



# BEAUFORT COUNTY STORMWATER MANAGEMENT UTILITY BOARD AGENDA

Wednesday, October 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 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
  - A. Special Presentation Regional Stormwater Standards and Model Ordinance Update Bill Hodgins, Center for Watershed Protection
  - B. Proposed 2020 SWMU Board Meeting Schedule Daniel Rybak (backup)
- 7. PUBLIC COMMENT
- 8. NEXT MEETING AGENDA
  - A. November 13, 2019 (backup)
- 9. ADJOURNMENT





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

August 14, 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 8/29/2019

#### **Board Members**

#### **Ex-Officio Members**

Present	Absent	Present	Absent
William Bruggeman	Marc Feinberg	Neil Desai	Van Willis
James Clark	Patrick Mitchell	Scott Liggett	
Steven Andrews	Allyn Schneider	Kim Jones	
James Fargher			

## **Beaufort County Staff**

Daniel Rybak Melissa Allen Katie Herrera Patty Wilson Amber Woods

#### **Visitors**

Chris Marsh, Low Country Institute
Alice Howard, County Council
York Glover, County Council
Alan Warren, USCB
Danielle Mickel, USCB
Kacen Bayless, Island Packet
Auggie Martinez, Citizen
Taylor Kellis, Citizen
Nicole Soergel, Citizen
John Luplen, Citizen,
Frank Roberts, Citizen
Ellen Sturup Comeau, Clemson Extension

- 1. Meeting called to order William Bruggeman
  - A. Agenda Approved.
  - B. July 10, 2019 Minutes Approved.
  - C. Mr. Bruggeman shared that Mr. Eric Larson, Stormwater Manager for the last 5.5 years resigned effective August 2<sup>nd</sup> and Beaufort County Administrator, Ms. Ashley Jacobs appointed Daniel Rybak as the Interim Stormwater Director effective August 12, 2019.
- **2. Introductions** Completed.
- **3. Public Comment(s)** None.
- **4. Reports** Mr. Daniel Rybak and Mr. David Wilhelm provided a written report which is included in the posted agenda and can be accessed at:

 $\frac{https://www.beaufortcountysc.gov/stormwater-management-utility-board/agendas/2019/081419.pdf$ 

Mr. Daniel Rybak thanked Mr. Eric Larson for this service to the Board and the Beaufort County citizens.

#### **A. Utility Update** – Daniel Rybak

In reference to item #1, the draft of the regional standard and design ordinance has been received. The current schedule for completion is included in the packet and the schedule represents an extension of time to December 31. The extension will be presented to Natural Resources Committee. Hope that each participating jurisdictions will adopt the policy documents for implementation.

In reference to special presentations (item #3), two suggestions are Center for Watershed is available to do an update on the regional standards and model ordinance or DHEC regarding the Able property.

#### **B.** Monitoring Update – Daniel Rybak

Dr. Allen Warren mentioned there was a concern about the stormwater retention pond in the County Admin parking lot. It is constructed to control the rate of water flowing into the marshes of Battery Creek and some benefit from water quality. Took a look at it and measured total coliform bacteria and E.coli (sewer, pond and to the marshes). Saw opposite of what you want to see where the sewer is cleaner than the pond.

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

Please reference the report, no additional updates.

### **D. Stormwater Related Projects** – Daniel Rybak

In reference to Horse Island, discussed preliminary design and costs with County Administrator and Council Member for the area and awaiting direction. The Flyover Bridge, maintenance of stormceptor BMPs placed SWM maintenance crew schedule and the contract with JMT is pending legal review/approval.

With regards to the Graves property, a meeting took place onsite on July 31<sup>st</sup> to discuss how to best use the existing ponds on the property as part of the stormwater management.

#### E. Professional Contracts Report – Daniel Rybak

Please reference the report, no additional updates from the report.

#### F. Regional Coordination – Daniel Rybak

Item #1, County staff met with BJWSA and Town of Bluffton and BJWA presented their four year and 10 year CIP plan. They identified the projects noted in the report, they are total construction cost estimates. Ms. Kim Jones said the Old Town Gravity Sewer has been incorporated in the Town of Bluffton's 5 year CIP plan and planned to be done within the next three fiscal years.

Mr. Desai shared that Mossy Oaks Task Force met with regulatory agencies. They got some direction with the permitting process and timelines; the goal is to apply for many nationwide permits as they have a shorter timeframe for review.

In reference to May River watershed modeling, Ms. Jones mentioned that data collection is being done by McComick Taylor, consultant, estimated to have a draft of the watershed model toward the end of the calendar year.

#### **G.** Municipal Reports – Daniel Rybak

Ms. Jones shared that the Beach Sweep/River Sweep will be taking place on September 21st.

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

Mr. Rybak pointed out two large rain events can be seen in the weather report and commented that BC Connect resulted from them.

Ms. Ellen Comeau shared that the Pond Conference is taking place on November 14<sup>th</sup> from 9-4. Save the date was included on the last Changing Tides e-newsletter. In reply to a comment she mentioned the general audience is for HOA representatives, citizens, pond owners, and pond managers.

Mr. Billy Bruggeman suggested moving the Able Site to New Business and the Board approved the agenda with this change for the August 14, 2019, as there was now a quorum. Also, the Board approved the July 10<sup>th</sup> meeting minutes as presented.

## **I.** Maintenance Projects Report – Daniel Rybak

Please reference the report, no additional updates.

#### **5.** Unfinished Business – None.

**6. New Business** – Able Site – The County is aware of the situation and performed monitoring out there. Between Jasper County, DHEC and EPA they are working on the fire situation and site clean-up; things are moving in a positive direction.

Mr. Bruggeman suggested that the board take a strong stance and is supporting the staff and that staff continues to do what needs to be done in a stormwater perspective. In response to a comment about doing something to prevent the water from coming through the ditch into the Okatie River, Mr. Rybak expressed that the County is actively involved as they share concerns, but this is outside the County's jurisdiction. The run off is entering the Okatie. Impacts are being evaluated and the bacteria and metals levels are being monitored. Mr. Rybak shared that the TMDL of concern in the Okatie is bacteria. The County reached out to DHEC to inform them that it is a watershed of concern and this offsite drainage, out of the County's control, is affecting the water and potentially the permit [MS4 permit].

Mrs. Katie Herrera shared that there is a EPA mobile command is out there, monitoring air quality for residents, as well as there is an elementary school a mile down the road. She was told (but didn't see herself) that the water is being pumped towards the back of the property. She commented that the water is flowing black off to the left (wraps around the shopping district).

Ms. Jones asked Dr. Warren about the effectiveness of the Bold and Gold in knocking down bacteria. Dr. Warren commented approximately a 75% reduction in bacteria.

Dr. Warren commented that the outfall at 170 (being around ¼ mile to ½ mile to the Okatie) doesn't necessarily mean that is entering the Okatie. He mentioned that a lot can happen between 170 and the headwaters of the Okatie (bacteria concentrations could decrease or increase).

Mr. Rybak mentioned that instructions to them is limit the amount of water that leaves the site and water that does leave has some type of filtering treatment system on it. Mr. Rybak will relay concerns.

**7. Public Comment(s)** – Mr. Auggie Martinez, Beaufort County resident for the past 37 years, brought the proposed RV Park in the Okatie area to the attention of the board. There is a petition with close to 2,000 signatures in opposition. Asking for assistance to help protect the Okatie River watershed. Mr. Martinez explained that he understands bacteria levels are rising and that there are some failing septic systems in the area of the proposed RV Park. Would like to see baseline testing in the area and a system in place to test if a stormwater system is designed, build, and

verified to be working according to what is promised by the developer. Would like to see steps taken to protect the Okatie watershed.

# **8. Next Meeting Agenda** – Approved with Addition.

Discussion took place about having a special presentation by DHEC regarding the Able site or by Center for Watershed to provide an update on the Regional Stormwater Design Standard and Model Ordinance draft if they are available.

Addition to New Business: Special Presentation – TBD.

# 9. Meeting Adjourned





# BEAUFORT COUNTY STORMWATER UTILITY



# 120 Shanklin Road Beaufort, South Carolina 29906 Voice (843) 255-2805 Facsimile (843) 255-9436

October 9, 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:
    - Original extension request to December 31, 2019 was re-evaluated at meeting held with project managers on August 20, 2019. Discussion outcome resulted in recommendation to extend contract work to March 31, 2020.
    - Comments for the DRAFT Ordinance and Design Manual due on October 4, 2019.
    - SoLoCo Committee Meeting (proposed in Bluffton) to discuss Ordinance/Manual comments and edits the week of October 15. In addition to discussing Committee review comments submitted at this meeting, they will also discuss the schedule/dates to complete the remaining project milestones:
      - o Revised Manual for Public Comment
      - o Request for Public Comments
      - o Public Comment Period (required to be minimum of 6 weeks)
      - o Close of Public Comments Period
      - o CWP Review of Public Comments Due
      - o Committee Meeting to Review Public Comments
      - o Final Draft of Ordinance and Design Manual
      - o Final Delivery

#### **Public Meetings**

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

The above schedule of activities represents an extension in time of scheduled services performed by CWP. This Contract extension to March 31, 2020 was presented at the NRC meeting held on September 16, 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
  - a) Suggestions for future?
- 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 County Legal and County Council are having discussions whether to pursue Federal land delinquent SW fees based on current case law studies.
  - (State and Federal accounts make up approx. 97%-98% of the delinquent account value of approx. \$7 million on the ledger)
- 6. TY 2019 tax run Stormwater (SW) had a successful tax run and overcame all of the anticipated challenges that came along with being short staffed as one of the key personnel to tax run efforts was deployed with the military, the Town of Bluffton changing their SW fee rate structure from Option A to Option E, and the County implementing a rate increase. The stormwater fee data was submitted by the deadline of October 4, 2019.

## Monitoring Update

- 1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
  - a) September Report Attached.

#### 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 No additional update at this time. 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 Stormceptor Maintenance completed. Notice to Proceed was issued to JMT for design of erosion repair, traffic control and permitting.
- 3. Alljoy Subwatershed Flooding No additional update at this time. 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.
- 4. Factory Creek Watershed Regional Detention Basin "Phase I" & Academy Park Subdivision (Design Cost \$49,873, Tree Mitigation Cost \$18,200 & \$18,200, Construction Cost by the Developer) Construction on-going and estimated to be 60% complete.
- 5. Factory Creek Watershed Regional Detention Basin "Phase II" (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) Construction on-going and estimated to be 80% complete.
- 6. Graves Property / Pepper Hall Public / private partnership No additional update at this time. A 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 The Committee met on September 24, 2019 and comments were presented on *DRAFT* Ordinance were discussed.

#### 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 **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.
    - 30% design review meeting to be held with consultant.
  - b) Brewer Memorial Joint Ownership and Operating Policy Agreements

### presented and approved by PFC.

2. Evergreen Regional Pond 319 grant project – (Design=\$89,286, Construction=\$590,000. Grant=\$229,124) – 90% design review meeting to be held with consultant.

#### **Regional Coordination**

- 1. Town of Bluffton and Beaufort County Joint meetings on Sanitary Sewer in the May River watershed No additional update at this time. Last update: Staff from the County and Town met with BJWSA staff on July 18, 2019 to discuss status of the various projects in their CIP plan. Information regarding this meeting was provided to the County Administrator for review and consideration. Awaiting comment.
- 2. Mossy Oaks Task Force (Design \$20,404, Construction \$205,000; County portions only). See Municipal Reports.
- 3. Charleston Area MS4 managers group No additional update at this time. The last meeting was held on July 25<sup>th</sup> in Charleston.
- 4. Bluffton Ditch Task Force –. No additional update at this time. The group last met in July and discussed SCDOT, Town of Bluffton and County drainage issues and coordination.
- 5. May River watershed modeling See municipal reports for more information.
- 6. Port Royal Sound Conservation Working Group No additional update at this time. This group last met June 14<sup>th</sup> with representatives of the Nature Conservancy.

## Municipal Reports

- 1. Town of Hilton Head Island (From Jeff Netzinger, 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 <u>See the attached chart</u> 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 finalized all of the Energov documents; they are signed and ready for the implementation process.
- 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.

# USCB Water Quality Lab Update

# **Beaufort County**

# **Crystal Lake: Fish Consumption**

- **Project Description:** Beaufort County wishes to determine whether Crystal Lake should be deemed "catch and release" or be unrestricted in terms of the consumption of legally-caught fish regardless of species. Currently, we have received the analysis results of the supplied fish tissue from Test America and are writing up the report to include a compared tissue contaminant levels to risk- based values to determine whether consumption should be restricted. As such, the project consists of the five components listed below. A proposed budget follows, broken down into component parts.
- Status: Project completed. Beaufort County has put up signage at Crystal Lake.

### **Okatie West Pond: Bold and Gold**

- Project Description: Environmental Conservation Solutions, LLC, in conjunction with Beaufort County, installed an innovative bacteria and nutrient removing side-bank filter to a section of a newly constructed wet detention pond for the Okatie West Regional Stormwater Project. The purpose of the joint effort is to evaluate the efficiency of the Bold & Gold Side-Bank filter for the possible application in the county to achieve target stormwater treatment in existing and new stormwater BMPs. The pilot project is a 60-foot side bank filter with a 2-foot layer of Bold & Gold® CTS Filtration media as the treatment mechanism, overlaid by a 6-inch well-draining soil that is connected to an underdrain pipe. The filter is located on the south side of the wet detention pond.
- Status: Project completed. Report finished June 6, 2019.

#### **IDDE-170-ABLE FIRE**

• Most recent samples were collected on 8/7/19. A schedule is to be determined of how frequently to sample this area.

## Walmart Pond 278:

- Sample collection and analysis has ended.
- Report was in February's update.

# **Port Royal Cypress Wetland:**

- Cypress wetland project ended October 2018.
- Report was in February's update.

# **Port Royal Redevelopment:**

- Sample collection for the third quarter of 2019 is in process.
- Continue sampling quarterly wet events.

# **BC Monitoring Plan 2019:**

• Sample collection for the third quarter events is in process. This includes all sample sites for purposes of TMDL, water quality, MOA's, and specials.

