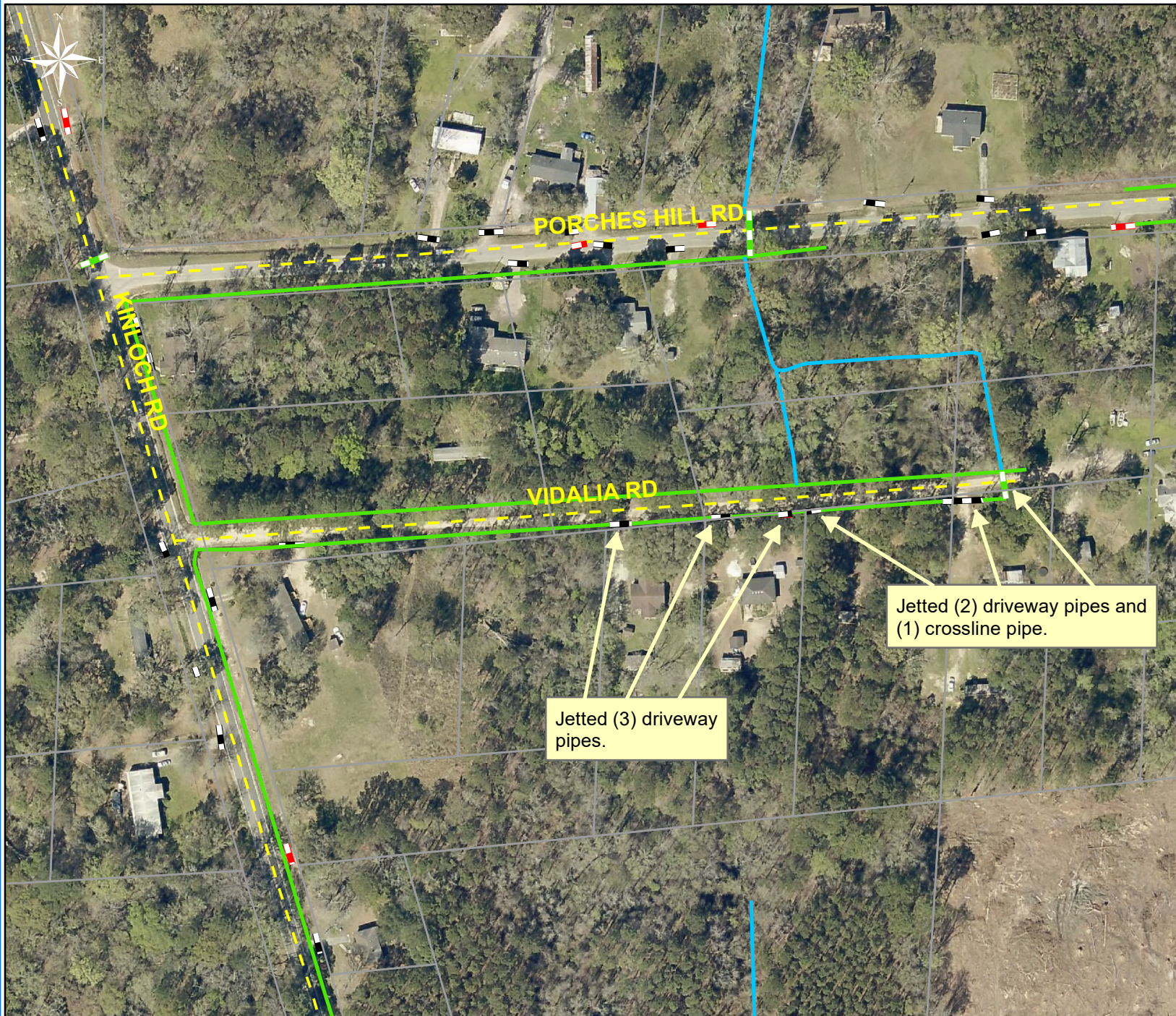
0 60 120 240 360 480 Feet

1 inch = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Bailey Circle Map#7_2018-308



Project: Sheldon Vacuum Truck - Vidalia Road Map #8

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

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

Jetted (3) driveway pipes.

Jetted (2) driveway pipes and (1) crossline pipe.



