



BEAUFORT COUNTY  
STORMWATER MANAGEMENT UTILITY BOARD AGENDA  
Wednesday, March 15, 2017  
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 – February 15, 2017 ([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 ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
  - A. Special Presentation: Carolina Clear Program – Ellen Comeau, Clemson University
  - B. Hearing on Stormwater Fee Appeal
7. PUBLIC COMMENT
8. EXECUTIVE SESSION
  - A. Receipt of Legal Advice Incident to Potential Litigation - Project PP.
9. MATTERS ARISING OUT OF EXECUTIVE SESSION
10. NEXT MEETING AGENDA
  - A. April 19, 2017 ([backup](#))
11. ADJOURNMENT



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

February 15, 2017 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 02/16/2017

### Board Members

#### Present

Don Smith  
Allyn Schneider  
Patrick Mitchell  
William Bruggeman  
Marc Feinberg  
Larry Meisner  
James Fargher

#### Absent

#### Beaufort County Staff

Eric Larson  
David Wilhelm  
Rebecca Baker  
Melissa Allen

### Ex-Officio Members

#### Present

Kim Jones

#### Absent

Scott Liggett  
Van Willis  
Andy Kinghorn

#### Visitors

Jeff Netzinger, Town of Hilton Head Island  
Jeff Buckalew, Town of Hilton Head Island  
Neil Desai, City of Beaufort  
Tom Zinn, Buckwalter Commercial

### 1. Meeting called to order – Don Smith

- A. Agenda – Approved.
- B. January 18, 2017 - Approved.

### 2. Introductions – Completed.

### 3. Public Comment(s) – Tom Zinn

Mr. Tom Zinn addressed the Stormwater Management Utility Board about the Hwy 170 road widening project and the effect it is having on his property (Crossroads). Mr. Zinn referenced recommendations that were noted in a report from Bowman Engineering and asked what the action plan or next steps might be. Mr. Eric Larson responded by recapping the three recommendations listed in the Bowman report and provided a brief explanation of how the County looks to address those recommendations. Mr. Larson indicated that the County is in the process of drafting a response to Mr. Zinn's email regarding the Bowman report and indicated it will include the County's plan to address the recommendations noted in the report.

### 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:

<http://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2017/021517.pdf>

**A. Utility Update – Eric Larson**

In reference to item #4, Mr. Larson noted that the management fee budget report should be ready for the municipalities by the end of the week.

**B. Monitoring Update – Eric Larson**

Mr. Larson noted that item #2 regarding the Rose Dhu watershed made the local newspaper today. Mr. William Bruggeman shared that the news article indicated that human fecal coliform was found in Rose Dhu Creek, as well as two failing septic tanks in the area, and that the septic tanks haven't been identified as being the cause of the human fecal coliform hit. Mr. Larry Meisner asked if they were single family septic tanks and Mr. Larson responded yes. Mr. Don Smith asked if it looked like a permanent problem. Ms. Kim Jones indicated from the field investigations that one has been going on for several months and the other was a minor surface discharge.

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

Mr. Larson indicated that the SWIC will be meeting in March and that they will receive an update on the Stormwater Management Plan from the consultant (ATM).

**D. Stormwater Related Projects – Eric Larson**

Mr. James Fargher asked about the meeting with the Councilmen Glover on Saint Helena. Mr. Larson indicated as a new council member he wanted to know what was going on in his district. He presented a few problems that the County wasn't aware of and informed him of what projects were going on in his area.

**E. Professional Contracts Report – Eric Larson**

Please reference the report which is included in the posted agenda. No additional updates.

**F. Regional Coordination – Eric Larson**

Please reference the report which is included in the posted agenda. No additional updates.

**G. Municipal Reports – Eric Larson**

Mr. Larson introduced Mr. Jeff Netzinger, the new Stormwater Manager/Asst. Town Engineer, for the Town of Hilton Head. Mr. Jeff Buckalew indicated the Town of HHI is applying for a NRCS USDA grant to remove disaster debris in drainage ways through an exigency program. They have identified 11 distinct projects. There is still follow on work in addition to those projects that will need to be done and paper work has been submitted for that estimate as well. Mr. Larson mentioned that the County has a grant application pending with them as well.

Ms. Kim Jones provided additional details about the microbial source testing that took place near Rose Dhu Creek. The Town of Bluffton (ToB) notified BJWSA, the County and DHEC of the positive hit and the County delegated authority to ToB to inspect since they were unable to get out there. Currently DHEC is working with the homeowners directly for mitigation and repairs. The Town of Bluffton has taken samples in the headwaters again and anticipates the results around February 22<sup>nd</sup> to see if this is an ongoing trend. Ms. Jones also indicated that the ToB and the County are still working to complete a MOA to formalize their relationship for shared watersheds.

Mr. Neil Desai noted the 319 project with the County has wrapped up and the system seems to be working well.

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

Mr. Larson highlighted that the County has submitted the annual report to DHEC and commented on how it reflects the amount of work that has been done in the last year. He informed the board that the Stormwater department will be posting interim BMP manual updates, when forms are updated, on the County website and a BMP manual update will be done occasionally to include the updates. In response to a question, he stated that once a new form has been posted it will go into effect/use immediately.

**I. Maintenance Projects Report – David Wilhelm**

Mr. David Wilhelm's noted that his maintenance report for February was all regular routine maintenance.

*Berkley Hall Pond* – The landscaping on the 1 acre pond on HWY 278 is now complete.

*Salem Drive East* – Began the improvement of the 1,200 feet of existing stormwater channel this week and the project will take approximately 6-8 weeks to complete.

*Mint Farm* – This project should be completed this week and a report on this project will be provided at a later date.

**J. Financial Report –**

No financial update was provided.

**5. Unfinished Business – None.**

**6. New Business**

**A. Special Presentation: Management Decision Implications Following Stormwater BMP Analysis** – Ms. Kim Jones presented information on the Town of Bluffton's New Riverside project that was completed in 2013 and what things they are doing to see if it is meeting the Town's water quality improvement goals and the type of management decision implications need to be made.

According to the census Historic Old Town Bluffton was 1 square mile in 2000 (1,275 population) and grew to 54 square miles in 2010 (12,530 population). This area is experiencing intense coastal development pressure and the land use has changed significantly. In 2007 increased fecal coliform levels were found in May River headwater and in 2009 there was a change in shellfish harvesting classification. Currently, about one-third of the May River is closed to shellfish harvesting.

The May River Watershed Action Plan took about a year to complete and contains projects, policies, and programs to implement to restore and protect shellfish harvesting along the May River. Since 2011, the Town of Bluffton have been working with the Action Plan; utilizing engineer based solutions to fix the issues and planning based solutions to help prevent additional problems. Fecal coliform hotspots were identified and noted as potential locations for different BMP's to be employed. The Town of Bluffton has a partnership with Crescent Resources, who donated a six acre lot in the New Riverside Tract where a 1.25 acre pond was constructed and completed in 2013. The ToB had great pre-project historical data and in 2015 completed 2 years post monitoring.

The results showed that there was a 90% reduction of fecal coliform concentration in the New Riverside Pond between pre and post-pond. Additional testing took place showing that there was no significant difference between summer efficacy and winter, the pond performed better at year 2 than year 1, as well as indicated ponds are an efficient way to reduce fecal coliform, but the removal efficiencies may not be maintained downstream.

The results helped identify that microbial source tracking is important in the next steps, as well as determine if there are other BMP's in series that could be placed downstream. BMP maintenance would also need to be done to preserve the function. These are important to help preserve the aesthetics, keep the recreational and historical use of waterways, as well as maintain the economical functioning of waterways.

Discussion took place about historic data and how as the community has grown, development standards have changed and will continue to change. Ms. Jones mentioned that we continue to put pressures on infrastructures and resources and they continue to respond; therefore, it's important to continually revisit our plans to make sure we address these issues. Mr. Smith mentioned to achieve the water quality standards with the development pressures we have, it will not be attained easily.

[The Management Decision Implications Following Stormwater BMP Analysis presentation is attached to the minutes.](#)

#### **7. Public Comment(s) – Tom Zinn**

Mr. Zinn readdressed the board with regard to the Bowman Report and the concerns he has with two items noted in the report.

#### **8. Executive Session**

A motion was made to go into Execution Session. The Board unanimously (7:0) approved to go into Executive Session.

#### **9. Matters Arising Out of Executive Session**

A motion was made to move forward with Item A of the Executive Session. The Board unanimously (7:0) approved for Project M to continue.

#### **10. Next Meeting Agenda – Approved.**

Addition to New Business for March 15th – Hearing on Stormwater Fee Appeal

#### **11. Meeting Adjourned**

# MANAGEMENT DECISION IMPLICATIONS RESULTING FROM ANALYSIS OF STORMWATER BEST MANAGEMENT

## PRACTICE EFFICACY ACROSS TEMPORAL AND VARYING SPATIAL SCALES



Kimberly W. Jones<sup>1</sup>, MS, D. Alan Warren<sup>2</sup>, Ph.D.,  
Beth Lewis<sup>3</sup>, CSPR, and Jeremy S. Ritchie<sup>4</sup>, PE, CSPR

<sup>1</sup>Watershed Mngt. Division Manager, Town of Bluffton, Bluffton, SC

<sup>2</sup>Envir. Health Program Director, University of South Carolina - Beaufort, Beaufort, SC

<sup>3</sup>Stormwater Technician, Town of Bluffton, Bluffton, SC

<sup>4</sup>Civil Engineer, Gray Engineering Consultants, Inc., Greenville, SC

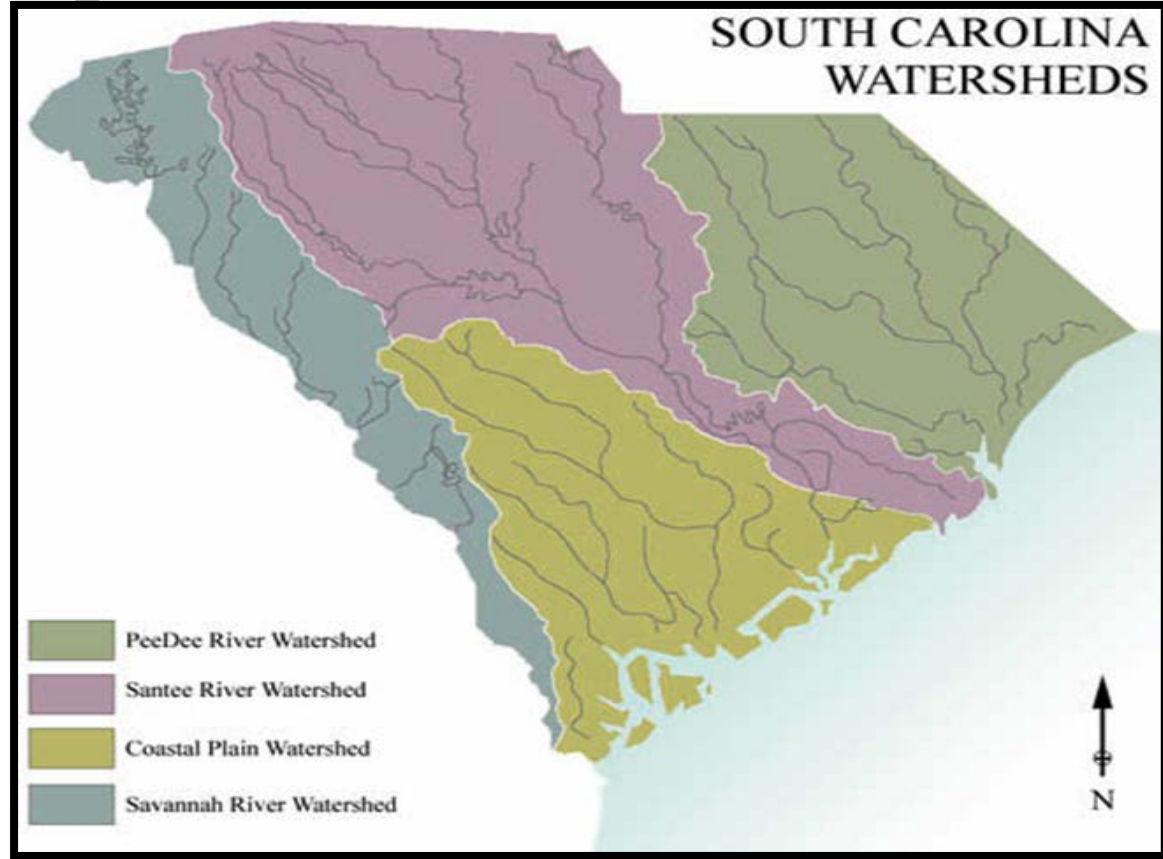
# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

- ◆ **Location & Background**
- ◆ **BMP Installation & Monitoring**
- ◆ **Results**
- ◆ **Conclusion & Next Steps**



# Management Decision Implications Resulting from MRWAP Implementation

## ◆ Location & Background





# Management Decision Implications Resulting from MRWAP Implementation

## ◆ Location & Background



**Green:**  
Bluffton

**Red:**  
Historic  
District

**White:**  
Beaufort  
County

**Brown:**  
Wetlands

**Dashed:**  
Watershed

Town of Bluffton



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

## ◆ Location & Background

- SCDHEC Outstanding Resource Waters designation



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

## ◆ Location & **Background**

- SCDHEC Outstanding Resource Waters designation



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

## ◆ Location & Background

- SCDHEC Outstanding Resource Waters designation



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

## ◆ Location & Background

- SCDHEC Outstanding Resource Waters designation



**FUTURE  
LAND  
USE**

**Legend**

**FUTURE LAND USE**

- High Intensity Commercial
- Medium Intensity Commercial
- Low Intensity Commercial
- Mixed Use
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Civic/ Institutional
- Recreation/ Open Space
- Conservation/ Preservation
- In PUD

**JURISDICTIONAL**

- Hilton Head Island
- Hardeeville
- Beaufort County
- Jasper County
- Bluffton Town Limit

**MISCELLANEOUS**

- Bluffton Parcel Lines
- Beaufort County Parcel Lines
- Jasper County Parcel Lines

**TRANSPORTATION**

- Paved Road
- Bluffton Parkway (Proposed)