# **Town of Bluffton**

# **Monitoring Plan:**

- Accepting samples to analyze for E.coli at same time as MST analysis.
- Continue with weekly sample analysis.
- 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.
- Additional bi-monthly nutrient (T-N, T-P) parameter analysis for NRP-pond site.
- USCB Lab continues to collect and share data with TOB for the shared BC MS4 sites.

# **Town of Hilton Head**

## Jarvis Creek Project:

- **Project Description**: Jarvis Creek pump station will be undergoing a modernization upgrade sometime in February of 2019. The purpose of water quality sampling is to analyze the impacts downstream of the pump station upgrade.
- Status: Jarvis Creek Park water quality sampling pre-pump upgrade has ended and will begin after upgrade project has finished.

# **USCB Laboratory**

# **Additional Projects:**

- Palmetto Bluff: Continued sampling efforts of 12x/year for 6 wet/6 dry events.
- Water Oak Utility: Continue accepting weekly samples for E.coli from their pump station.
- GEL Engineering: Continue accepting samples for Hilton Head collected by GEL Engineering 4x/quarter.

# **Lab Projects:**

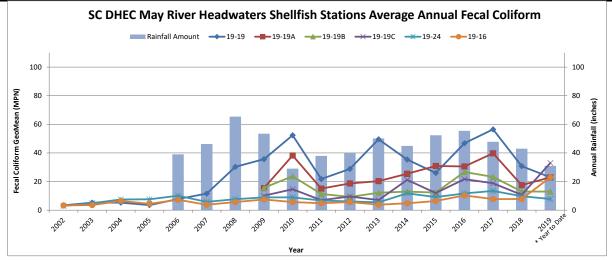
- Purchasing of new equipment to include Rhodamine sensor for various studies, including pond retention times.
- Proficiency testing for 2019 is complete for all parameters and USCB's WQL has passed all tests. Proficiency testing must be completed within the year for all certified analysis to upkeep lab certification.
- Upkeep of equipment.
- Launch of new laboratory information system to include sample ID, sites, clients, field data, lab results, QA/QC requirements, reporting, etc.
- Continue laboratory certification upkeep as per state requirements.

		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)																							
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	70.0	NS	70.0	23.0	49.0	NS	21.0	13.0	33.0	NS	33.0	4.5	22.0	NS	33.0	7.8	7.8	NS	33.0	17.0	17.0
July	79.0	350.0	23.0	4.5	17.0	110.0	33.0	13.0	22.0	130.0	11.0	7.8	17.0	49.0	7.8	17.0	49.0	49.0	13.0	22.0	13.0	22.0	4.5	13.0
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	22.4	30.6	39.8	17.5	22.5	26.7	23.3	13.1	14.1	21.7	18.8	10.7	15.4	11.7	13.5	9.8	10.5	10.3	7.7	7.9	8.9
** Truncated GeoMetric Mean	37.0	44.0	42.0	35.0	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	8.0
** Truncated 90th Percentile	105.0	203.0	176.0	167.0	89.0	133.0	115.0	96.0	69.0	83.0	71.0	59.0	65.0	57.0	56.0	54.0	29.0	37.0	44.0	42.0	21.0	29.0	30.0	28.0

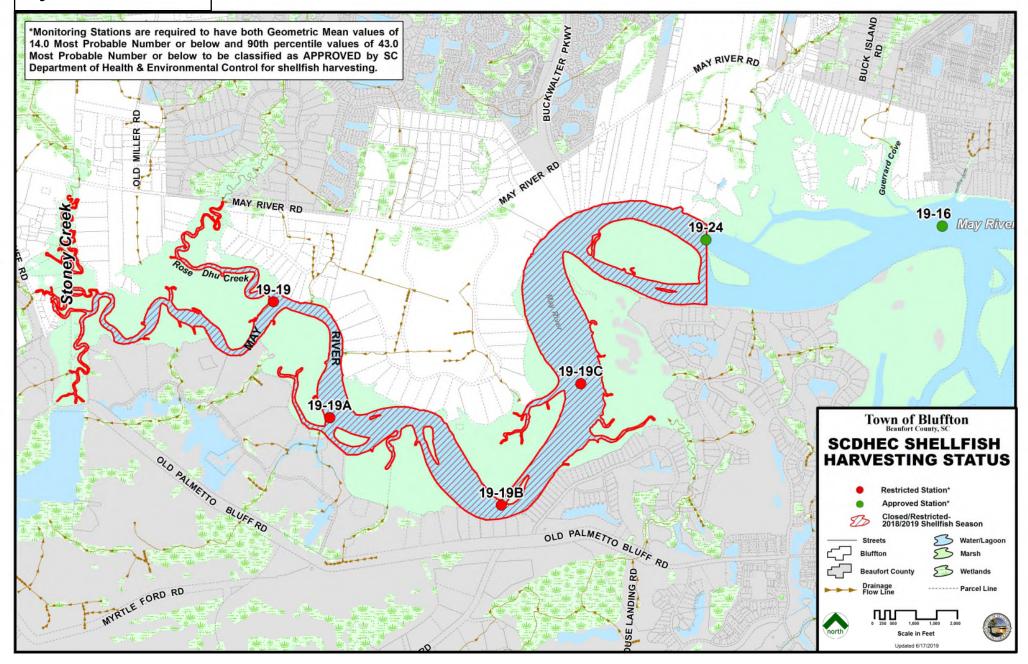
NS = No Sample

AS = Additional Samples

<sup>\*\*</sup> Town staff calculations utilizing DHEC statistics



# May River Headwaters

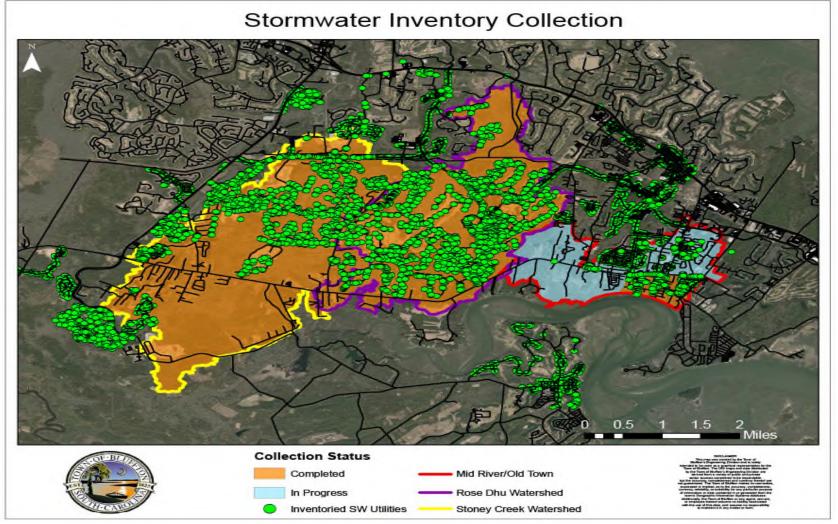


ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update	Contract to McCormick Taylor to complete MRWAP Update - Water Quality Model, current project assessment, and proposed new projects is underway with final deliverables anticipated 1/20.  A call for proposals for Watershedbased Plan Development has been released by SCDHEC. Staff is investigating the application to cohesively package the MRWAP Update. Initial proposal due 10/10/19.
Sewer Connection & Extension Policy	Completed 2018. Council adopted the Sewer Connection & Extension Policy on 9/26/17. Ordinance amendment and Septic to Sewer Conversion Program adopted on 9/20/18.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Completed Buck Island/Simmonsville Road (BIS) Phases I, II, III, IV; Toy Fields; and Jason/Able. Six phases of sewer extension are proposed in the 5-year Capital Improvement Program. Current project updates are included in Engineering Consent Agenda under "Sewer & Water."
May River 319 Grant Phase 1 - New Riverside Pond (Grant award of \$483,500 in 2009)	Completed in 2013.
May River 319 Grant Phase 2 - Pine Ridge (Grant award of \$290,000 in 2011)	Completed in 2016.
May River 319 Grant Phase 3 - Town Hall Parking Retrofit (Grant award of \$231,350 in 2016)	Completed 2019.
Stoney Creek Wetlands Restoration: Preliminary Design Phase	Project on hold following Council direction on 5/31/17.
May River Watershed Water Quality Model	Contract awarded to McCormick Taylor with final deliverables anticipated 1/20.
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	Staff anticipates applying for a Rural Infrastructure Authority grant in March 2020 in support of drainage improvements and stormwater runoff treatment along Pritchard and Bridge Streets.  Received SCDHEC and EPA final approval for 319 Grant Phase IV - sewer connection for \$365,558.36 to construct 49 sewer lateral connections in Poseys Court, Little Aaron and Historic District Phases 1 and 2. Awaiting contract from EPA.  Staff is investigating another SCDHED funding opportunity to cohesively package the MRWAP Update.
ACTIVITY - PROGRAMS	STATUS
Public Outreach/Participation/Involvement (MS4 Minimum Control Measure #1 & 2)	Outreach and involvement efforts continue through county-wide partnership with Carolina Clear as Lowcountry Stormwater Partners - Neighbors for Clean Water, through local cleanups, civic group presentations, and the May River Watershed Action Plan Advisory Committee. Current updates are included in Engineering Consent Agenda and Attachment 3.
Infrastructure Mapping/GIS (MS4 Minimum Control Measure #3)	Data points continue to be collected with new development to meet MS4 requirements & populate water quality model. Current updates are included in Engineering Consent Agenda Attachment 4a.

ACTIVITY - PROGRAMS continued	STATUS continued
Water Quality Monitoring Program (MS4 Minimum Control Measure #3)	<ol> <li>SCDHEC Shellfish monitoring results</li> <li>Fecal coliform bacteria "hot spot" concentrations</li> <li>Microbial Source Tracking of human sources of bacteria</li> <li>Illicit Discharge investigation and monitoring</li> <li>BMP efficacy monitoring</li> <li>MS4 monitoring</li> <li>Current updates are included in Engineering Consent Agenda Attachments 1a, 1b, 4b - 4d.</li> </ol>
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.

# **ATTACHMENT 4a**

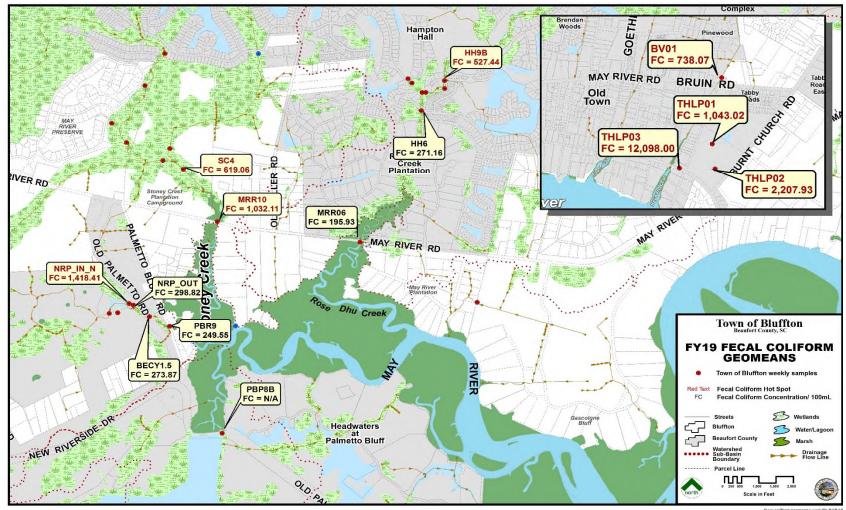
# <u>MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge</u> <u>Detection & Elimination): Stormwater Infrastructure Inventory</u>



Stormwater Infrastructure Inventory Collection Status							
FY 2020 YTD Collection Totals	1,808						
FY 2019 Collection Totals	2,925						
FY 2018 Collection Totals	3,777						

# **ATTACHMENT 4b**

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

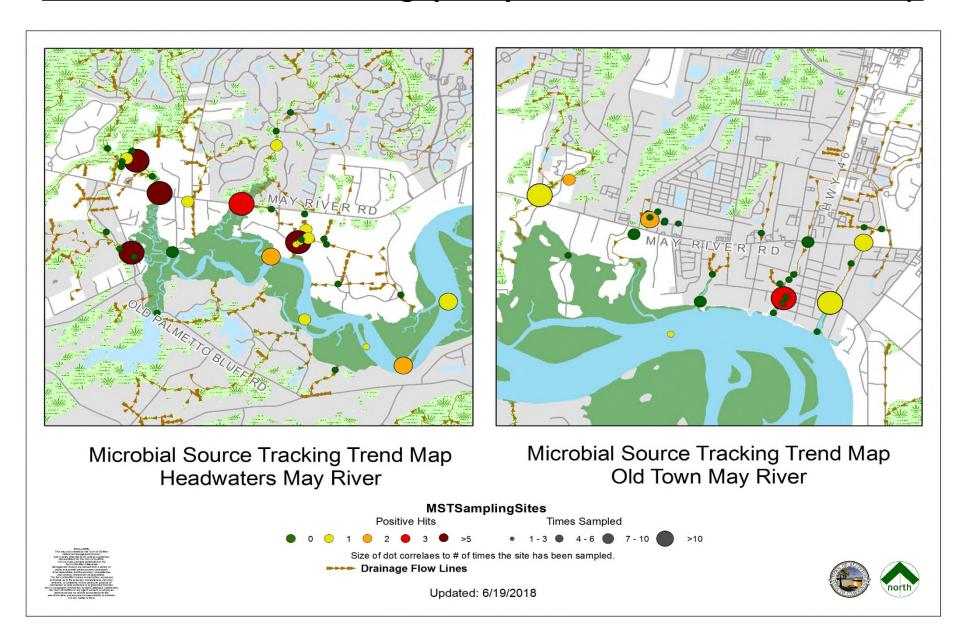


			fecal coliform geomeans work file 6/18/19
	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2020 YTD Totals	48	12	28
FY 2019 Totals	280	193	264
FY 2018 Totals	216	217	224
FY 2017 Totals	307	179	224

