



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, September 14, 2016
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 10, 2016 ([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 – Rebecca Baker ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm ([backup](#))
 - J. Financial Report – Chanel Lewis ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Adoption of Revised BMP (Best Management Practices) Manual – View Revised BMP Manual at: <http://www.bcgov.net/departments/Engineering-and-Infrastructure/stormwater-management/Whats-New.php>
 - B. Adoption of Stormwater Ordinance Revision ([backup](#))
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. October 12, 2016 ([backup](#))
9. ADJOURNMENT

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

August 10, 2016 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 08/18/2016

Board Members

Present

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

Absent

Marc Feinberg

Ex-Officio Members

Present

Kim Jones
Scott Liggett
Van Willis

Absent

Andy Kinghorn

Beaufort County Staff

Eric Larson
David Wilhelm
Rebecca Baker
Patricia Wilson
Danny Polk
Robert O'Quinn

Visitors

Alice Howard, Beaufort County Council
Alan Warren, USCB
Reed Armstrong, Coastal Conservation League
Denise Parsick, Bft. Soil and Water Conservation Dis.
Gloria White
Bonnie Adams
Brian McIlwee, TOHHI
Bates Rambow, TOHHI

1. **Meeting called to order** – Don Smith
 - A. Agenda – Approved
 - B. June 8, 2016 Minutes - Approved.

2. **Introductions** – Completed.

3. **Public Comment(s)** –

4. **Reports** – Mr. Eric Larson, Mr. David Wilhelm, and Mrs. Rebecca Baker 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/2016/081016.pdf>

Utility Update – Eric Larson

Mr. Eric Larson discussed an organizational chart change and his title change which reflect departments under his charge. His title has been changed to Director of Environmental Engineering and Land Management.([backup](#))

Monitoring Update – Eric Larson

Mr. Larson said that Mrs. Rebecca Baker will discuss monitoring updates under the MS4 Update. Dr. Alan Warren with USCB commented that the lab is having to hand deliver Source Water (used in testing) samples to Columbia because that is the closest certified South Carolina Lab for analyzing the Source Water. The Lab is in the process of obtaining the needed certifications to avoid transporting samples in the future.

Stormwater Implementation Committee (SWIC) Report – Eric Larson

The SWIC met on August 3, 2016. Mr. Larson said the meeting would be discussed under MS4 Update.

Stormwater Related Projects – Eric Larson

Mr. Larson noted several easements that the County is trying to acquire. The Leo Green Road Easement will be discussed during New Business. Mr. Larson also mentioned the completion of the Bluffton Parkway 5A “Flyover” project. Several Stormwater and Public Works staff attended a joint final inspection prior to opening to traffic. This project has a lot of innovative Best Management Practices (BMPs) that the County will maintain. Examples are Hydrodynamic separator devices and filter devices which are used to keep the water running off the bridge clean. Mr. Don Smith added that Boundary Street has installed similar devices.

Professional Contracts Report – Eric Larson

Mr. Larson informed board members that the County Administrator has retained Bowman Consulting to do a third party evaluation of the Highway 170 Widening Drainage Project. Mr. Joe Fersner, a retired DHEC engineer, is evaluating all plans, design, construction and oversight of the project and associated drainage on a portion of the road adjacent to the Buckwater Crossings. His expert opinion will help to determine if the project has caused increased flooding to the adjacent property owner’s development.

Regional Coordination

Mr. Larson stated that the Factory Creek Watershed Regional Detention Basin “Phase II” has been permitted for the first stage of three phases. Mr. Larson also pointed out that he has completed his review of the Hilton Head National Redevelopment Zone Change and he is working with Planning staff to proactively address citizen concerns.

Municipal Reports – Eric Larson

Town of Hilton Head Island – (backup) Brian McIlwee and Bates Rambow presented a new Inventory and Modeling system designed to track stormwater inventory. Mr. Bates Rambow demonstrated how the system he designed links an Access Data Base with GIS data; which allows for evaluating, scoring, and creating projects based on details of the project. This system will be used for asset management in the future and is currently linked to the webpage so it is available to staff at any location using multiple devices.

Town of Bluffton – Mrs. Kim Jones was happy to report that the town of Bluffton has been granted their third 319(h) grant award which totals about \$1 million over a span of 8 years. The project will be located in the head waters of the May River, more specifically in the May River Preserve area. The goal is to create a Greentree Reservoir, which is a modified pond. This will be a partnership with Beaufort County because a majority of the project is located in unincorporated Beaufort County.

Mrs. Jones also announced a Public May River Action Plan Advisory Committee Meeting on Wednesday, August 17, 2016. This is a special meeting to discuss prioritizing a public sewer connection policy. The meeting will be at 1:00 PM at the Oscar Frasier Park in the Rotary Community Center.

City of Beaufort – Mr. Larson reported that the Battery Creek Pond Funded by an EPA 319(h) Grant project partnership between the City of Beaufort and Beaufort County will hold a public meeting on Thursday, August 25 at Beaufort City Hall in Council Chambers from 6:00 PM to 8:00 PM. Mr. Larson is hoping that drone footage will be available for the meeting.

Town of Port Royal - Mr. Van Willis (Town Manager) reported that the Town of Port Royal has done sewer inventories, and he is still working with residents to improve the system. The Town and the County are working together on the Green Pond drainage project and the Town is working on Cypress Wetlands improvements.

Municipal Separate Storm Sewer System (MS4 Update) – Rebecca Baker

Management Plan and Monitoring Update – Mrs. Rebecca Baker displayed a map provided by ATM (Applied Technology and Management) highlighting preliminary hot spots (pollutants of concern) based on land use. Once empirical data is available, the top 10% of pollutant loading areas of concern will most likely change.

Plan Review – Mrs. Baker referenced a table from her report which lists all the plan reviews for June and July. She also offered for the other municipalities to include their reviews in her reports. Mrs. Baker discussed the number of active permits, inspections performed and drainage related complaints investigated by Mr. Danny Polk (Stormwater Inspection Superintendent).

Public Education - Mrs. Baker said the MOA for Clemson Extension's Carolina Clear was approved. Staff is working with Carolina Clear on the planning process of the education program. Mrs. Baker thanked Mrs. Denise Parsick and Beaufort Soil and Water Conservation District for their education services this past year. In eight months they managed to reach about 20,000 people.

BMP (Best Management Practices) Manual – Mrs. Baker said the final completion is expected in September. A meeting will be held August 31st in the Executive Conference Room with Planning, Engineering and staff of the final review. Mrs. Baker explained that the BMP Manual is a 365 paged document outlining the stormwater design, construction and other aspects of stormsewer drainage systems.

Stormwater Implementation Committee (SWIC) – Mrs. Baker said that one of the main topics was a possible name change from Neighbors for Clean Water to something more regionally recognizable. A strategic planning meeting will be held on September 29th from 9:00 AM -2:00 PM at Port Royal Sound Education Building.

Maintenance Projects Report – David Wilhelm

Mr. David Wilhelm commented that the Arrow Road project costs greatly exceeded estimated costs. His goal is to supply more accurate information on initial estimates. He compared the costs of linear foot of Katie Miller Drive which were \$5.50 versus \$19.00 per linear foot for Arrow Road. Mr. Wilhelm said the high traffic area near the Sea Pines Circle increased the time and labor components of the cost. Mr. Wilhelm pointed out the Possum Hill Road project which only covered 28 feet of drainage system and cost \$12,283.33. This drainage problem was affecting a telephone pole and was a potential safety hazard. Extensive work was necessary to divert drainage around the pole.

5. Unfinished Business –

Rate Study Final Report/Update on Municipalities – Mr. Larson reported that the County adopted option E of the rate study in 2015. The City of Beaufort and the Town of Port Royal adopted option E in 2016 but they are not increasing rates for the typical single family home. The Towns of Hilton Head and Bluffton accepted their reports and adopted option A (No change to their rate structure) with no rate increases.

6. New Business –

Stormwater Ordinance Revision Related to Condos and Submerged/Marsh Properties – Mr. Larson discussed how submerged properties have been lost to erosion and/ or the ocean. These properties have not received tax notices because the properties have zero value. In 2015, these properties received Stormwater Fees because they have Parcel Identification Numbers. The updated credit manual credited the (GA) Gross Area fee, but the \$12.00 Administration fee was still being accessed. This Ordinance Revision allows for the Utility to waive the administrative fee. The County has also created a Trust that will allow parcel owners to grant a quitclaim deed to the County and give the property to the Government.

Mr. Larson also explained that master accounts for Condos were billed a Gross Area fee in 2015 due to the new rate structure and many condo master account ownerships / entities have been dissolved or no longer exist. Many tax notices were returned as undeliverable. The proposed ordinance revision reassigns Gross Area (GA) fees to the condo unit rather than the master account. This will be revenue neutral to the County but makes the fees easier to collect.

The board voted unanimously (6:0) to recommend the Stormwater Ordinance Revision Related to Condos and Submerged/Marsh Properties for approval to Beaufort County's Natural Resources Committee.

Recommendation for Two Easements on Creg Green's Property be Abandoned in Exchange for an Alternate Requested Easement – Mr. Eric Larson displayed an Easement Map showing how the County would like to abandon two easements in exchange for one easement on Creg Green's property off of Leo Green Road. This easement would address a drainage issue that the County previously tried to address, but was not successful in completing.

Ms. Bonnie Adams (Citizen of Beaufort County) had questions about ownership of parcels off Leo Green Road. Mr. Larson said he would get with her after the meeting to answer her questions. Ms. Adams also had questions about who had right of way of Leo Green Road. The board voted unanimously (6:0) to recommend to the Natural Resources Committee the proposed abandonment of two easements on Creg Green's property in exchange for an alternate requested easement.

7. Public Comment(s) – Beaufort County Councilwoman Alice Howard thanked all parties involved in the Green Pond drainage project.

8. Next Meeting Agenda – Approved and included in posted agenda.

9. Meeting Adjourned

Existing

Engineering, Infrastructure, and Land Development Division

Environmental Engineering

Planning

Public Works

Disaster Recovery
General Support
Roads & Drainage
Solid Waste & Recycling
Stormwater

Zoning

* Note:
Division branches of
“Facilities and Construction Engineering”
and
“Transportation Engineering”
remain unchanged.

Proposed

Engineering, **Transportation, and Land Management** Division *

Environmental Engineering & **Land Management**

Community Development

Planning
Zoning

Public Works

Operations

Roads
Stormwater

Solid Waste & Recycling

Stormwater

Regulatory / MS4
Capital Projects
Utility Management

Disaster Recovery

Town of Hilton Head Island

Storm Water Utility Board Presentation



August 10, 2016

Introduction

Town of Hilton Head Island Public Projects & Facilities / Engineering Division

- Scott Liggett, PE – Director PP&F / Chief Engineer
- Bryan McIlwee, PE – Asst. Town Engineer / SW Manager
- Bates Rambow – SW Data and Compliance Administrator

Background

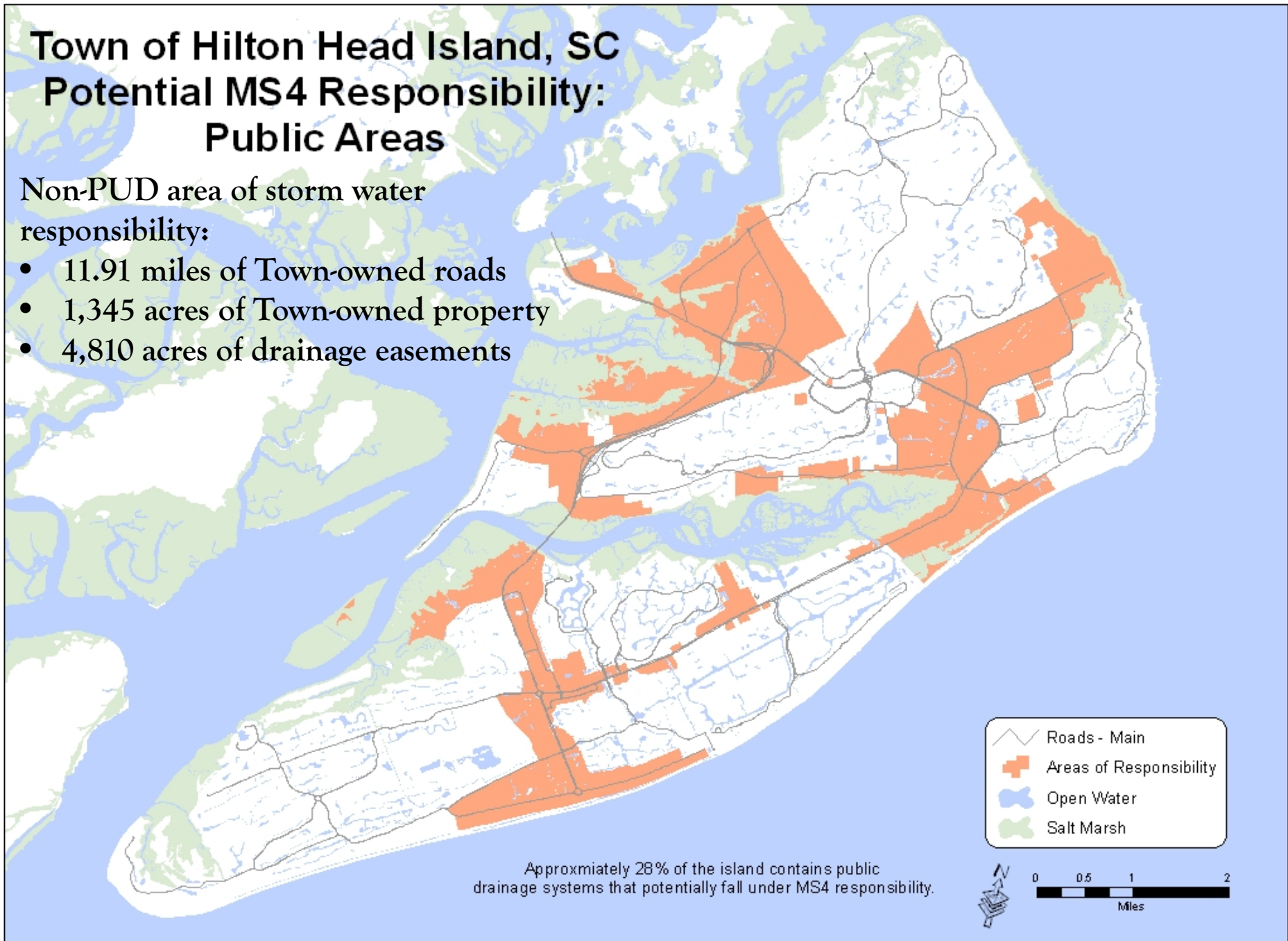
- Town SWU fee = \$108.70 / SFU; last changed in FY 2010 (\$83.23/SFU)
- FY17 Revenues are expected to be ±\$3.56M
- Bond debt of ±\$1.15M/year. Anticipated to be paid off in 2026
- 4 Staff fully funded by SWU fee; 3 Staff partially funded (10-20%)