1 inch = 170 feet

Prepared By: BC Stormwater Management Utility
Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Vidalia Road Map#8_2018-308

Project: Sheldon Vacuum Truck - Lightsey Road Map #9

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018



Legend

Drainage Type

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

0 100 200 400 600 800 Feet

1 inch = 420 feet

Prepared By: BC Stormwater Management Utility

Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Lightsey Road Map#9_2018-308

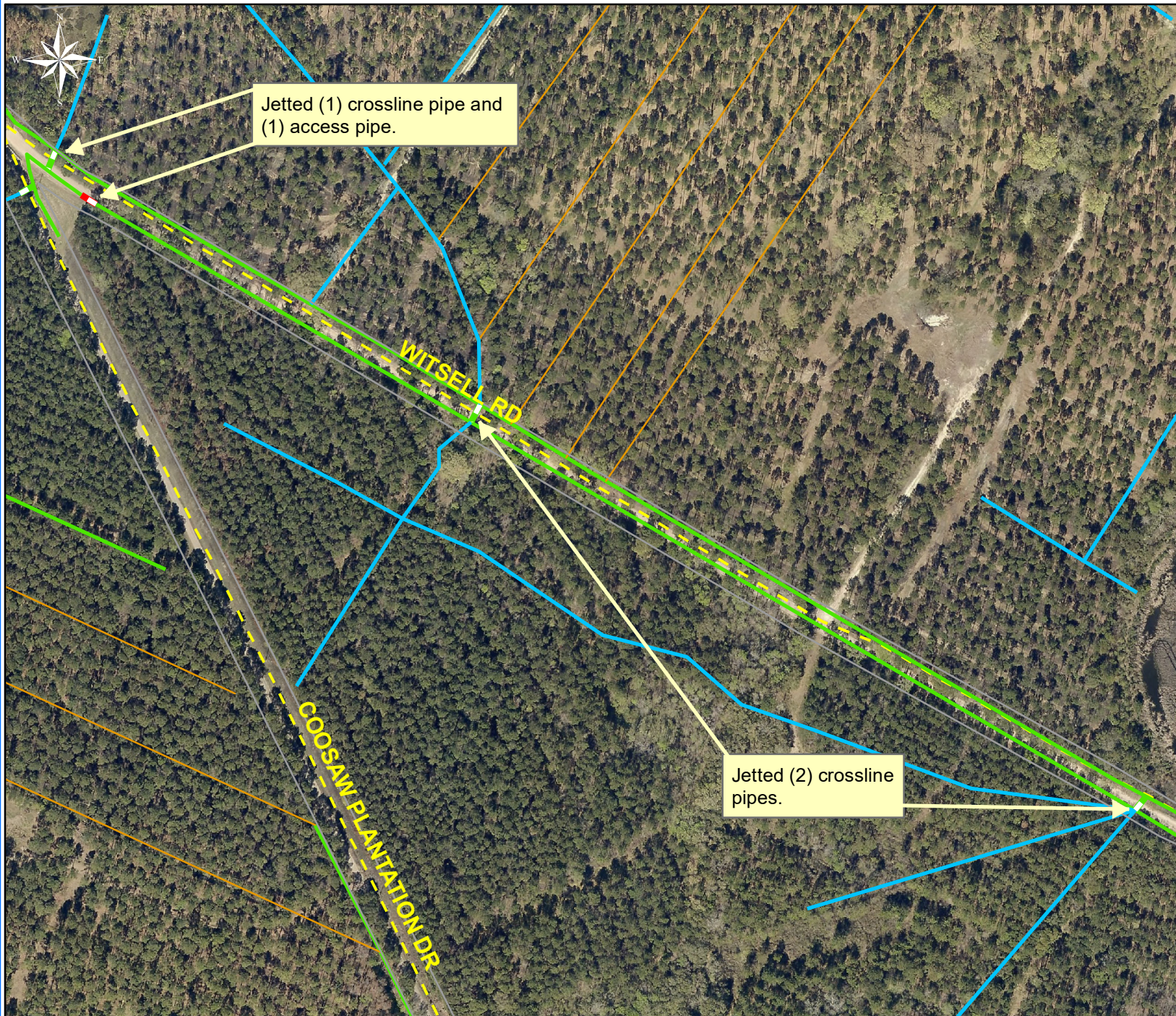
Project: Sheldon Vacuum Truck - Witsell Road Map #10