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

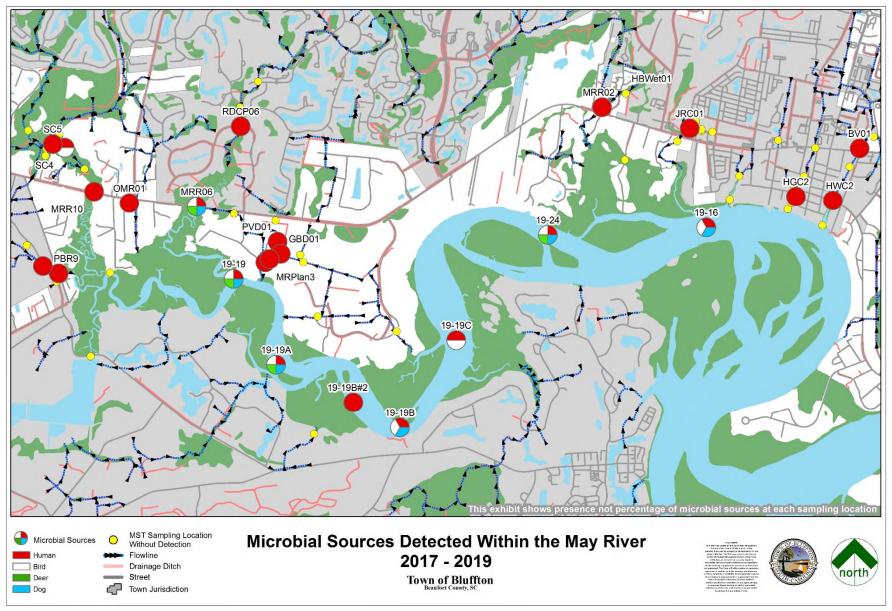
# **ATTACHMENT 4c**

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



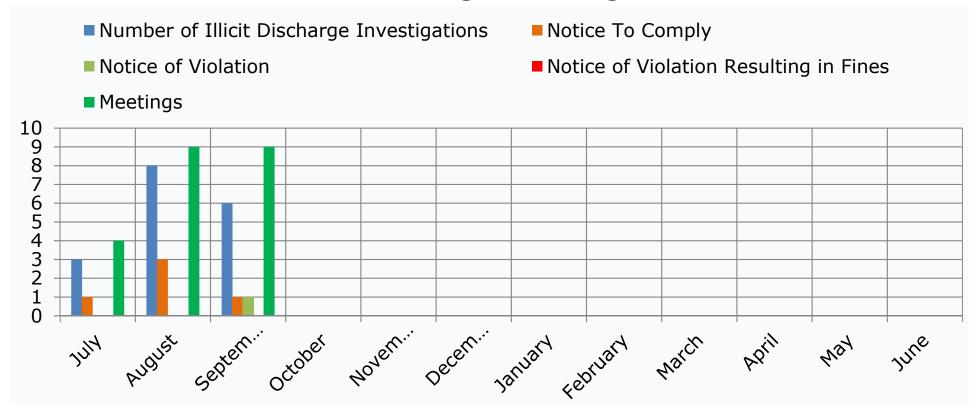
# ATTACHMENT 4d

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



# **ATTACHMENT 4e**

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

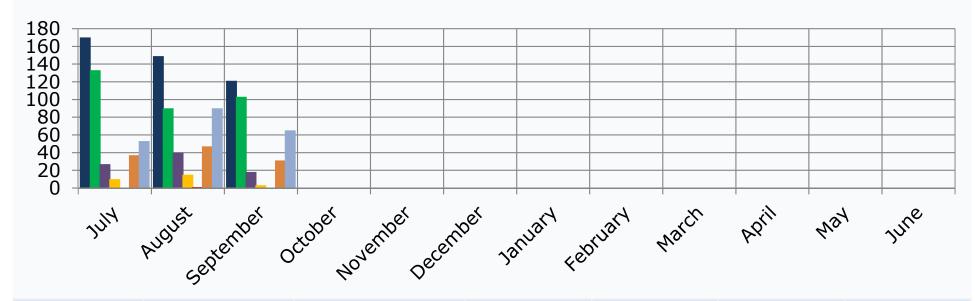


	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2020 YTD Totals	17	5	1	1	9
FY 2019 Totals	38	20	3	1	61
FY 2018 Totals	48	20	4	2	60

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

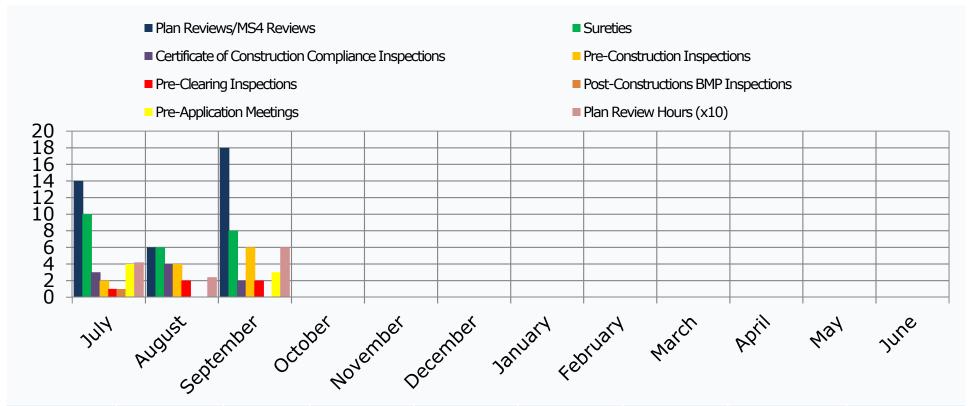
- Erosion & Sediment Control Inspections (E&SC)
- Number of Notice To Comply (NTC)
- Number of Fines for Notice of Violation

- Number of Inspections Passed
- Number of Notice of Violation (NOV)
- Number of Erosion & Sediment Control Meetings



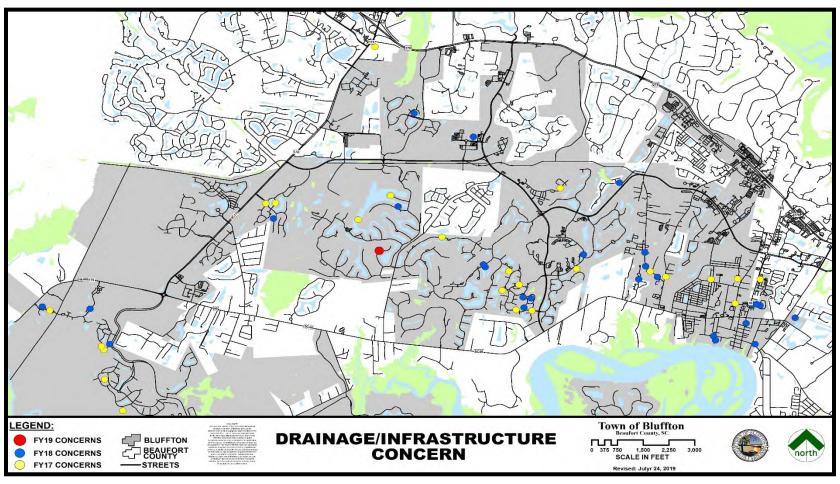
	Number of Sediment & Erosion Control Inspections	ΡάζζΩΠ	Number of NTC Issued	Number of NOVs Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2020 YTD Totals	440	326	85	28	1	115
FY 2019 Totals	1,688	1,384	254	72	7	403
FY 2018 Totals	1,504	1,159	300	83	10	499

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



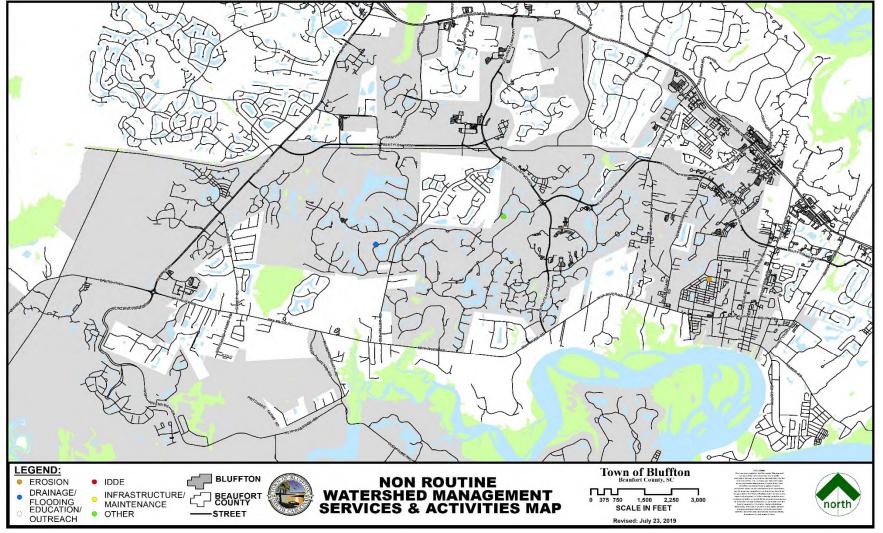
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	PrΔ-	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2020 YTD Totals	38	24	9	12	5	1	7	126 Hrs.
FY 2019 Totals	208	52	53	47	37	27	63	1,040 Hrs.
FY 2018 Totals	242	59	50	32	32	88	88	1,210 Hrs.

# <u>Citizen Drainage Concern Heat Map</u> (<u>Drainage, Maintenance and Inspections</u>)



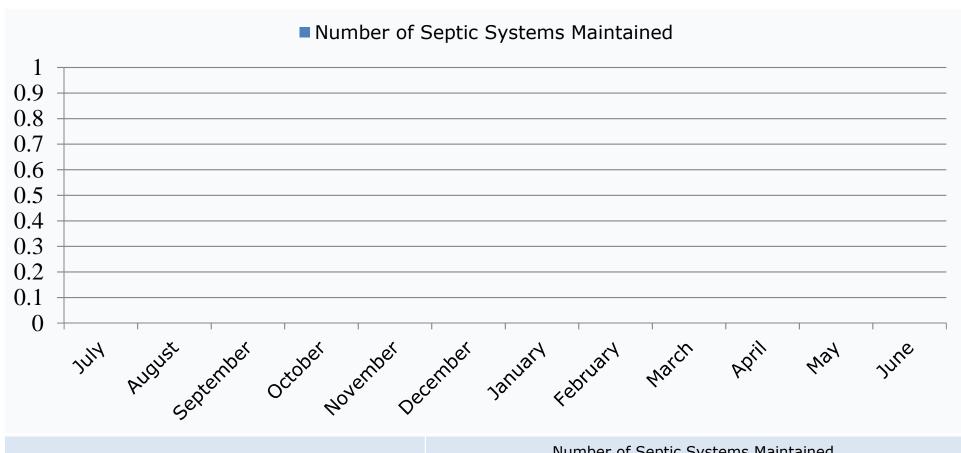
	Number of Drainage Concerns Investigated	Number of Meetings
FY 2020 YTD Totals	9	9
FY 2019 Totals	54	59
FY 2018 Totals	48	75

# ATTACHMENT 8 <u>Citizen Request for Watershed Mngt. Services & Activities Map</u>



	Number of Citizen Requests Investigated	Number of Meetings
FY 2019 YTD Totals	56	59
FY 2018 Totals	75	79
FY 2017 Totals	53	82

# 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: Dan Rybak

FROM: Neil Desai, P.E.

DATE: September 26, 2019

**SUBJECT:** Stormwater Utility Board Report

The following is the City of Beaufort Public Works Department monthly report from September 1 to September 30, 2019

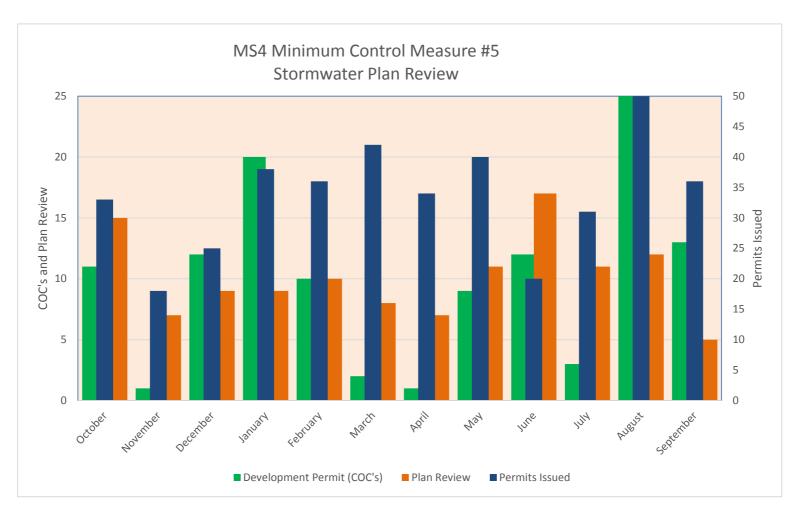
# 1) <u>CAPITAL IMPROVEMENTS UPDATE</u>

- a) Mossy Oaks Drainage Project City has submitted to Army Corps of Engineers and SC DOT for permitting.
- b) Battery Shores Drainage Improvement project will be redesigned to align pipe on City's property. Project delayed till November due to Hurricane Dorian.

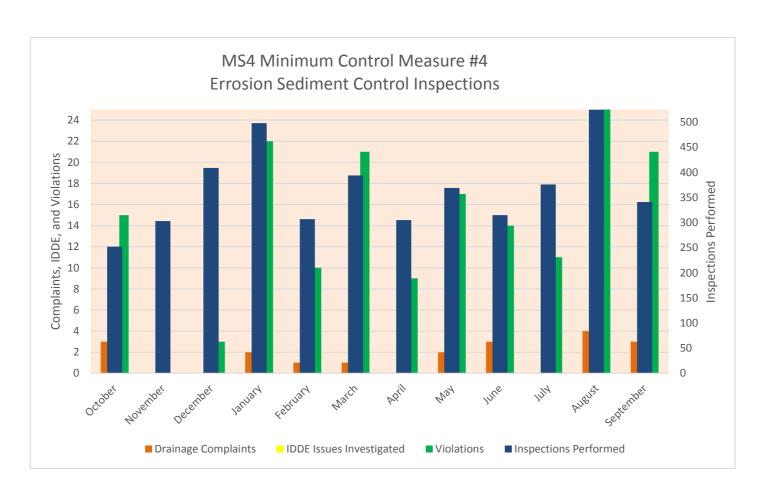
- c) Greenlawn Streetscape construction under way currently.
- d) Twin Lakes Drainage Project construction under way currently.
- e) Aster Street & Camellia Road drainage project PW staff ordering materials, project delayed till November due to Hurricane Dorian.