Town of Hilton Head Island, SC

Potential MS4 Responsibility: Public Areas

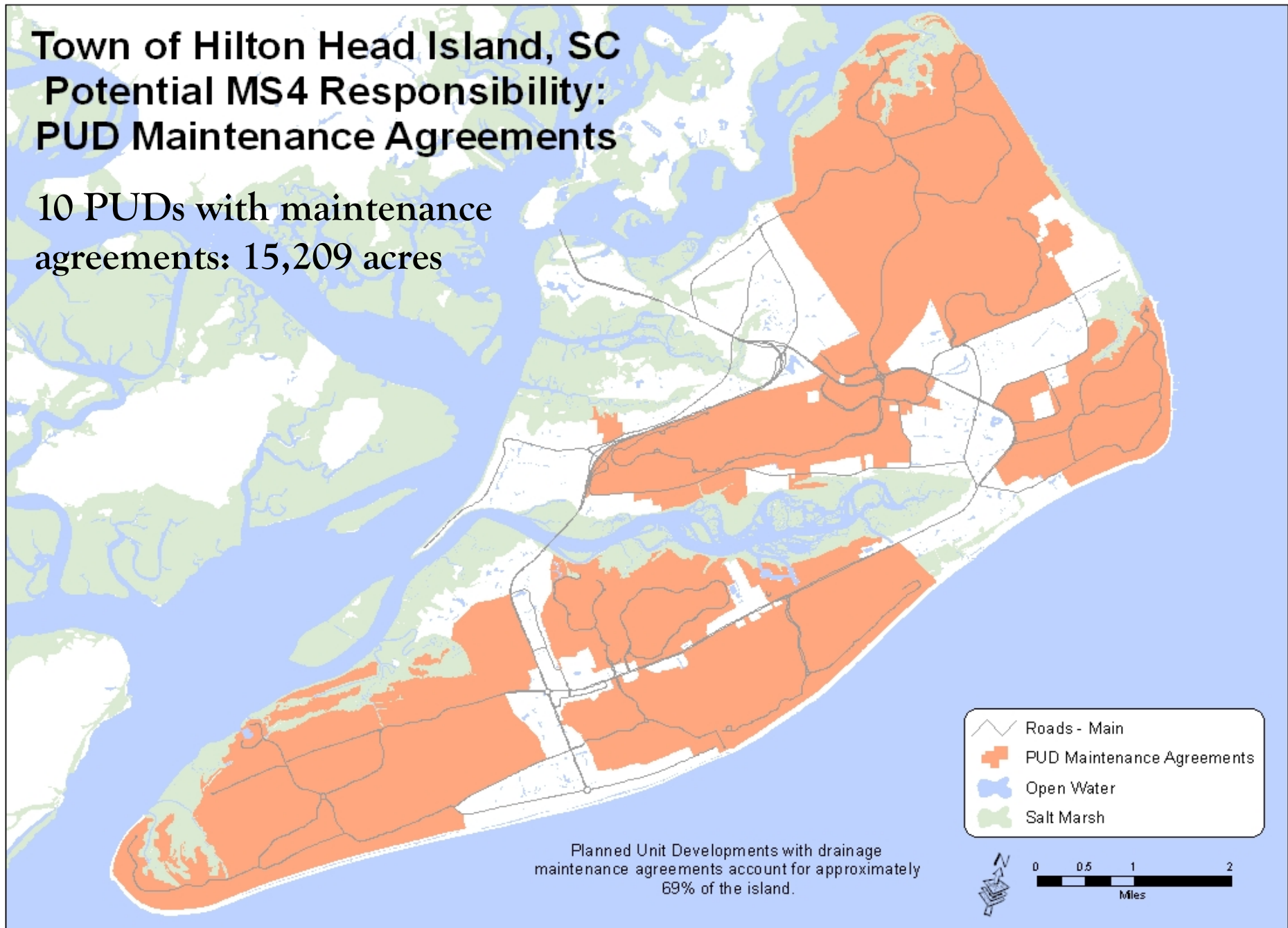
Non-PUD area of storm water responsibility:

- 11.91 miles of Town-owned roads
- 1,345 acres of Town-owned property
- 4,810 acres of drainage easements



Town of Hilton Head Island, SC Potential MS4 Responsibility: PUD Maintenance Agreements

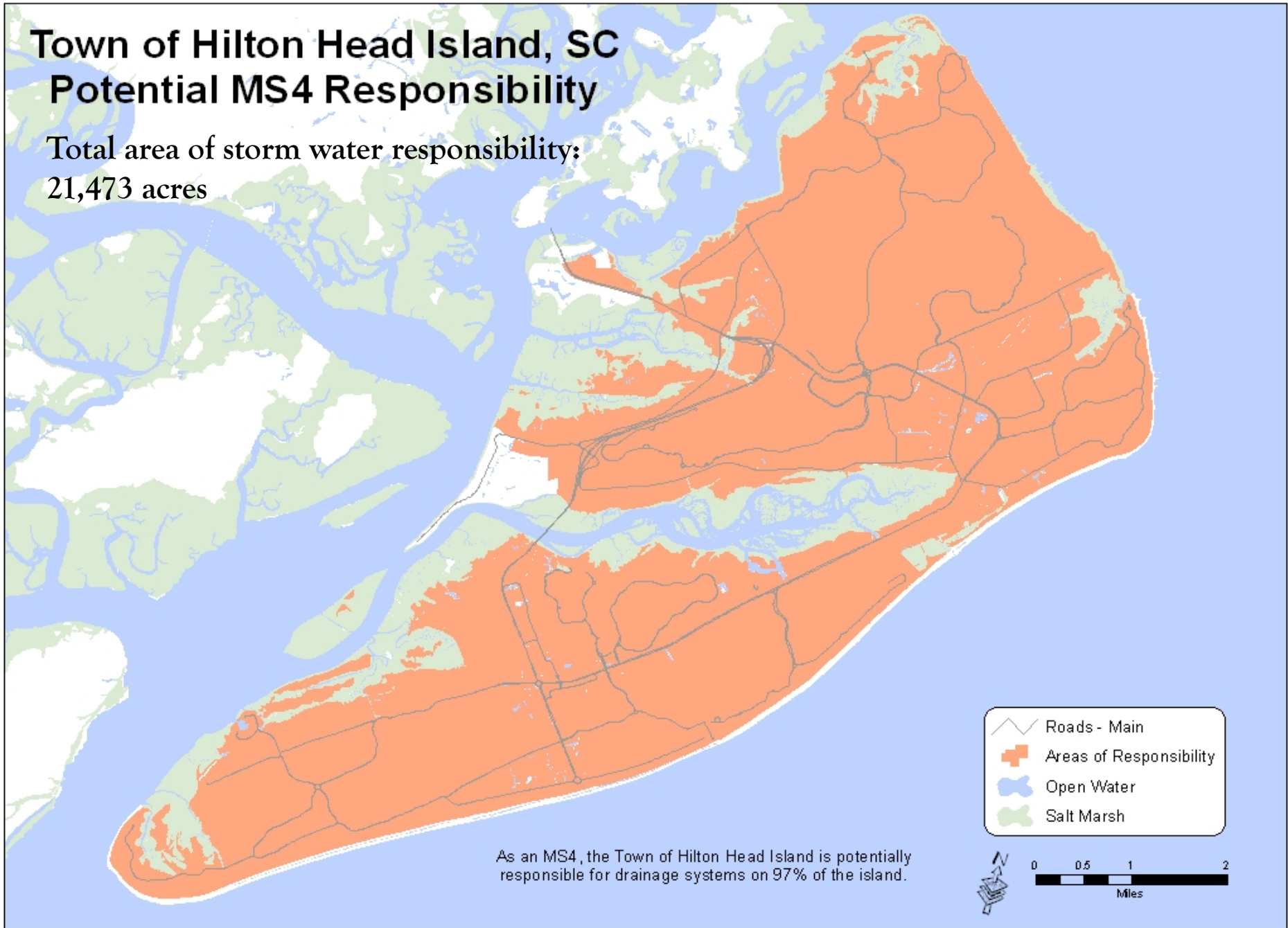
10 PUDs with maintenance
agreements: 15,209 acres



Planned Unit Developments with drainage
maintenance agreements account for approximately
69% of the island.

Town of Hilton Head Island, SC Potential MS4 Responsibility

Total area of storm water responsibility:
21,473 acres



As an MS4, the Town of Hilton Head Island is potentially responsible for drainage systems on 97% of the island.

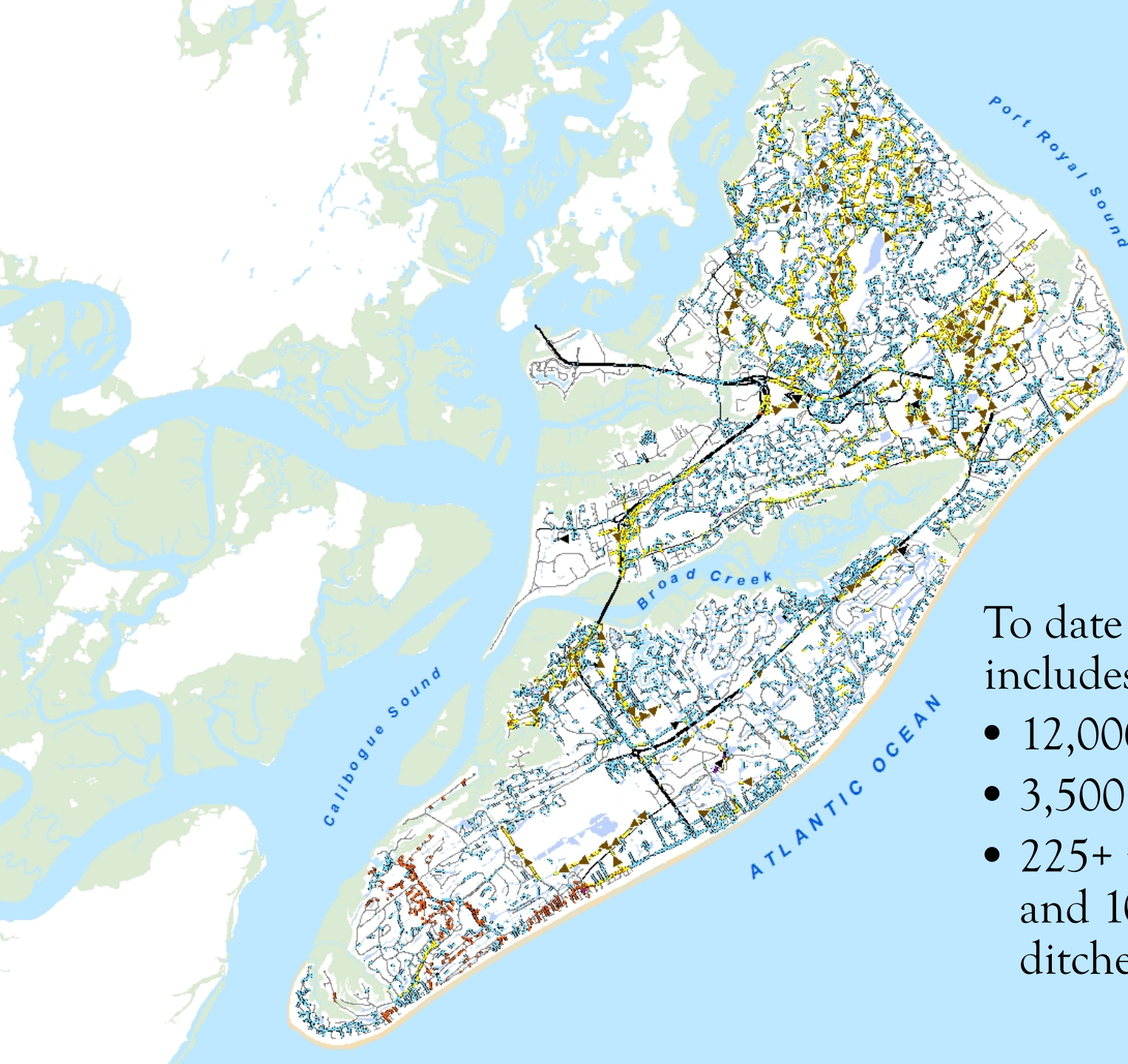
Inventory & Modeling

Purpose:

- Operation and Maintenance of system
- NPDES Permit Compliance
- Hydrologic & Hydraulic modeling (XP-SWMM)
- Water Quality modeling (IDEAL)
- Stormwater and Watershed Master Plans

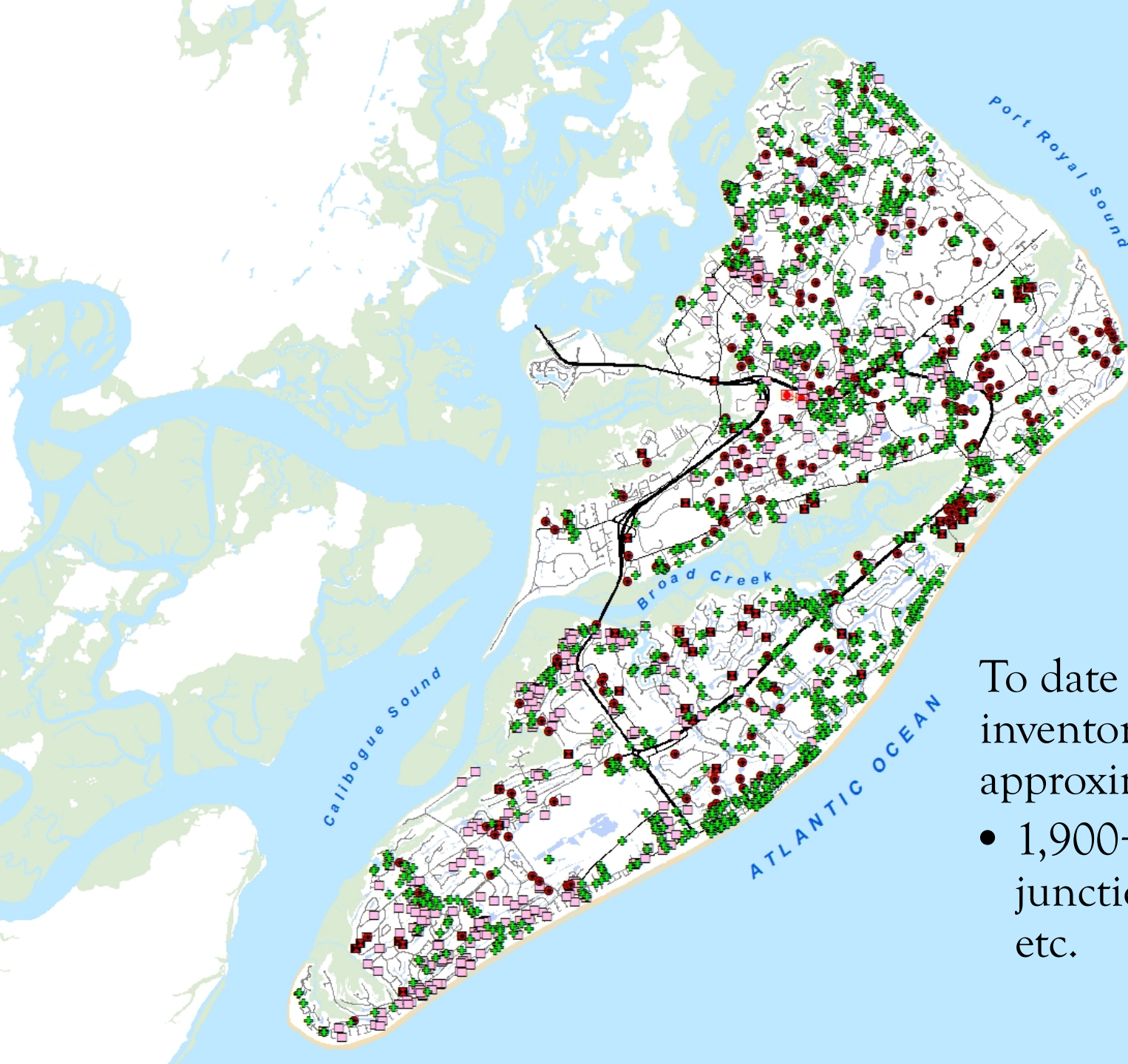
Inventory Status:

- 1995 - Initial island-wide inventory (macro level)
- 2008 - WK Dickson inventory of Shipyard Plantation
- 2010 - Bates Rambow inventoried Port Royal Plantation
- 2012 - Woolpert inventoried Hilton Head Plantation and Point Comfort
- 2013-2016 - Sea Island Land Survey and Town interns performed inventory of remaining areas



To date the inventory includes:

- 12,000+ pipes
- 3,500+ conveyances
- 225+ miles of pipes and 100+ miles of ditches.