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018



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



1 inch = 250 feet



Project: Sheldon Vacuum Truck - Witsell Road Map #11

Activity: Routine/ Preventive Maintenance














Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

Legend

Drainage Type

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

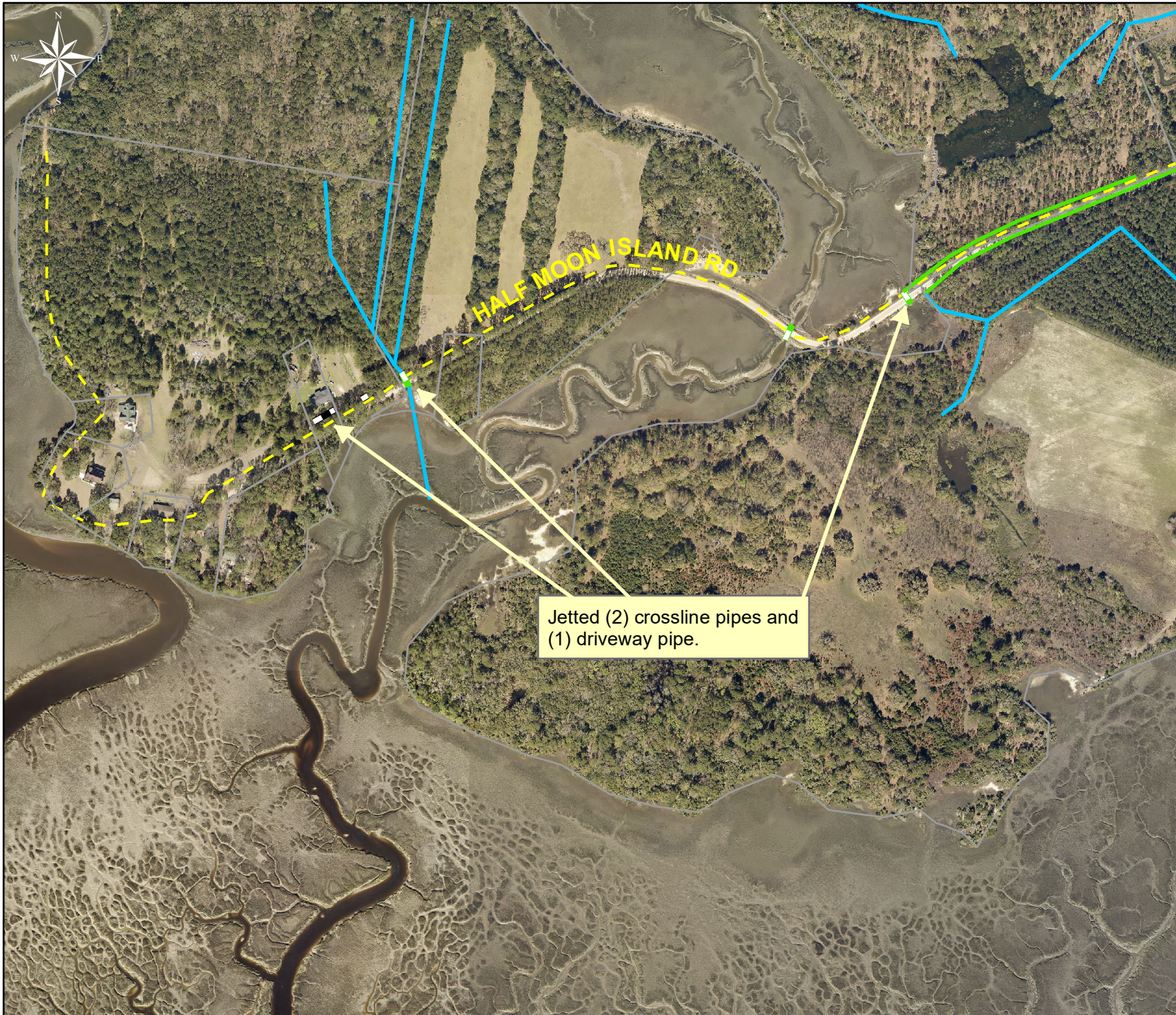
Jettted (1) access pipe.