# 2) MAINTANCE & REPAIR UPDATE

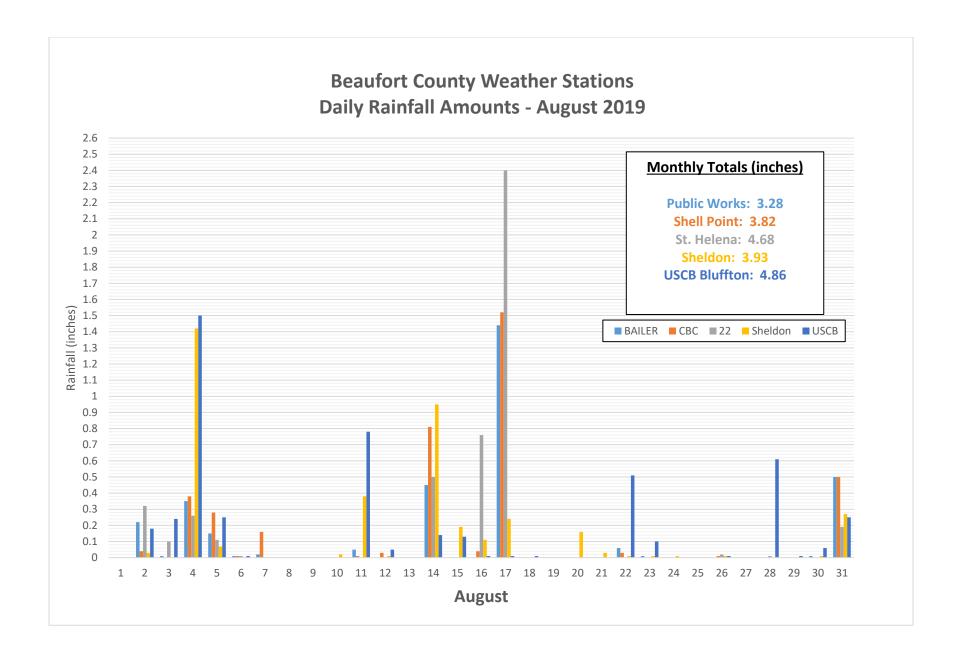
- a) Extensive debris management operations under way City wide. Currently projections estimate the amount of debris will be approximately 100 tons.
- b) Routine maintenance of drainage easement City wide.

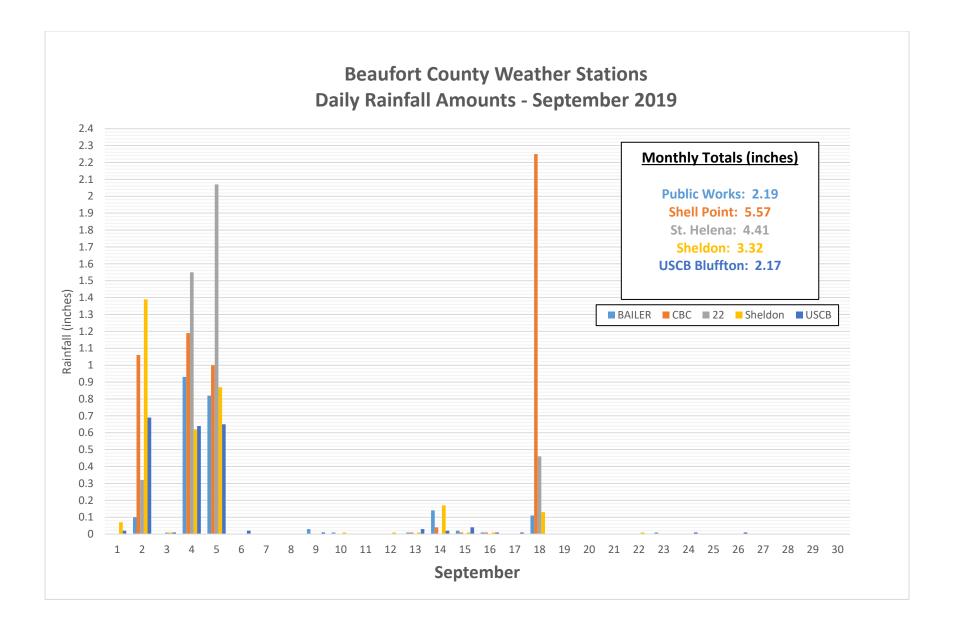


ТҮРЕ	October	November	December	January	February	March	April	May	June	July	August	September	Last 12 Months
Development Permit (COC's)	11	1	12	20	10	2	1	9	12	3	39	13	133
Plan Review	15	7	9	9	10	8	7	11	17	11	12	5	121
Permits Issued	33	18	25	38	36	42	34	40	20	31	50	36	403



ТҮРЕ	October	November	December	January	February	March	April	May	June	July	August	September	Last 12 Months
Inspections Performed	252	303	409	498	307	394	305	369	315	376	525	341	4,394
Drainage Complaints	3	0	0	2	1	1	0	2	3	0	4	3	19
IDDE Issues Investigated	2	0	1	0	1	0	1	2	3	2	2	1	15
Violations	15	0	3	22	10	21	9	17	14	11	29	21	172





# <u>Lowcountry Stormwater Partners (LSP) Stormwater Utility Board Monthly Report</u> 8/14/19 - 9/9/19

### Stormwater outreach/involvement activities completed:

- 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.
  - o 8/9/19, online, 90
- Keep Broad Creek Clean Festival
  - o The LSP will provide enviroscape demonstrations for youth at this festival
  - o 8/15/19, Hilton Head, 500
- LSP Consortium Meeting
  - o The LSP will meet with its partners and discuss current and upcoming events.
  - o 8/20/19, Okatie, 9
- 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.
  - o 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.
  - o 8/29/19, Bluffton, 12+
- 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.
  - o 9/4/19, Hilton Head, Cancelled due to storm, will be rescheduled

#### 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.
  - o 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.
  - o 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.
  - o 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.
  - o 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.
  - o 10/1/19, Hilton Head
- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 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.
  - o 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.
  - o 10/21/19, none
- LSP Annual Report
  - o Ellen Sturup Comeau will submit a final draft of the 2019 LSP Annual Report.
  - o 11/4/2019, none
- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 11/8/19, online, 90
- 2019 Beaufort Area Stormwater Pond Conference
  - o 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.
  - o 11/14/19, Beaufort
- LSP Consortium Meeting
  - o The LSP will meet with its partners and discuss current and upcoming events.
  - o 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.
  - o 11/21/19, Beaufort

- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 12/13/19, online, 90

## Other related activities performed/considered:

- LSP 2019-2023 Strategic Plan writing (ongoing)
- 2019 Beaufort Area Stormwater Pond Conference planning (ongoing)
- LSP Annual Report data gathering (ongoing)

# <u>Lowcountry Stormwater Partners (LSP) Stormwater Utility Board Monthly Report</u> 9/9/19 - 9/30/19

#### Stormwater outreach/involvement activities completed:

- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 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.
  - o 9/11/19, Hilton Head, 20 participants
- 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.
  - o 9/18/19, Hilton Head, 15 participants
- Town of Bluffton River/Beach Sweep
  - Ellen Sturup Comeau will provide enviroscape demonstrations as part of an education effort during the Town of Bluffton's River/Beach Sweep.
  - o 9/21/19, Bluffton, 20 direct contacts
- 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.
  - o 9/24/19, Hilton Head, 12 participants

#### Stormwater outreach/involvement activities planned to take place:

- 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.
  - o 10/1/19, Hilton Head
- 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.
  - o 10/3/19, Hilton Head
- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.

- o 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.
  - o 10/4/19, Bluffton
- Kids in Kayaks
  - Ellen Sturup Comeau will provide enviroscape demonstrations as part of The Outside Foundation's Kids in Kayaks program. The Kids in Kayaks program connects 7<sup>th</sup> graders to the natural world using science curriculum and handson activities.
  - o 10/8/19, Hilton Head
- Kids in Kayaks
  - Ellen Sturup Comeau will provide enviroscape demonstrations as part of The Outside Foundation's Kids in Kayaks program. The Kids in Kayaks program connects 7<sup>th</sup> graders to the natural world using science curriculum and handson activities.
  - o 10/18/19, Hilton Head
- 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.
  - o 10/21/19, none
- Kids in Kayaks
  - Ellen Sturup Comeau will provide enviroscape demonstrations as part of The Outside Foundation's Kids in Kayaks program. The Kids in Kayaks program connects 7<sup>th</sup> graders to the natural world using science curriculum and handson activities.
  - o 11/1/19, Hilton Head
- LSP Annual Report
  - Ellen Sturup Comeau will submit a final draft of the 2019 LSP Annual Report.
  - o 11/4/2019, none
- Beaufort County 4-H Homeschooling Group
  - Ellen Sturup Comeau will lead the homeschooler's 4-H group in a sciencebased curriculum regarding the natural world and food chains.
  - o 11/5/19, Beaufort
- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 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.
  - o 11/14/19, Beaufort
- LSP Consortium Meeting
  - o The LSP will meet with its partners and discuss current and upcoming events.
  - o 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.
  - o 11/21/19, Beaufort
- LSP Newsletter
  - o An informative publication for the general public with a small article on a stormwater topic and information on past, current, and future events.
  - o 12/13/19, online, 90

#### Other related activities performed/considered:

- LSP 2019-2023 Strategic Plan writing (ongoing)
- 2019 Beaufort Area Stormwater Pond Conference planning (ongoing)
- LSP Annual Report data gathering (ongoing)

#### Able Site Update – September 2019

Beaufort County has continued working in cooperation with DHEC regarding the Able Recycling facility in Jasper County. There are four agencies (DHEC, EPA, Beaufort County and Savannah Riverkeeper) currently sampling in and around the site. Beaufort County continues to monitor at the outfall coming underneath Highway 170. The most recent sampling event occurred on September 23, 2019. Bacteria levels and E.coli concentrations were lower than previous sampling events. Beaufort County will continue to participate in monitoring at the outfall location, as well as work in partnership with all participating agencies.

#### Links to Agency Updates:

https://www.scdhec.gov/environment/ongoing-projects-updates/able-contracting-fire

https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0407717



Date: October 9, 2019

To: Stormwater Management Utility Board

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

**Re:** Maintenance Project Report

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

#### **Minor or Routine Projects:**

- Honeysuckle Lane Lady's Island (SWUD 7): This project improved 397 feet of drainage system. The scope of work included cleaning out 397 feet of roadside ditch, jetting 1 crossline pipe, replacing 1 crossline pipe and installing rip rap for erosion control. The total cost was \$12,686.98.
- James Grant Rd/Renell Rd St Helena Island (SWUD 8): This project improved 2,387 feet of drainage system. The scope of work included cleaning out 1,405 feet of channel, 982 feet of roadside ditch, jetting 3 access pipes, 6 driveway pipes and hydroseeding for erosion control. The total cost was \$11,733.61.
- Scott Hill Road Ch# 1 St Helena Island (SWUD 8): This project improved 3,099 feet of drainage system. The scope of work included cleaning out 1,482 feet of channel and 1,617 of roadside ditch. The total cost was \$5,983.36.
- Clydesdale Circle Port Royal Island (SWUD 6): The scope of work included replacing 1 driveway pipe. The total cost was \$4,479.36.
- Meadowlark Street Lady's Island (SWUD 7): This project improved 286 feet of drainage system. The scope of work included cleaning out 286 feet of roadside ditch and hydroseeding for erosion control. The total cost was \$3,429.40.
- Fiddlers Pond Loop Lady's Island (SWUD 7): This project improved 75 feet of drainage system. The scope of work included cleaning out 75 feet of roadside ditch, jetting 1 crossline pipe and 3 driveway pipes. The total cost was \$2,963.81.
- Buck Point Road Bluffton (SWUD 4): This project improved 117 feet of drainage system. The scope of work included grubbing, clearing and reconstructing 117 feet of workshelf, cleaning out 1 catch basin, jetting 1 crossline pipe and installing rip rap for erosion control. The total cost was \$2,800.75.
- St Helena Drop Off Center St Helena Island (SWUD 8): This project improved 1,858 feet of drainage system. The scope of work included cleaning out 1,858 feet of channel. The total cost was \$2,237.07.

- Lady's Island Valley Drains Lady's Island (SWUD 7): This project improved 12,888 feet of drainage system. The scope of work included cleaning out 12,888 feet of valley drains. The total cost was \$1,870.57.
- **Haynes Road Sheldon (SWUD 5):** The scope of work included replacing 1 crossline pipe. The total cost was **\$1,515.69**.
- Seaside Road St Helena Island (SWUD 8): The scope of work included installing an asphalt apron. The total cost was \$1,272.86.
- Blackburn Pierce Drive Port Royal Island (SWUD 9): This project improved 140 feet of drainage system. The scope of work included cleaning out 140 feet of channel. The total cost was \$915.22.



**Project Summary** 

Project Summary: Honeysuckle Lane

Activity: Routine/Preventive Maintenance

**Duration:** 07/08/19-08/22/19

### **Narrative Description of Project:**

Project improved 397 L.F. of drainage system. Cleaned out 397 L.F. of roadside ditch. Jetted (1) crossline pipe. Replaced (1) crossline pipe. Installed rip rap for erosion control.