To date the inventory includes approximately:

- 1,900+ weirs, junctions, stubs, etc.



To date the inventory includes approximately:

- 8,000+ inlets, catch basins, etc.

Service Requests

Service requests regarding flooding, water quality, maintenance, and/or the performance of the drainage system come from various sources:

- Phone calls
- E-mails
- Referrals from Town Staff or Town Council
- “Walk-ins” from the public
- Stormwater Hotline, 843-671-RAIN (7246)

Request Status:

- 612 Service Requests since initial tracking began in 2009
- 352 Service Requests from private PUD’s (58% of total)
- 163 Stormwater Service Requests in FY16
- 91 Open Requests

Service Requests - Tracking

2008: Microsoft Excel Spreadsheet

- Project tracking only
- Inefficient
 - Hundreds of Rows; Multiple Worksheets
 - Duplicate Information
 - Redundant User Input or Formulas to link cells;
User Error
- Long-term Size Limitations

Normal Page Break Preview Page Custom Layout Views

Ruler Formula Bar Gridlines Headings

Zoom 100% Zoom to Selection

New Window Arrange All Freeze Panes Hide Unhide

Split View Side by Side Synchronous Scrolling Reset Window Position

Switch Windows

Macros

E12 : fx FIDDLER'S COVE SINKHOLE

TOWN OF HILTON HEAD ISLAND - STORM WATER MAINTENANCE PROJECTS

RANK	RATING	PROJECT GIS ID NUMBER	REQUEST DATE	PROJECT NAME	PROJECT LOCATION / ADDRESS	CONTACT NAME(S)	CONTACT PHONE / E-MAIL	SCHEDULE TO BEGIN WORK	EST. COST	ESMT REQ'D (R/W or PUD)	IN ROAD R/W (OWNER)	PRMT REQ'D (ENV or ENCR)	PROBLEM DESCRIPTION / PROJECT DESCRIPTION	INACTIV E	NEED PRMTS	NEED ESMTS	DSGN ENGR	UNDER CNSTR	DONE	JOB NO.	
1	High	20090801	08/07/2009	YACHT COVE SINKHOLE	5 YACHT COVE DR			ASAP	\$11,836	NO		NO	Sinkhole in road							FY10-01	
2	High	20090901	09/09/2009	VICTORIA SQUARE - BANK STABILIZATION	VICTORIA SQUARE / INDIGO RUN			ASAP	\$22,888	NO											FY10-02
3	Low	20090902	09/09/2009	PALMETTO HEADLANDS - DITCH MAINT	PALMETTO HEADLANDS			WINTER 10		NO											FY10-03
4	High		09/09/2009	AIRPORT OUTFALL	BTW AIRPT & DILLON RD			FALL 09	\$5,658	YES											FY10-04
5	High		09/09/2009	FOLLY FIELD DRAINAGE	FOLLY FIELD ROAD / STARFISH			ASAP		YES											FY10-05
6	Low		09/09/2009	CORPUS CHRISTE DRAINAGE	CORPUS CHRISTE & NEW ORLEANS			SPRING 10		R/W	COUNTY	ENCR									FY10-06
7	Low		09/09/2009	GOLDEN HND SINKHOLE	41 GOLDEN HND IN HHP			FY 2010		PUD											FY10-07
8	High		09/09/2009	FIDDLER'S COVE SINKHOLE	45 FOLLY FIELD ROAD			ASAP	\$3,080												FY10-08
9	Low		09/22/2009	PINELAND - OLD WOODLANDS	400-416 WM HILTON PKWY			ASAP													FY10-09
10	Med		09/16/2009	ARROW ROAD DITCHES AND TIDE FLAPS	88 ARROW RD & REAR OF POST OFC			SPRING 2010		NO											FY10-10
11	Med		09/16/2009	MYRTLE LANE ROAD FLOODING	ENTIRE STREET			SUMMER 2010		R/W	TOWN	DHEC / THHI	No storm infrastructure, pvmt poor conditions - re-build entire road - new section with storm								FY10-11
12	Med		09/16/2009	HICKORY LANE ROAD FLOODING	ENTIRE STREET			SUMMER 2010		R/W	TOWN	DHEC / THHI	No storm infrastructure, pvmt poor conditions - re-build entire road - new section with storm								FY10-12
13	High		09/01/2009	PEMBROKE DRIVE	165 PEMBROKE DRIVE			ASAP	\$2,750	R/W	COUNTY										FY10-13
14	Med		09/04/2009	WILD HORSE DITCH - BUSH HOG	HHP TO WILD HORSE, PEREGRINE PT			ASAP													FY10-13
15	High		09/17/2009	58 S PT ROYAL CULVERTS	58 S PORT ROYAL DR IN PRP			WINTER 10		PUD	N/A	N/A	Replace CMP with RCP								FY10-14
16	High		09/17/2009	55 SCARBOROUGH HEAD CULVERTS	55 SCARBOROUGH HEAD RD IN PRP			WINTER 10		PUD	N/A	N/A	Replace CMP with RCP								FY10-15
17	Low		09/17/2009	PALMETTO PARKWAY OUTFALL	1 PALMETTO PARKWAY & WHP			WINTER 10													FY10-16
18	Low		09/22/2009	BENJAMIN DRIVE	BENJAMIN DRIVE DITCH							NO	Clean existing ditch								FY10-17
19	Med		09/23/2009	SQUIRE POPE DRAINAGE	CEDAR WELL APTS DITCH EXCAV			WINTER 10													FY10-18
20	High		09/28/2009	PALMETTO PARKWAY SINKHOLE	60 PALMETTO PARKWAY			ASAP	\$11,174												FY10-19
21	High		10/01/2009	GRASSLAWN AVE PIPE VIDEO	GRASSLAWN AVE PRP			WINTER 10	\$4,750												FY10-20
22	High		10/01/2009	CYGNET CT & BEST LAGOON VIDEO	OFF SEABROOK DR IN HHP			WINTER 10	\$5,170												FY10-21
23	Med		10/01/2009	FOLLY FIELD RD - BEACH AND TENNIS DITCH	40 FOLLY FIELD ROAD			WINTER 10													FY10-22
24	High		10/01/2009	PAULINE MANOR AT MATHEWS	11 PAULINE MANOR			ASAP	\$15,730												FY10-23
25	Med		10/05/2009	MARBLEHEAD DRIVEWAYS	17 & 19 MARBLEHEAD			ASAP	\$2,333												FY10-24
26	High		10/13/2009	SQUIRE POPE HEADWALL	BTW 56 & 89 SQUIRE POPE RD			ASAP	\$5,433												FY10-25
27	High		10/13/2009	SQUIRE POPE HEADWALL	BTW 56 & 89 SQUIRE POPE RD			ASAP	-\$3,104												CO10-25A
28	Low		10/14/2009	NORTH ISLAND STAGING SITE	111 LEG O'MUTTON ROAD			FY 2010													FY10-26
29	Med		10/22/2009	PALMER SIMMONS/MUDDY CR	MUDDY CREEK NEAR CAMPBELL DR			ASAP	\$7,691												FY10-27
30	Low		11/03/2009	CROSS ISL PKWY - PATH BANK EROSION	PATH NEXT TO XP ADMIN BLDG			FY2010													FY10-28
31	High		10/29/2009	INDIGO/VICTORIA EASEMENT ACC	ACROSS FROM 46 SUSSEX LANE			ASAP	\$9,640												FY10-29
32	High		12/04/2009	HIGH BLUFF ROAD LAGOON PIPES	HIGH BLUFF AT OYSTER REEF COVE			ASAP	\$56,844												FY10-30C
33	Low		11/06/2009	BAY PINES / TIDE POINTE SYSTEM	BAY PINES AND TIDE POINT CHANNEL			WINTER 10	\$22,979				Nhood system requiring survey and engineering								FY10-31
34	Med		11/05/2009	SYGC CLUBHOUSE FLOOD PROOFING	45 SHIPYARD DRIVE			WINTER 10													FY10-32
35	Low		11/05/2009	POND BEHND OLD ISL PACKET BLDG	15 EXECUTIVE PARK RD			WINTER 10													FY10-33
36	High		11/05/2009	JARVIS WETLAND DITCH / RESTORATN	4 NATURE'S WAY			WINTER 10													FY10-33
37	Med		11/05/2009	AVOCET RD / SPINNAKER BANK ERSN	19 LAGOON RD			SPRING 10													FY10-34
38	Low		11/23/2009	CROSS ISL PKWY PATHWAY FLUMES	EROSION AT END OF FLUMES			WINTER 10					Erosion where flume meets pipe under pathway, provide concrete intake at pipe.								FY10-35
39	High		08/17/2009	LAWTON SINKHOLE/PIPE REPAIRS	179 GREENWOOD DRIVE			SUMMER 09	\$7,832												
40	High		10/20/2009	LAWTON PUMP REMOVAL/INSPCTN	179 GREENWOOD DRIVE			FALL 09	\$10,187												
41	High		11/23/2009	LAWTON PUMP FLANGE REPAIRS	179 GREENWOOD DRIVE			FALL 09	\$15,867												
42	High		07/01/2009	JARVIS STARTER #3 TRANSFORMER	4 NATURE'S WAY			SUMMER 09	\$3,960												
43	High		12/02/2009	WEXFORD PUMP NUMBER 1 REPAIRS	46 YORKSHIRE DRIVE			FALL 09	\$85,987												
44	High		12/04/2009	HHPSD #1 JARVIS MAINT CONTR	4 NATURE'S WAY			SUM/FALL 09	\$2,700												
45	High		12/08/2009	MISSION COMM SCADA MON CONTR	VARIOUS PUMP STATIONS			FY 2010	\$3,991												
46	High		12/23/2009	CIRCLE CTR GRATE REPLACEMENT	CIRCLE CTR OFF POPE AVENUE			ASAP	\$683												FY10-40
47	High		01/07/2009	HERON ST SINKHOLE	9 HERON ST OFF OF NFB			ASAP	\$2,690												FY10-41
48	High		01/12/2010	WEXFORD PUMP NUMBER 2 REPAIRS	46 YORKSHIRE DRIVE			ASAP	\$22,342												
49	Med		01/14/2010	MATHEWS/MATLDA DITCH STABILIZE	MATLDA LN AT MATHEWS INTSCTN			ASAP													FY10-42
50	High		01/14/2010	FOLLY FIELD OUTFALL SURVEY	FOLLY FIELD AND STARFISH DRIVE			SPRING 2010	\$5,843												FY10-43
51	Low		01/14/2010	JARVIS PUMP HOUSE REPAIR	4 NATURE'S WAY			WINTER 10	\$3,325												FY10-44
52	Med		01/28/2010	CARRABAS TURN LANE DI UPGRADE	INT OF FOLLY FIELD RD AND US 278			WINTER 10													FY10-45
53	High		01/20/2010	TABBY WALK MATHEWS OUTFALL	TABBY WALK APARTMENTS			EMERGENCY	\$1,843												FY10-46
54	High		01/20/2010	MARSHLAND RD PW BRIDGE WASHOUT	BTWN RIVER CLUB AND BROAD PTE			EMERGENCY	\$4,524												FY10-47
55	High		01/25/2010	GUM TREE ROADSIDE DITCH	NED CT TO KATIE MILLR			SPRING 2010	\$9,734												FY10-48

Service Requests - Tracking

2011-current: Staff-developed Microsoft Access database application to track and report requests and projects.

- More Efficient
- Not linked to GIS Inventory
- High - Medium - Low Priority Scheme; Inconsistent rankings due to user subjectivity
- Inconsistent Problem Description
- Requires knowledge of Access
- Coding Requirements

Town of Hilton Head Island Storm Water Maintenance Projects



Project ID
Request Date
Priority
Project Name

Location
PUD

Description of Problem/Project

Contact Name
Contact Phone
Contact E-mail

Project Status
Schedule/Budget Status
Year
Estimated Cost
Year Completed

Notes

Project Manager
Right of Way Owner (if applicable)

Link to Project Folder

	<u>PERMITS</u>					<u>OTHER</u>		
	<u>THHI</u>	<u>COUNTY</u>	<u>DHEC</u>	<u>SCDOT</u>	<u>USACE</u>	<u>Easement(s)</u>	<u>Survey</u>	<u>Engineering</u>
Required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Service Requests - Tracking

2013-current: Access Database linked to GIS

- Mapping Capabilities
- Projects and Requests linked together
- Consistent Problem Descriptions
- Numeric Evaluation
- Requires knowledge of GIS
- Additional Coding Requirements

STORMWATER SERVICE REQUESTS

Back

Next

Add Request

Find Request

Close Form

Request ID: 679

Nearest Address 7 Sawtooth Court

Qualification:

QUALIFIES

Status:

CLOSED

Score:

6

Request Info Evaluation Project

Request Date	Nearest Address	PUD	Property or Right of Way Owner	Easement?
05/17/2016	7 Sawtooth Court	HILTON HEAD PLANTATION	PRIVATE	<input checked="" type="checkbox"/>
ContactName	ContactPhone	ContactEmail	EnteredBy	
Matt Topping	843-301-5200	matt.topping@suntrust.com	BRYAN	
Qualification	Status	GIS ID# (enter Node or Conveyance ID)		
QUALIFIES	CLOSED	40588		

Problem Type(s)

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> BUILDING FLOODING | <input type="checkbox"/> STRUCTURE/PIPE FAILURE/SINKHOLE | <input type="checkbox"/> TRASH/DEBRIS/VEGETATION |
| <input checked="" type="checkbox"/> ROAD FLOODING | <input type="checkbox"/> POOR/SLOW DRAINAGE | <input type="checkbox"/> ILLICIT DISCHARGE/ILLEGAL CONNECTION |
| <input checked="" type="checkbox"/> YARD FLOODING | <input type="checkbox"/> EROSION/SEDIMENT/SILT | <input type="checkbox"/> OTHER/MISC. |

Problem Description/Notes

Road flooding on Sawtooth Court

At time of call, it was high tide as witnessed by Bryan McIlwee in the field. Sawtooth Court is at the top of the system. Flooding was occurring elsewhere in HHP downstream of this area.

Actions for this Request (inspections, referral updates, enforcement, etc.)