Prepared By: BC Stormwater Management Utility
Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Vidalia Road Map#11_2018-308



1 inch = 330 feet



Project: Sheldon Vacuum Truck - Half Moon Island Road Map #12

Activity: Routine/ Preventive Maintenance

Project #: 2018-308

Township/SW Dist: Sheldon/7

Completed: May 2018

Jetted (2) crossline pipes and (1) driveway pipe.

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



1 inch = 500 feet

Prepared By: BC Stormwater Management Utility
Date Print: 10/18/18

File: C:\project summaries map\Sheldon Vacuum Truck- Half Moon Island Road Map#12_2018-308



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Old Polowana Road

Activity: Routine/Preventive Maintenance

Duration: 03/07/18-03/27/18

Narrative Description of Project:

Project improved 2,151 L.F. of drainage system. Cleared and grubbed 60 L.F. of workshelf. Cleaned out 585 L.F. of channel and 1,506 L.F. of roadside ditch. Jetted (1) crossline pipe and (7) driveway pipes.

2018-583 / Old Polowana Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
CCO / Channel - cleaned out	70.0	\$1,502.80	\$358.30	\$84.73	\$0.00	\$651.30	\$2,597.13
CLPJT / Crossline Pipe - Jetted	12.0	\$267.36	\$52.08	\$44.47	\$0.00	\$172.08	\$535.98
HAUL / Hauling	46.0	\$1,011.94	\$433.32	\$355.67	\$0.00	\$288.40	\$2,089.33
RSDCL / Roadside Ditch - Cleanout	70.0	\$1,438.20	\$358.30	\$82.00	\$0.00	\$773.40	\$2,651.90
UTLOC / Utility locates	2.0	\$49.40	\$8.04	\$6.24	\$0.00	\$26.46	\$90.14
WSGRB / Workshelf - Grubbed	12.0	\$268.96	\$43.03	\$9.16	\$0.00	\$52.92	\$374.07
2018-583 / Old Polowana Road Sub Total	212.5	\$4,549.56	\$1,253.07	\$582.27	\$0.00	\$1,964.56	\$8,349.45
Grand Total	212.5	\$4,549.56	\$1,253.07	\$582.27	\$0.00	\$1,964.56	\$8,349.45