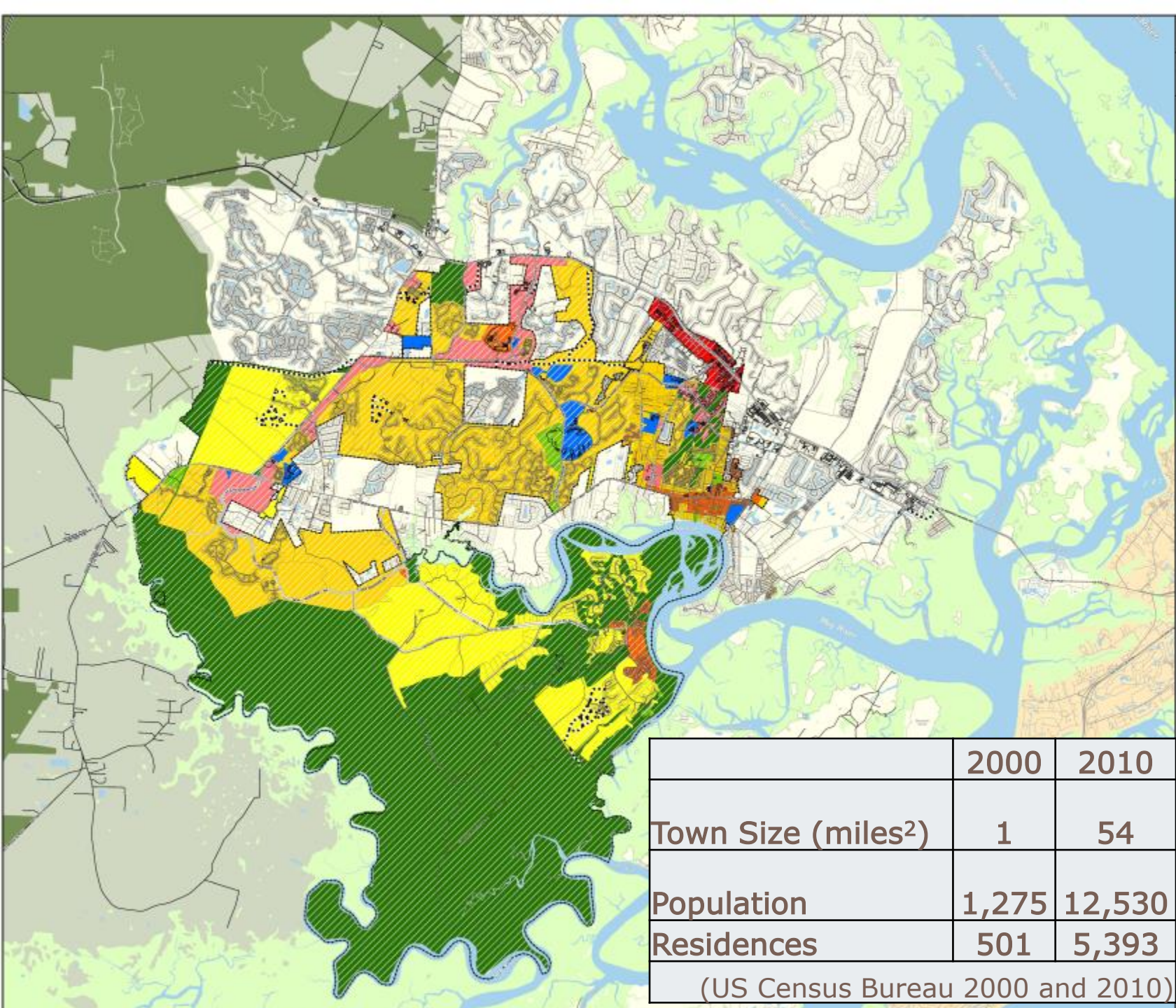
**HYDROLOGY**

- Marsh
- Water

Effective 2014-03-19 Map Prepared By: GIS Office

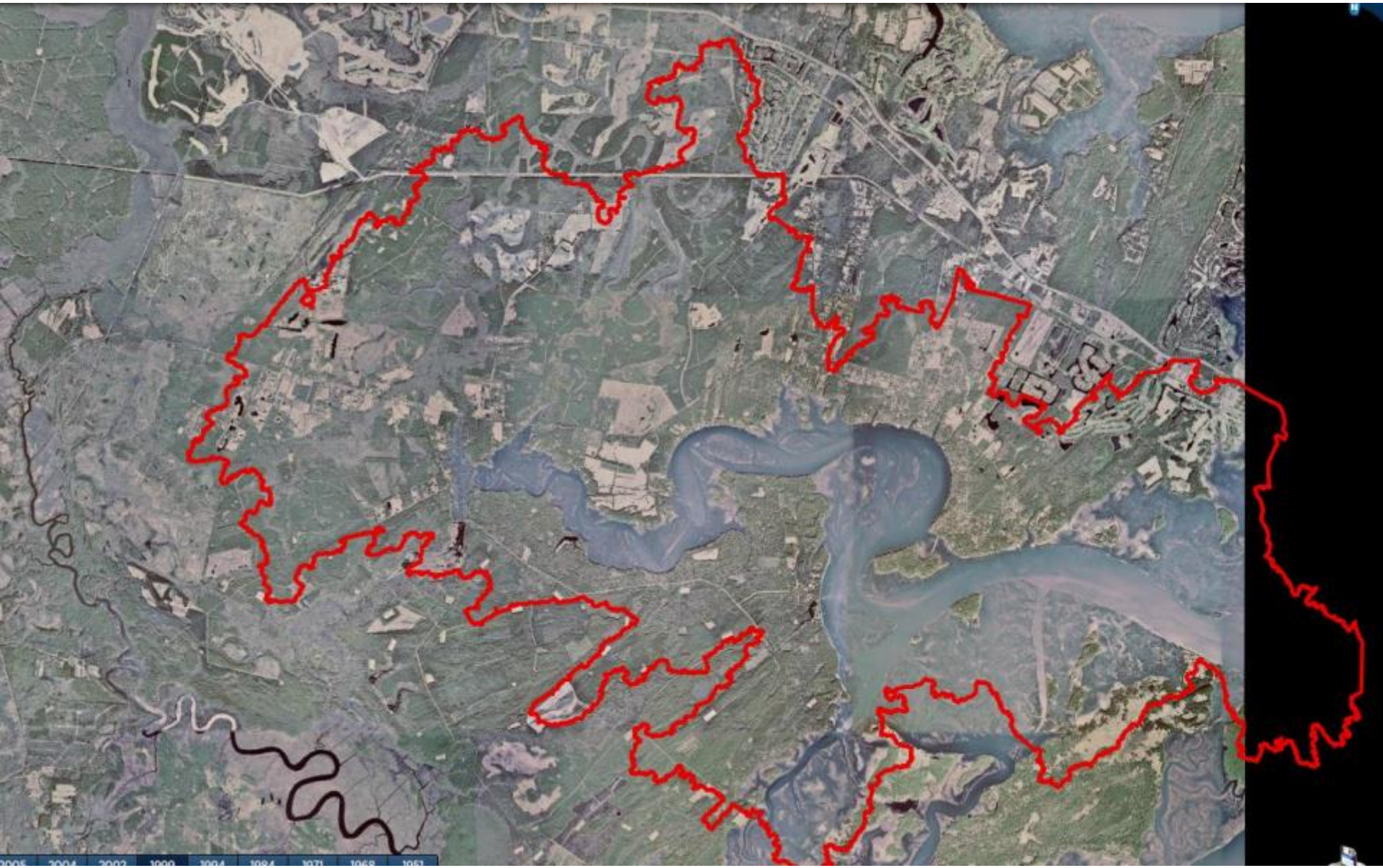


DISCLAIMER  
This map was created using the GIS Office of the Town of Bluffton's Information Technology Division and is being provided for use as a general representation for the Town of Bluffton. The GIS maps and data distributed by the GIS Office are the property of the Town of Bluffton's Information Technology Division and are derived from a variety of public and private data sources considered to be accurate, but the accuracy, completeness and currency thereof are not guaranteed. The Town of Bluffton makes no warranty, express or implied, as to the accuracy, completeness, currency, reliability, or suitability for any particular purpose of information or data contained in or generated from the Town's Geographic Information Systems database. Additionally, the Town of Bluffton is not responsible for any

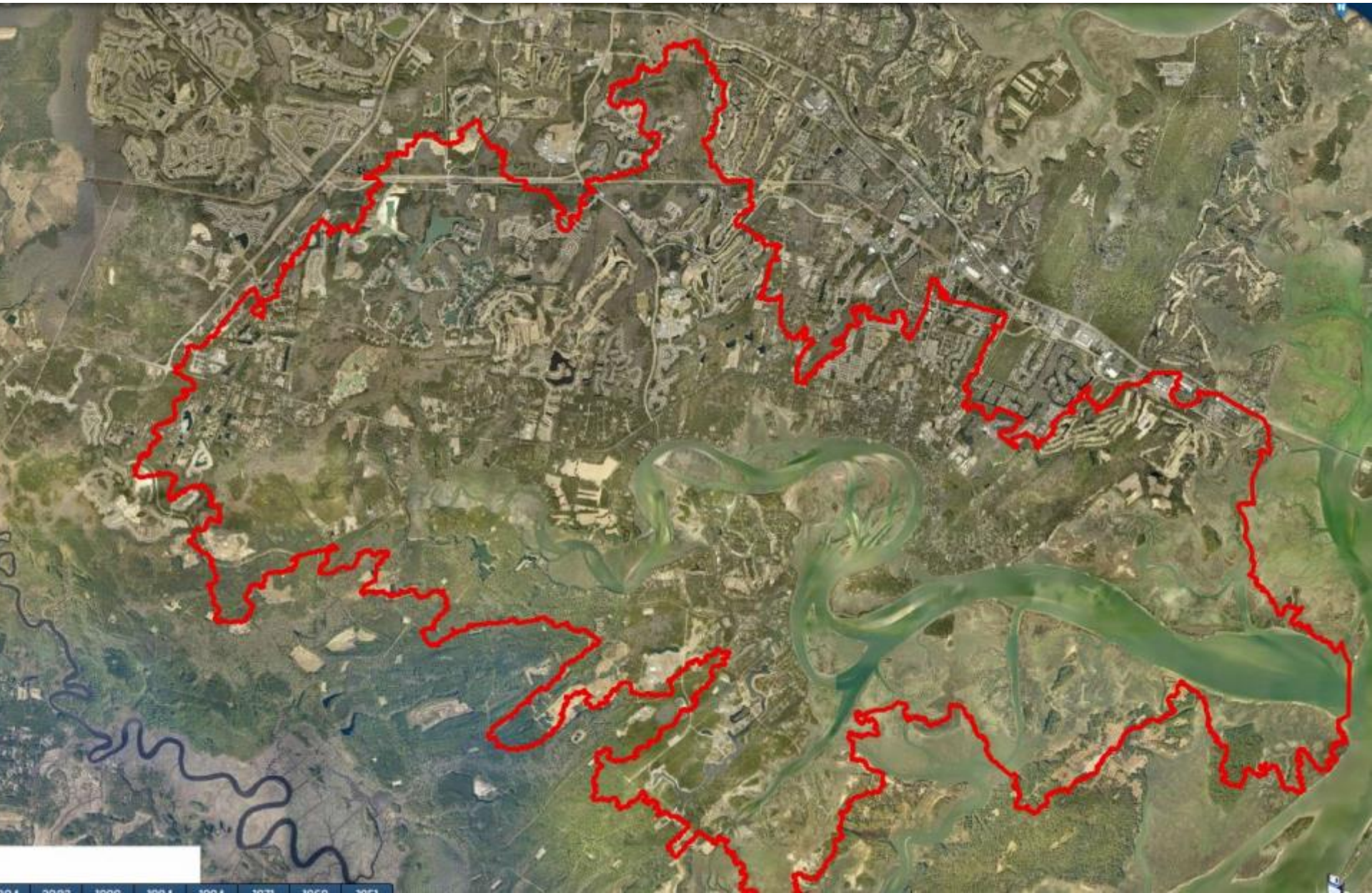


	2000	2010
Town Size (miles <sup>2</sup> )	1	54
Population	1,275	12,530
Residences	501	5,393
(US Census Bureau 2000 and 2010)		

# 1999 Land Cover

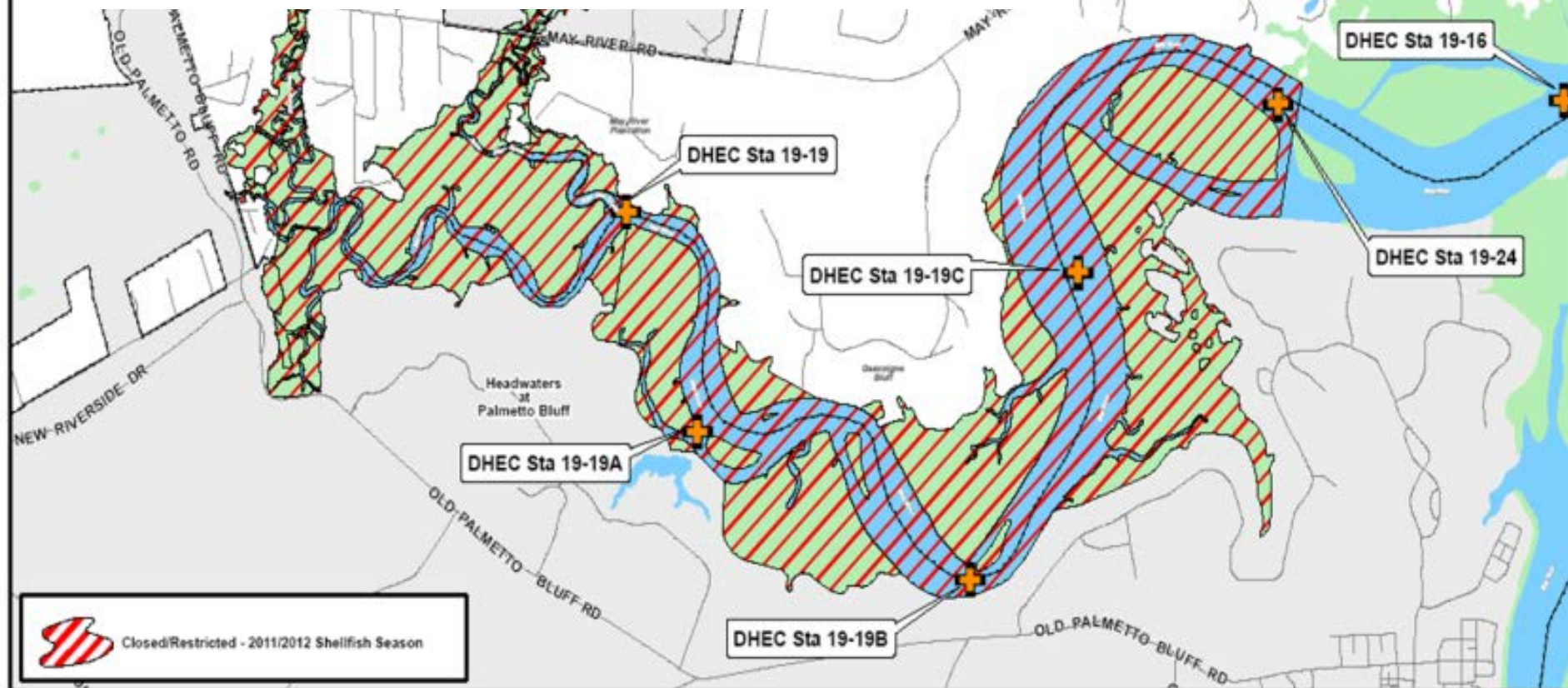
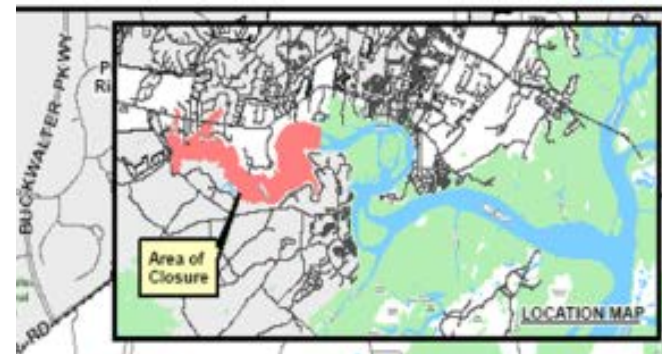


# 2015 Land Cover





- **2007: SCDHEC reported increasing fecal coliform levels in the May River headwaters**
- **2009: SCDHEC shellfish harvesting classification change**
- **2014: May River on the 303(d) list (SCDHEC) 1,100 Total Impairments; 920 Sites**



# MAY RIVER SHELLFISH BED CLOSURE MAP

Town of Bluffton  
Beaufort County, SC

Scale: 1:16,000 1"=1500'

Revised: August 6, 2011



Map prepared by the Town of Bluffton, Beaufort County, South Carolina. The map is for informational purposes only and does not constitute a warranty or representation of any kind. The Town of Bluffton, Beaufort County, South Carolina, is not responsible for any errors or omissions on this map. The map is subject to change without notice.

# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

- ◆ Location & **Background**
  - Issues – Ecological, Social, Political



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

## Coordinated proactive approach

(Dec 2010 – Nov 2011)

- Strategies & projects for sustainable watershed
- Dynamic & adaptable document
- Provide measureable goals

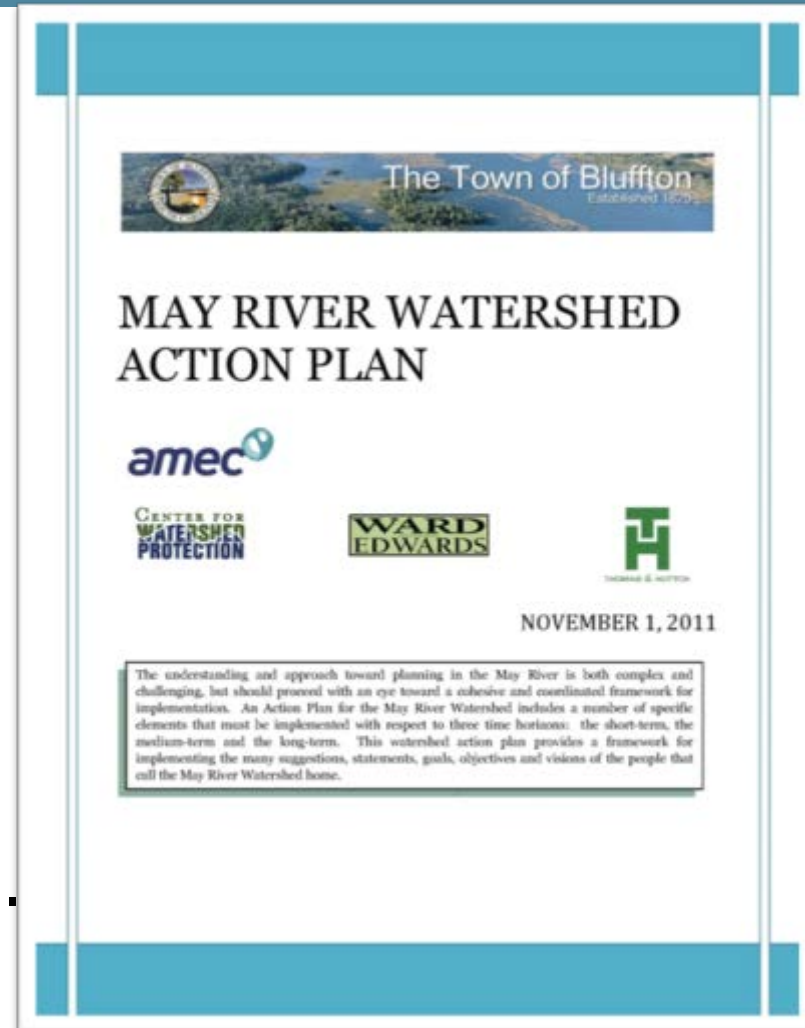
## Public Comment Period

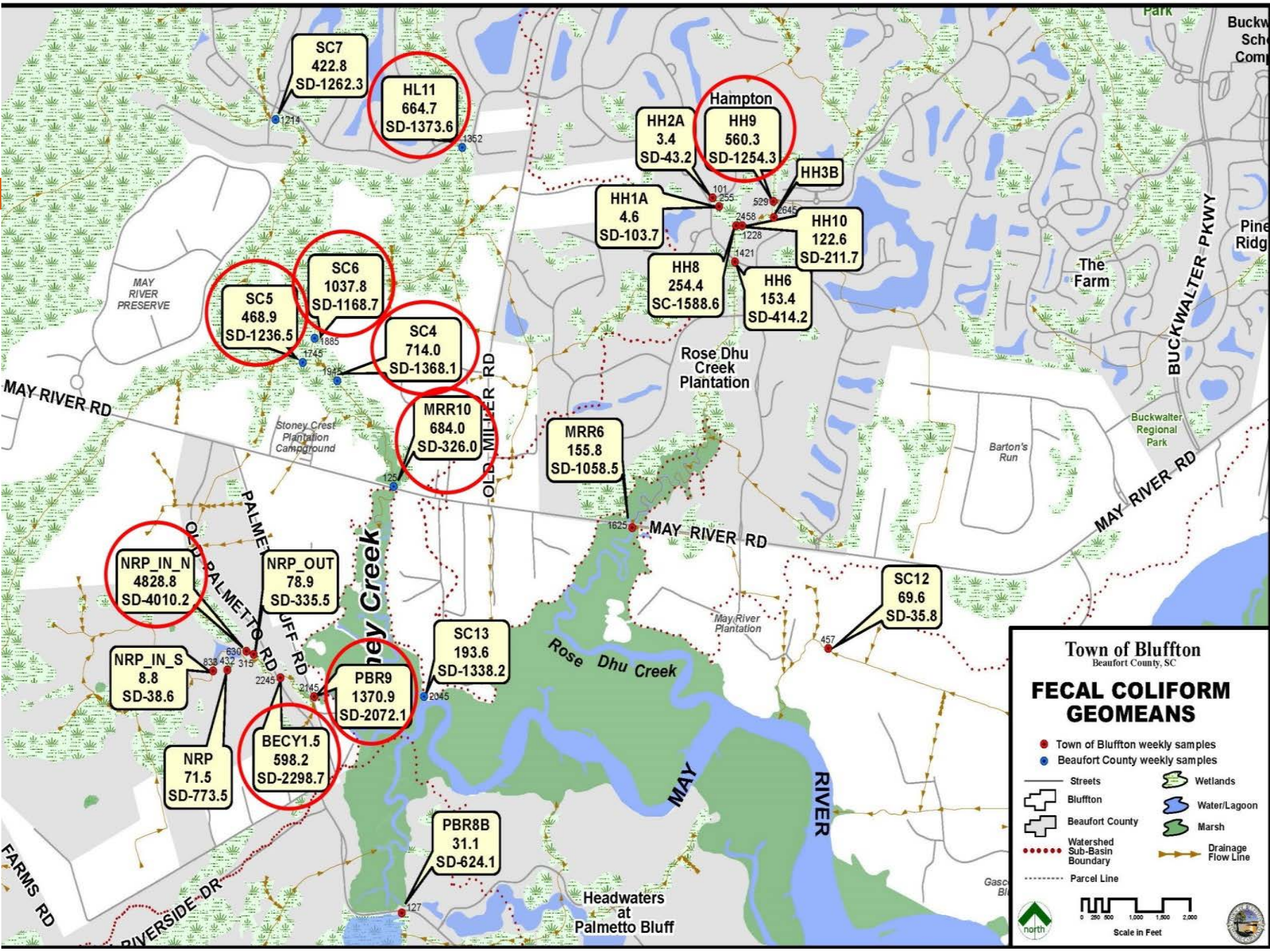
(Jul 2011 – Aug 2011)

- Document is the Town's and stakeholders'
- >250 total comments and suggestions

## Restoration & Prevention Measures:

- Engineering-based solutions...
- Planning-based solutions...





SC7  
422.8  
SD-1262.3

HL11  
664.7  
SD-1373.6

Hampton  
HH9  
560.3  
SD-1254.3

HH2A  
3.4  
SD-43.2

HH1A  
4.6  
SD-103.7

HH3B

HH10  
122.6  
SD-211.7

HH8  
254.4  
SC-1588.6

HH6  
153.4  
SD-414.2

SC6  
1037.8  
SD-1168.7

SC5  
468.9  
SD-1236.5

SC4  
714.0  
SD-1368.1

MRR10  
684.0  
SD-326.0

MRR6  
155.8  
SD-1058.5

NRP\_IN\_N  
4828.8  
SD-4010.2

NRP\_OUT  
78.9  
SD-335.5

NRP\_IN\_S  
8.8  
SD-38.6

NRP  
71.5  
SD-773.5

BECY1.5  
598.2  
SD-2298.7

PBR9  
1370.9  
SD-2072.1

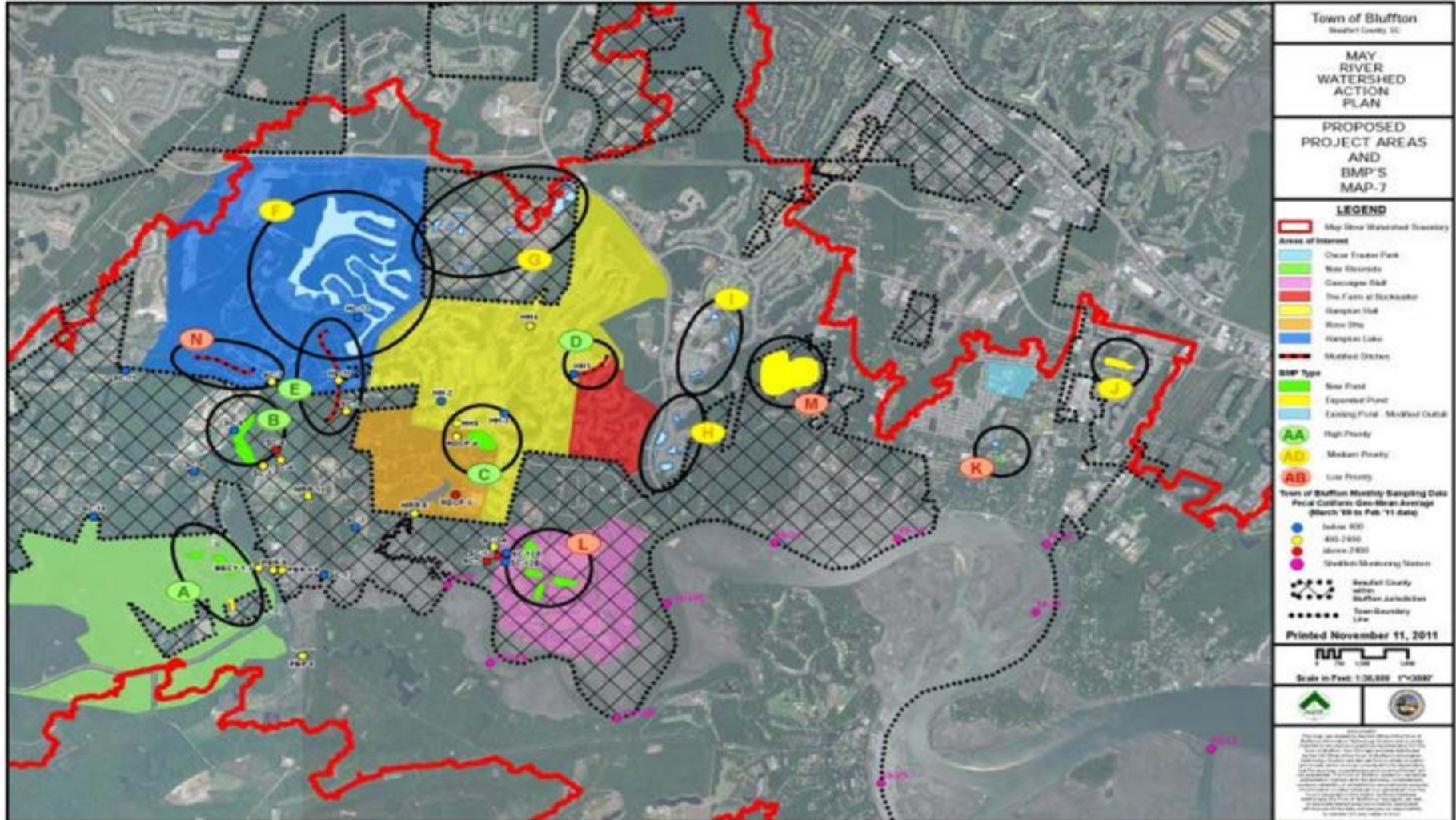
SC13  
193.6  
SD-1338.2

SC12  
69.6  
SD-35.8

PBR8B  
31.1  
SD-624.1

Headwaters  
at  
Palmetto Bluff

# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

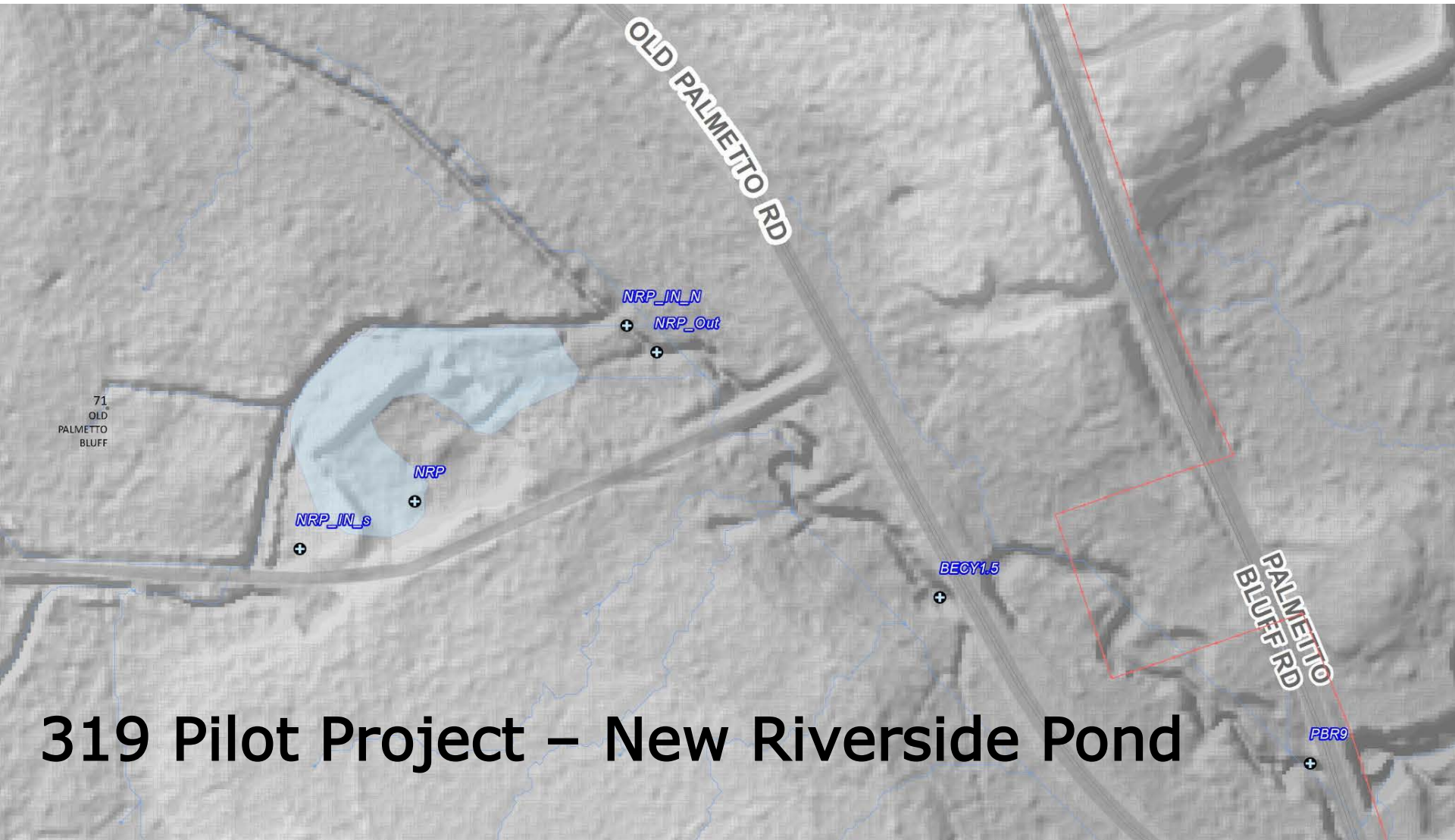
- ◆ Location & Background
- ◆ **BMP Installation & Monitoring**
  - 319 Grant Pilot Project – New Riverside Pond
  - 1.25 acre pond constructed in 2013
  - 300 acre watershed
  - USCB statistical analysis to evaluate BMP efficacy



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy



**319 Pilot Project – New Riverside Pond**



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy



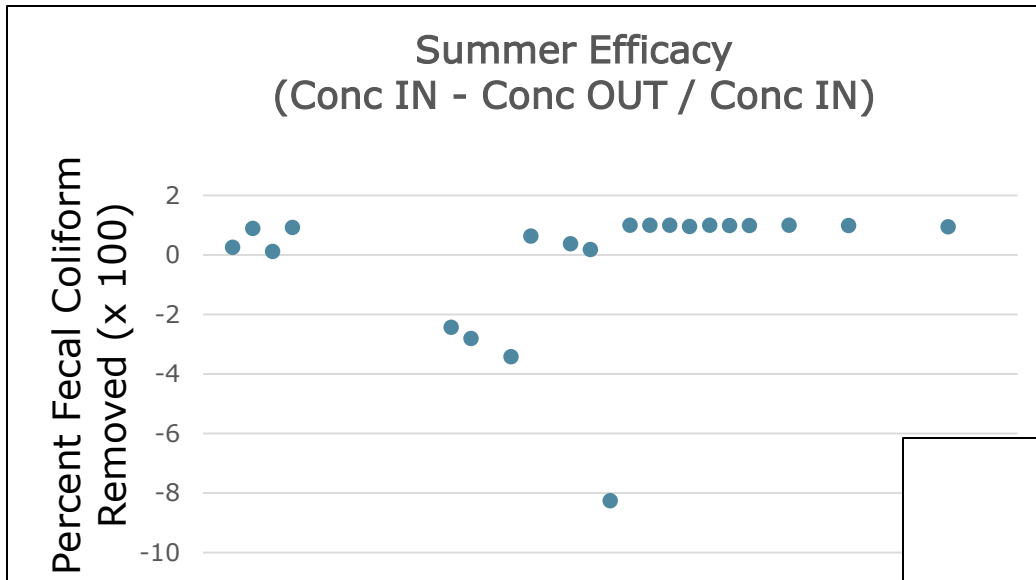
# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

- ◆ Location & Background
- ◆ BMP Installation & Monitoring
- ◆ **Results**
  - 2013 data compared to 2015 data – 90% reduction of fecal coliform concentrations in New Riverside Pond from pre-pond influent versus post-pond effluent concentrations
  - However, what environmentally significant water quality improvements has the project had:
    1. Seasonally and Annually (varying temporal scales) or
    2. Downstream (varying spatial scales)?