2020-582 / Honeysuckle Lane	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
ASI / Asphalt Installation	21.0	\$456.79	\$92.80	\$27.48	\$0.00	\$207.90	\$784.97
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CLPJT / Crossline Pipe - Jetted	6.0	\$132.57	\$114.96	\$24.03	\$0.00	\$49.41	\$320.97
CPRPL / Crossline Pipe - Replaced	66.0	\$1,571.27	\$247.52	\$693.14	\$0.00	\$598.41	\$3,110.34
DLO / Ditch Layout	36.0	\$789.50	\$100.10	\$43.26	\$0.00	\$409.68	\$1,342.54
HAUL / Hauling	48.5	\$1,096.66	\$686.76	\$1,395.01	\$0.00	\$367.71	\$3,546.13
LM / Loading Materials	15.0	\$337.80	\$46.63	\$23.94	\$0.00	\$148.50	\$556.87
RRI / Rip Rap - Installed	12.0	\$261.04	\$71.66	\$37.98	\$0.00	\$118.80	\$489.48
RSDCL / Roadside Ditch - Cleanout	30.0	\$862.80	\$136.32	\$43.75	\$0.00	\$266.70	\$1,309.57
STAGING / Staging Materials/Equipment	31.0	\$676.44	\$108.67	\$61.56	\$0.00	\$324.98	\$1,171.64
UTLOC / Utility locates	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
2020-582 / Honeysuckle Lane Sub Total	268.0	\$6,239.33	\$1,605.42	\$2,350.14	\$0.00	\$2,492.09	\$12,686.98
Grand Total	268.0	\$6,239.33	\$1,605.42	\$2,350.14	\$0.00	\$2,492.09	\$12,686.98

**Before** 

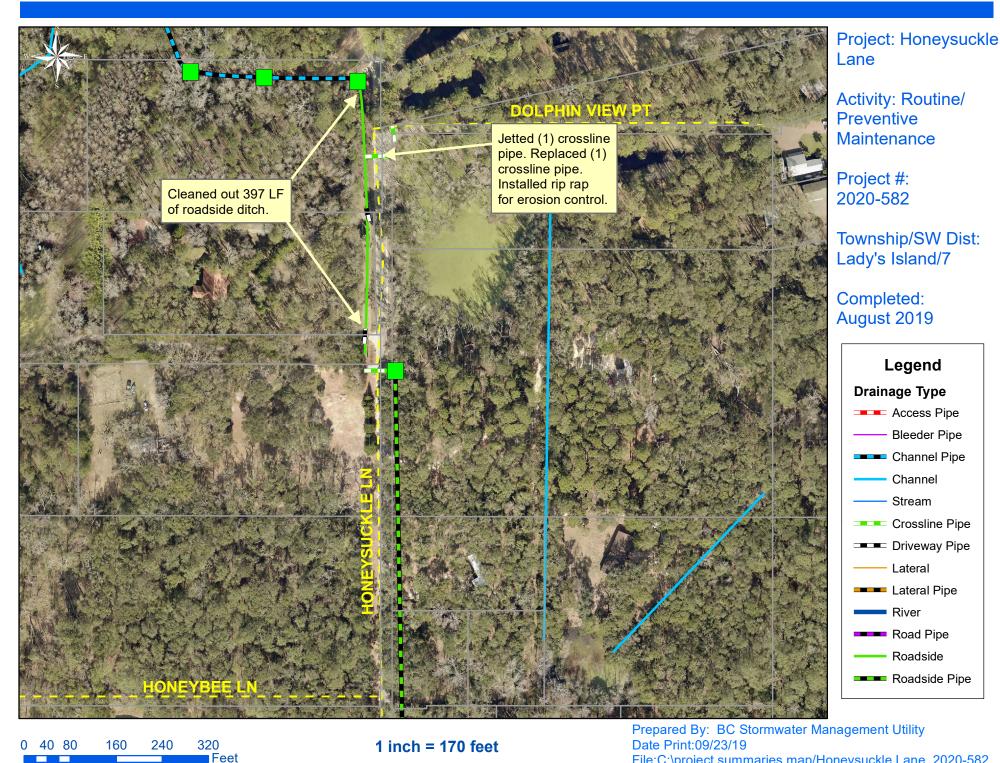


**During** 



After





File:C:\project summaries map/Honeysuckle Lane\_2020-582



**Project Summary** 

Project Summary: James Grant Road and Renell Road

**Activity:** Routine/Preventive Maintenance

**Duration:** 05/28/19-07/10/19

### **Narrative Description of Project:**

Project improved 2,387 L.F. of drainage system. Cleaned out 1,405 L.F. of channel and 982 L.F. of roadside ditch. Jetted (3) access pipes and (6) driveway pipes. Hydroseeded for erosion control.

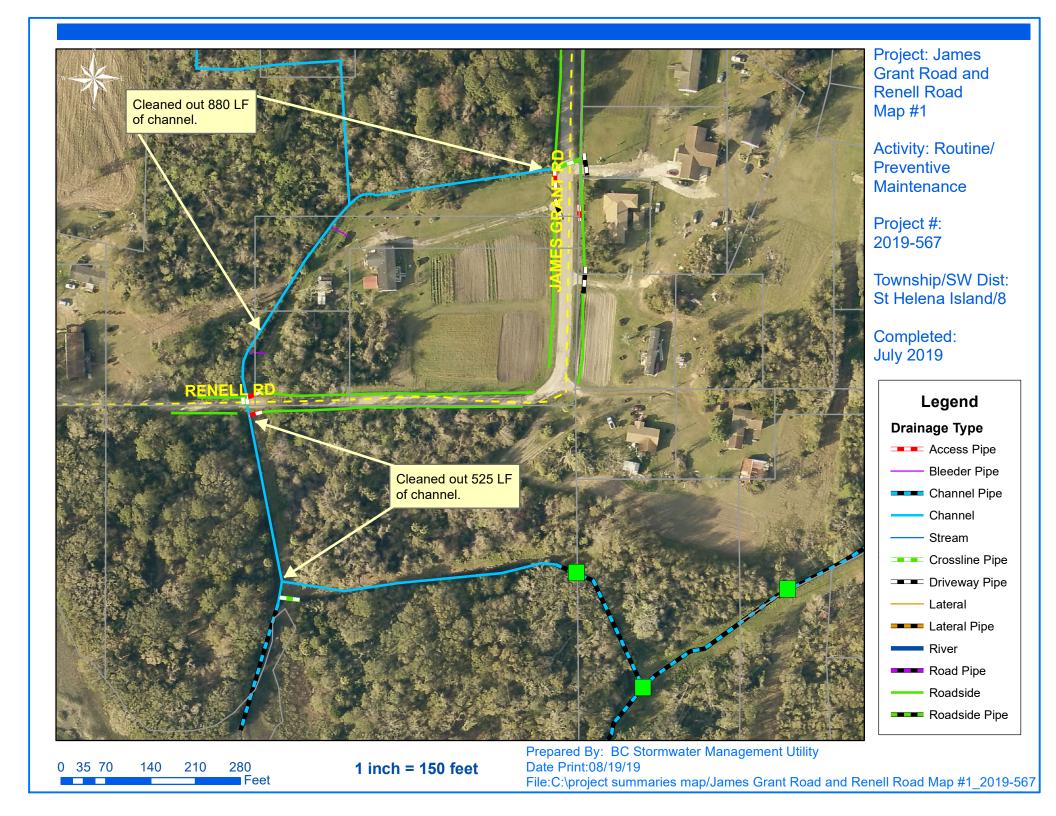
2019-567 / James Grant Road and Renell Road	Labor	Labor	<b>Equipment</b>	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.5	\$32.69	\$0.00	\$0.00	\$0.00	\$0.00	\$32.69
CCO / Channel - cleaned out	60.0	\$1,725.60	\$358.30	\$80.04	\$0.00	\$533.40	\$2,697.34
DPJT / Driveway Pipe - Jetted	14.0	\$309.33	\$268.24	\$30.13	\$0.00	\$115.29	\$722.99
HAUL / Hauling	58.0	\$1,334.98	\$840.24	\$231.66	\$0.00	\$121.51	\$2,528.39
HYDR / Hydroseeding	30.0	\$866.45	\$111.04	\$443.64	\$0.00	\$195.45	\$1,616.58
RSDCL / Roadside Ditch - Cleanout	90.0	\$2,588.40	\$623.34	\$112.89	\$0.00	\$800.10	\$4,124.73
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2019-567 / James Grant Road and Renell Road Sub Total	254.0	\$6,868.34	\$2,201.16	\$898.36	\$0.00	\$1,765.75	\$11,733.61
Grand Total	254.0	\$6,868.34	\$2,201.16	\$898.36	\$0.00	\$1,765.75	\$11,733.61

Before During After

(No Picture Available)









Feet

Date Print:08/19/19

File:C:\project summaries map/James Grant Road and Renell Road Map #2\_2019-567

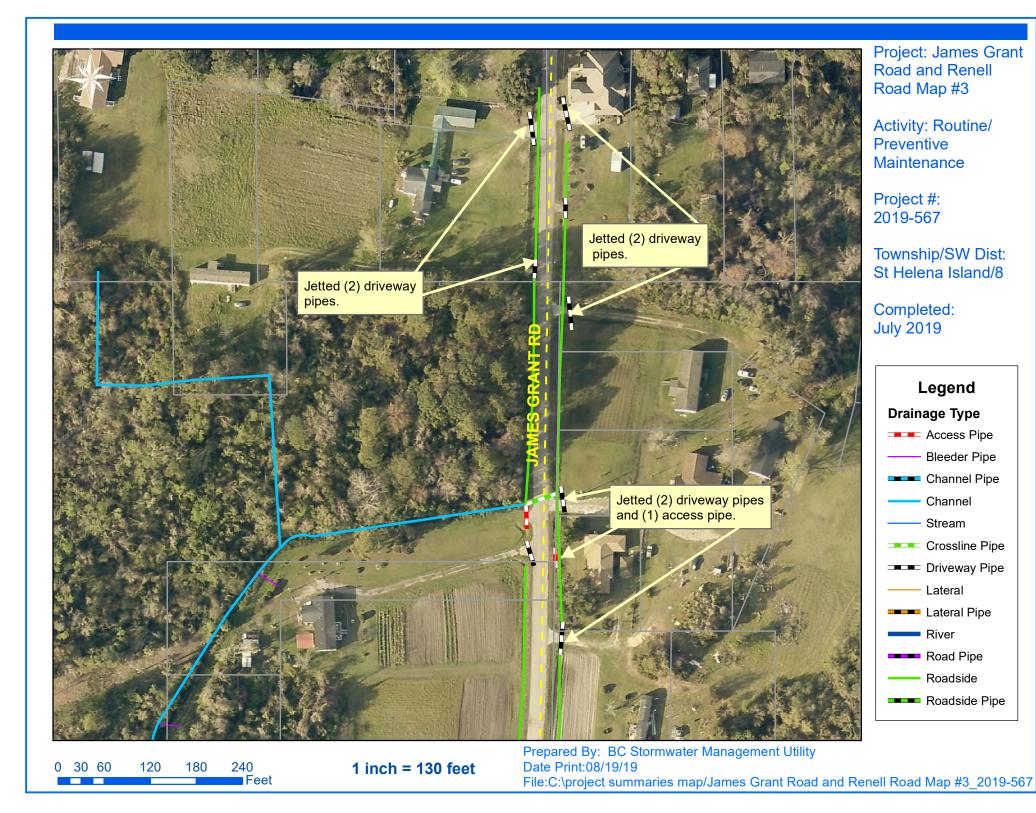
Legend

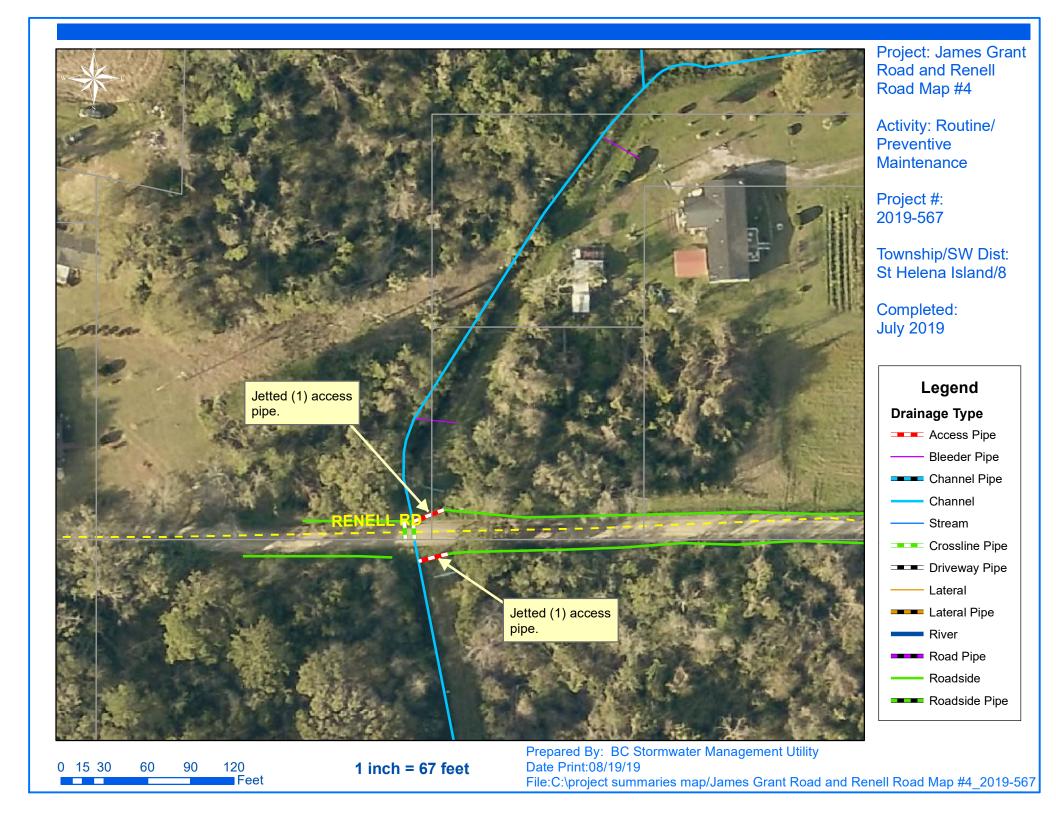
Channel Pipe Channel Stream Crossline Pipe Driveway Pipe Lateral Lateral Pipe River Road Pipe