Before



During



After



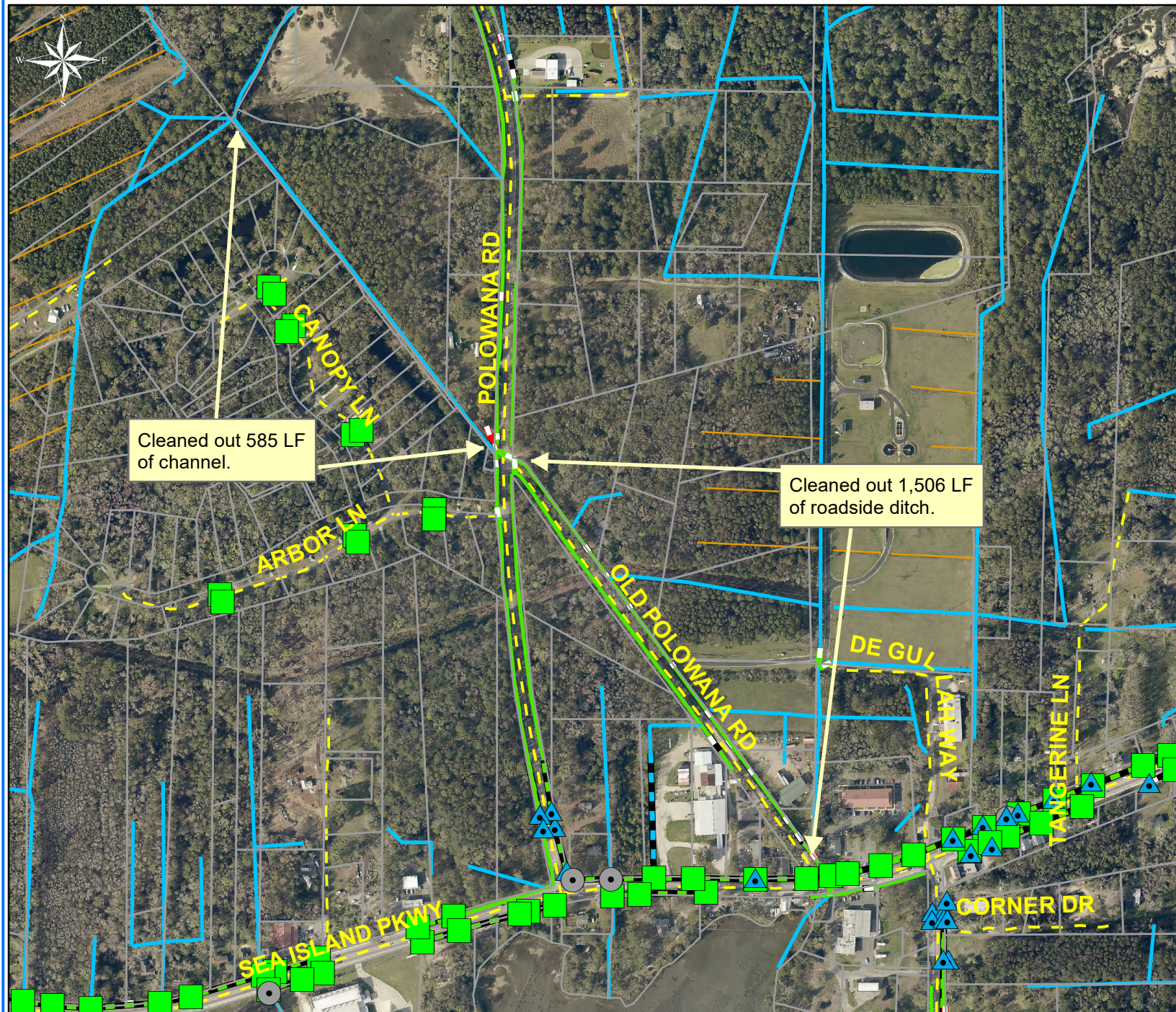
Project: Old Polowana Road Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2018-583