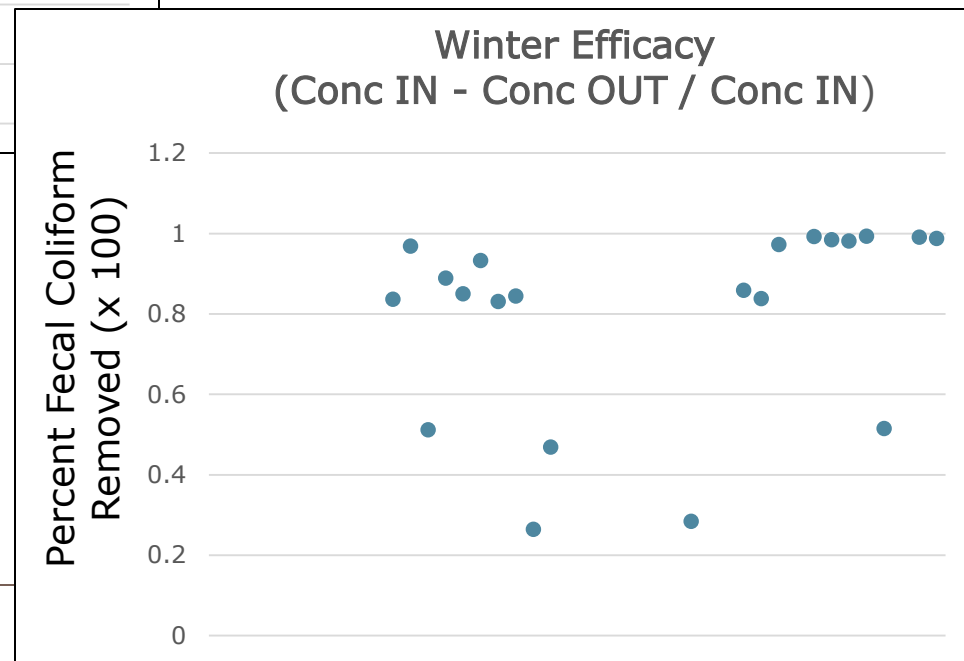




# Question 1: Is there a substantial difference in the efficacy (fecal coliform reduction) of the New Riverside Pond between summer and winter seasons?



Based on the overall distributions of efficacy as shown in the accompanying diagrams, there is not statistically significant evidence ( $p = 0.4114$ ) that summer efficacy differs from that in winter.

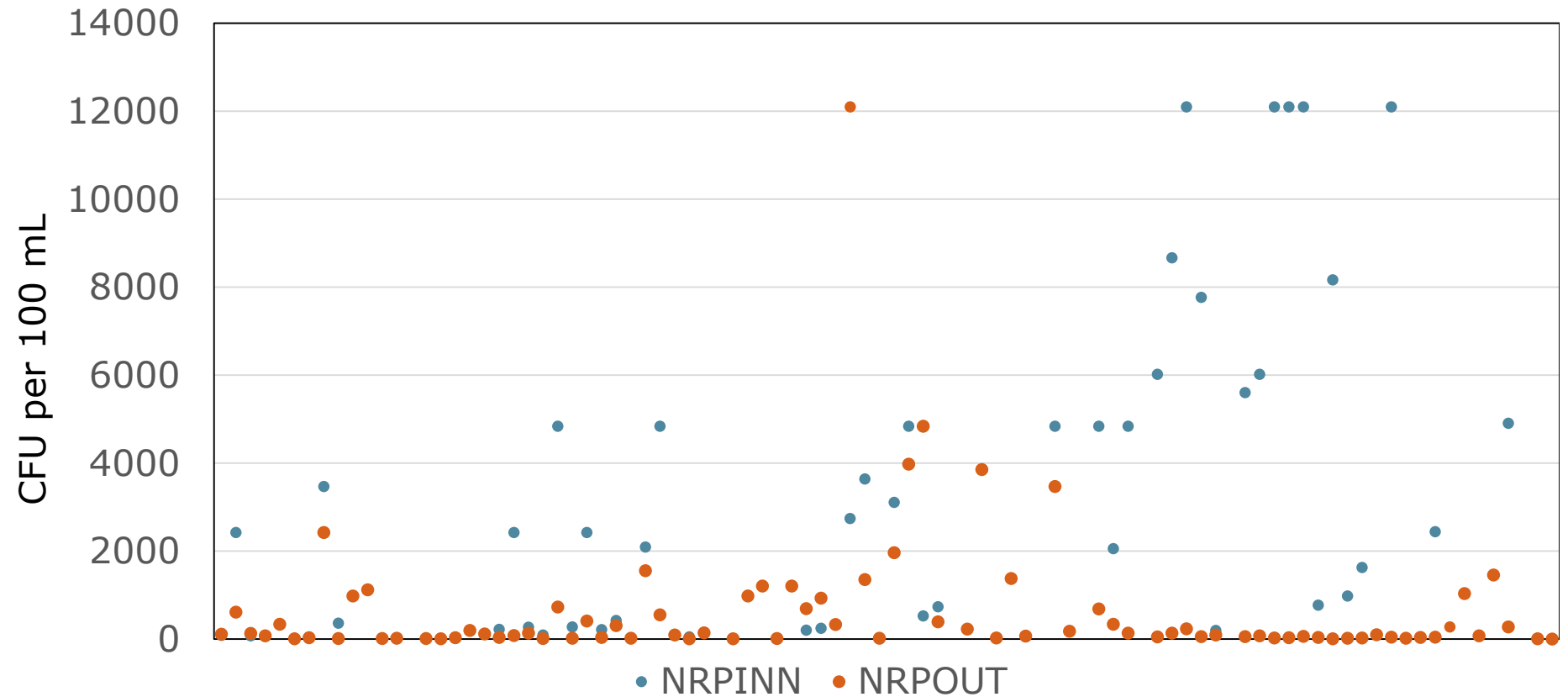




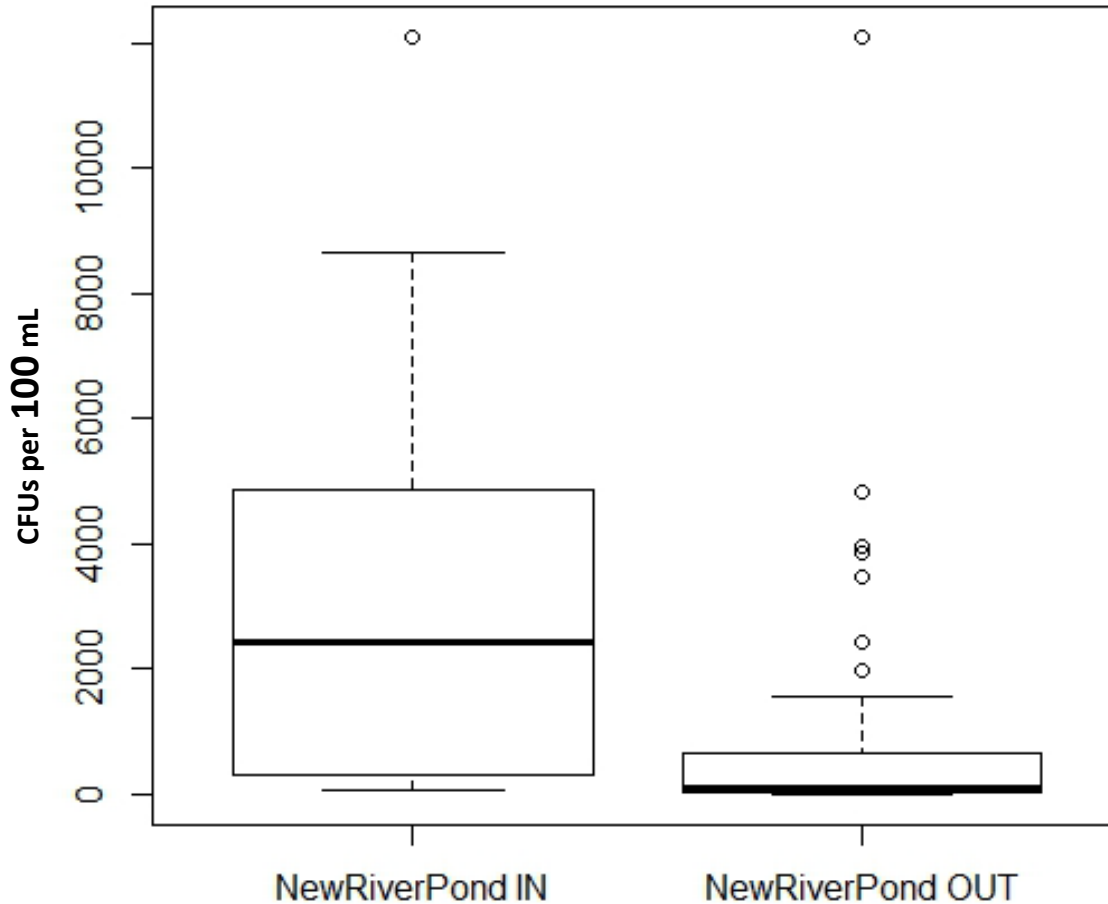


**Question 3:** Is there a statistically significant reduction in fecal coliform concentrations between influent (NRP-IN-N) and effluent (NRP-OUT) at the New Riverside Pond?

NRP-IN -N vs. NRP OUT



**Question 3:** Is there a statistically significant reduction in fecal coliform concentrations between influent (NRP-IN-N) and effluent (NRP-OUT) at the New Riverside Pond?

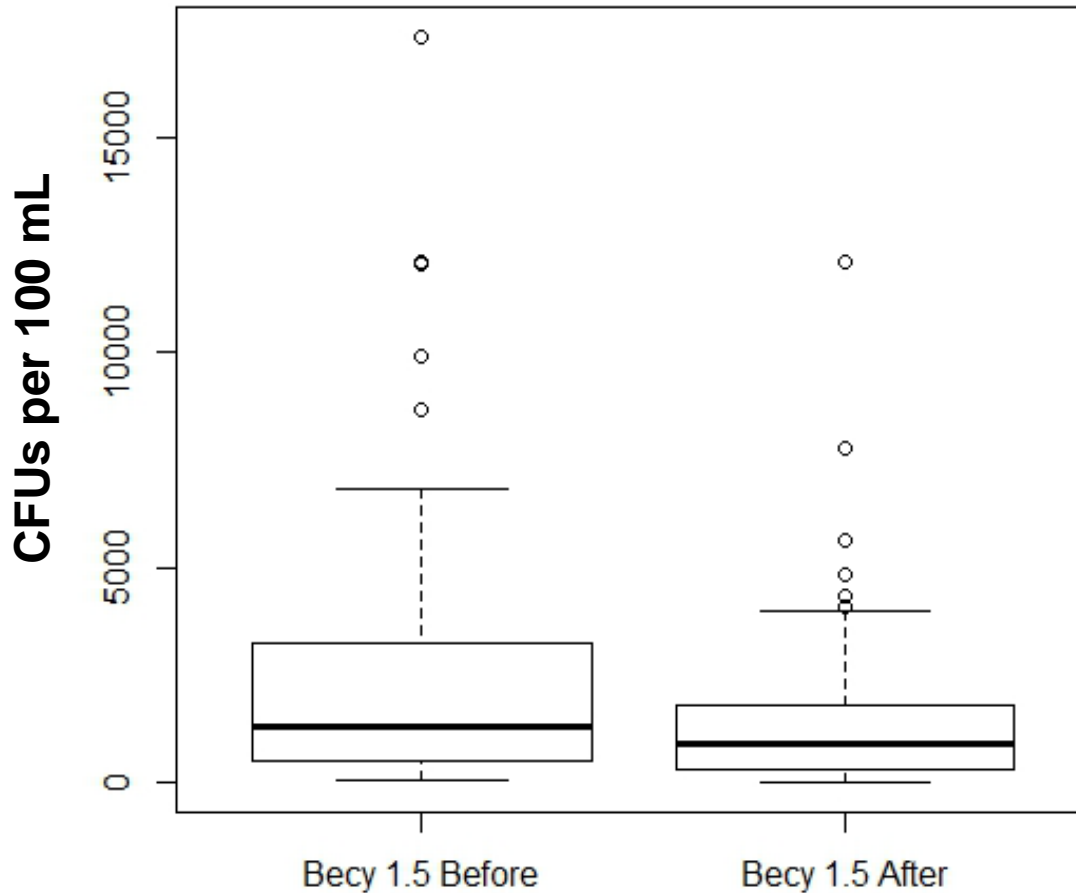


**At the  $\alpha = 0.01$  level, there is statistically significant evidence ( $p = 0.000002$ ) that the mean fecal coliform concentration at NRP-IN (3,567 CFUs per 100 mL) is greater than that at NRP-OUT (653 CFUs per 100 mL).**





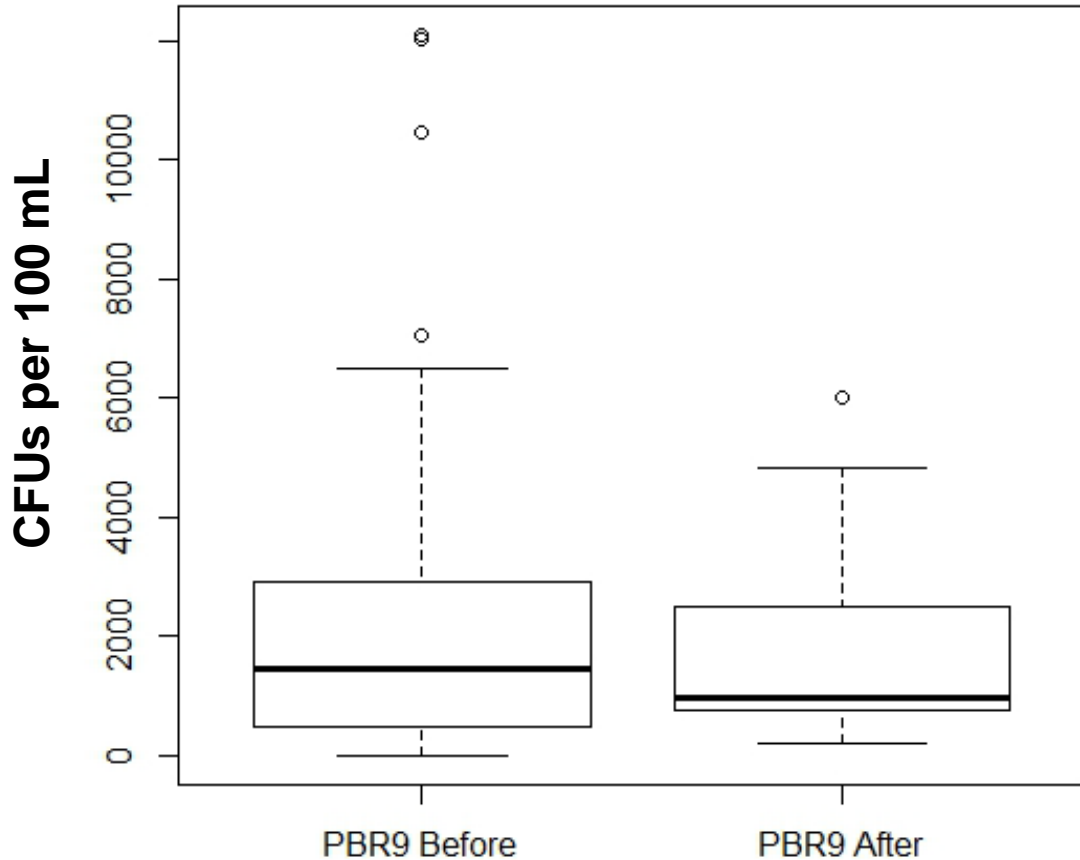
**Question 4:** Has there been a statistically significant reduction in fecal coliform concentrations at “downstream sites” (BECY1.5 and PBR9) since construction of the New Riverside Pond?



**At the  $\alpha = 0.01$  level, there is statistically significant evidence ( $p = 0.0064$ ) that the mean concentration of fecal coliform at BECY1.5 before pond construction (2,624 CFUs per 100 mL) is greater than that after construction (1,558 CFUs per 100 mL).**



**Question 4:** Has there been a statistically significant reduction in fecal coliform concentrations at “downstream sites” (BECY1.5 and PBR9) since construction of the New Riverside Pond?



At the  $\alpha = 0.01$  level, there is not statistically significant evidence ( $p = 0.0954$ ) that the mean concentration of fecal coliform at PBR9 before pond construction (2,406 CFUs per 100 mL) is greater than that after construction (1,863 CFUs per 100 mL).