Date	Action	Employee	Results
05/18/2016	INSPECTION	BRYAN	Evidence of road flooding based on debris line but water had receded. Water was 1' below grate in
*			

STORMWATER SERVICE REQUESTS

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Request ID: 679

Nearest Address: 7 Sawtooth Court

Qualification:

QUALIFIES

Status:

CLOSED

Score:

6

Request Info **Evaluation** Project

Criteria

Infrastructure

Problem Type(s)

Road	Driveway Lane Cul-de-Sac Local Access	Subcollector Collector	Minor Arterial	Major Arterial
Conveyance	Isolated System	Secondary System Secondary Control Structure	Primary System Primary Control Structure	Pump Station Critical Facility
Flood Hazard	Nuisance Flooding Localized Ponding Slow Draining Standing Water (< 1 week)	Minor Road Flooding (Temp) Standing Water (> 1 week) Yard Flooding	Road Flooding Overbank Flooding Crawl Space/Enclosure Flooding	Road Overtopping Building/Dwelling Flooding
Vegetation / Debris	Mowing Overhanging Vegetation	Organic Debris (< 50% blockage)	Organic Debris (>50% Blockage)	Organic Debris (total blockage)
Trash / Pollution	Minor Household Debris	Major Household Debris	Pollution Illicit Discharge Illegal Dumping	Hazardous Material NPDES Mandate
Erosion and Sedimentation	Minor Siltation (<25%) Minor Erosion	Moderate Siltation(50%) Moderate Erosion	Severe Siltation (>50%) Severe Erosion (undercutting)	100% Blockage Critical Failure
Structure Damage	Minor Depression Minor Damage Root Intrusion	Pipe Integrity (>50%) Frame or Grate Damage Damaged Tide Flaps and Gates Minor Sinkhole	Pipe Integrity (<50%) Broken Tide Flaps and Grates Sinkhole	Broken Pumps Generators Electrical Equipment

RequestID **679**

Date of Evaluation
05/18/2016

Total Score
6

Bonus

Relates to other priority projects (Stormwater, CIP, Sewer)	Town Council Priority; Regulatory Mandate
Multiple Related Requests (Hot Spot)	Mitigates an environmental problem / improves env. or water quality

Comments

STORMWATER SERVICE REQUESTS

Back

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Add Request

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Request ID: 679

Nearest Address 7 Sawtooth Court

Qualification:

QUALIFIES

Status:

CLOSED

Score:

6

Request Info

Evaluation

Project

Choose from Existing Projects

545

OR

Create New Project

This Request is associated with the following Project:

ProjectID

545

ProjectName

7 Sawtooth Court

ProjectStatus

COMPLETE

ProjectDescription

Clean and CCTV approximately 250 LF of storm pipe from the road to the back of the houses to determine if there are any blockages.

Line the 214 LF of 15" CMP/HDPE pipe between the houses to prevent root penetration into the block which causes blockages.

ProjectFolder

I:\STORM WATER\Operations and Maintenance\Contracts\C22-201

Edit/View Project Details

STORMWATER PROJECTS

Close Form

ProjectID 545

Project Name 7 Sawtooth Court

Project Details **Related Requests**

Project Name

7 Sawtooth Court

ProjectStatus

COMPLETE

Project Description/Scope

Clean and CCTV approximately 250 LF of storm pipe from the road to the back of the houses to determine if there are any blockages.

Line the 214 LF of 15" CMP/HDPE pipe between the houses to prevent root penetration into the block which causes blockages.

ProjectFolder

I:\STORM WATER\Operations and Maintenance\Contracts\C22-2012_Southeast Pipe Survey\Job Orders and Change Orders\Job Order 49 - 7 Sawtooth Court CCTV

TaskType	ProjectID	JobNum	TaskCategory	TaskStatus	FiscalYear	Sc
LINING	545	C22-2012 JO-50	CAPITAL	COMPLETE	2016	Install 214 LF CIPP liner in 15" pipe
TV	545	C22-2012 JO-49	MAINTENANCE	COMPLETE	2016	Clean and CCTV 250 LF of 15" pipe
*						

GIS web-based Application

- Map-based web application combines inventory and Access database
- Will work on any computer as well as mobile devices in the field
- Will provide users with a map view interface that makes it easy to identify nearby related requests and projects.
- The future goal of this project is to build a web-based ***asset management system*** for the Town's stormwater management program. The major features/elements of the system will include:
 - Service Requests Module
 - Projects Module
 - Infrastructure Module
 - NPDES Module
 - Water Quality Monitoring Module
 - FEMA/Channel Maintenance Module
 - Mobile inspection/data collection forms
 - Staff Tasks/Work Module

Questions

- Bryan McIlwee, PE – Assistant Town Engineer / Storm Water Manager

843-341-4775

bryanm@hiltonheadislandsc.gov

- Bates Rambow – Stormwater Data & Compliance Administrator

843-341-4683

batesr@hiltonheadislandsc.gov



BEAUFORT COUNTY STORMWATER UTILITY

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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Tax Run for Tax Year 2016 (TY16) – Database completed the week of September 12. QA/QC underway. On schedule to complete tax run by September 30, 2016.
2. Submerged Properties, Marshlands, and Condominiums Rate Structure and Billing – The Natural Resources Committee (NRC) and County Council (CC) have approved the changes. Ordinance readings are still proceeding.
3. Mr. Eric Larson was interviewed by a consulting firm out of North Carolina about the Stormwater Management Utility department and programs. This is for a Florida client the firm has. This is an example of how Beaufort County is considered a leader in the Stormwater field.
4. Intergovernmental Agreements (IGAs) and Memorandums of Agreements (MOAs) for Fiscal Year 2017 (FY17) – County and City of Beaufort staff met to discuss the IGA and MOAs. The City has not signed these documents yet due to questions they have.
5. South Carolina Association of Stormwater Managers (SCASM) September 8 - Mrs. Rebecca Baker and Mr. Eric Larson presented the new BMP manual and volume control requirements to the statewide stormwater managers' association.



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Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel) – No information was available at the time of this report.
2. Monitoring Plan Development – Subcommittee met to review current list of parameters and sampling programs. (See MS4 update report)



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Stormwater Implementation Committee (SWIC) Report

1. The SWIC met on September 7, 2016. Minutes are attached. ([backup](#))
2. Eric Larson participated on the interview panel to hire an extension agent for Clemson that will serve as the lead person for the public education program. The applicant has tentatively accepted the position pending Clemson Human Resources (HR) approval.
3. MS4 Subcommittee – The committee met to review Stormwater Management Plan (SWMP) drafts and data management processes.(See MS4 update report)

DRAFT Minutes

SWIC

September 7, 2016, 1:30 pm at BJWSA Community Room, Okatie, SC

Attendees:	Eric Larson, Kim Jones, Bates Rambow, Van Willis, Lamar Taylor, and Alan Warren.
------------	--

1. 1:30 pm meeting - call to order
2. Approval of August 3, 2016 Meeting Minutes - Approved by common consent.
3. Public Education
 - a. Strategic Planning session -Scheduled for September 29. Held at PRSF.
 - i. Homework assignment. County will do North of Broad. Lamar and Van to send anything extra.
 - b. Subcommittee report - Nothing to report.
4. Management Plan Status
 - a. Bob with ATM correcting the land use coverage and pollutants of concern modeling. Eric noted asked ATM to respond to Sept. 29th homework as well.
5. IGA Update and MOAs for FY 17 - County has all signed except CoB.
6. Utility Billing - Larson updated on the process of the tax run.
7. MS4
 - a. Subcommittee Report - Committee met and discussed the MS4 and monitoring database and SWMP development for IDDE SOP, enforcement response plan.
8. Monitoring
 - a. Subcommittee Report - See above.
 - b. Continued Discussion on Monitoring Plan Development - See above.
 - c. USCB Lab performed some base line monitoring for the Cypress wetland. See update below.
9. Reports by Each Jurisdiction
 - a. BC - BMP Manual revisions and timeline for completion - Larson outlined proposed changes and schedule for adoption through the SWUB and CC.
 - b. ToHHI - Hurricane results were very light. Considering a 319 grant application. They are also advertising for a new SW Manager.
 - c. ToB - Kim noted her report in the September SWUB report. Beach Sweep / River Sweep on September 17, 2016.
 - d. CoB - Battery Creek - Contractor and City staff reviewing inline BMP. Schedule for substantial completion in December.
 - e. ToPR - Starting a project to refurbish the Cypress wetland, lower bacteria loading, and invasive species. Recently partnered with Old Shell Point Neighborhood to repair infrastructure never completed correctly before the economy downturn.
10. Other items
 - a. SCASM in Columbia September 8, 2016. Beaufort County presenting the new BMP manual and Volume Control standards.
11. Next Meeting
 - a. Next meeting - October 5, 2016 @ 1:30pm @ BJWSA, 6 Snake Road
12. Adjourn



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Stormwater Related Projects

1. US 278 Retrofit Ponds (\$356,000 Budget) - Nothing new to report.
2. Okatie West / SC 170 Widening Retrofit (Design and Construction = \$915,000 Budget) – Nothing new to report. Mr. Larson attended a local Rotary meeting as a guest of the club president since this project was part of a special presentation from South Carolina Department of Health and Environmental Control (SCDHEC). A second public meeting was held at the Bluffton Library on August 17th.
3. SC 170 Widening Pond #8 project (Design and Construction = \$630,840) – Nothing new to report.
4. Easements – Staff is working on numerous easement requests. Significant locations are Salem Dr. East, McTeer Drive, Young Circle, Roseida / Glaze, and Gadwell Dr. East. Salem Dr. East may result in a condemnation. McTeer Drive looks as if the Utility may have to abandon the project.
5. Mr. Larson toured County Council District 3 with York Glover (a candidate for County Council) to review numerous complaints he has received. Mr. Glover has set up a community meeting on September 14th at Jehovah Church of Christ at 5:30PM. Mr. Larson has agreed to attend and Mr. Dave Wilhelm will also attend the meeting to respond to anticipated private road inquiries.



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – (\$475,000 Budget; \$239,542 County portion) – Applied Technology and Management (ATM) was contacted by a citizen group on Hilton Head Island who wants an additional public meeting. The meeting is scheduled for September 12th at Central Oak Baptist Church at 6:00PM. Town of Hilton Head Island (ToHHI) staff will attend.
2. Mint Farm Basin B Modification – (\$8,000 Budget) – DHEC permits are issued. Staff is working on scheduling the work.
3. SC 170 Widening Drainage – (\$17,500 Budget with 50% of funding from the Stormwater Department) – The 3rd party review of the stormwater issues has been delayed due to scheduling of interviews with the developer. A 30 day extension was granted.



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin "Phase I" & Academy Park Subdivision (cost is pending) – Nothing new to report.
2. Factory Creek Watershed Regional Detention Basin "Phase II" (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Nothing new to report.
3. Horne Development at Okatie Center in Jasper County – Mr. Larson attended the Natural Resources Committee meeting to present a summary of stormwater concerns.
4. Hilton Head National Redevelopment – A zone change hearing was held on September 1st. The Commission delayed any action. Several citizens commented with concerns about the environment and runoff.
5. Mr. Larson attended a Town of Bluffton May River Watershed Plan Advisory Committee (WAPAC) meeting. The Town discussed their strategy for sanitary sewer expansion to improve the May River. Mr. Larson was asked to comment on County plans for the same. He noted the County Stormwater ordinance does not allow expending Stormwater Utility (SWU) funds on sanitary systems, so initiatives on sanitary sewers are limited.



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Municipal Reports

1. Town of Hilton Head Island (From Bates Rambow)
 - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Stormwater Manager)
 - a. WATERSHED MANAGEMENT PROJECT UPDATES:
 - i. Stoney Creek Wetlands Restoration: Data Collection & Analysis Phase
 - Following receipt of the draft water budget including hydrology and hydraulics reports on 4/1/16, data collection in support of developing design alternatives was extended due to above average rainfall over the winter.
 - Data collection will continue for approximately 2 months into the “dry” season to measure the effects on the water table. This activity is in support of developing preliminary conceptual designs for property owner review/negotiations.
 - Final Summary Memo including conceptual design options was received July 5, 2016 and is in Staff review.
 - Next Steps:
 - Present project options to property owner for selection.
 - ii. 319 Grant Phase 2 (Pine Ridge): Construction Phase
 - Substantial completion inspection occurred July 27, 2016 with punch list items to be completed by first week of August.
 - Staff submitted a 319 Grant amendment request to extend the grant deadline to January 30, 2017 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 ponds in the Pine Ridge Community.
 - The grant amendment was approved by SCDHEC and the amended contract has been executed.
 - Next Steps:
 - Contractor completes punch list items.
 - Purchase and install engineered bacteria removal filter socks.
 - Design and install littoral shelf plantings as needed.

- 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.
 - Next Steps:
 - Execute grant contract with SCDHEC.
 - Obtain easement for access, construction and maintenance from property owner.
- iii. Stormwater Utility Management Plan Update
- Beaufort County is the managing partner for this county-wide stormwater master plan update by Applied Technology & Management.
 - A series of Public Meetings were held across the County to gather input for the Management Plan Update. The Bluffton meeting was held on Wednesday, June 22, 2016.
 - Following public input, Staff is investigating with ATM if the May River Watershed Action Plan water quality model can be completed as part of the Management Plan Update. Contractor was to provide alternatives and cost-estimates to complete the Water Quality Model in August, but requested more data.
 - Next Steps:
 - Staff is providing updated Best Management Practice locations throughout the watershed to the contractor to develop alternatives and cost-estimates.
- b. WATERSHED MANAGEMENT DIVISION UPDATES:
- In support of the Development Review process staff performed:
 - 18 Development Plan Reviews,
 - 3 Development Surety Reviews,
 - 12 Certificate of Construction Compliance Inspections,
 - 2 Pre-Construction meetings,
 - 5 Pre-Clearing inspection, and
 - 1 Post-Construction BMP.
 - August Data Collection –
 - Identified 41 outfalls and infrastructure.
 - Collected data from 4 monitoring stations at Niver Property.
 - Collected data from 2 monitoring stations at Pine Ridge.
 - 2 in-stream flow/velocity measurements collected.
 - Watershed Management Division staff is currently organizing the upcoming Beach Sweep/River Sweep. Staff has been working to secure partnerships, obtain volunteer supplies, and advertise the event. The event is scheduled to take place on September 17th from 9 AM-11 AM at Oyster Factory Park.
 - Watershed Management staff attended Part V of Pathogens in Urban Stormwater Systems: Transport of Pathogens in the Environment.
 - Watershed Management staff participated in the Stormwater Utility Board, Stormwater Implementation Committee, and MS4 and Water Quality Monitoring sub-committee meetings. These meetings allow the three (3) MS4 permit holders/jurisdictions to partner on permit requirements including education and outreach and water quality monitoring.
 - May River Watershed Management Plan Advisory Committee held a special meeting on August 17th to discuss a public sewer connection policy.
 - Watershed Management Division staff has been working with the USCB Water Quality Laboratory to develop and implement a sampling regimen for monitoring associated with the Town's most recent 319 Grant, May River Preserve Project.
 - Watershed Management Division staff has been participating in the online Clemson University Post-Construction BMP Inspector Course.

3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. Battery Creek Pond Funded by an EPA 319 Grant (\$132,609 Budget – County Portion) – Work continues. Earthwork 90% complete. We are finalizing the selection of the mechanical pre-treatment device. A Public meeting was held August 25, 2016. Attendance included 12 people. WJCL TV did a story on the project.
 - ii. No further information was available at the time of this report.