Township/SW Dist: St. Helena Island/8

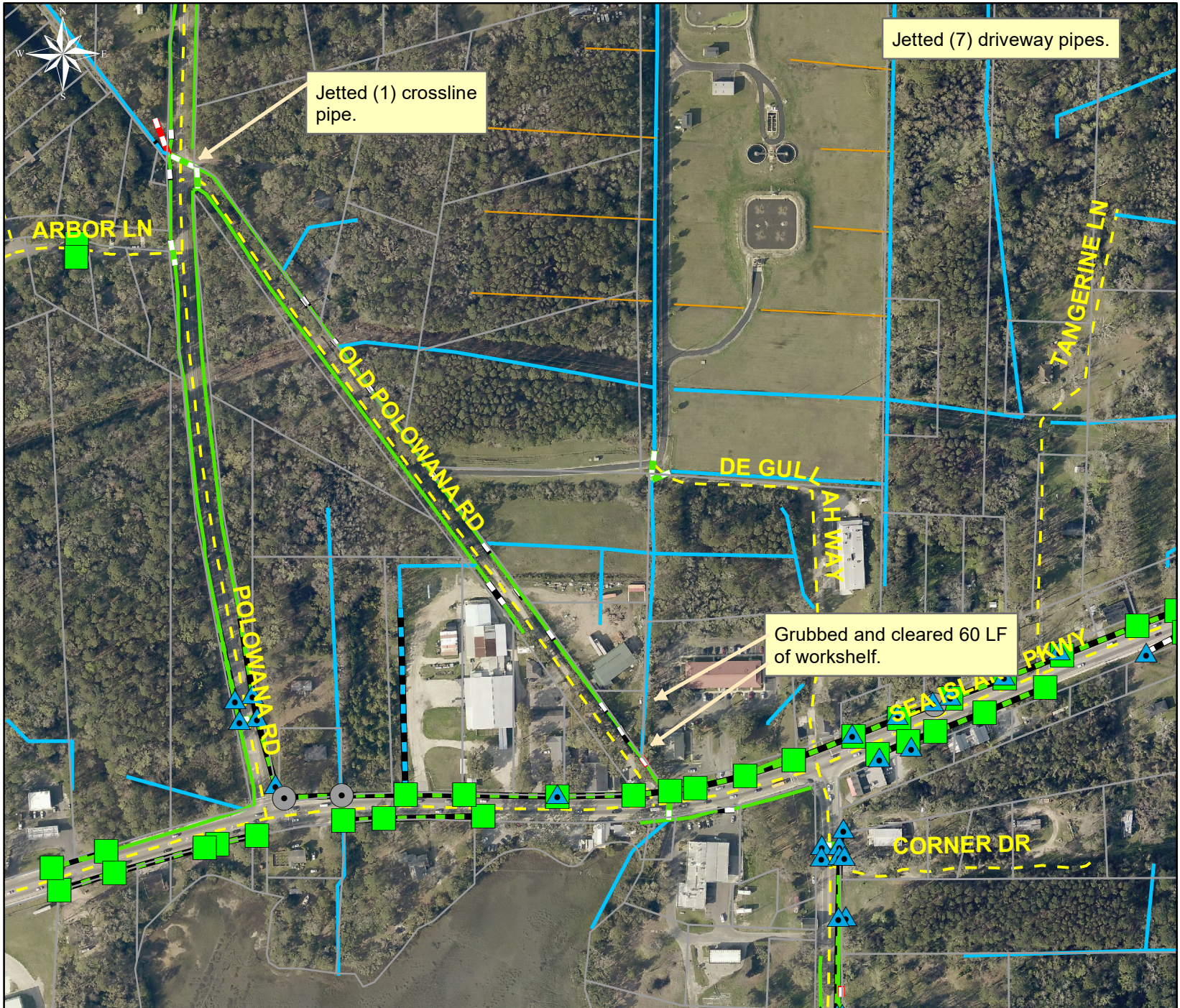
Completed: March 2018



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



1 inch = 500 feet



Project: Old Polowana Road Map#2

Activity: Routine/ Preventive Maintenance

Project #: 2018-583

Township/SW Dist: St. Helena Island/8

Completed: March 2018

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



1 inch = 330 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 10/16/18
 File: C:\project summaries map\Old Polowana Road Map#2_2018-583



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Gum Tree Lane Channel

Activity: Routine/Preventive Maintenance

Duration: 03/13/18-03/14/18

Narrative Description of Project:

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

2018-585 / Gum Tree Lane Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	38.0	\$821.08	\$286.30	\$622.49	\$0.00	\$402.84	\$2,132.71
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
HAUL / Hauling	29.0	\$618.41	\$223.86	\$991.31	\$0.00	\$275.70	\$2,109.28
2018-585 / Gum Tree Lane Channel Sub Total	67.5	\$1,450.39	\$510.16	\$1,613.80	\$0.00	\$678.54	\$4,252.89
Grand Total	67.5	\$1,450.39	\$510.16	\$1,613.80	\$0.00	\$678.54	\$4,252.89