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

- ◆ Location & Background
- ◆ BMP Installation & Monitoring
- ◆ Results
- ◆ **Conclusion** & Next Steps
  - Based on these data, ponds are an efficient method of FC reduction
  - However, removal efficiencies may not be maintained down stream **AND** should be verified to meet assumptions
  - Decision implications include:
    1. Right BMP,
    2. Right site,
    3. BMPs in series



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy

- ◆ Location & Background
- ◆ BMP Installation & Monitoring
- ◆ Results
- ◆ Conclusion & **Next Steps**
  - Microbial Source Tracking to identify appropriate BMP or other management strategy
  - Placing additional downstream BMPs in series and continue monitoring to quantify environmental impact
  - BMP maintenance to preserve function
  - May River Watershed Action Plan implementation – consider downstream conditions as part of the decision-making process for future, similar BMP locations



# Management Decision Implications Resulting from Analysis of Stormwater BMP Efficacy



Photo courtesy of Lowcountry Kitchen Events

Beth Lewis 843.706.4559  
blewis@townofbluffton.com

Kim Jones 843.706.4593  
kjones@townofbluffton.com





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



March 15, 2017

**Stormwater Manager's Report for the Stormwater Utility Board Meeting**

Utility Update

1. Hurricane Matthew Response and Recovery – Our application for USDA/NRCS Emergency Watershed Protection (EWP) funds to clear the debris along our system was approved. Paperwork is pending. We have received a Task Order from CERES for the work. Force Account Labor from Stormwater will likely assist for some of this work.
2. FY 18 budget process – The Management fee budget was submitted to the Towns and City on February 20, 2017. They have until April 1, 2017 to approve the budget.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel) - Since the last USCB WQL update, the USCB WQ Lab:
  - Completed all proficiency studies for the year for their current certifications. This includes Total Coliform/E.coli, Enterococcus, Heterotrophic Plate Count, Conductivity (for surface and drinking water), pH, Turbidity, Total Residual Chlorine( for surface and drinking water), and Total Suspended Solids.
  - Has been analyzing their weekly, bi-monthly pre-project 319 May River Preserve Pond water quality samples and MS4 samples for the Town of Bluffton.
  - Was called out on two occasions for suspect illicit discharges, one in which they collected multiple samples.
  - Is participating in BC's Battery Creek 319 Pond Project and BC MS4 efforts. They had a meeting with Rebecca Baker about MS4 and Battery Creek 319 sampling locations and parameters requested.
2. The Town of Bluffton identified additional failing septic tanks in the Rose Dhu subwatershed feeding into May River as a result of Microbial Source Tracking tests done in February. The County Staff, USCB Lab staff, and DHEC staff continue to coordinate sampling and enforcement.
3. The County and Town of Bluffton are developing an MOA to share monitoring points for the New River, May River, and Okatie River watersheds and to address coordinated IDDE work.
4. The County has started the first quarter sampling and will be taking one wet and one dry a quarter as directed in our monitoring plan. The following watersheds are being sampled: May River, Beaufort River, Colleton River, Morgan River, Calibogue, New

River and Coosaw River.

5. Monitoring Plan revisions – Staff has added the parameters Mercury and Enterococcus to the New River location sampling point as this was included in the new 303d list as being impaired. This change was included in our annual report to SCDHEC.

#### Stormwater Implementation Committee (SWIC) Report

1. The SWIC committee has not met since the last Board meeting. They will be meeting on March 22, 2017 to review the current progress on the Stormwater Management Plan update.

#### Stormwater Related Projects

1. Okatie West / SC 170 Widening Retrofit (Design and Construction = \$915,000 Budget) – USACE and OCRM permits to be submitted this month. Timeframe for approval is unknown.
2. Easements – Staff is working on numerous easement requests. High priority projects are in County Council districts 1(Sheldon/Dale/Burton) and 3 (St. Helena). Staff have attended and presented the O&M and Easement process to residents at two different community meetings in March.

#### Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – (\$475,000 Budget; \$239,542 County portion) – SWIC will be meeting with ATM on March 22 to review the results of Task 5, Hydrology Modeling of the 7 priority watersheds. During the meeting, the group will also review proposed changes to the scope of work to reduce effort on tasks that may no longer be needed, such as LOS and EOS development and BMP Manual changes. Due to delays in acquisition and processing of existing data from the 2006 plan, ATM has requested approx. 2 additional months for the final report submittal. The new completion date should be by December 2017.

## Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – The project was to be designed and constructed in three “stages”. Stage 1 is under construction. Survey for Stage 2 and 3 is complete and the design is pending submittal and review. Staff is meeting with the consultant within the next two weeks to discuss.
2. Hilton Head National – The County Council subcommittee has requested that Staff present at a public meeting on the basics of the stormwater BMP Manual and how it would be applied to this development. No date has been set for this meeting.

## Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager)
  - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
  - i. Water Quality Improvement Projects
    - Stoney Creek Wetlands Restoration: Preliminary Design Phase
      - Final Summary Memo including conceptual design options are complete.
      - Staff, design consultant and property owners met onsite to review the conceptual designs on 1/13/17.
      - Property owners have released Staff to move forward with preliminary design.
      - Preliminary Design is underway.
      - Next Steps:
        - Obtain easement based on preliminary design.
    - 319 Grant Phase 2 (Pine Ridge) - Closeout Phase
      - Staff submitted a 319 Grant amendment request to extend the grant deadline to 1/30/17 and reallocate unspent funds. The remaining 319 Grant Phase 2 funds will be reallocated to purchase engineered bacteria removal media filter socks to be installed in the wetland ditch downstream from the New Riverside Pond to maintain bacteria removal efficiency, and to install littoral shelf plantings within New Riverside Pond.
      - The grant amendment was approved by SCDHEC and the amended contract has been executed.
      - Pine Ridge reuse irrigation BMP retrofit complete.
      - SCDHEC approved the use of floating island wetlands to be used in place of littoral shelf plantings due to site constraints.
      - Floating wetlands have been delivered to the Public Works service yard.
      - Wetland plants have been ordered and are being grown; estimated delivery date is April, 2017.
      - Grant period closed and final invoice submitted.
        - Next Steps:
          - Obtain easement for installation and maintenance of bacteria removal filter socks. Anticipated at March Town Council meeting.



- Install engineered bacteria removal filter socks.
  - Install floating island wetlands in the Pine Ridge community and New Riverside Pond upon delivery of plants.
  - Provide floating island wetlands and aid in planting and installation to interested communities within the May River watershed.
- 319 Grant Phase 3 (May River Preserve Pond)
  - SCDHEC notified staff that the EPA has approved the grant application and the grant of \$231,350 has been awarded.
  - After receiving property access approval, pre-project water quality and flow monitoring has commenced.
  - The grant contract has been approved by the EPA and executed by the Town.
  - Staff obtained verbal agreement from adjacent parcel property owner for a construction and maintenance easement.
  - Request for Qualifications for design, permitting and construction services submittals due 03/07/2017.
    - Next Steps:
      - Obtain easement for construction and maintenance from property owner and adjacent parcel property owner.
      - Public Education/Outreach Session with May River Preserve property owners on 3/13/2017.
- ii. Stormwater Utility Management Plan Update
  - Beaufort County is the managing partner for this county-wide stormwater master plan update by Applied Technology & Management (ATM).
  - Staff provided updated Best Management Practice locations throughout the watershed to the contractor.
  - Staff received a preliminary scope and budget estimate not to exceed \$75,000 to complete the May River Watershed Water Quality Model from ATM.
  - Next Steps:
    - Staff has proposed completion of the Water Quality Model in FY2018 Budget.
    - Staff will continue to participate in the county-wide effort to update the Beaufort County Stormwater Management Plan as needed. Next meeting is scheduled for 3/22/17.
- iii. Staff Activities
  - Watershed Management
    - February Data Collection –
      - Downloaded data at fourteen (14) groundwater and stream monitoring stations at Stoney Crest Property.
      - Twenty-four (24) in-stream flow/velocity measurements collected at sampling locations in the May River Watershed.
      - Pre-project monitoring for multiple parameters is being conducted at four (4) sites associated with the 319 Grant Phase 3 - May River Preserve Project bi-monthly.
      - Staff continued to collect GPS stormwater infrastructure data throughout Old Town Bluffton.
    - Municipal Separate Storm Sewer System
      - Staff conducted the first quarterly MS4 water quality monitoring at eight (8) locations/outfalls to the May River.

- The Town's first annual report was submitted on 1/31/17 and is under SCDHEC review.
  - Microbial Source Tracking
    - Results received from 2/9/17 sampling event from seven locations within the Rose Dhu Creek sub-watershed, Stoney Creek, and Palmetto Bluff Road.
    - One site, a drainage within May River Plantation, had evidence of a human biomarker detected in the water sample. Results were shared with senior staff and the Watershed Action Plan Advisory Committee (WAPAC).
    - Due to location of the positive sample, Beaufort County and South Carolina Department of Health & Environmental Control (SCDHEC) assistance has been requested to inspect surrounding septic drain fields.
    - Town has received delegated authority from the County to investigate this event.
    - Staff is continuing to pull additional MST samples on a monthly basis.
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
    - i. Nothing new to report.
  4. Town of Port Royal (From Van Willis, Town Manager)
    - i. No information was available at the time of this report.

## MS4 Report

1. Plan Review - There were 5 projects reviewed and 2 stormwater permits issued to Public Works staff in February.

Name	Date	Type	Results
Grayco	2/8/2017	Amendment	Approved w/conditions
Beaufort County Animal Services 170	2/21/2017	Final	Pending Final
Fripp Island Lot 120 Spy Glass	2/22/2017	River Buffer Waiver	Approved w/conditions
Joco Recycle	2/22/2017	Conceptual	Planning Department Denied Use
Grayco	2/8/2017	Amendment	Approved w/conditions

2. Inspection summary for February 8, 2017 to March 7, 2017

Number of active permits = 32

Number of inspections performed = 29

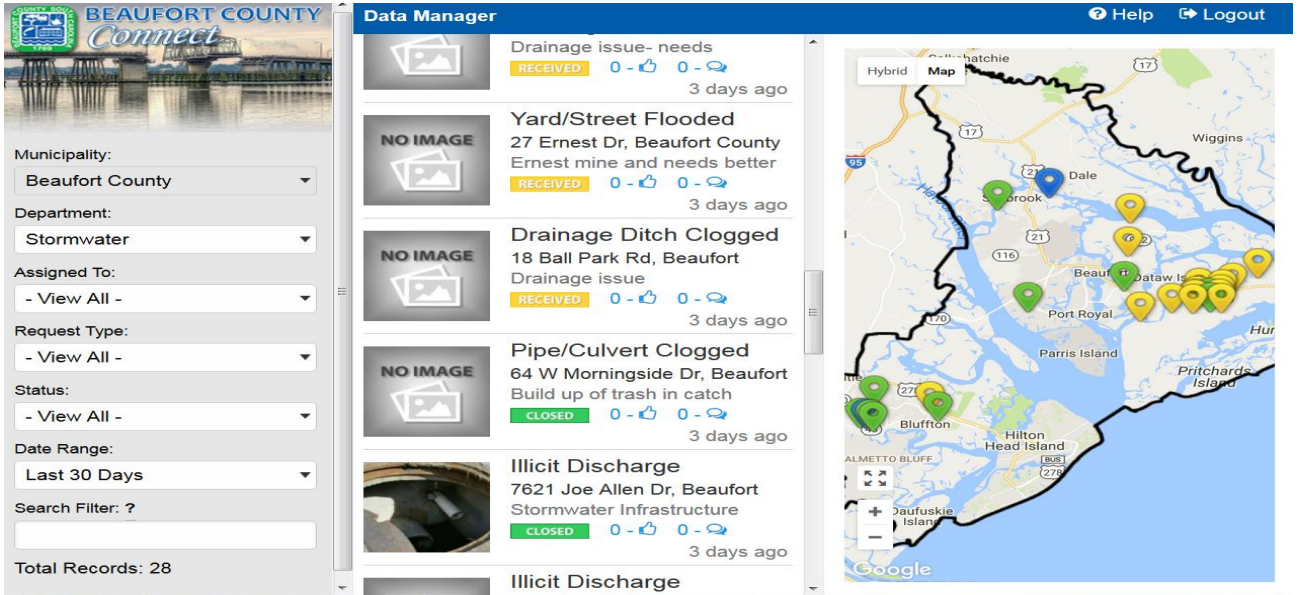
Number of drainage related complaints investigated = 5

Number of certificates of completion = 1

3. MS4 Program Inspections - Staff is in the process of inspecting the County owned facilities. All Convenience Centers were inspected and issued an evaluation report. The major concern with all of the convenience centers are the need to provide staff and citizens additional training on managing the recyclables particularly the oil and paint area. The image below is an example several unlabeled containers. This is the Pritchardville site which may benefit taking down the wood privacy fence so the staff can monitor more closely what is being recycled.



- Public Education – The Beaufort County Connect app is up and running and is becoming a very useful tool to track citizen’s concerns. We had 28 new entries for the month of February. You can now download the app for Android and Apple. Beaufort County staff is now able to assign complaints to individual staff members and track the progress of each complaint. Below is an example of the desk top manager report. A few upcoming changes to the data management side are to include the ability add an image in the comment section and run reports.



- Upcoming Events: April 1, 2017 - Touch a Truck Event from 11:00 a.m. to 2:00 p.m. at Tanger Outlet 1 in Bluffton.
- DHEC NPDES permitting transition – Staff is still awaiting DHEC to decide when to make this effective. A coordination meeting is currently being scheduled.



## MEMORANDUM

Date: March 15, 2017

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

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

### **Major Projects – Storm Drainage System Improvements:**

- **278 Retrofit Pond #8 – Bluffton (SWUD 9):** Constructed a retrofit pond and 160 feet of channel. Installed a sediment pad, 40 feet of channel pipe, rip rap and hydroseeded for erosion control. The cost of this project was **\$104,291.72.**
- **Fox Island – Bluffton (SWUD 9):** The project scope included installing a flapgate, catch basin, 160 feet of channel pipe, rip rap and handseeded. The total cost was **\$36,365.70.**
- **Hamar Street – City of Beaufort (SWUD 1):** This was a joint project between City of Beaufort, SCDOT and The County. This project included reconstructing a retention pond. Lowered a weir to correct elevation. Installing (3) catch basins, 125 feet of roadside pipe, 52 feet of channel pipe, rip rap and hydroseeded for erosion control. The total cost was **\$36,130.79.**
- **Backache Acres Pond– Sheldon (SWUD 5):** This project included Reconstructing (3) check dams and 135 feet of workshelf. Cleaning out (2) forebays. Extending 6 feet of bleeder pipe. Installing rip rap and hydroseeding. The total cost was **\$24,328.44.**
- **Sheridan Park Circle - Pennington Drive – Bluffton (SWUD 4):** This project included cleaning out 2,330 L.F. of roadside ditch. Structures cleaned included 1 crossline pipe and 11 driveway pipes. The total cost was **\$23,181.44.**

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

- **Sheldon Bush Hog – (SWUD 5):** This five month effort of bush hogging work improved 103,933 feet of drainage system. Over 938 hours was spent clearing ditches and work shelves. The total cost of this effort was **\$47,354.95.**
- **Harbor River Drive - Harbor River Circle – St Helena (SWUD 8):** This project included removing blockage from flowline. Cleaning out 1,366 feet of roadside ditch. The total cost was **\$12,551.16.**
- **George Williams Lane – Sheldon (SWUD 5):** This project included reconstructing 75 L.F. of workshelf and repairing a washout. The total cost was **\$8,817.99.**

- **Gadwall Drive East – Lady’s Island (SWUD 7):** This project included Grubbing and clearing 90 feet of workshelf. Cleaning out 90 feet of channel and 542 feet of roadside ditch. Installing 1 access pipe, rip rap and hydroseeding. The total cost was **\$7,345.81.**
- **Spanish Moss Sub-Oleander Drive – Lady’s Island (SWUD 7):** Cleaned out 135 L.F. of roadside ditch. Hydroseeded for erosion control. The total cost was **\$2,421.05.**
- **Frances Court – Lady’s Island (SWUD 7):** This project included the removal of fallen trees and debris from a workshelf. The total cost was **\$1,306.04.**
- **Bridgewood Road – St Helena (SWUD 8):** This project included installing a bleeder pipe. The total cost was **\$1,723.75.**
- **Charleston Drive – Port Royal (SWUD 6):** This project included repairing a sinkhole. The total cost was **\$738.49.**
- **Dulamo Bluff Sub-Cusabo Road – (SWUD 8):** This project included resetting two catch basin lids. The total cost was **\$366.66.**



**Beaufort County  
Public Works  
Stormwater Infrastructure  
Project Summary**

**Project Summary:** Highway 278 Retrofit Pond 8 Project

**Activity:** Water Quality

**Narrative Description of Project:**

**Duration:** 9/8/15 - 8/10/16

Constructed a retrofit pond and 160 L.F. of channel. Installed sediment pad, 40 L.F. channel pipe, sediment logs, rip rap and hydroseeded for erosion control. Removed sediment pad.