4. Town of Port Royal (From Van Willis, Town Manager)
 - i. No information was available at the time of this report.



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September 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

MS4 Update

1. Monitoring – The SWIC MS4 and monitoring subcommittees are discussing the possibilities of creating a County wide data base to track monitoring points and develop County wide standard operating procedures for taking wet and dry weather samples. We are in the process of revising the monitoring maps and hope to have them ready next month. All the municipalities will be sharing the last 12 months of their sampling results for Fecal and E.coli to determine developing trends. We will also be adding copper to standard parameters. Beaufort County will be adding E.coli to their sampling parameters.

Sources of copper in stormwater discharge from industrial facilities

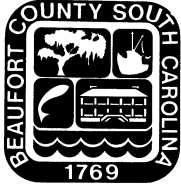
The most common sources of copper found at industrial facilities include the following:

- Vehicle brake pads
- Architectural copper
- Copper-containing pesticides
- Marine antifouling coatings
- Vehicle servicing and cleaning

2. Public Education - There is strategic planning meetings scheduled for September 29th from 9:00 to 12:00 at the Port Royal Sound Maritime Center to discuss what the needs of the community are based on the survey and staff input. BC Connect is scheduled to be launched the end of September.
3. Plan Review – 8 Plans Reviewed.

PROJECT NAME	SRT REVIEW DATE	REVIEW TYPE	RESULTS
Waterford	8/3/2016	Special Use	Approved w/conditions
Oyster Bluff PUD	8/3/2016	Discussion	Need to replace tree and buffer
Marsh Point Drive	8/17/2016	Discussion	Zoning Questions
5 Trash Farm Road	8/17/2016	Discussion	Zoning Questions
Sea Smiles	8/24/2016	Final	Deferred- Need BJWSA approval
Parkers Oyster Factory Fill permit	8/28/2016	Final	Approved w/conditions
Moss Creek	8/31/2016	Buffer	Approved w/conditions
Oyster Bluff Phase II	8/31/2016	Final	Approved w/conditions

4. Inspection summary since last Board meeting (from Danny Polk, Superintendent)
Number of active permits = 25
Number of inspections performed =47
Number of drainage related complaints investigated =4
5. BMP Manual – On 8/31/16 we presented the BMP manual and Stormwater Ordinance revision to staff and local Engineers to receive final comments and suggestions. Today we are requesting approval from SWUB.
6. SCASM – Several employees attended the SCASM in Columbia on 9/8/16. Eric Larson and Rebecca Baker gave a power point on the new BMP manual and volume control standards.



MEMORANDUM

Date: September 14, 2016

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

This report will cover two major and eighteen minor or routine projects. The Project Summary Reports are attached. ([Stormwater Summary Map by District](#))

Major Projects – Storm Drainage System Improvements:

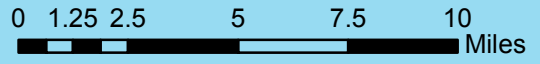
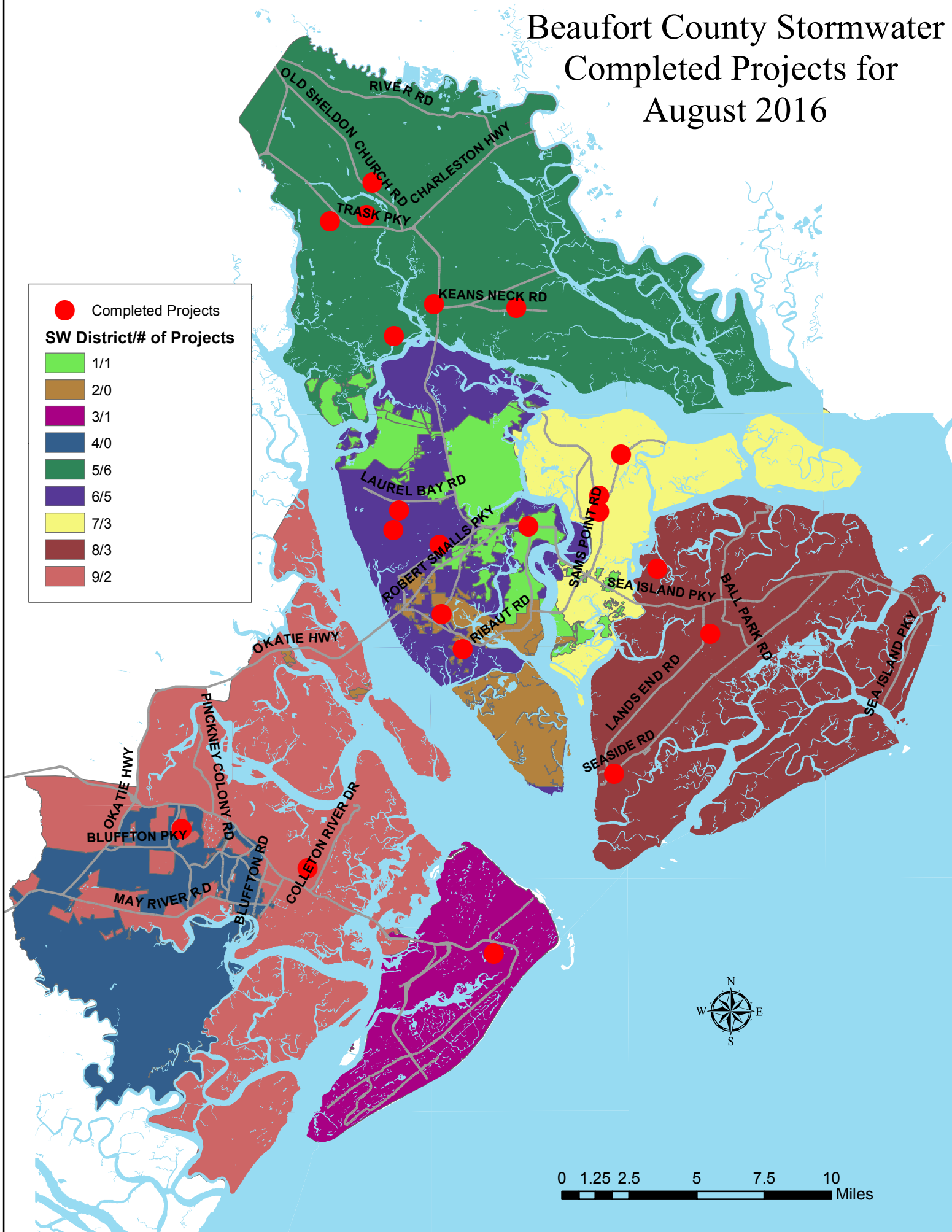
- **Hamrick Drive - Stormwater Utility District (SWUD) 6:** This project consisted of improving 2,003 feet of various stormwater drainage systems. The work also included cleaning out various pipes and hydroseeding for erosion control within the project limits. Work began March 14th and was completed May 4th. The total cost of the project was **\$63,405.64.**
- **Turtle Lane – SWUD 7:** This major project improved drainage problems between Turtle Lane and Thomas Sumter Street. The work consisted of replacing the existing undersized culvert with twin pipes to increase drainage flows. Work began April 13th and was completed May 24th. The total cost of the project was **\$17,431.52.**

Minor or Routine Projects:

- **Port Royal Island Bush Hog – SWUD 6:** This six month effort of bush hogging work improved 120,584 feet of drainage system. Over 1,100 hours was spent clearing ditches and work shelves. The total cost of this effort was **\$65,187.66.**
- **Doe Drive – SWUD 7:** This project consisted of cleaning 1,454 feet of roadside ditch and jet cleaning various pipes. The total cost was **\$14,082.62.**
- **Ernest Drive – SWUD 8:** This project consisted of cleaning 585 feet of roadside ditch, installed two driveway pipes and placing riprap. The total cost was **\$11,780.85.**
- **Laurel Street East – SWUD 6:** This project consisted of cleaning 2,509 feet of roadside ditch and jet cleaning fifteen driveway pipes. The total cost was **\$10,521.92.**
- **Lilly Drive – SWUD 5:** Work consisted of bush hogging 700 feet of drainage system, installing one access pipe, and placing riprap. The total cost was **\$6,066.62.**
- **Mayberry Lane – SWUD 7:** This project consisted of cleaning 378 feet of roadside ditch and jet cleaning various pipes. The total cost was **\$4,781.74.**
- **Old Sawmill Trace – SWUD 9:** A sinkhole was repaired in the Victoria Bluff subdivision in Bluffton. The total cost was **\$4,702.73.**

- **Mint Farm Subdivision Pond – SWUD 6:** Stormwater crews continually monitored the water elevation of a pond in the Mint Farm subdivision. The water level was lowered on an as-needed basis by pumping to an approved drainage system in the community. The total cost for this monitoring and maintenance effort was **\$4,622.85**.
- **Parkside Drive – SWUD 9:** A sinkhole was repaired in the Woodbridge subdivision in Bluffton. The total cost was **\$4,523.87**.
- **County Administrative Building - SWUD 1:** This project consisted of improving 435 feet of channel pipe under the existing parking lot. The total cost was **\$2,249.63**.
- **Toomer Road - SWUD 8:** This project consisted of jet cleaning one driveway pipe and repairing a washout. The total cost was **\$2,153.00**.
- **Warsaw Island Road - SWUD 8:** This project consisted of extending one driveway pipe and placing riprap. The total cost was **\$2,050.18**.
- **Trask Parkway Channel #1 - SWUD 5:** This project consisted of removing blockages from the ditch flowline at various locations and cleaning out one catch basin. The total cost was **\$1,514.61**.
- **Burton Wells Park - SWUD 6:** This project consisted of removing blockages from the ditch flowline and jet cleaning three crossline pipes. The total cost was **\$1,459.78**.
- **Sheldon Vacuum Truck - SWUD 5:** This project consisted of cleaning six catch basins and jet cleaning various pipes. The total cost was **\$1,404.96**.
- **Bailey Circle - SWUD 5:** This project consisted of removing blockages from the flowline of the existing ditch at various locations. The total cost was **\$1,348.79**.
- **Mystic Drive - SWUD 3:** This project consisted of jet cleaning one crossline pipe and five driveway pipes. The total cost was **\$1,115.25**.
- **Bonaire Circle South - SWUD 6:** This project consisted of cleaning 60 feet of roadside ditch and removing blockages from the flowline. The total cost was **\$699.81**.

Beaufort County Stormwater Completed Projects for August 2016





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

Project Summary: Shell Point Recreation Park/Hamrick Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 2,003 L.F. of drainage system. Bush hogged 1,385 L.F. of channel. Cleaned out 1,875 L.F. of channel. Upsized (2) driveway pipes. Installed (1) driveway pipe, (6) bleeder pipes, (2) access gates, rip rap and hydroseeded for erosion control.

Duration: 3/14/16 - 5/4/16

2016-602 / Shell Point Recreation Pk/Hamrick Dr	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
BPINST / Bleeder pipe - Installed	70.0	\$1,569.60	\$405.48	\$1,754.20	\$0.00	\$974.70	\$4,703.98
CBH / Channel- bushhogged	20.0	\$433.35	\$232.52	\$42.64	\$0.00	\$276.50	\$985.01
CCO / Channel - cleaned out	89.0	\$2,016.98	\$464.04	\$47.69	\$0.00	\$1,271.97	\$3,800.67
DPINS / Driveway Pipe - Installed	200.0	\$4,465.75	\$1,232.40	\$1,769.30	\$0.00	\$2,777.70	\$10,245.15
HAUL / Hauling	312.0	\$7,101.02	\$2,450.00	\$8,973.05	\$0.00	\$4,564.93	\$23,089.00
HYDR / Hydroseeding	24.0	\$544.86	\$46.12	\$409.28	\$0.00	\$338.22	\$1,338.48
LM / Loading Materials	75.0	\$1,663.70	\$509.01	\$457.93	\$0.00	\$1,054.05	\$3,684.69
ONJV / Onsite Job Visit	71.0	\$2,253.67	\$251.58	\$121.27	\$0.00	\$1,560.68	\$4,187.20
PL / Project Layout	4.0	\$182.40	\$14.48	\$9.05	\$0.00	\$135.84	\$341.77
PP / Project Preparation	1.0	\$45.60	\$3.62	\$3.62	\$0.00	\$33.96	\$86.80
PRRECON / Project Reconnaissance	6.0	\$139.49	\$7.08	\$8.25	\$0.00	\$86.28	\$241.10
RRI / Rip Rap - Installed	40.0	\$896.06	\$308.10	\$51.98	\$0.00	\$553.50	\$1,809.64
RSDCL / Roadside Ditch - Cleanout	111.0	\$2,464.32	\$652.14	\$335.06	\$0.00	\$1,541.28	\$4,992.80
SG / Shoot Grade	20.0	\$450.36	\$35.40	\$7.23	\$0.00	\$266.70	\$759.69
SPACT / Stockpile activity	15.0	\$348.73	\$17.70	\$8.25	\$0.00	\$215.70	\$590.38
STAGING / Staging Materials/Equipment	24.0	\$587.20	\$103.82	\$11.13	\$0.00	\$354.64	\$1,056.79
SVCREQ / Service Request	1.0	\$45.60	\$3.62	\$1.81	\$0.00	\$33.96	\$84.99
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
WSDR / Workshelf - Dressed	30.0	\$697.50	\$187.45	\$16.50	\$0.00	\$431.40	\$1,332.85
2016-602 / Shell Point Recreation Pk/Hamrick Dr Sub Total	1,115.0	\$25,954.38	\$6,924.56	\$14,028.23	\$0.00	\$16,498.47	\$63,405.64
Grand Total	1,115.0	\$25,954.38	\$6,924.56	\$14,028.23	\$0.00	\$16,498.47	\$63,405.64

Before

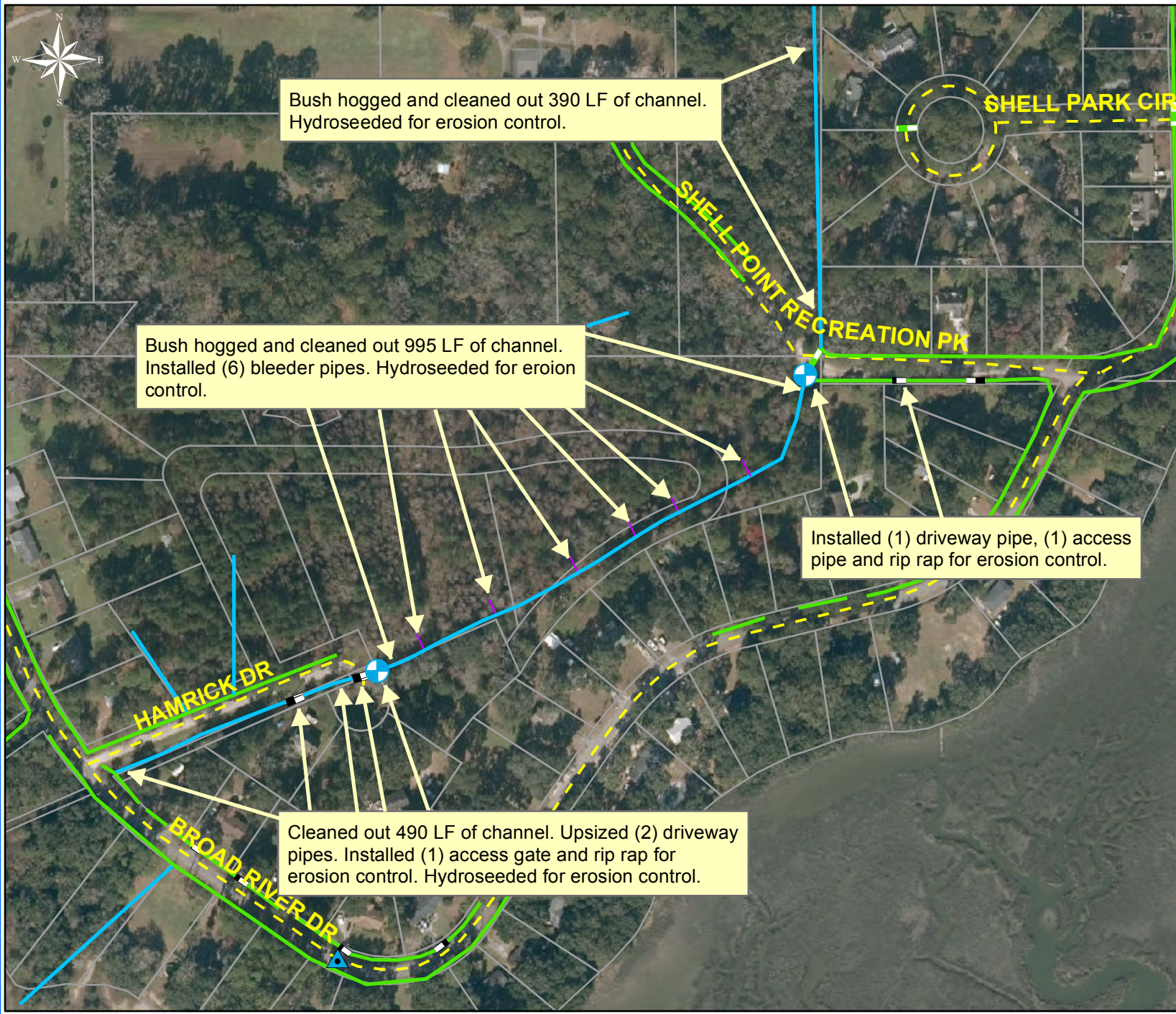


During



After





Bush hogged and cleaned out 390 LF of channel. Hydroseeded for erosion control.