Before

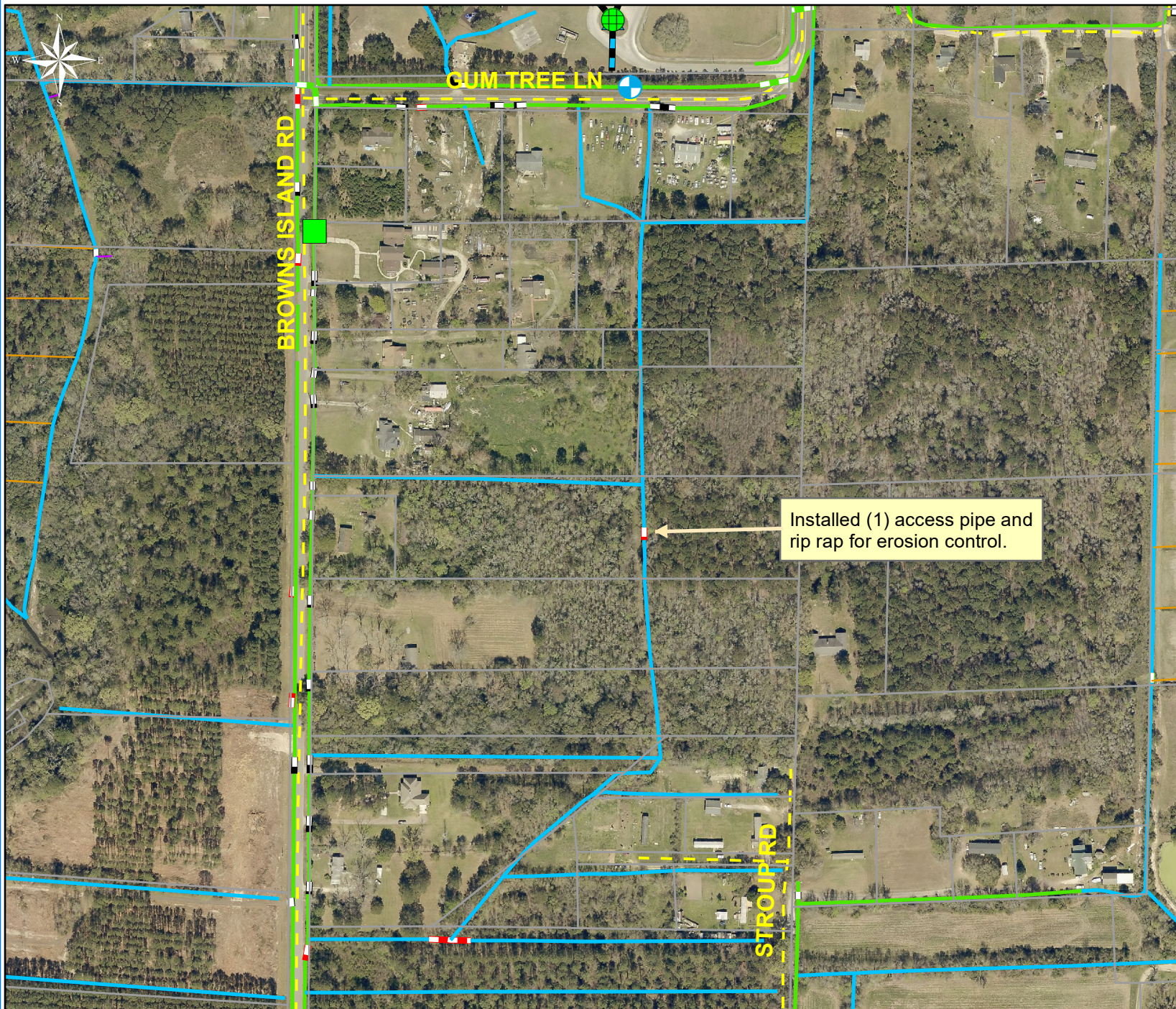


During



After





Project: Gum Tree Lane Channel

Activity: Routine/ Preventive Maintenance

Project #: 2018-585

Township/SW Dist: Sheldon/5

Completed: March 2018

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

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



1 inch = 330 feet



Beaufort County Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Polite Drive and Burton Wells Road

Activity: Routine/Preventive Maintenance

Duration: 01/23/18-02/12/18

Narrative Description of Project:

Project improved 1,662 L.F. of drainage system. Cleaned out 1,662 L.F. of roadside ditch. Hydroseeded for erosion control.

2018-566 / Polite Drive & Burton Wells Road

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
HAUL / Hauling	26.0	\$557.89	\$213.17	\$73.78	\$0.00	\$115.36	\$960.20
RSDCL / Roadside Ditch - Cleanout	57.0	\$1,156.02	\$311.21	\$854.62	\$0.00	\$716.37	\$3,038.22
UTLOC / Utility locates	2.0	\$49.40	\$0.00	\$0.00	\$0.00	\$26.46	\$75.86
2018-566 / Polite Drive & Burton Wells Road Sub Total	85.5	\$1,774.21	\$524.38	\$928.40	\$0.00	\$858.19	\$4,085.17
Grand Total	85.5	\$1,774.21	\$524.38	\$928.40	\$0.00	\$858.19	\$4,085.17