<b>2014-800 / Highway 278 Retrofit Pond</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
APJT / Access pipe - jetted	16.0	\$372.04	\$53.92	\$17.10	\$0.00	\$234.32	\$677.38
AUDIT / Audit Project	3.0	\$70.47	\$0.00	\$0.00	\$0.00	\$39.69	\$110.16
CCON / Channel - constructed	20.0	\$464.00	\$352.60	\$71.27	\$0.00	\$307.20	\$1,195.07
CLPJT / Crossline Pipe - Jetted	12.0	\$267.42	\$187.20	\$109.00	\$0.00	\$159.78	\$723.40
CM / Crew Meeting	3.0	\$136.80	\$10.86	\$4.80	\$0.00	\$101.88	\$254.34
CPI / Channel Pipe - Installation	30.0	\$713.60	\$448.52	\$382.99	\$0.00	\$474.00	\$2,019.11
CPJ / Channel Pipe - Jetted	5.0	\$123.50	\$43.40	\$24.60	\$0.00	\$82.35	\$273.85
ERCON / Erosion control	16.0	\$372.04	\$14.16	\$8.55	\$0.00	\$234.32	\$629.07
HAUL / Hauling	547.0	\$12,255.34	\$4,700.01	\$10,581.67	\$0.00	\$7,920.60	\$35,457.62
HYDR / Hydroseeding	50.0	\$1,084.28	\$171.00	\$696.93	\$0.00	\$690.15	\$2,642.36
LM / Loading Materials	152.0	\$3,558.08	\$2,398.70	\$616.30	\$0.00	\$2,358.48	\$8,931.56
ONJV / Onsite Job Visit	141.0	\$4,524.71	\$561.40	\$261.83	\$0.00	\$2,961.60	\$8,309.54
PDCONST / Ponds - Constructed	134.0	\$3,101.26	\$1,759.80	\$336.21	\$0.00	\$1,964.68	\$7,161.95
PDREC / Ponds - reconstructed	30.0	\$687.85	\$128.34	\$13.68	\$0.00	\$437.10	\$1,266.97
PGC / Pond - Grubb and Clear	30.0	\$683.00	\$598.16	\$107.73	\$0.00	\$441.60	\$1,830.49
PL / Project Layout	14.0	\$638.40	\$50.68	\$20.80	\$0.00	\$475.44	\$1,185.32
PM / Ponds - Maintenance	99.0	\$2,333.26	\$876.02	\$150.21	\$0.00	\$1,485.50	\$4,844.99
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$19,426.18	\$0.00	\$19,426.18
PRRECON / Project Reconnaissance	10.0	\$221.20	\$17.70	\$9.60	\$0.00	\$144.45	\$392.95
RRI / Rip Rap - Installed	30.0	\$713.60	\$433.80	\$218.58	\$0.00	\$474.00	\$1,839.98
SC / Sediment Control	42.0	\$947.94	\$96.94	\$221.74	\$0.00	\$592.20	\$1,858.82
SPI / Sediment Pad - Installed	15.0	\$346.40	\$209.52	\$234.66	\$0.00	\$205.25	\$995.83
STBY / Stand By	6.0	\$132.38	\$58.58	\$33.35	\$0.00	\$86.52	\$310.83
UC / Utility Coordination	15.0	\$356.80	\$58.30	\$11.20	\$0.00	\$237.00	\$663.30
WSL / Workshelf - Level	20.0	\$464.00	\$422.64	\$96.81	\$0.00	\$307.20	\$1,290.65
<b>2014-800 / Highway 278 Retrofit Pond Sub Total</b>	<b>1,440.0</b>	<b>\$34,568.37</b>	<b>\$13,652.25</b>	<b>\$14,229.61</b>	<b>\$19,426.18</b>	<b>\$22,415.31</b>	<b>\$104,291.72</b>
<b>Grand Total</b>	<b>1,440.0</b>	<b>\$34,568.37</b>	<b>\$13,652.25</b>	<b>\$14,229.61</b>	<b>\$19,426.18</b>	<b>\$22,415.31</b>	<b>\$104,291.72</b>

Before



During



After





Project: Highway 278 Retrofit Pond

Activity: Water Quality

Project #: 2014-800

Township/SW Dist: Bluffton/9

Completed: August 2016

Constructed 85 LF of channel.  
Installed 40 LF of channel pipe.

Constructed a retrofit pond. Installed rip rap and hydroseeded for erosion control.

Constructed 75 LF of channel.

**Legend**

**Drainage Type**

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



1 inch = 50 feet





**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Fox Island Road

**Activity:** Drainage Improvement

**Narrative Description of Project:**

**Duration:** 8/18/16 - 1/3/17

Project improved 160 L.F. of drainage system. Installed (1) flap gate, (1) catch basin, 160 L.F. of channel pipe, rip rap and handseeded for erosion control.

<b>2017-001 / Fox Island Road</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
CBINS / Catch basin - installed	40.0	\$932.20	\$221.55	\$510.34	\$0.00	\$543.20	\$2,207.29
CPI / Channel Pipe - Installation	195.0	\$4,407.85	\$971.97	\$2,691.26	\$0.00	\$2,626.05	\$10,697.13
DEBREM / Debris Removal - Jobsite	0.0	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$100.00
FLAPGATE / Flapgate - Installed	20.0	\$445.49	\$18.00	\$1,703.63	\$0.00	\$260.35	\$2,427.47
HAUL / Hauling	107.0	\$2,574.06	\$1,007.94	\$2,784.95	\$0.00	\$1,703.72	\$8,070.67
HYDR / Hydroseeding	22.0	\$596.04	\$118.12	\$72.97	\$0.00	\$317.24	\$1,104.37
ONJV / Onsite Job Visit	25.0	\$678.00	\$90.00	\$21.48	\$0.00	\$462.75	\$1,252.23
RMTRW / Remove trees - Workshelf	60.0	\$1,443.20	\$379.50	\$111.22	\$0.00	\$821.80	\$2,755.72
RRI / Rip Rap - Installed	30.0	\$721.60	\$185.49	\$83.18	\$0.00	\$410.90	\$1,401.17
SG / Shoot Grade	20.0	\$511.00	\$72.00	\$28.20	\$0.00	\$278.60	\$889.80
STAGING / Staging Materials/Equipment	61.0	\$1,408.12	\$107.60	\$55.49	\$0.00	\$828.73	\$2,399.94
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
WSL / Workshelf - Level	76.0	\$1,750.96	\$150.40	\$71.48	\$0.00	\$1,031.38	\$3,004.22
<b>2017-001 / Fox Island Road Sub Total</b>	<b>657.5</b>	<b>\$15,504.36</b>	<b>\$3,322.57</b>	<b>\$8,134.20</b>	<b>\$100.00</b>	<b>\$9,304.56</b>	<b>\$36,365.70</b>
<b>Grand Total</b>	<b>657.5</b>	<b>\$15,504.36</b>	<b>\$3,322.57</b>	<b>\$8,134.20</b>	<b>\$100.00</b>	<b>\$9,304.56</b>	<b>\$36,365.70</b>

Before

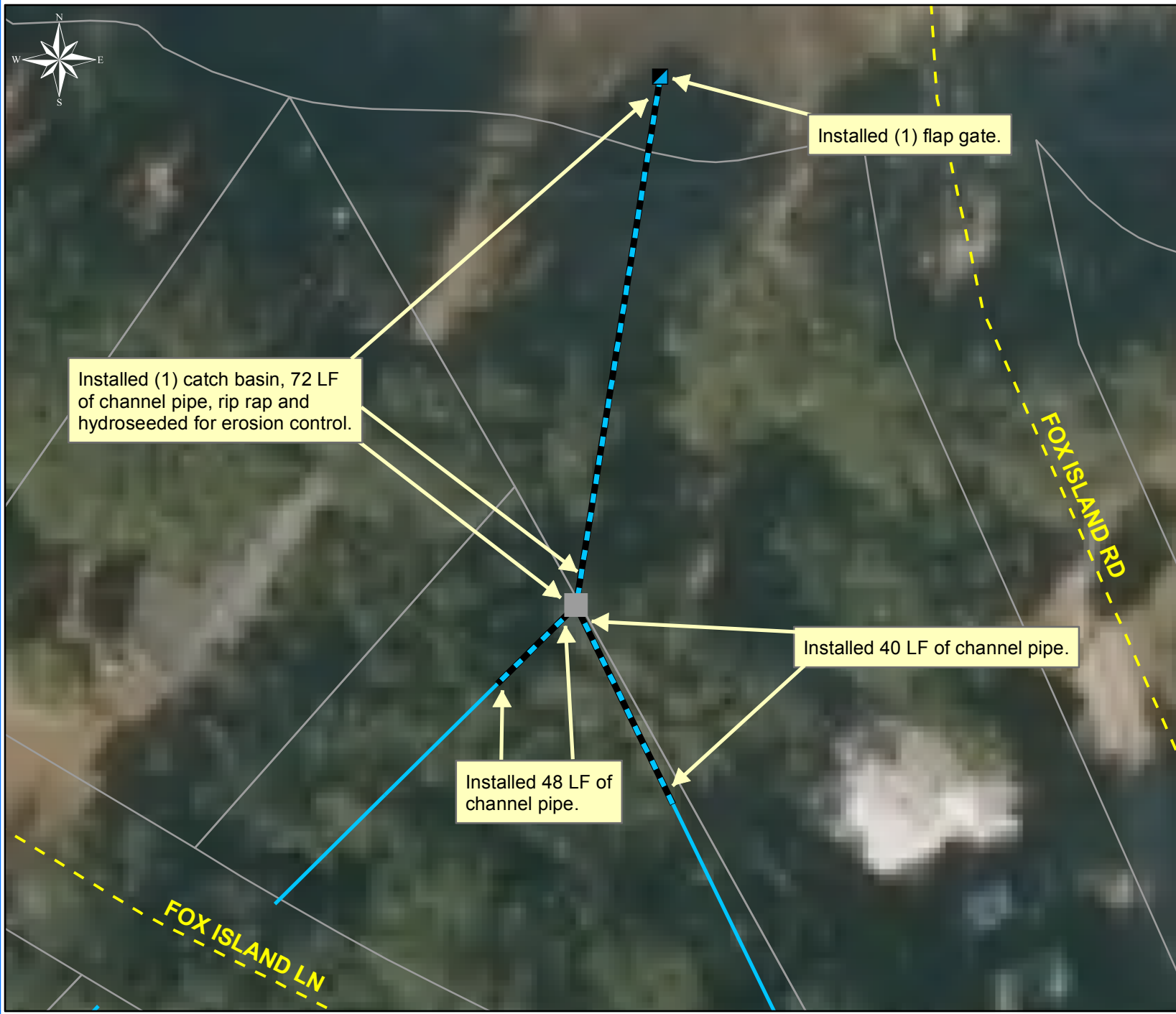


During



After





Project: Fox Island Road

Activity: Drainage Improvement

Project #: 2017-001

Township/SW Dist: Bluffton/9

Completed: January 2017

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



1 inch = 25 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** CoB- Hamar Street

**Activity:** Drainage Improvement

**Narrative Description of Project:**

**Duration:** 4/20/16 - 7/13/17

This was a joint project between City of Beaufort, SCDOT and Beaufort County. Project improved 177 L.F. of drainage system. Reconstructed (1) retention pond. Lowered weir to correct elevation. Installed (3) catch basins, 125 L.F. of roadside pipe, 52 L.F. of channel pipe, rip rap and hydroseeded for erosion control.

<b>2016-011 / COB- Hamar Street</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
CBINS / Catch basin - installed	105.0	\$2,408.40	\$537.77	\$272.61	\$0.00	\$1,492.65	\$4,711.43
CPI / Channel Pipe - Installation	60.0	\$1,336.60	\$309.84	\$338.72	\$0.00	\$858.60	\$2,843.76
FENINST / Fence Installation	12.0	\$272.16	\$14.40	\$32.53	\$0.00	\$159.44	\$478.53
HAUL / Hauling	146.5	\$3,517.71	\$1,170.54	\$3,025.27	\$0.00	\$2,112.53	\$9,826.04
HYDR / Hydroseeding	44.0	\$998.37	\$96.26	\$211.40	\$0.00	\$600.73	\$1,906.76
LM / Loading Materials	30.0	\$697.50	\$248.27	\$16.20	\$0.00	\$431.40	\$1,393.37
ONJV / Onsite Job Visit	64.0	\$1,687.18	\$258.54	\$240.32	\$0.00	\$1,143.74	\$3,329.78
PM / Ponds - Maintenance	90.0	\$2,092.50	\$623.17	\$86.40	\$0.00	\$1,294.20	\$4,096.27
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$224.15	\$0.00	\$224.15
RRI / Rip Rap - Installed	50.0	\$1,106.70	\$222.12	\$56.73	\$0.00	\$685.80	\$2,071.35
SC / Sediment Control	40.0	\$872.00	\$35.40	\$36.19	\$0.00	\$555.60	\$1,499.19
SCON / Swale - Constructed	40.0	\$908.10	\$232.63	\$28.80	\$0.00	\$563.70	\$1,733.23
SG / Shoot Grade	30.0	\$721.60	\$70.80	\$8.22	\$0.00	\$451.80	\$1,252.42
SPSWI / Special Project - SWI	10.0	\$214.90	\$21.44	\$9.14	\$0.00	\$130.28	\$375.76
UTLOC / Utility locates	8.5	\$207.11	\$14.16	\$4.50	\$0.00	\$126.26	\$352.03
<b>2016-011 / COB- Hamar Street Sub Total</b>	<b>731.0</b>	<b>\$17,064.31</b>	<b>\$3,855.34</b>	<b>\$4,367.04</b>	<b>\$224.15</b>	<b>#####</b>	<b>\$36,130.79</b>
<b>Grand Total</b>	<b>731.0</b>	<b>\$17,064.31</b>	<b>\$3,855.34</b>	<b>\$4,367.04</b>	<b>\$224.15</b>	<b>\$10,619.95</b>	<b>\$36,130.79</b>

Before

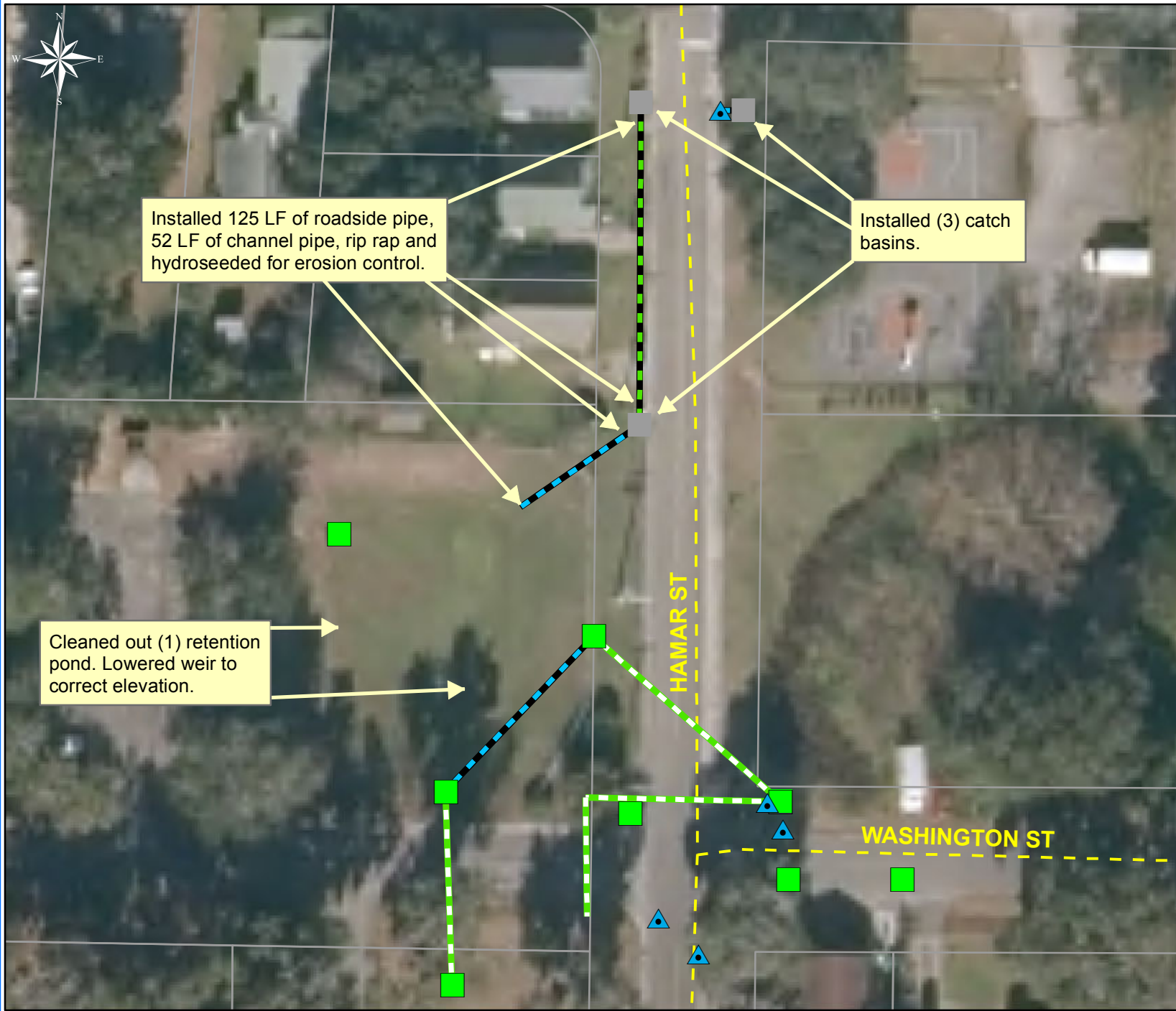


During



After





Project: COB - Hamar Street

Activity: Drainage Improvement

Project #: 2016-011

Township/SW Dist: City of Beaufort/1

Completed: July 2016

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



1 inch = 50 feet



**Beaufort County  
Public Works  
Stormwater Infrastructure  
Project Summary**

**Project Summary:** Backache Acres Pond

**Activity:** Pond Maintenance

**Narrative Description of Project:**

Project improved 141 L.F. of drainage system. Reconstructed (3) check dams and 135 L.F. of workshelf. Cleaned out (2) forebays. Extended 6 L.F. of bleeder pipe. Installed rip rap and hydroseeded for erosion control.