Roadside Roadside Pipe

Bleeder Pipe

**Drainage Type** Access Pipe







**Project Summary** 

Project Summary: Scott Hill Road Channel #1

Activity: Routine/Preventive Maintenance

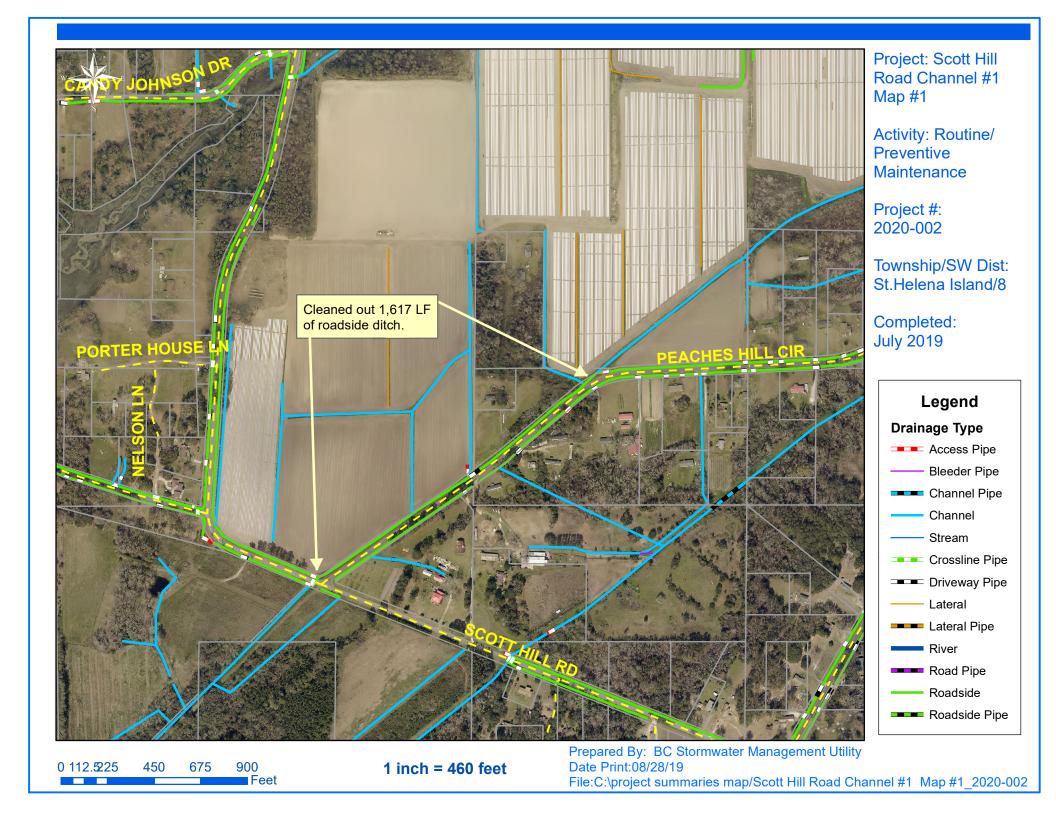
**Duration:** 07/17/19-07/23/19

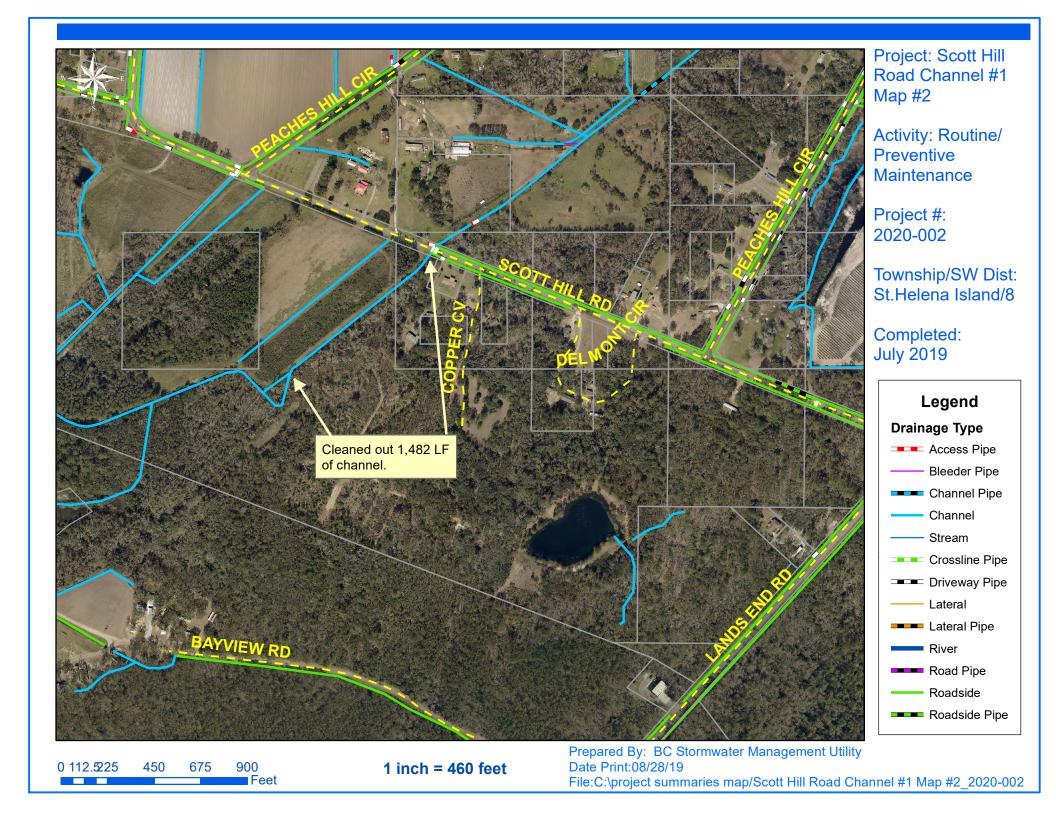
## **Narrative Description of Project:**

Project improved 3,099 L.F. of drainage system. Cleaned out 1,482 L.F. of channel and 1,617 L.F. of roadside ditch.

2020-002 / Scott Hill Road Channel #1	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CCO / Channel - cleaned out	80.0	\$2,160.30	\$908.38	\$191.83	\$0.00	\$830.40	\$4,090.91
HAUL / Hauling	34.0	\$760.06	\$481.44	\$196.56	\$0.00	\$432.60	\$1,870.66
2020-002 / Scott Hill Road Channel #1 Sub Total	115.0	\$2,942.15	\$1,389.82	\$388.39	\$0.00	\$1,263.00	\$5,983.36
Grand Total	115.0	\$2,942.15	\$1,389.82	\$388.39	\$0.00	\$1,263.00	\$5,983.36

(No Pictures Available)







**Project Summary** 

**Project Summary:** Clydesdale Circle

Activity: Routine/Preventive Maintenance

Labor

\$21.79

\$0.00

\$1,270.09

\$229.90

\$529.50

\$2,051.28

\$2,051.28

Cost

Labor

Hours

1.0

0.0

61.0

10.0

24.0

96.0

96.0

**Duration:** 06/17/19-08/02/19

Cost

\$0.00

\$0.00

\$0.00

\$0.00

\$460.90

\$460.90

\$460.90

**Equipment Material** 

Cost

\$0.00

\$0.00

\$663.56

\$55.34

\$43.17

\$762.07

\$762.07

Cost

\$0.00

\$0.00

\$108.52

\$141.60

\$41.23

\$291.35

\$291.35

### **Narrative Description of Project:**

Replaced (1) driveway pipe.

#### 2019-576 / Clydesdale Circle

<b>Grand Total</b>
2019-576 / Clydesdale Circle Sub Total
PP / Project Preparation
HAUL / Hauling
DPRPL / Driveway Pipe - Replaced
CCSRT / Concrete construction
AUDIT / Audit Project

#### **Before**



## During



After

Labor

\$0.00

\$0.00

\$591.36

\$144.20

\$178.20

\$913.76

\$913.76

**Contractor Indirect** 

Total

Cost

\$21.79

\$460.90

\$571.04

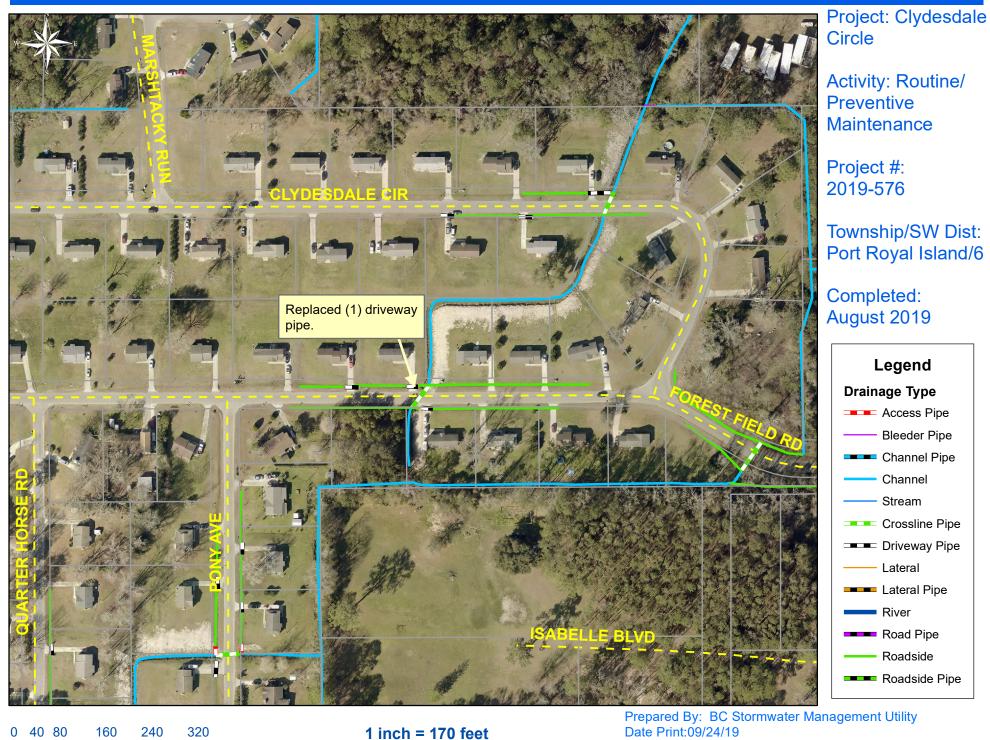
\$792.10

\$4,479.36

\$4,479.36

\$2,633.53

(No Pictures Available)



Date Print:09/24/19 File:C:\project summaries map/Clydesdale Circle\_2019-576

Feet



**Project Summary** 

Project Summary: Meadowlark Street Activity: Routine/Preventive Maintenance

**Duration:** 08/14/19-08/22/19

### **Narrative Description of Project:**

Project improved 286 L.F. of drainage system. Cleaned out 286 L.F. of roadside ditch. Hydroseeded for erosion control.

2020-007 / Meadowlark Street	Labor	Labor	<b>Equipment</b>	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
HAUL / Hauling	10.0	\$229.90	\$141.60	\$41.04	\$0.00	\$0.00	\$412.54
HYDR / Hydroseeding	12.0	\$247.92	\$27.80	\$973.71	\$0.00	\$154.68	\$1,404.11
PRRECON / Project Reconnaissance	15.0	\$311.70	\$18.00	\$17.34	\$0.00	\$66.15	\$413.19
RSDCL / Roadside Ditch - Cleanout	30.0	\$847.10	\$143.35	\$42.02	\$0.00	\$134.40	\$1,166.87
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2020-007 / Meadowlark Street Sub Total	68.5	\$1,669.31	\$330.75	\$1,074.11	\$0.00	\$355.23	\$3,429.40
Grand Total	68.5	\$1,669.31	\$330.75	\$1,074.11	\$0.00	\$355.23	\$3,429.40

Before During After

(Picture Not Available) (Picture Not Available)





360 0 45 90 180 270 Feet

1 inch = 200 feet

Date Print:09/23/19

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**Project Summary** 

Project Summary: Fiddlers Pond Loop

Activity: Routine/Preventive Maintenance

**Duration:** 07/08/19-07/24/19

### **Narrative Description of Project:**

Project improved 75 L.F. of drainage system. Cleaned out 75 L.F. of roadside ditch. Jetted (1) crossline pipe and (3) driveway pipes.

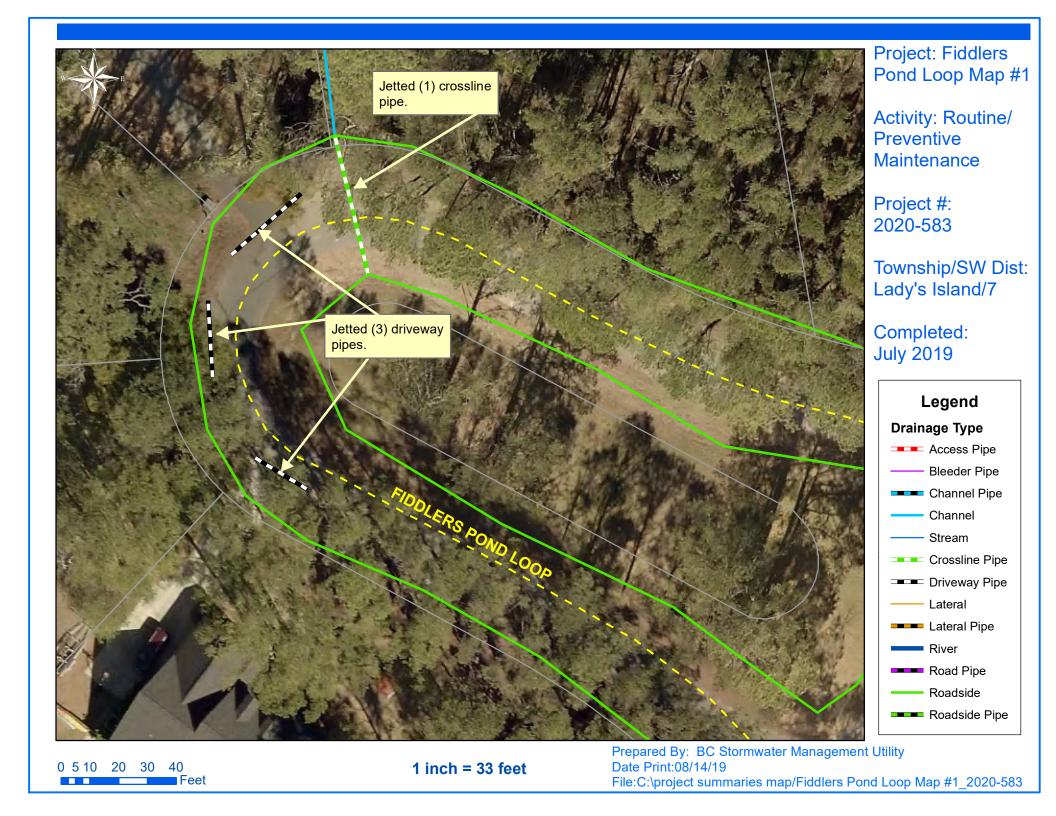
2020-583 / Fiddlers Pond Loop	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
DPJT / Driveway Pipe - Jetted	10.0	\$222.80	\$191.60	\$43.08	\$0.00	\$143.40	\$600.88
HAUL / Hauling	6.0	\$133.62	\$84.96	\$42.12	\$0.00	\$86.52	\$347.22
PRRECON / Project Reconnaissance	18.0	\$371.88	\$23.04	\$12.78	\$0.00	\$232.02	\$639.72
RSDCL / Roadside Ditch - Cleanout	40.0	\$849.70	\$81.34	\$25.56	\$0.00	\$386.70	\$1,343.30
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2020-583 / Fiddlers Pond Loop Sub Total	75.5	\$1,610.69	\$380.94	\$123.54	\$0.00	\$848.64	\$2,963.81
Grand Total	75.5	\$1,610.69	\$380.94	\$123.54	\$0.00	\$848.64	\$2,963.81