Bush hogged and cleaned out 995 LF of channel. Installed (6) bleeder pipes. Hydroseeded for eroion control.

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

Cleaned out 490 LF of channel. Upsized (2) driveway pipes. Installed (1) access gate and rip rap for erosion control. Hydroseeded for erosion control.

Project: Shell Point Recreation Park/
Hamrick Drive

Activity: Routine/
Preventive
Maintenance

Project #:
2016-602

Township/SW Dist:
Port Royal Island/6

Completed:
May 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 = 250 feet

Prepared By: BC Stormwater Management Utility
Date Print: 09/01/2016

File:C:\project summaries map/Shell Point Recreation Park- Hamrick Drive 2016-602



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Royal Pines Boulevard/Turtle Lane

Activity: Drainage Improvement

Narrative Description of Project:

Project improved 148 L.F. of drainage system. Upsized (1) overflow pipe to twin pipes and rip rap for erosion control.

Duration: 4/13/16 - 5/24/16

2016-604 / Royal Pines Blvd/Turtle Lane	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CPUPD / Channel Pipe - Upsized	70.0	\$1,429.60	\$631.76	\$2,278.46	\$0.00	\$919.80	\$5,259.62
HAUL / Hauling	89.0	\$2,010.00	\$631.92	\$1,699.72	\$0.00	\$1,293.68	\$5,635.32
ONJV / Onsite Job Visit	22.0	\$730.78	\$77.88	\$39.82	\$0.00	\$520.46	\$1,368.94
PP / Project Preparation	9.0	\$192.30	\$10.62	\$4.95	\$0.00	\$126.36	\$334.23
RRI / Rip Rap - Installed	30.0	\$658.80	\$249.28	\$132.39	\$0.00	\$421.20	\$1,461.67
SC / Sediment Control	10.0	\$236.95	\$17.70	\$52.96	\$0.00	\$158.70	\$466.31
SG / Shoot Grade	12.0	\$256.40	\$14.16	\$13.20	\$0.00	\$168.48	\$452.24
SVCREQ / Service Request	4.0	\$182.40	\$14.48	\$3.62	\$0.00	\$135.84	\$336.34
WSDR / Workshelf - Dressed	16.0	\$340.64	\$43.06	\$18.48	\$0.00	\$221.40	\$623.58
WSGRB / Workshelf - Grubbed	35.0	\$740.30	\$234.20	\$18.15	\$0.00	\$482.25	\$1,474.90
2016-604 / Royal Pines Blvd/Turtle Lane Sub Total	297.5	\$6,789.92	\$1,925.06	\$4,261.76	\$0.00	\$4,454.78	\$17,431.52
Grand Total	297.5	\$6,789.92	\$1,925.06	\$4,261.76	\$0.00	\$4,454.78	\$17,431.52

Before



During



After



Project: Royal Pines Boulevard/
Turtle Lane

Activity: Drainage
Improvement

Project #:
2016-604

Township/SW Dist:
Ladys Island/7

Completed:
May 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 = 170 feet



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

Project Summary: Port Royal Island Bush Hog

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 11/12/15 - 6/8/16

Second rotation from November 2015 to June 2016. Project improved 120,584 L.F. of drainage system.

Project improved 120,584 L.F. of drainage system. Bush hogged 120,584 L.F. of workshelf and channel. This project consisted of the following areas:

Public Works Complex (1,728 L.F.), Walker Circle (4,247 L.F.), Oakview Road (800 L.F.), Marina Boulevard (1,000 L.F.), St Paul's Church Road (2,300 L.F.), Forest Field Road (6,400 L.F.), Josephine Drive (250 L.F.), Parris Island Gateway (1,200 L.F.), Gillison Loop (532 L.F.), Young Circle (313 L.F.), Providence Road (3,222 L.F.) Chisholm Hill Road (6,606 L.F.), Bonaire Circle South (500 L.F.), Cleveland Drive (1,740 L.F.), Greenleaf Lane (512 L.F.), Mulrain Road (760 L.F.), L.H. Nelson Drive (800 L.F.), Smalls Hill Road (1,229 L.F.), Hale Drive (4,411 L.F.), Gamecock Way (1,080 L.F.), Paukie Island Road (1,138 L.F.), Cleveland Drive Communication Tower (1,300 L.F.), Ihly Farm Road (2,035 L.F.), Fairgrounds (1,450 L.F.), Poppy Hill Road (5,668 L.F.), Parker Drive (7,279 L.F.), Island Tank Drive (596 L.F.), Hobcaw Drive (676 L.F.), Huron Drive (300 L.F.), Bay Pines Road (2,770 L.F.), Shanklin Road (8,063 L.F.), Broad River Bouelvard (800 L.F.), Possum Hill Road (2,175 L.F.), Leo Green Road (1,241 L.F.), Burton Wells Road (11,658 L.F.), Zehm Lane (3,007 L.F.), Lawson Road (576 L.F.), Shein Loop (2,696 L.F.), Mroz Road (1,572 L.F.), Pinewood Circle (2,949 L.F.), Irongate Drive (941 L.F.), Blacksmith Circle (181 L.F.), Capehart Circle (206 L.F.), Capehart Drive (747 L.F.), Powell Drive (5,225 L.F.), County Shed Road (2,501 L.F.), Donaldson Drive (424 L.F.), Mamie Frazer Lane (612 L.F.), Old Salem Road (917 L.F.), Mink Point Boulevard (1,126 L.F.), Laurel Street West (540 L.F.), Cherokee Farms Road (3,981 L.F.), Peace Haven Drive (714 L.F.), Roseida Road (850 L.F.), Roseida Road Extension (1,089 L.F.), Stanley Farm Road (2,241 L.F.) and Unidentified area (701 L.F.)

2016-301A / Port Royal Island Bush Hog	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	3.5	\$82.22	\$0.00	\$0.00	\$0.00	\$46.31	\$128.52
CBH / Channel- bushhogged	1,181.0	\$25,872.01	\$15,908.69	\$2,171.19	\$0.00	\$16,573.18	\$60,525.08
ONJV / Onsite Job Visit	44.0	\$1,497.06	\$148.68	\$138.00	\$0.00	\$1,064.20	\$2,847.94
PRRECON / Project Reconnaissance	4.0	\$91.53	\$7.08	\$7.16	\$0.00	\$59.40	\$165.17
STBY / Stand By	10.0	\$222.83	\$0.00	\$0.00	\$0.00	\$143.40	\$366.23
WSBH / Workshelf - Bush Hogged	30.0	\$661.00	\$56.60	\$38.13	\$0.00	\$399.00	\$1,154.73
2016-301A / Port Royal Island Bush Hog	1,272.5	\$28,426.64	\$16,121.05	\$2,354.48	\$0.00	\$18,285.49	\$65,187.66
Sub Total							
Grand Total	1,272.5	\$28,426.64	\$16,121.05	\$2,354.48	\$0.00	\$18,285.49	\$65,187.66

Before



During



After





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

Project Summary: Doe Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 5/31/16 - 6/28/16

Project improved 1,454 L.F. of drainage system. Cleaned out 1,454 L.F. of roadside ditch. Jetted (1) crossline pipe and (19) driveway pipes. Hydroseeded for erosion control

2016-620 / Doe Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CLPJT / Crossline Pipe - Jetted	10.0	\$234.90	\$43.40	\$25.19	\$0.00	\$154.45	\$457.94
DLO / Ditch Layout	40.0	\$903.20	\$35.40	\$14.72	\$0.00	\$542.80	\$1,496.12
DPJT / Driveway Pipe - Jetted	36.5	\$859.20	\$112.84	\$118.07	\$0.00	\$565.28	\$1,655.39
HAUL / Hauling	52.0	\$1,158.04	\$415.48	\$279.39	\$0.00	\$749.84	\$2,602.75
HYDR / Hydroseeding	9.0	\$204.12	\$23.06	\$238.86	\$0.00	\$119.58	\$585.62
ONJV / Onsite Job Visit	2.0	\$68.36	\$7.08	\$7.36	\$0.00	\$48.94	\$131.74
RSDCL / Roadside Ditch - Cleanout	172.0	\$3,842.47	\$843.57	\$137.81	\$0.00	\$2,291.90	\$7,115.75
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2016-620 / Doe Drive Sub Total	322.5	\$7,294.38	\$1,480.83	\$821.40	\$0.00	\$4,486.02	\$14,082.62
Grand Total	322.5	\$7,294.38	\$1,480.83	\$821.40	\$0.00	\$4,486.02	\$14,082.62

Before



During



After





Project: Doe Drive
 Activity: Routine/
 Preventive
 Maintenance
 Project #:
 2016-620
 Township/SW Dist:
 Ladys Island/7
 Completed:
 June 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 = 210 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 06/28/19
 File: C:\project summaries map\Doe Drive_2016-620



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

Project Summary: Ernest Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 5/10/16 - 5/26/16

Project improved 585 L.F. of drainage system. Cleaned out 585 L.F. of roadside ditch. Installed (2) driveway pipes, rip rap and hydroseeded for erosion control.

2014-580 / Ernest Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPINS / Driveway Pipe - Installed	30.0	\$641.00	\$194.44	\$750.32	\$0.00	\$411.00	\$1,996.76
DWASPH / Driveway - Asphalt	63.0	\$1,341.50	\$179.74	\$60.23	\$0.00	\$856.05	\$2,437.51
HAUL / Hauling	46.0	\$1,024.42	\$367.54	\$1,988.14	\$0.00	\$663.32	\$4,043.42
ONJV / Onsite Job Visit	13.0	\$444.34	\$46.02	\$28.96	\$0.00	\$318.11	\$837.43
RRI / Rip Rap - Installed	21.0	\$448.70	\$37.22	\$323.02	\$0.00	\$287.70	\$1,096.64
RSDCL / Roadside Ditch - Cleanout	30.0	\$641.00	\$231.00	\$48.76	\$0.00	\$411.00	\$1,331.76
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2014-580 / Ernest Drive Sub Total	204.0	\$4,565.06	\$1,055.96	\$3,199.42	\$0.00	\$2,960.41	\$11,780.85
Grand Total	204.0	\$4,565.06	\$1,055.96	\$3,199.42	\$0.00	\$2,960.41	\$11,780.85

Before



During



After





Project: Ernest Drive

Activity: Routine/ Preventive Maintenance














Project #: 2014-580

Township/SW Dist: St. Helena Island/8

Completed: May 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

0 62.5125 250 375 500 Feet

1 inch = 260 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 09/01/2016
 File:C:\project summaries map\Ernest Drive_2014-580



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

Project Summary: Laurel Street East

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 2,509 L.F. of drainage system. Cleaned out 2,509 L.F. of roadside ditch. Jetted (15) driveway pipes.

Duration: 3/29/16 - 4/18/16

2016-606 / Laurel Street East	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CCO / Channel - cleaned out	40.0	\$893.59	\$248.27	\$35.40	\$0.00	\$533.00	\$1,710.26
DPJT / Driveway Pipe - Jetted	14.0	\$333.70	\$78.12	\$73.82	\$0.00	\$220.33	\$705.97
HAUL / Hauling	47.0	\$1,046.69	\$375.53	\$80.79	\$0.00	\$677.74	\$2,180.75
ONJV / Onsite Job Visit	2.0	\$68.36	\$7.08	\$7.10	\$0.00	\$48.94	\$131.48
RSDCL / Roadside Ditch - Cleanout	130.0	\$2,928.96	\$762.51	\$45.85	\$0.00	\$1,743.40	\$5,480.72
SPSWI / Special Project - SWI	6.0	\$137.28	\$0.00	\$49.04	\$0.00	\$89.10	\$275.42
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2016-606 / Laurel Street East Sub Total	240.0	\$5,432.67	\$1,471.51	\$292.00	\$0.00	\$3,325.74	\$10,521.92
Grand Total	240.0	\$5,432.67	\$1,471.51	\$292.00	\$0.00	\$3,325.74	\$10,521.92

Before



During



After





Project: Laurel Street East

Activity: Routine/ Preventive Maintenance

Project #: 2016-606

Township/SW Dist: Port Royal Island/6

Completed: April 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 = 250 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Lilly Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 5/5/16 - 5/9/16

Project improved 700 L.F. of drainage system. Bush hogged 700 L.F. of channel. Installed (1) access pipe, rip rap and hydroseeded for erosion control.

2016-565 / Lilly Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	45.0	\$1,007.40	\$204.43	\$1,149.57	\$0.00	\$624.75	\$2,986.15
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CBH / Channel- bushhogged	10.0	\$222.83	\$37.92	\$24.06	\$0.00	\$148.50	\$433.30
HAUL / Hauling	25.0	\$568.90	\$199.75	\$603.39	\$0.00	\$370.75	\$1,742.79
HYDR / Hydroseeding	15.0	\$352.40	\$181.47	\$121.29	\$0.00	\$230.85	\$886.01
2016-565 / Lilly Drive Sub Total	95.5	\$2,163.27	\$623.57	\$1,898.31	\$0.00	\$1,381.46	\$6,066.62
 Grand Total	 95.5	 \$2,163.27	 \$623.57	 \$1,898.31	 \$0.00	 \$1,381.46	 \$6,066.62

Before



During



After





Project: Lilly Drive

Activity: Routine/ Preventive Maintenance

Project #: 2016-565

Township/SW Dist: Sheldon/5

Completed: May 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 = 170 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 08/31/16
 File: C:\project summaries map\Lilly Drive_2016-565



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

Project Summary: Mayberry Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 378 L.F. of drainage system. Cleaned out 378 L.F. of roadside ditch.
Jetted (1) crossline pipe and (4) driveway pipes.