**Duration:** 1/17/17 - 2/1/17

<b>2016-326 / Backache Acres Pond</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
HAUL / Hauling	134.0	\$2,868.14	\$1,203.65	\$7,113.54	\$0.00	\$1,227.61	\$12,412.94
HYDR / Hydroseeding	40.0	\$883.10	\$75.26	\$55.26	\$0.00	\$561.60	\$1,575.22
PM / Ponds - Maintenance	80.0	\$1,853.85	\$145.63	\$4,383.33	\$0.00	\$1,209.60	\$7,592.41
RPWO / Repaired Washout	60.0	\$1,345.00	\$219.69	\$277.65	\$0.00	\$868.80	\$2,711.14
<b>2016-326 / Backache Acres Pond Sub Total</b>	<b>315.0</b>	<b>\$6,973.58</b>	<b>\$1,644.23</b>	<b>\$11,829.79</b>	<b>\$0.00</b>	<b>\$3,880.84</b>	<b>\$24,328.44</b>
<b>Grand Total</b>	<b>315.0</b>	<b>\$6,973.58</b>	<b>\$1,644.23</b>	<b>\$11,829.79</b>	<b>\$0.00</b>	<b>\$3,880.84</b>	<b>\$24,328.44</b>

Before



During



After





Project: Backache Acres Pond

Activity: Pond Maintenance














Project #: 2016-326

Township/SW Dist: Sheldon/6

Completed: February 2017

**Legend**

**Drainage Type**

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



1 inch = 83 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Sheridan Park Circle - Pennington Drive

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Project improved 2,330 L.F. of drainage system. Cleaned out 2,330 L.F. of roadside ditch. Jetted (1) crossline pipe and (11) driveway pipes.

**Duration:** 6/14/16 - 8/19/17

<b>2016-623 / Sheridan Park Circle-Pennington Dr</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DLO / Ditch Layout	30.0	\$697.50	\$35.40	\$18.18	\$0.00	\$431.40	\$1,182.48
DPJT / Driveway Pipe - Jetted	20.0	\$463.70	\$86.80	\$97.09	\$0.00	\$297.85	\$945.44
HAUL / Hauling	113.0	\$2,632.18	\$1,010.12	\$495.05	\$0.00	\$1,726.64	\$5,863.99
ONJV / Onsite Job Visit	6.0	\$205.08	\$21.24	\$16.00	\$0.00	\$146.82	\$389.14
PP / Project Preparation	49.0	\$1,096.59	\$72.00	\$26.61	\$0.00	\$681.63	\$1,876.83
RSDCL / Roadside Ditch - Cleanout	318.0	\$7,164.06	\$1,097.46	\$242.20	\$0.00	\$4,401.49	\$12,905.21
<b>2016-623 / Sheridan Park Circle-Pennington Dr Sub Total</b>	<b>536.5</b>	<b>\$12,270.85</b>	<b>\$2,323.02</b>	<b>\$895.13</b>	<b>\$0.00</b>	<b>\$7,692.44</b>	<b>\$23,181.44</b>
<b>Grand Total</b>	<b>536.5</b>	<b>\$12,270.85</b>	<b>\$2,323.02</b>	<b>\$895.13</b>	<b>\$0.00</b>	<b>\$7,692.44</b>	<b>\$23,181.44</b>

Before



After



Project: Sheridan Park Circle - Pennington Drive Map #1

Activity: Routine/ Preventive Maintenance

Project #: 2016-623

Township/SW Dist: Bluffton/4

Completed: August 2017



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

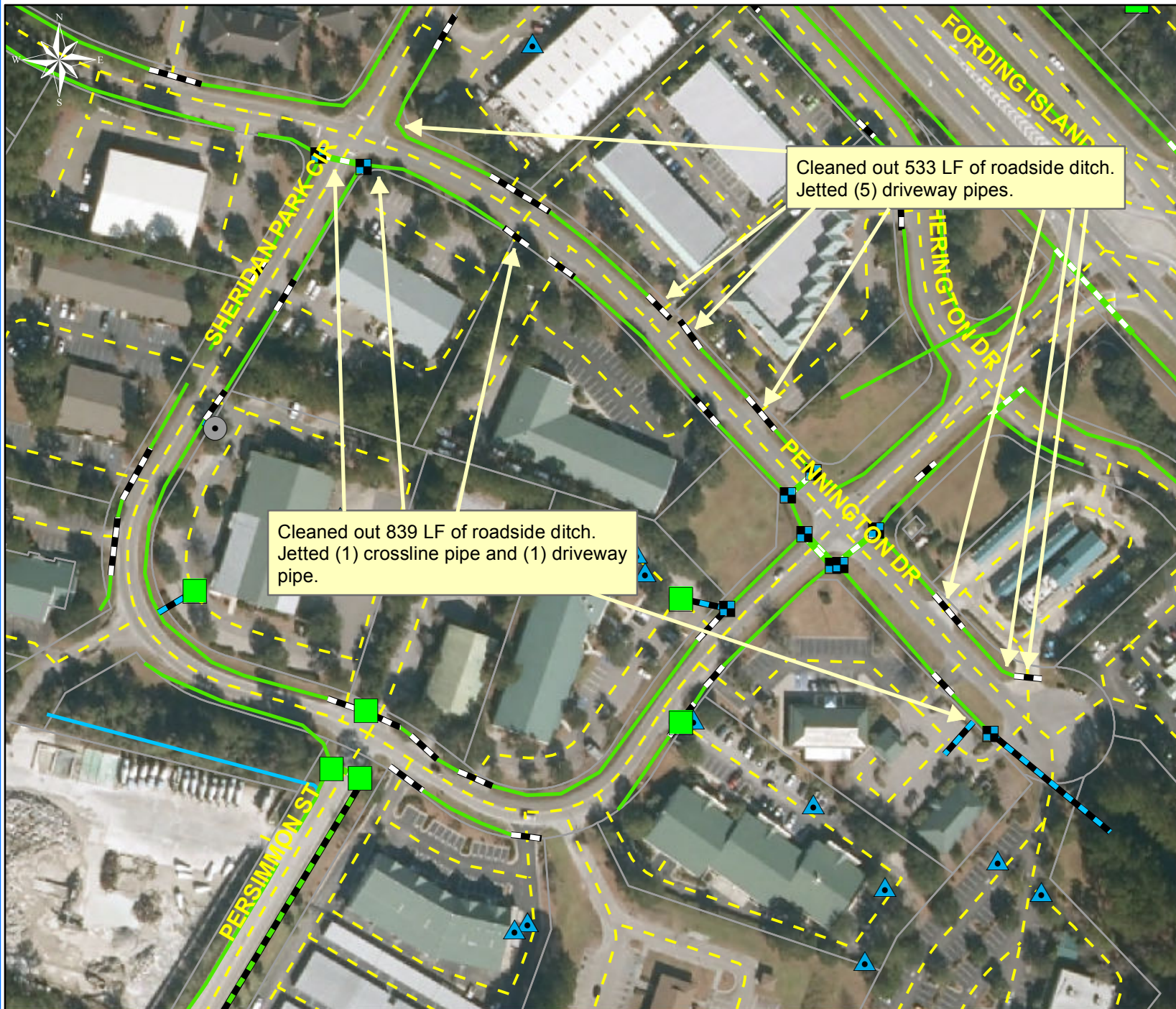


1 inch = 170 feet

Prepared By: BC Stormwater Management Utility  
Date Print: 03/02/17

File: C:\project summaries map\Sheridan Park Circle - Pennington Drive Map #1\_2016-623





Project: Sheridan Park Circle - Pennington Drive Map #2

Activity: Routine/ Preventive Maintenance

Project #: 2016-623

Township/SW Dist: Bluffton/4

Completed: August 2017

Legend	
<b>Drainage Type</b>	
Access Pipe	
Bleeder Pipe	
Channel Pipe	
Channel	
Stream	
Crossline Pipe	
Driveway Pipe	
Lateral	
Lateral Pipe	
River	
Road Pipe	
Roadside	
Roadside Pipe	



1 inch = 170 feet

Prepared By: BC Stormwater Management Utility  
Date Print: 03/02/17

File: C:\project summaries map\Sheridan Park Circle - Pennington Drive Map #2\_2016-623



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Sheldon Bush Hog

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

**Duration:** 6/9/16 - 10/4/16

First rotation from June 2016 to October 2016. This project improved 103,933 L.F. of drainage system. Bush hogged 103,933 L.F. of channel. This project consisted of the following areas: Mitchell Road (4,953 L.F.), Paige Point Bluff (586 L.F.), Priester Road (1,487 L.F.), Robinson Hill Road (1,986 L.F.), Johnson Road (4,158 L.F.), Archie Sumpter Road (1,544 L.F.), Cuthbert Farm Road (812 L.F.), George Williams Lane (3,302 L.F.), William Campbell Road (1,678 L.F.), Fire Station Lane (1,010 L.F.), Huspah Court South (2,333 L.F.), Huspah Drive (2,141 L.F.), Nix Road (1,181 L.F.), Bailey Road (3,148 L.F.), Bailey Circle (1,238 L.F.), Solomon White Lane (1,151 L.F.), Prescott Road (873 L.F.), Twickenham Plantation (8,963 L.F.), African Baptist Church Road (2,676 L.F.), Horsetail Road (3,570 L.F.), Albertha Fields Circle (2,177 L.F.), Booker T. Washington Circle (2,125 L.F.), Big Estate Road (2,446 L.F.), Joseph Lane (1,536 L.F.), Newberry Circle (1,283 L.F.), Swallowtail Lane (2,440 L.F.), Gray Road (1,500 L.F.), Big Estate Circle (3,179 L.F.), Jenkins Road (656 L.F.), Horace Dawson Lane (5,299 L.F.), Dean Hall Road (366 L.F.), Seigler Road (501 L.F.), Pap-Kee Lane (1,419 L.F.), River Oaks Road (2,995 L.F.), Jasmine Hall Road (9,705 L.F.), Old Dawson Acres (6,035 L.F.), Stroup Road (1,712 L.F.), Browns Island Road (3,184 L.F.), Gum Tree Road (4,855 L.F.), and Hunt Ter (1,730 L.F.)

2017-303 / Sheldon Bush Hog	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	2.0	\$46.98	\$0.00	\$0.00	\$0.00	\$26.46	\$73.44
CBH / Channel- bushhogged	936.5	\$19,781.09	\$13,232.12	\$1,945.02	\$0.00	\$12,323.28	\$47,281.51
<b>2017-303 / Sheldon Bush Hog</b>	<b>938.5</b>	<b>\$19,828.07</b>	<b>\$13,232.12</b>	<b>\$1,945.02</b>	<b>\$0.00</b>	<b>\$12,349.74</b>	<b>\$47,354.95</b>
<b>Sub Total</b>							
<b>Grand Total</b>	<b>938.5</b>	<b>\$19,828.07</b>	<b>\$13,232.12</b>	<b>\$1,945.02</b>	<b>\$0.00</b>	<b>\$12,349.74</b>	<b>\$47,354.95</b>

Before



During



After





**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Harbor River Drive/Harbor River Circle

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Project improved 1,366 L.F. of drainage system. Removed blockage from flowline. Cleaned out 1,366 L.F. of roadside ditch.

**Duration:** 1/3/17 -1/19/17

<b>2017-524 / Harbor River Drive/Harbor River Circle</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	71.5	\$1,592.31	\$673.53	\$862.92	\$0.00	\$1,031.03	\$4,159.79
RB / Remove blockage from flowline	28.0	\$650.28	\$159.55	\$71.62	\$0.00	\$382.34	\$1,263.79
RSDCL / Roadside Ditch - Cleanout	160.0	\$3,777.16	\$833.18	\$329.68	\$0.00	\$2,150.24	\$7,090.26
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
<b>2017-524 / Harbor River Drive/Harbor River Circle Sub Total</b>	<b>260.5</b>	<b>\$6,043.84</b>	<b>\$1,666.26</b>	<b>\$1,264.22</b>	<b>\$0.00</b>	<b>\$3,576.84</b>	<b>\$12,551.16</b>
<b>Grand Total</b>	<b>260.5</b>	<b>\$6,043.84</b>	<b>\$1,666.26</b>	<b>\$1,264.22</b>	<b>\$0.00</b>	<b>\$3,576.84</b>	<b>\$12,551.16</b>

Before



During



After





Project: Harbor River Circle/  
Harbor River Drive

Activity: Routine/  
Preventive  
Maintenance

Project #:  
2017-524

Township/SW Dist:  
St.Helena Island/8

Completed:  
January 2017

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



1 inch = 250 feet



**Beaufort County  
Public Works  
Stormwater Infrastructure  
Project Summary**

**Project Summary:** George Williams Lane

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Project improved 75 L.F. of drainage system. Reconstructed 75 L.F. of workshelf. Repaired washout.