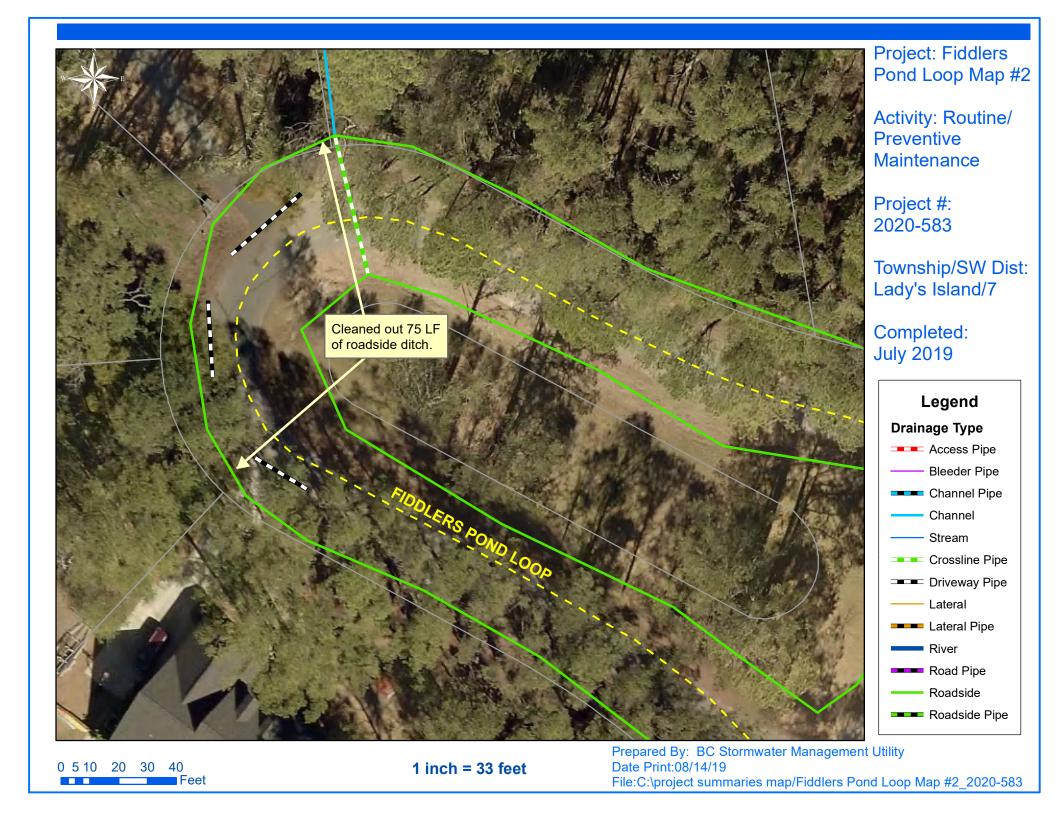
Before During After













**Project Summary** 

**Project Summary:** Buck Point Road

Activity: Routine/Preventive Maintenance

**Duration:** 07/31/19-08/09/19

### **Narrative Description of Project:**

Project improved 117 L.F. of drainage system. Grubbed, cleared and reconstructed 117 L.F. of workshelf. Cleaned out (1) catch basin. Jetted (1) crossline pipe. Installed rip rap for erosion control.

2020-005 / Buck Point Road	Labor	Labor	<b>Equipment</b>	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CLPJT / Crossline Pipe - Jetted	18.0	\$390.90	\$136.56	\$94.92	\$0.00	\$178.20	\$800.58
WSREC / Workshelf - Reconstructed	30.0	\$652.55	\$143.35	\$45.60	\$0.00	\$297.00	\$1,138.50
HAUL / Hauling	10.0	\$229.90	\$141.60	\$457.49	\$0.00	\$0.00	\$828.99
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2020-005 / Buck Point Road Sub Total	59.5	\$1,306.04	\$421.51	\$598.01	\$0.00	\$475.20	\$2,800.75
Grand Total	59.5	\$1,306.04	\$421.51	\$598.01	\$0.00	\$475.20	\$2,800.75





During



After





File:C:\project summaries map/Buck Point Road\_2020-005



**Project Summary** 

**Project Summary:** St. Helena Drop Off Center

**Activity:** Routine/Preventive Maintenance

**Duration:** 07/10/19-07/11/19

## **Narrative Description of Project:**

Project improved 1,858 L.F. of drainage system. Cleaned out 1,858 L.F. of channel.

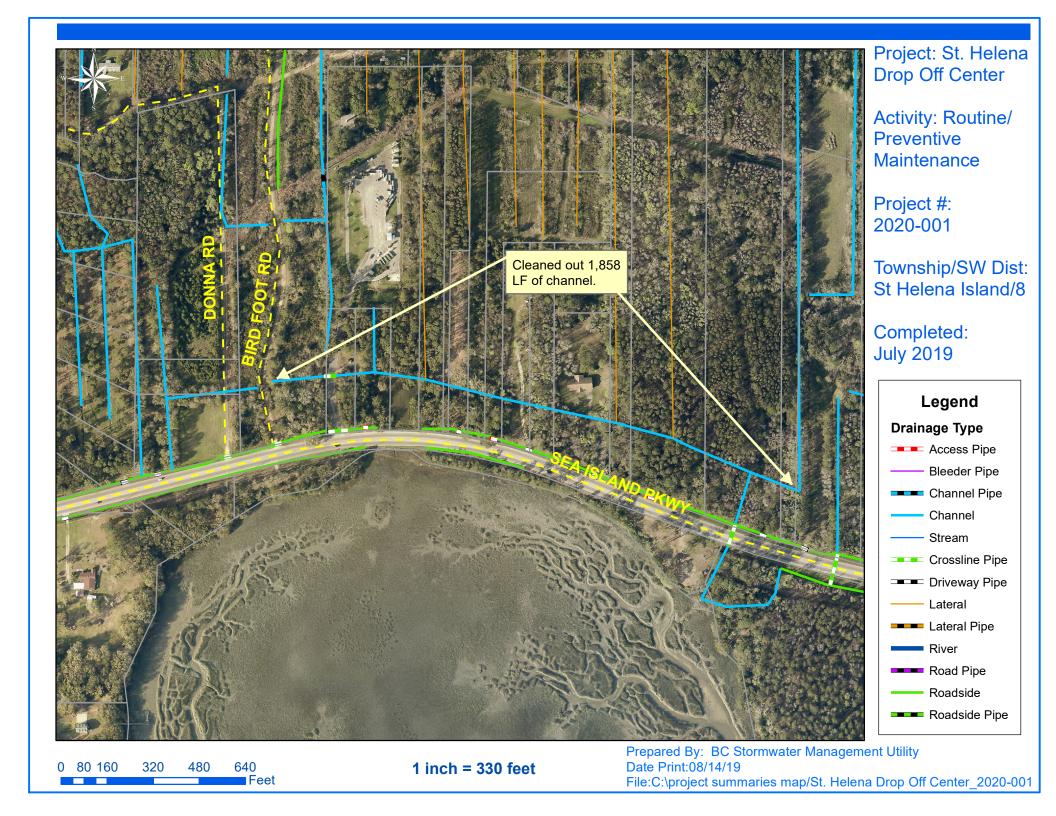
2020-001 / St. Helena Drop off Center	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CCO / Channel - cleaned out	48.0	\$1,044.16	\$233.16	\$58.50	\$0.00	\$475.20	\$1,811.02
HAUL / Hauling	10.0	\$229.90	\$141.60	\$32.76	\$0.00	\$0.00	\$404.26
2020-001 / St. Helena Drop Off Center Sub Total	59.0	\$1,295.85	\$374.76	\$91.26	\$0.00	\$475.20	\$2,237.07
Grand Total	59.0	\$1,295.85	\$374.76	\$91.26	\$0.00	\$475.20	\$2,237.07

Before During After











**Project Summary** 

**Project Summary:** Lady's Island Valley Drains- Marsh Drive and Rue Du Bois

**Activity:** Routine/Preventive Maintenance

**Duration:** 06/21/2019-06/24/19

## **Narrative Description of Project:**

Project improved 12,888 L.F. of drainage system. Cleaned 12,888 L.F. of valley drains. This project consisted of the following areas: Marsh Drive (11,284 L.F) and Rue Du Bois (1,640 L.F.)

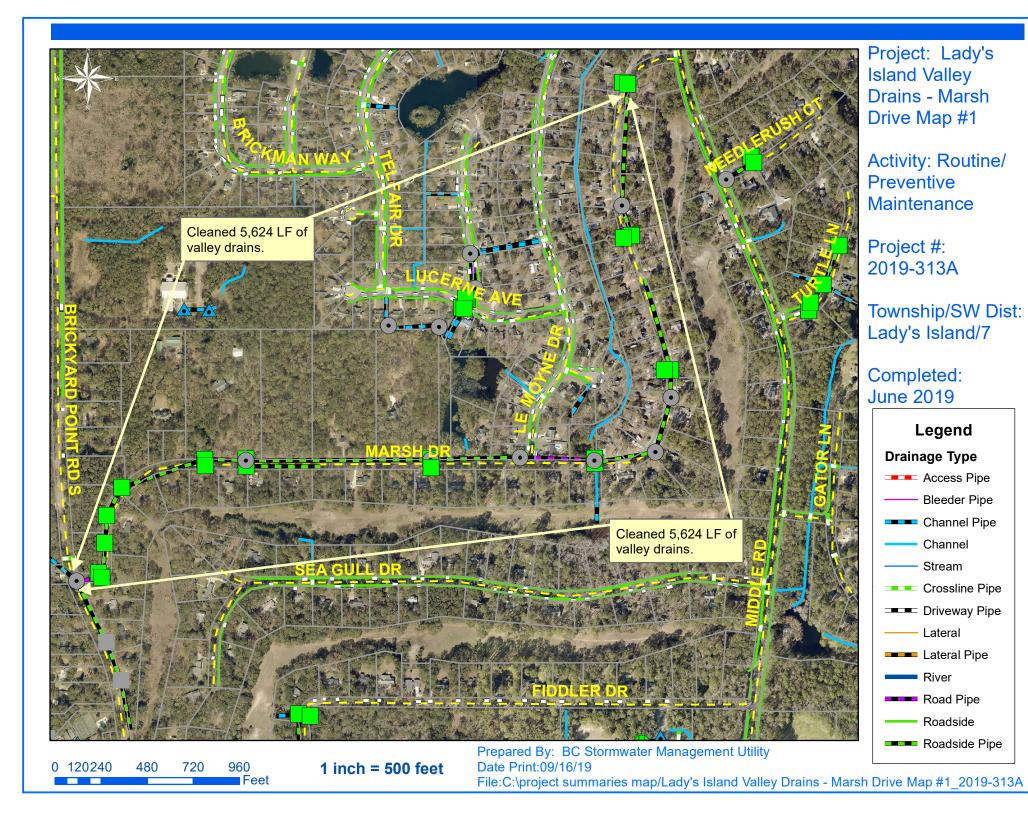
2019-313A / Ladys Island Valley Drains	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
COVD / Cleaned Out Valley Drains	27.0	\$701.22	\$147.04	\$92.70	\$0.00	\$273.99	\$1,214.95
HAUL / Hauling	11.0	\$259.55	\$155.76	\$47.60	\$0.00	\$170.92	\$633.83
2019-313A / Ladys Island Valley Drains Sub Total	39.0	\$982.56	\$302.80	\$140.30	\$0.00	\$444.91	\$1,870.57
Grand Total	39.0	\$982.56	\$302.80	\$140.30	\$0.00	\$444.91	\$1,870.57

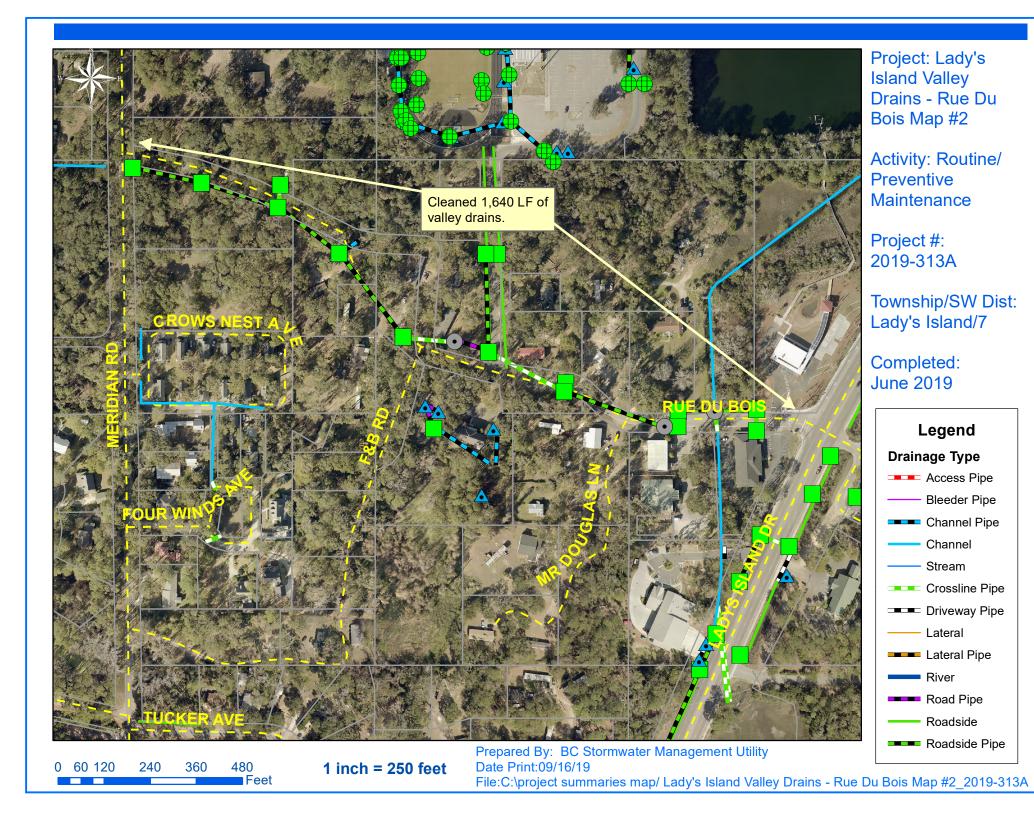
Before During After













**Project Summary** 

Project Summary: Haynes Road

Activity: Routine/Preventive Maintenance

**Duration:** 07/08/19-07/17/19

### **Narrative Description of Project:**

Replaced (1) crossline pipe.