Before

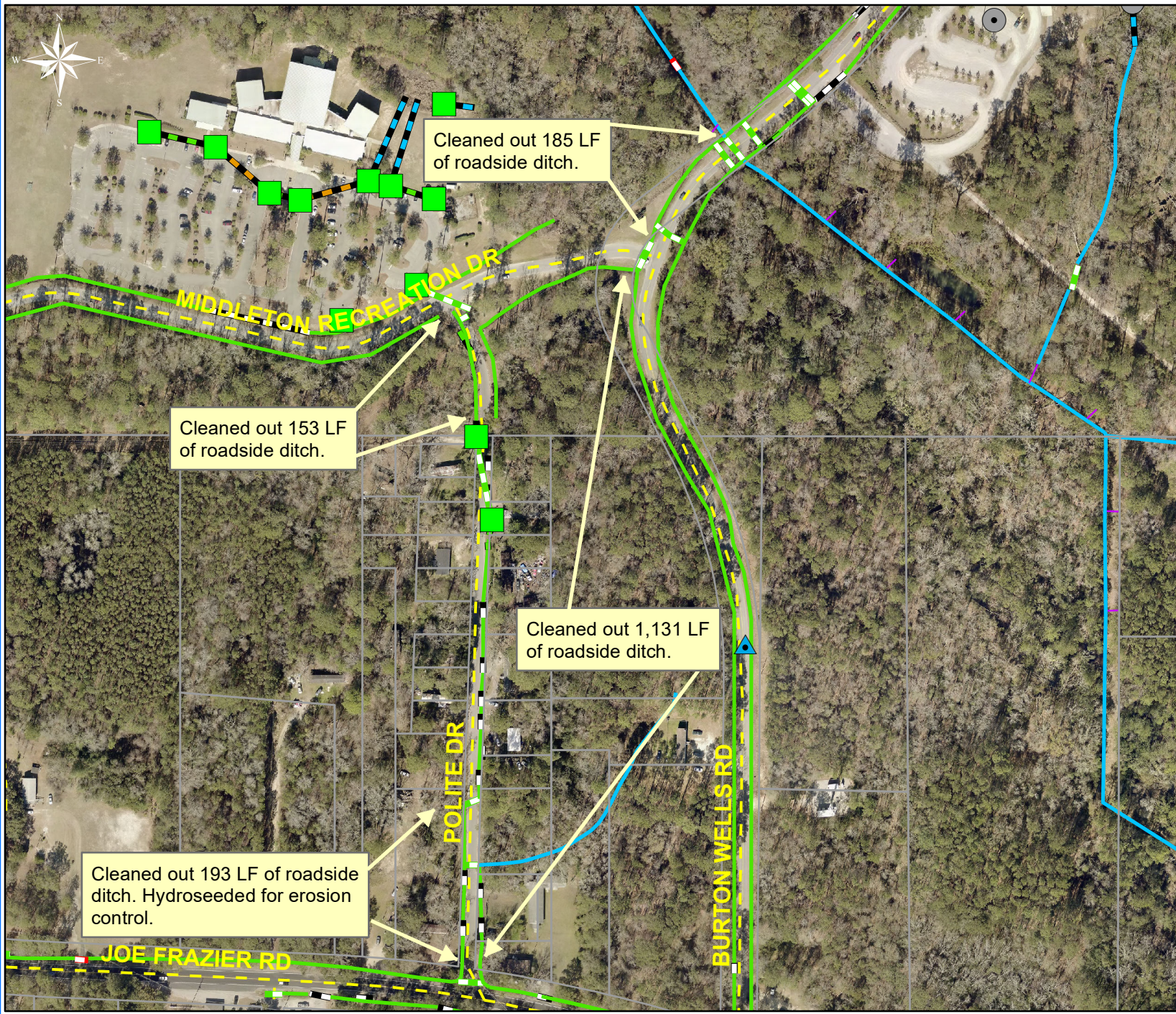


During



After





Project: Polite Drive and Burton Wells Road

Activity: Routine/ Preventive Maintenance

Project #: 2018-566

Township/SW Dist: Port Royal Island/6

Completed: February 2018

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



1 inch = 250 feet



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, January 9, 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 – December 12, 2018 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm, P.E. ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Special Presentation – TBD
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. February 13, 2019 ([backup](#))
9. ADJOURNMENT