**Duration:** 2/9/16 - 1/4/17

<b>2014-537A / George Williams Lane</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	58.0	\$1,311.10	\$474.86	\$2,238.40	\$0.00	\$852.76	\$4,877.12
ONJV / Onsite Job Visit	11.0	\$371.98	\$39.26	\$18.80	\$0.00	\$269.17	\$699.21
PI / Project Inspection	1.0	\$34.18	\$3.54	\$7.52	\$0.00	\$24.47	\$69.71
RPWO / Repaired Washout	24.0	\$567.12	\$40.98	\$146.37	\$0.00	\$336.96	\$1,091.43
SC / Sediment Control	38.0	\$845.81	\$102.20	\$45.84	\$0.00	\$541.02	\$1,534.87
WSREC / Workshelf - Reconstructed	12.0	\$273.20	\$50.72	\$26.74	\$0.00	\$176.64	\$527.30
<b>2014-537A / George Williams Lane Sub Total</b>	<b>144.5</b>	<b>\$3,415.13</b>	<b>\$711.56</b>	<b>\$2,483.66</b>	<b>\$0.00</b>	<b>\$2,207.64</b>	<b>\$8,817.99</b>
 <b>Grand Total</b>	 <b>144.5</b>	 <b>\$3,415.13</b>	 <b>\$711.56</b>	 <b>\$2,483.66</b>	 <b>\$0.00</b>	 <b>\$2,207.64</b>	 <b>\$8,817.99</b>

Before

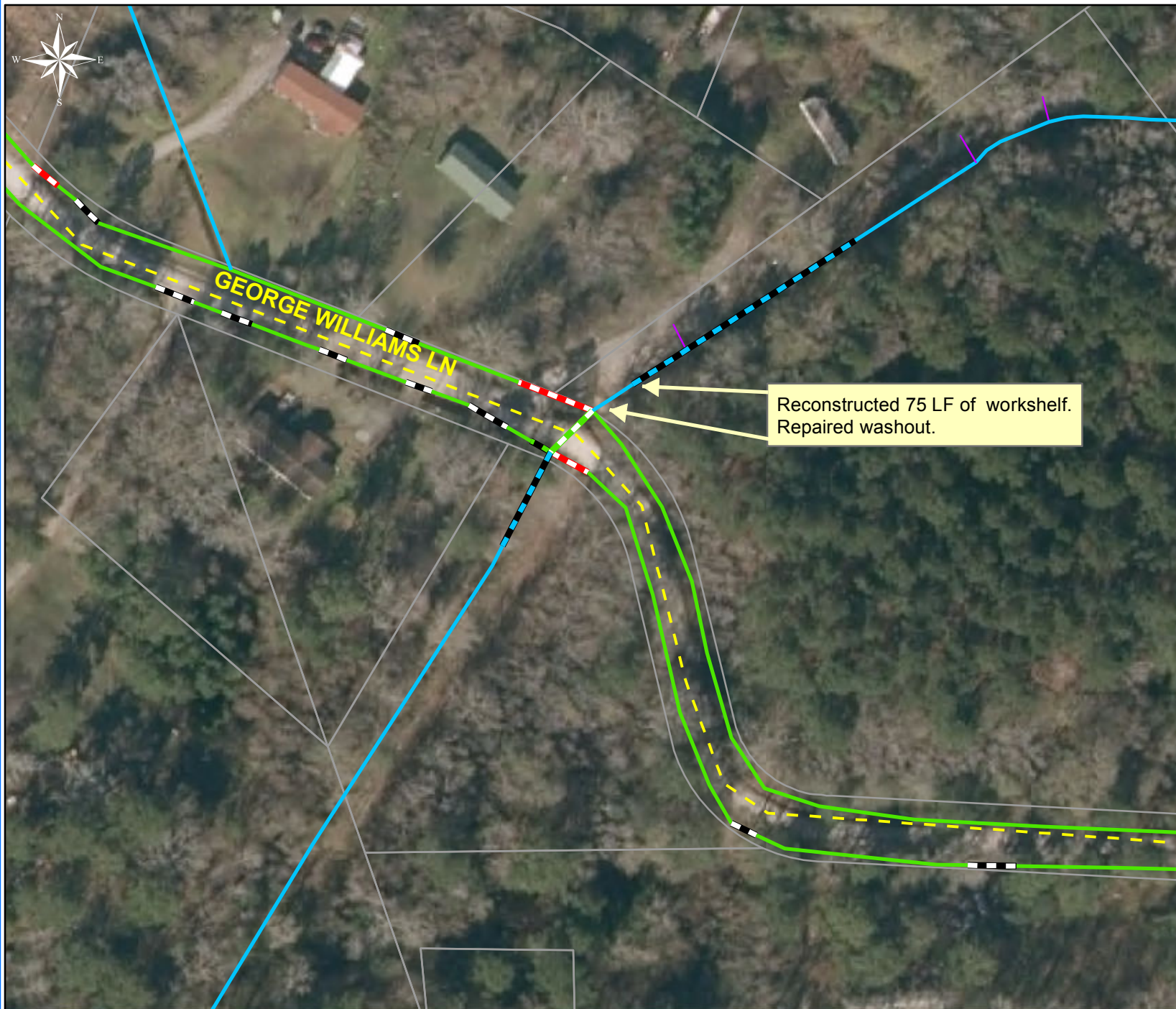


During



After





Project: George Williams Lane

Activity: Routine/ Preventive Maintenance

Project #: 2014-537A

Township/SW Dist: Sheldon/5

Completed: January 2017

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



1 inch = 100 feet



**Beaufort County  
Public Works  
Stormwater Infrastructure  
Project Summary**

**Project Summary:** Gadwall Drive E

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Project improved 632 L.F. of drainage system. Grubbed and cleared 90 L.F. of workshelf. Cleaned out 90 L.F. of channel and 542 L.F. of roadside ditch. Installed (1) access pipe, rip rap and hydroseeded for erosion control.

**Duration:** 1/19/17 - 1/25/17

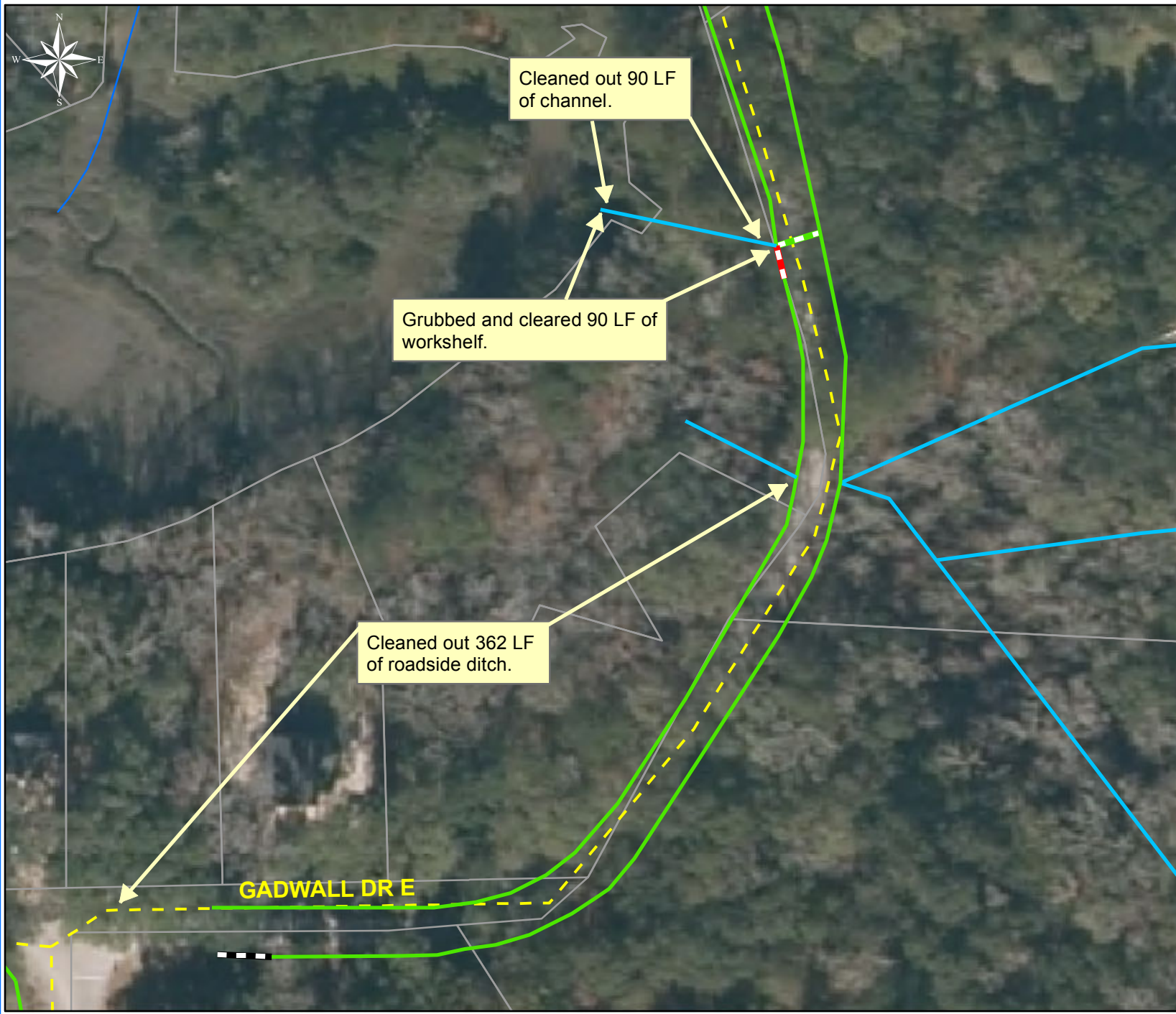
<b>2017-526 / Gadwall Drive E</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CCO / Channel - cleaned out	40.0	\$879.00	\$121.89	\$29.48	\$0.00	\$398.60	\$1,428.97
HAUL / Hauling	30.0	\$668.10	\$282.60	\$837.17	\$0.00	\$432.60	\$2,220.47
PL / Project Layout	8.0	\$192.72	\$14.40	\$10.03	\$0.00	\$110.60	\$327.75
RSDCL / Roadside Ditch - Cleanout	80.0	\$1,758.00	\$399.37	\$376.72	\$0.00	\$797.20	\$3,331.29
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
<b>2017-526 / Gadwall Drive E Sub Total</b>	<b>159.0</b>	<b>\$3,521.92</b>	<b>\$818.26</b>	<b>\$1,253.40</b>	<b>\$0.00</b>	<b>\$1,752.23</b>	<b>\$7,345.81</b>
<b>Grand Total</b>	<b>159.0</b>	<b>\$3,521.92</b>	<b>\$818.26</b>	<b>\$1,253.40</b>	<b>\$0.00</b>	<b>\$1,752.23</b>	<b>\$7,345.81</b>

Before



After





Project: Gadwall Drive E  
Map #1

Activity: Routine/  
Preventive  
Maintenance

Project #:  
2017-526

Township/SW Dist:  
Ladys Island/7

Completed:  
January 2017

Legend	
<b>Drainage Type</b>	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 83 feet





Project: Gadwall Drive E  
Map #2

Activity: Routine/  
Preventive  
Maintenance

Project #:  
2017-526

Township/SW Dist:  
Ladys Island/7

Completed:  
January 2017

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



1 inch = 83 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Spanish Moss Subdivision - Oleander Drive

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

**Duration:** 6/27/16 - 8/24/16

Project improved 135 L.F. of drainage system. Cleaned out 135 L.F. of roadside ditch.  
Hydroseeded for erosion control.

<b>2016-630 / Spanish Moss Subdivision</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HYDR / Hydroseeding	12.0	\$263.67	\$17.02	\$124.81	\$0.00	\$165.42	\$570.92
RSDCL / Roadside Ditch - Cleanout	16.0	\$352.80	\$91.39	\$43.46	\$0.00	\$213.72	\$701.37
SG / Shoot Grade	30.0	\$680.40	\$35.40	\$16.00	\$0.00	\$398.60	\$1,130.40
<b>2016-630 / Spanish Moss Subdivision Sub Total</b>	<b>58.5</b>	<b>\$1,308.61</b>	<b>\$143.81</b>	<b>\$184.27</b>	<b>\$0.00</b>	<b>\$784.36</b>	<b>\$2,421.05</b>
<b>Grand Total</b>	<b>58.5</b>	<b>\$1,308.61</b>	<b>\$143.81</b>	<b>\$184.27</b>	<b>\$0.00</b>	<b>\$784.36</b>	<b>\$2,421.05</b>

(Pictures Not Available)



Project: Spanish Moss Subdivision - Oleander Drive

Activity: Routine/ Preventive Maintenance

Project #: 2016-630

Township/SW Dist: Ladys Island/7

Completed: August 2016

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 = 150 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Frances Court

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Removed fallen trees and debris workshelf.

**Duration:** 1/23/17

<b>2017-531 / Frances Court</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	6.0	\$133.62	\$56.52	\$15.28	\$0.00	\$86.52	\$291.94
RMTRW / Remove trees - Workshelf	24.0	\$576.42	\$60.86	\$18.98	\$0.00	\$339.48	\$995.74
<b>2017-531 / Frances Court Sub Total</b>	<b>30.5</b>	<b>\$721.79</b>	<b>\$117.38</b>	<b>\$34.26</b>	<b>\$0.00</b>	<b>\$432.62</b>	<b>\$1,306.04</b>
<b>Grand Total</b>	<b>30.5</b>	<b>\$721.79</b>	<b>\$117.38</b>	<b>\$34.26</b>	<b>\$0.00</b>	<b>\$432.62</b>	<b>\$1,306.04</b>

Before



During



After





Project: Frances Court

Activity: Routine/ Preventive Maintenance

Project #: 2017-531

Township/SW Dist: Ladys Island/7

Completed: January 2017

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



1 inch = 61 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Bridgewood Road

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Installed (1) bleeder pipe.

**Duration:** 1/4/17

**2017-525 / Bridgewood Road**

	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
BPINST / Bleeder pipe - Installed	21.0	\$510.23	\$111.09	\$284.55	\$0.00	\$294.49	\$1,200.36
HAUL / Hauling	10.0	\$222.70	\$94.20	\$43.93	\$0.00	\$144.20	\$505.03
<b>2017-525 / Bridgewood Road Sub Total</b>	<b>31.5</b>	<b>\$744.68</b>	<b>\$205.29</b>	<b>\$328.48</b>	<b>\$0.00</b>	<b>\$445.31</b>	<b>\$1,723.75</b>
<b>Grand Total</b>	<b>31.5</b>	<b>\$744.68</b>	<b>\$205.29</b>	<b>\$328.48</b>	<b>\$0.00</b>	<b>\$445.31</b>	<b>\$1,723.75</b>

Before



During





Project:  
Bridgewood Road

Activity: Routine/  
Preventive  
Maintenance

Project #:  
2017-525

Township/SW Dist:  
St. Helena Island/8

Completed:  
January 2017

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



1 inch = 170 feet

Prepared By: BC Stormwater Management Utility  
Date Print:02/14/17  
File:C:\project summaries map/Bridgewood Road\_2017-525



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Charleston Drive (Rework)

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Repaired sinkhole.

**Duration:** 2/15/16

<b>2016-540A / Charleston Drive</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	2.0	\$44.54	\$15.98	\$10.95	\$0.00	\$28.84	\$100.31
SR / Sinkhole repair	15.0	\$328.15	\$60.10	\$16.92	\$0.00	\$214.65	\$619.82
<b>2016-540A / Charleston Drive Sub Total</b>	<b>17.5</b>	<b>\$384.44</b>	<b>\$76.08</b>	<b>\$27.87</b>	<b>\$0.00</b>	<b>\$250.10</b>	<b>\$738.49</b>
<b>Grand Total</b>	<b>17.5</b>	<b>\$384.44</b>	<b>\$76.08</b>	<b>\$27.87</b>	<b>\$0.00</b>	<b>\$250.10</b>	<b>\$738.49</b>

(Pictures Not Available)





Project: Charleston Drive (Rework)

Activity: Routine/ Preventive Maintenance

Project #: 2016-540A

Township/SW Dist: Port Royal Island/6

Completed: February 2016

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



1 inch = 67 feet



**Beaufort County**  
**Public Works**  
**Stormwater Infrastructure**  
*Project Summary*

**Project Summary:** Dulamo Bluff Subdivision - Cusabo Road

**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

Reset (2) catch basin lids.

**Duration:** 1/19/17

<b>2017-530 / Dulamo Bluff Subdivision</b>	<b>Labor Hours</b>	<b>Labor Cost</b>	<b>Equipment Cost</b>	<b>Material Cost</b>	<b>Contractor Cost</b>	<b>Indirect Labor</b>	<b>Total Cost</b>
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CBLRE / Catch Basin Lid - Reset	8.0	\$192.14	\$35.60	\$7.40	\$0.00	\$113.16	\$348.30
<b>2017-530 / Dulamo Bluff Subdivision Sub Total</b>	<b>8.5</b>	<b>\$203.89</b>	<b>\$35.60</b>	<b>\$7.40</b>	<b>\$0.00</b>	<b>\$119.78</b>	<b>\$366.66</b>
<b>Grand Total</b>	<b>8.5</b>	<b>\$203.89</b>	<b>\$35.60</b>	<b>\$7.40</b>	<b>\$0.00</b>	<b>\$119.78</b>	<b>\$366.66</b>

Before



After





Project: Dulamo Bluff Subdivision - Cusabo Road

Activity: Routine/ Preventive Maintenance

Project #: 2017-530

Township/SW Dist: St. Helena Island/8

Completed: January 2017

Legend	
<b>Drainage Type</b>	
	Access Pipe
	Bleeder Pipe
	Channel Pipe
	Channel
	Stream
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	River
	Road Pipe
	Roadside
	Roadside Pipe



1 inch = 67 feet



BEAUFORT COUNTY  
STORMWATER MANAGEMENT UTILITY BOARD AGENDA  
Wednesday, April 19, 2017  
2:00 p.m.  
Executive Conference Room, Administration Building  
Beaufort County Government Robert Smalls Complex  
100 Ribaut Road, Beaufort, South Carolina  
843.255.2805

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

1. CALL TO ORDER – 2:00 p.m.
  - A. Approval of Agenda
  - B. Approval of Minutes – March 15, 2017 ([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 ([backup](#))
  - J. Financial Report – Chanel Lewis ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
  - A. Special Presentation: Boundary Street Project – Neil Pugliese
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
  - A. May 17, 2017 ([backup](#))
9. ADJOURNMENT