### 2020-581 / Haynes Road

<b>Grand Total</b>
2020-581 / Haynes Road Sub Tota
UTLOC / Utility locates
HAUL / Hauling
CPRPL / Crossline Pipe - Replaced
AUDIT / Audit Project

# Before

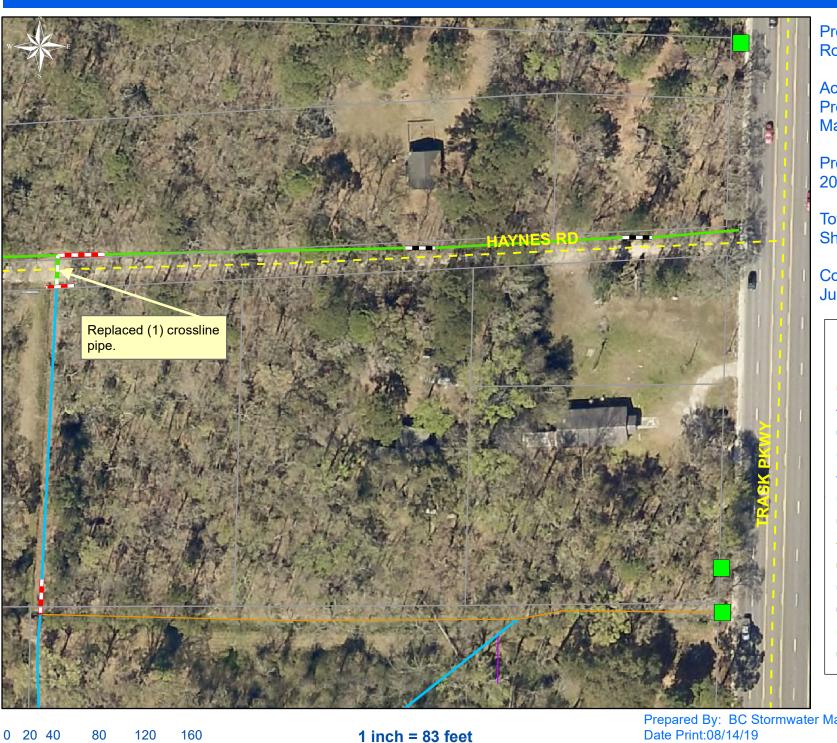
Labor	Labor	Equipment	Material	Contractor	Indirect	Total
Hours	Cost	Cost	Cost	Cost	Labor	Cost
1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
18.0	\$400.98	\$114.16	\$383.50	\$0.00	\$257.58	\$1,156.22
6.0	\$133.62	\$84.96	\$21.68	\$0.00	\$86.52	\$326.78
0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
25.5	\$567.29	\$199.12	\$405.18	\$0.00	\$344.10	\$1,515.69
25.5	\$567.29	\$199 12	\$405.18	\$0.00	\$344 10	\$1 515 69

## During





After



Project: Haynes Road

Activity: Routine/ Preventive Maintenance

Project #: 2020-581

Township/SW Dist: Sheldon/5

Completed: July 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

Prepared By: BC Stormwater Management Utility Date Print:08/14/19

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**Project Summary** 

Project Summary: Seaside Road Activity: Routine/Preventive Maintenance

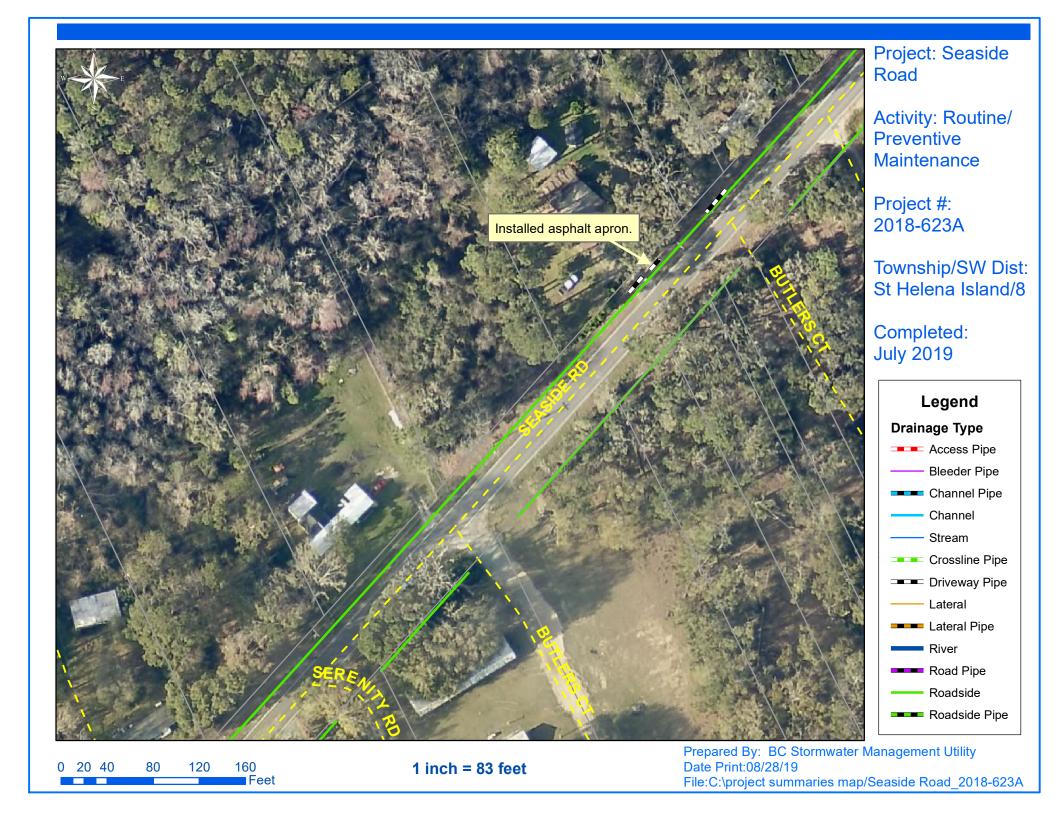
**Duration:** 07/19/19

## **Narrative Description of Project:**

Installed asphalt apron.

2018-623A / Seaside Road	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
DWASPH / Driveway - Asphalt	12.0	\$274.59	\$94.62	\$67.26	\$0.00	\$178.20	\$614.67
HAUL / Hauling	6.0	\$148.20	\$84.96	\$304.42	\$0.00	\$98.82	\$636.40
2018-623A / Seaside Road Sub Total	19.0	\$444.58	\$179.58	\$371.68	\$0.00	\$277.02	\$1,272.86
Grand Total	19.0	\$444.58	\$179.58	\$371.68	\$0.00	\$277.02	\$1,272.86

(No Pictures Available)





**Project Summary** 

**Project Summary:** Blackburn Pierce Drive

**Activity:** Routine/Preventive Maintenance

**Duration:** 08/07/19-08/14/19

## **Narrative Description of Project:**

Project improved 140 L.F. of drainage system. Cleaned out 140 L.F. of channel.

2020-006 / Blackburn Pierce Drive	Labor	Labor	Equipment	Material	Contractor	Indirect	Total
	Hours	Cost	Cost	Cost	Cost	Labor	Cost
AUDIT / Audit Project	1.0	\$21.79	\$0.00	\$0.00	\$0.00	\$0.00	\$21.79
CCO / Channel - cleaned out	15.0	\$326.30	\$46.63	\$20.52	\$0.00	\$148.50	\$541.95
HAUL / Hauling	5.0	\$114.95	\$173.20	\$52.44	\$0.00	\$0.00	\$340.59
UTLOC / Utility locates	0.5	\$10.90	\$0.00	\$0.00	\$0.00	\$0.00	\$10.90
2020-006 / Blackburn Pierce Drive Sub Total	21.5	\$473.94	\$219.83	\$72.96	\$0.00	\$148.50	\$915.22
Grand Total	21.5	\$473.94	\$219.83	\$72.96	\$0.00	\$148.50	\$915.22

#### **Before**

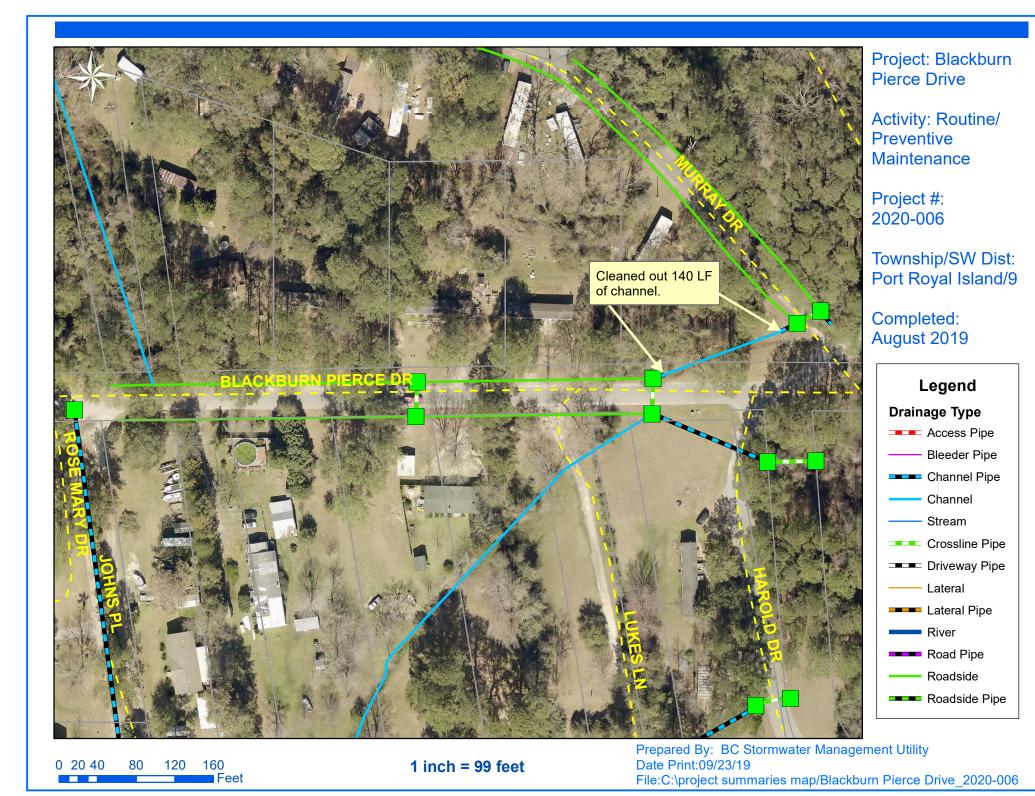


During



After





# DRAFT 2020 Stormwater Management Utility Board

<u>Date</u>	<u>Time</u>	<u>Location</u>
Wednesday, January 8, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
Wednesday, February 12, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
Wednesday, March 11, 2020	2:00 p.m.	Executive Conference Room 170
		100 Ribaut Road, Beaufort, SC
Wednesday, April 8, 2020	2:00 p.m.	Executive Conference Room 170
		100 Ribaut Road, Beaufort, SC
Wednesday, May 13, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
Wednesday, June 10, 2020	2:00 p.m.	Executive Conference Room 170
		100 Ribaut Road, Beaufort, SC
Wednesday, July 8, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
Wednesday, August 12, 2020	2:00 p.m.	Executive Conference Room 170
		100 Ribaut Road, Beaufort, SC
Wednesday, September 9, 2020	2:00 p.m.	Executive Conference Room 170
		100 Ribaut Road, Beaufort, SC
Wednesday, October 14, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
*Tuesday November 10, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC
Wednesday, December 9, 2020	2:00 p.m.	<b>Executive Conference Room 170</b>
		100 Ribaut Road, Beaufort, SC





# BEAUFORT COUNTY STORMWATER MANAGEMENT UTILITY BOARD AGENDA

Wednesday, November 13, 2019 2:00 p.m.

Executive Conference Room, Administration Building Beaufort County Government Robert Smalls Complex 100 Ribaut Road, Beaufort, South Carolina 843.255.2805

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

- 1. CALL TO ORDER 2:00 p.m.
  - A. Approval of Agenda
  - B. Approval of Minutes October 9, 2019 (backup)
- 2. INTRODUCTIONS
- 3. PUBLIC COMMENT
- 4. REPORTS
  - A. Utility Update Daniel Rybak (backup)
  - B. Monitoring Update Daniel Rybak (backup)
  - C. Stormwater Implementation Committee Report Daniel Rybak (backup)
  - D. Stormwater Related Projects Daniel Rybak (backup)
  - E. Upcoming Professional Contracts Report Daniel Rybak (backup)
  - F. Regional Coordination Daniel Rybak (backup)
  - G. Municipal Reports Daniel Rybak (backup)
  - H. MS4 Update Daniel Rybak (backup)
  - I. Maintenance Projects Report David Wilhelm, P.E. (backup)
- 5. UNFINISHED BUSINESS
- 6. NEW BUSINESS
- 7. PUBLIC COMMENT
- 8. NEXT MEETING AGENDA
  - A. December 11, 2019 (backup)
- 9. ADJOURNMENT