Duration: 6/15/16 - 6/22/16

2016-625 / Mayberry Lane	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CLPJT / Crossline Pipe - Jetted	14.0	\$328.86	\$60.76	\$38.10	\$0.00	\$216.23	\$643.95
HAUL / Hauling	13.5	\$306.03	\$107.87	\$188.85	\$0.00	\$199.19	\$801.93
ONJV / Onsite Job Visit	5.0	\$170.90	\$17.70	\$18.10	\$0.00	\$122.35	\$329.05
RSDCL / Roadside Ditch - Cleanout	74.0	\$1,663.34	\$256.80	\$64.44	\$0.00	\$984.90	\$2,969.48
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2016-625 / Mayberry Lane Sub Total	107.5	\$2,493.22	\$443.13	\$309.49	\$0.00	\$1,535.90	\$4,781.74
 Grand Total	107.5	\$2,493.22	\$443.13	\$309.49	\$0.00	\$1,535.90	\$4,781.74

Before



During



After





Project: Mayberry Lane

Activity: Routine/ Preventive Maintenance

Project #: 2016-625

Township/SW Dist: Ladys Island/7

Completed: June 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: Old Sawmill Trace

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired sinkhole. Cleaned out (1) catch basin. Jetted (1) crossline pipe.

Duration: 7/6/16 - 7/20/16

2017-502 / Old Sawmill Trace	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CPREP / Crossline Pipe - Repaired	42.0	\$954.74	\$57.60	\$123.32	\$0.00	\$609.72	\$1,745.38
HAUL / Hauling	13.0	\$323.70	\$122.46	\$665.33	\$0.00	\$216.21	\$1,327.70
SD / Soft Digging	20.0	\$469.80	\$86.80	\$65.00	\$0.00	\$308.90	\$930.50
SR / Sinkhole repair	18.0	\$385.02	\$48.63	\$10.80	\$0.00	\$236.34	\$680.79
2017-502 / Old Sawmill Trace Sub Total	93.5	\$2,145.01	\$315.49	\$864.45	\$0.00	\$1,377.79	\$4,702.73
Grand Total	93.5	\$2,145.01	\$315.49	\$864.45	\$0.00	\$1,377.79	\$4,702.73

Before



During



After





Project: Old Sawmill Trace

Activity: Routine/ Preventive Maintenance

Project #: 2017-502

Township/SW Dist: Bluffton/9

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: Mint Farm Subdivision Pond

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Dewatered pond to safe elevation.

Duration: 8/31/15 - 4/13/16

2016-321 / Mint Farm Sub. Pond	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DWP / Dewatered Pond	80.0	\$1,817.91	\$158.54	\$76.80	\$0.00	\$1,161.73	\$3,214.98
HAUL / Hauling	15.0	\$324.96	\$22.40	\$10.40	\$0.00	\$206.55	\$564.31
ONJV / Onsite Job Visit	10.0	\$362.34	\$35.64	\$19.80	\$0.00	\$248.21	\$665.99
PP / Project Preparation	3.0	\$92.25	\$10.62	\$1.65	\$0.00	\$54.69	\$159.21
2016-321 / Mint Farm Sub. Pond Sub Total	108.5	\$2,609.21	\$227.20	\$108.65	\$0.00	\$1,677.80	\$4,622.85
Grand Total	108.5	\$2,609.21	\$227.20	\$108.65	\$0.00	\$1,677.80	\$4,622.85

Before



During



After



Project: Mint Farm Subdivision Pond

Activity: Routine/
Preventive
Maintenance














Project #:
2016-321

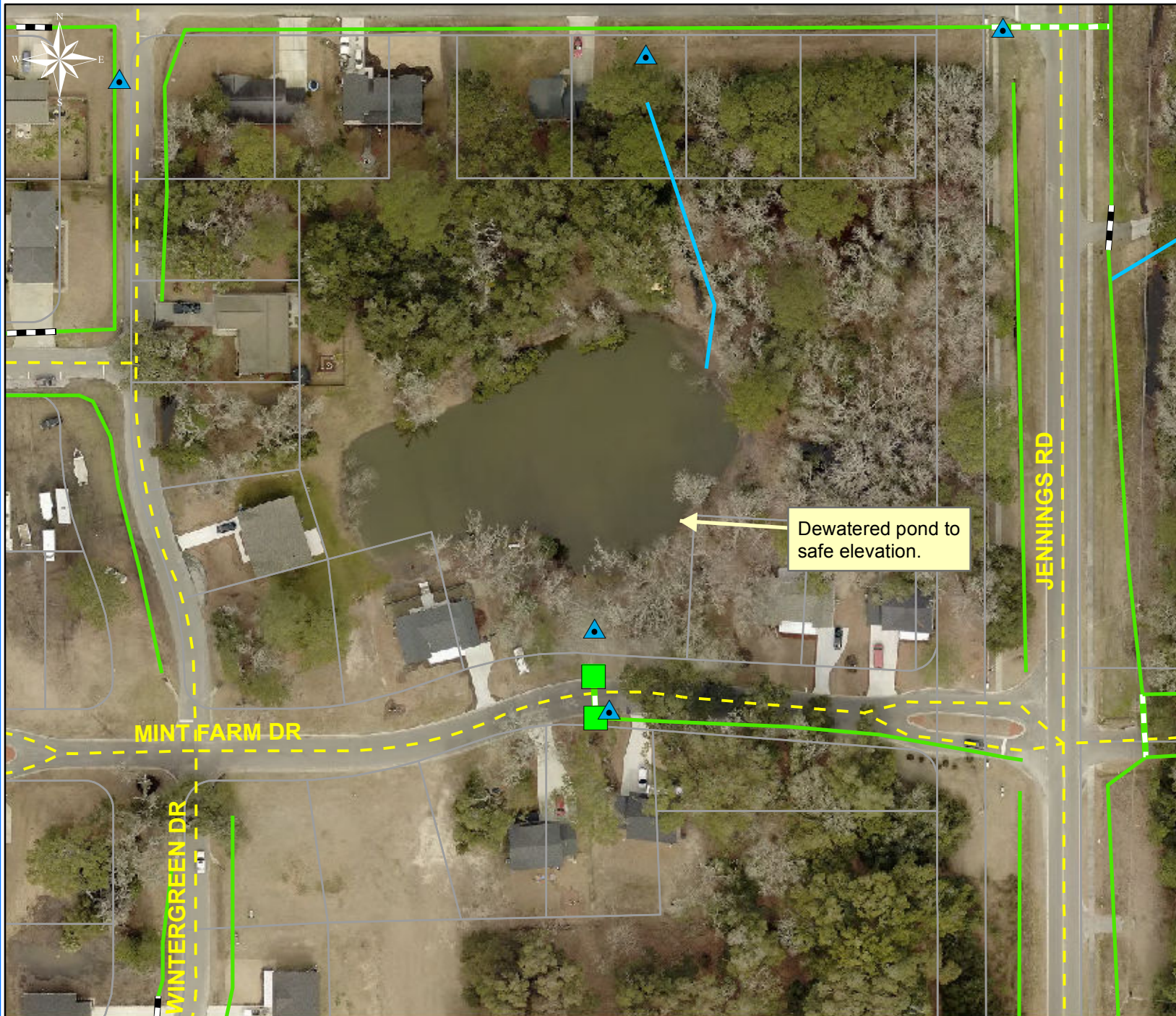
Township/SW Dist:
Port Royal Island/6

Completed:
April 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 = 96 feet

Prepared By: BC Stormwater Management Utility

Date Print: 07/18/2016

File: C:\project summaries map\Mint Farm Sddivision Pond_2016-321



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Woodbridge Subdivision - Parkside Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired sinkhole.

Duration: 6/7/16 - 7/20/16

2016-624 / Woodbridge Subdivision	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	18.0	\$432.45	\$148.11	\$679.90	\$0.00	\$265.71	\$1,526.17
SD / Soft Digging	6.0	\$140.94	\$26.04	\$22.60	\$0.00	\$92.67	\$282.25
SR / Sinkhole repair	67.0	\$1,535.36	\$81.73	\$108.10	\$0.00	\$971.91	\$2,697.10
2016-624 / Woodbridge Subdivision Sub Total	91.5	\$2,120.50	\$255.88	\$810.60	\$0.00	\$1,336.91	\$4,523.87
Grand Total	91.5	\$2,120.50	\$255.88	\$810.60	\$0.00	\$1,336.91	\$4,523.87

Before

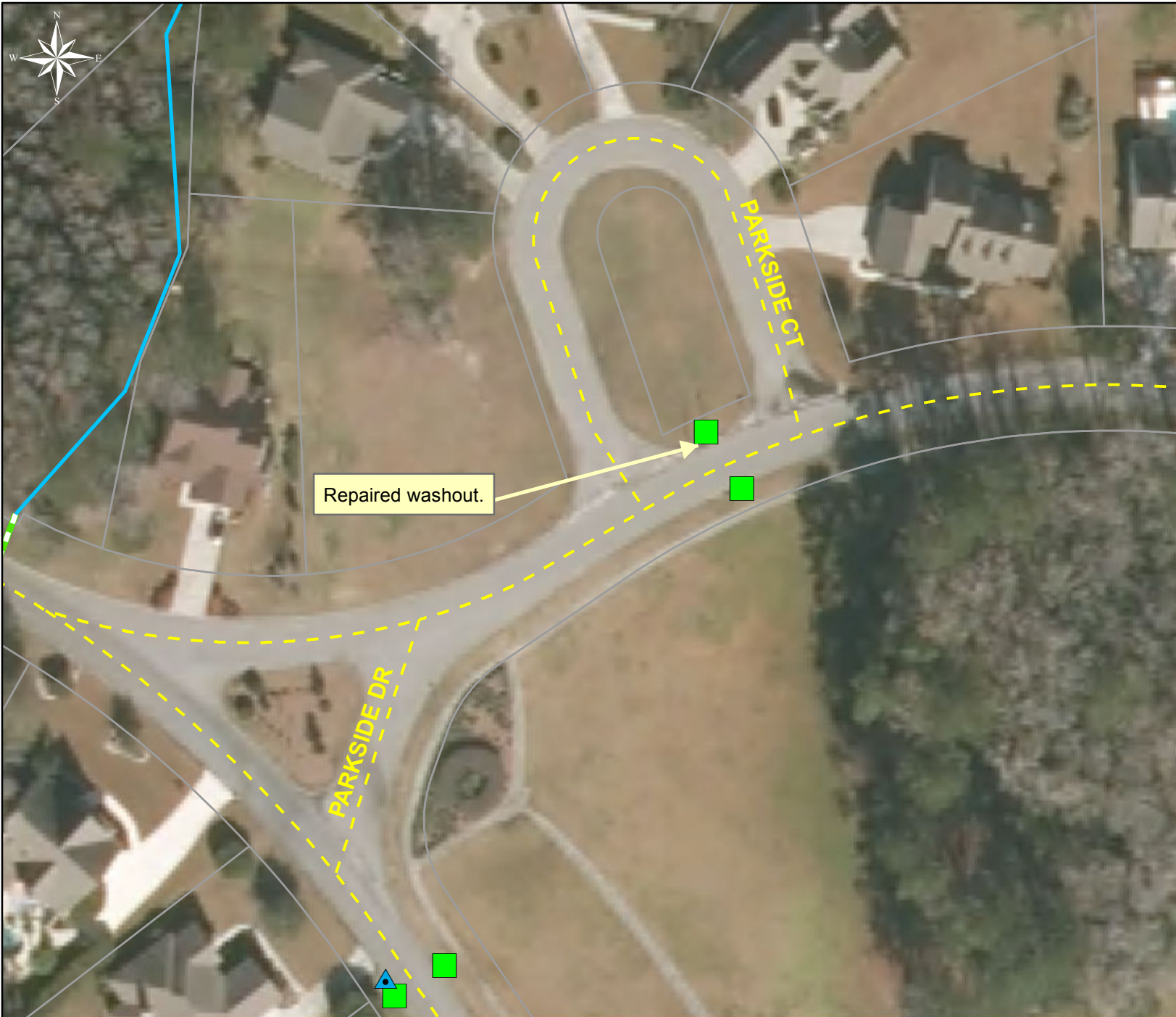


During



After





Project:
Woodbridge
Subdivision-
Parkside Drive

Activity: Routine/
Preventive
Maintenance














Project #:
2016-624

Township/SW Dist:
Bluffton/9

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

0 15 30 60 90 120
Feet

1 inch = 67 feet

Prepared By: BC Stormwater Management Utility
Date Print: 08/31/2016

File: C:\project summaries map\Woodbridge Subdivision-Parkside Drive_2016-624



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Beaufort County Administrative Building

Activity: Routine/Preventive Maintenance

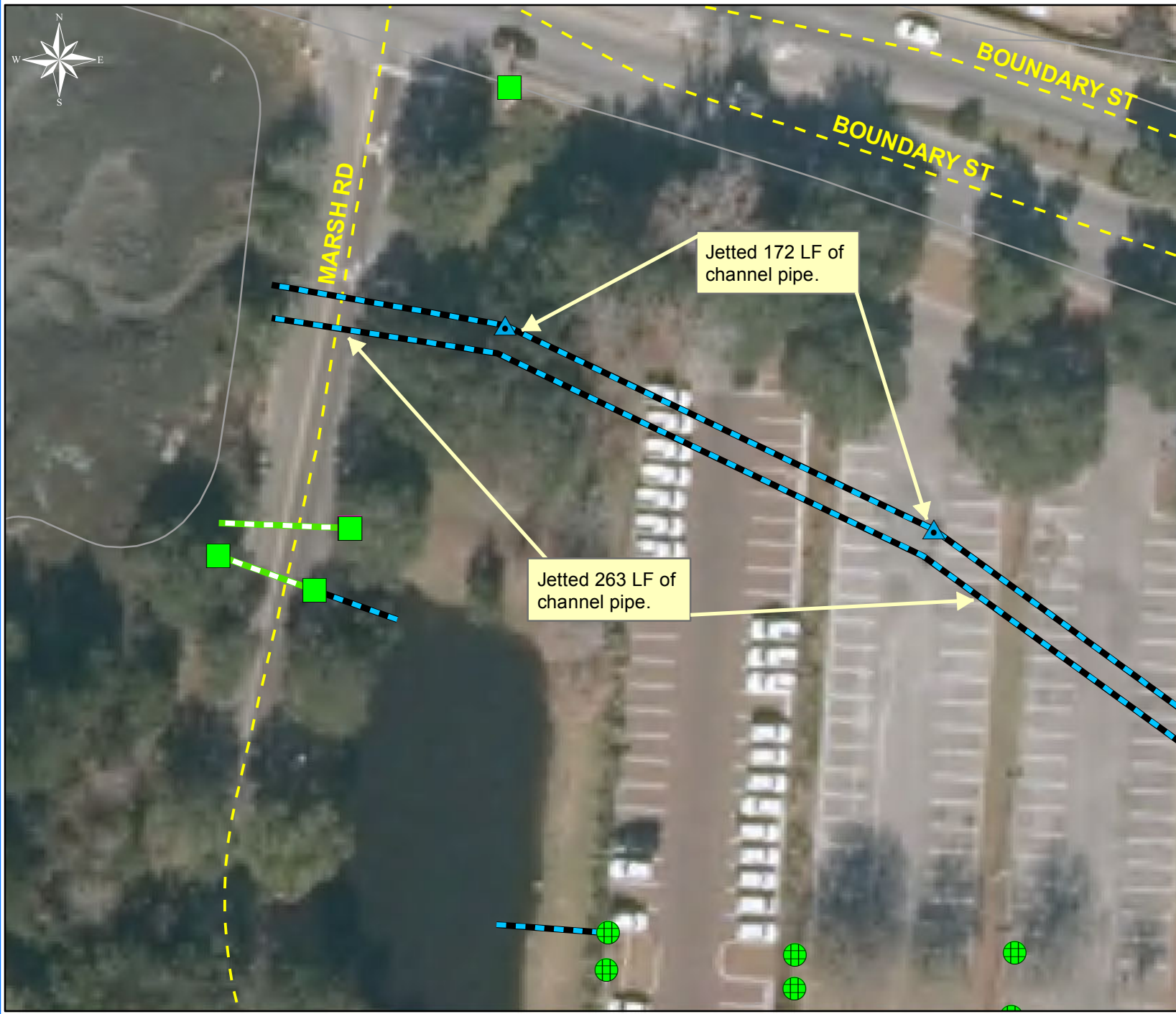
Narrative Description of Project:

Project improved 435 L.F. of drainage system. Jetted 435 L.F. of channel pipe.

Duration: 12/14/15 - 12/16/15

2016-573 / Beaufort County Admin. Bldg	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CPJ / Channel Pipe - Jetted	18.0	\$427.74	\$17.70	\$24.72	\$0.00	\$269.40	\$739.56
ONJV / Onsite Job Visit	16.0	\$512.58	\$56.64	\$12.72	\$0.00	\$329.12	\$911.06
PCAM / Pole Camera System	15.0	\$330.54	\$31.86	\$9.54	\$0.00	\$208.71	\$580.65
2016-573 / Beaufort County Admin. Bldg Sub Total	49.5	\$1,282.61	\$106.20	\$46.98	\$0.00	\$813.84	\$2,249.63
Grand Total	49.5	\$1,282.61	\$106.20	\$46.98	\$0.00	\$813.84	\$2,249.63

(Pictures Not Available)



Project: Beaufort County Administrative Building

Activity: Routine/ Preventive Maintenance

Project #: 2016-573

Township/SW Dist: City of Beaufort/1

Completed: December 2015

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

Prepared By: BC Stormwater Management Utility
Date Print: 07/18/16

File: C:\project summaries map\Beaufort County Administrative Bldg 2016-573



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

Project Summary: Toomer Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Jetted (1) driveway pipe. Repaired washout.

Duration: 6/1/16 - 6/2/16

2016-622 / Toomer Road

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPJT / Driveway Pipe - Jetted	6.0	\$140.94	\$26.04	\$37.20	\$0.00	\$92.67	\$296.85
RPWO / Repaired Washout	21.0	\$486.49	\$97.34	\$69.48	\$0.00	\$287.63	\$940.94
SD / Soft Digging	20.0	\$469.80	\$86.80	\$31.35	\$0.00	\$308.90	\$896.85
2016-622 / Toomer Road Sub Total	47.5	\$1,108.98	\$210.18	\$138.03	\$0.00	\$695.81	\$2,153.00
Grand Total	47.5	\$1,108.98	\$210.18	\$138.03	\$0.00	\$695.81	\$2,153.00

Before



During





Project: Toomer Road

Activity: Routine/ Preventive Maintenance

Project #: 2016-622

Township/SW Dist: St. Helena Island/8

Completed: June 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 = 100 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 08/31/2016
 File: C:\project summaries map\Toomer Road_2016-622



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Warsaw Island Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 8 L.F. of drainage system. Extended (1) driveway pipe. Installed rip rap and handseeded for erosion control.

Duration: 7/11/16 - 7/12/16

2017-503 / Warsaw Island Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPEX / Driveway Pipe - Extended	21.0	\$476.28	\$173.82	\$92.06	\$0.00	\$279.02	\$1,021.18
HAUL / Hauling	10.0	\$222.80	\$79.90	\$310.07	\$0.00	\$144.20	\$756.97
HYDR / Hydroseeding	6.0	\$136.08	\$7.20	\$30.66	\$0.00	\$79.72	\$253.66
2017-503 / Warsaw Island Road Sub Total	37.5	\$846.90	\$260.92	\$432.80	\$0.00	\$509.56	\$2,050.18
Grand Total	37.5	\$846.90	\$260.92	\$432.80	\$0.00	\$509.56	\$2,050.18

After





Project: Warsaw Island Road

Activity: Routine/ Preventive Maintenance

Project #: 2017-503

Township/SW Dist: St. Helena Island/8

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 = 67 feet



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

Project Summary: Trask Parkway Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed blockages from flowline. Cleaned out (1) catch basin.

Duration: 3/15/16 - 3/17/16

2016-603 / Trask Parkway Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CBCO / Catch basin - clean out	10.0	\$222.80	\$43.40	\$21.06	\$0.00	\$143.40	\$430.66
HAUL / Hauling	5.0	\$123.50	\$39.95	\$7.55	\$0.00	\$72.10	\$243.10
ONJV / Onsite Job Visit	3.0	\$102.54	\$10.62	\$9.94	\$0.00	\$73.41	\$196.51
RB / Remove blockage from flowline	15.0	\$348.75	\$50.96	\$10.57	\$0.00	\$215.70	\$625.98
2016-603 / Trask Parkway Channel #1 Sub Total	33.5	\$809.34	\$144.93	\$49.12	\$0.00	\$511.22	\$1,514.61
Grand Total	33.5	\$809.34	\$144.93	\$49.12	\$0.00	\$511.22	\$1,514.61

Before



During



After





Project: Trask Parkway Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2016-603

Township/SW Dist: Sheldon/5

Completed: March 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

Removed blockages from flowline.



1 inch = 170 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Burton Wells Debris Removal

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed debris from flowline. Jetted (3) crossline pipes.

Duration: 10/12/15 - 3/29/16

2016-550 / Burton Wells Debris Removal	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DEBREM / Debris Removal - Jobsite	23.0	\$519.16	\$100.86	\$26.52	\$0.00	\$335.60	\$982.14
HAUL / Hauling	3.0	\$66.81	\$23.97	\$3.02	\$0.00	\$43.26	\$137.06
ONJV / Onsite Job Visit	6.0	\$184.50	\$21.24	\$7.10	\$0.00	\$109.38	\$322.22
2016-550 / Burton Wells Debris Removal Sub Total	32.5	\$782.22	\$146.07	\$36.64	\$0.00	\$494.85	\$1,459.78
Grand Total	32.5	\$782.22	\$146.07	\$36.64	\$0.00	\$494.85	\$1,459.78

(Pictures Not Available)



Project: Burton Wells Debris Removal

Activity: Routine/ Preventive Maintenance

Project #: 2016-550














Township/SW Dist: Port Royal Island/6

Completed: March 2016

Removed debris from flowline. Jetted (3) crossline pipes.

Legend

Drainage Type

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

0 50 100 200 300 400 Feet

1 inch = 210 feet

Prepared By: BC Stormwater Management Utility

Date Print: 08/31/2016

File: C:\project summaries map\Burton Wells Debris Removal_2016-550



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sheldon Vacuum Truck - Paige Point Bluff, George Williams Lane and Prescott Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Cleaned around (6) catch basins by hand. Jetted (2) crossline pipes, (3) driveway pipes and (4) access pipes.

Duration: 12/15/15 - 6/7/15

2016-308A / Sheldon Vacuum Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APJT / Access pipe - jetted	20.0	\$457.60	\$86.80	\$38.27	\$0.00	\$297.00	\$879.67
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CBCO / Catch basin - clean out	8.0	\$178.24	\$14.16	\$5.52	\$0.00	\$114.72	\$312.64
CLPJT / Crossline Pipe - Jetted	4.0	\$93.96	\$17.36	\$21.19	\$0.00	\$61.78	\$194.29
2016-308A / Sheldon Vacuum Truck Sub Total	32.5	\$741.55	\$118.32	\$64.98	\$0.00	\$480.12	\$1,404.96
Grand Total	32.5	\$741.55	\$118.32	\$64.98	\$0.00	\$480.12	\$1,404.96

Before



During



After





1 inch = 170 feet

Prepared By: BC Stormwater Management Utility

Date Print: 9/1/2016

File: C:\project summaries map\Sheldon Vacuum Truck- Paige Point Bluff_2016-308A

Project: Sheldon Vacuum Truck- Paige Point Bluff Map1

Activity: Routine/ Preventive Maintenance














Project #: 2016-308A

Township/SW Dist: Sheldon/5

Completed: June 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



Project: Sheldon Vacuum Truck- Prescott Road Map 2

Activity: Routine/ Preventive Maintenance

Project #: 2016-308A

Township/SW Dist: Sheldon/5

Completed: June 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



Prepared By: BC Stormwater Management Utility
Date Print: 9/1/2016

File: C:\project summaries map\Sheldon Vacuum Truck- Prescott Road Road Map 2_2016-308A



Project: Sheldon Vacuum Truck-George Williams Lane Map 3

Activity: Routine/Preventive Maintenance

Project #: 2016-308A

Township/SW Dist: Sheldon/5

Completed: June 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 = 130 feet

Prepared By: BC Stormwater Management Utility
Date Print: 9/1/2016

File: C:\project summaries map\Sheldon Vacuum Truck- George Williams Lane Map 3_2016-308A



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bailey Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed blockages from flowline.

Duration: 5/31/2016

2016-621 / Bailey Circle

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
HAUL / Hauling	10.0	\$247.00	\$79.90	\$18.15	\$0.00	\$144.20	\$489.25
RB / Remove blockage from flowline	20.0	\$473.90	\$35.40	\$14.48	\$0.00	\$317.40	\$841.18
2016-621 / Bailey Circle Sub Total	30.5	\$732.65	\$115.30	\$32.63	\$0.00	\$468.22	\$1,348.79

Grand Total **30.5** **\$732.65** **\$115.30** **\$32.63** **\$0.00** **\$468.22** **\$1,348.79**

(Pictures Not Available)



Project: Bailey Circle

Activity: Routine/ Preventive Maintenance

Project #: 2016-621

Township/SW Dist: Sheldon/5

Completed: May 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 = 500 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 08/31/2016
 File: C:\project summaries map\Bailey Circle_2016-621



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Mystic Drive

Activity: Routine/Preventive Maintenance

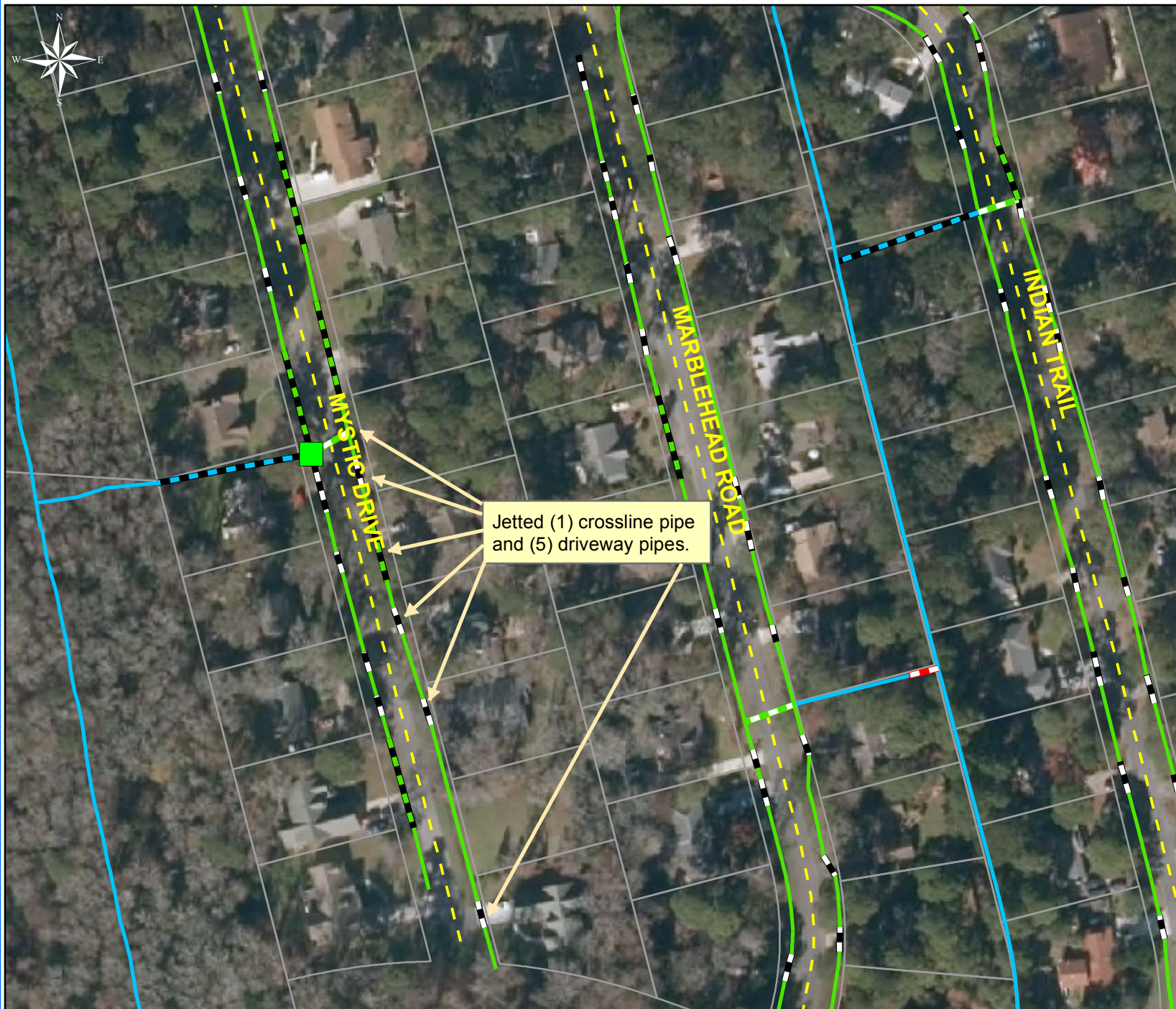
Narrative Description of Project:

Jetted (1) crossline pipe and (5) driveway pipes.

Duration: 6/14/16 - 6/15/16

2016-629 / Mystic Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPJT / Driveway Pipe - Jetted	14.0	\$328.86	\$60.76	\$64.50	\$0.00	\$216.23	\$670.35
SG / Shoot Grade	10.0	\$243.45	\$17.70	\$15.84	\$0.00	\$149.55	\$426.54
2016-629 / Mystic Drive Sub Total	24.5	\$584.06	\$78.46	\$80.34	\$0.00	\$372.40	\$1,115.25
Grand Total	24.5	\$584.06	\$78.46	\$80.34	\$0.00	\$372.40	\$1,115.25

(Pictures Not Available)



Project: Mystic Drive

Activity: Routine/ Preventive Maintenance

Project #: 2016-629

Township/SW Dist: Hilton Head Island/ 3

Completed: June 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 = 130 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bonaire Circle South

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 60 L.F. of drainage system. Removed blockage from flowline.
Cleaned out 60 L.F. of roadside ditch.

Duration: 7/12/16

2017-504 / Bonaire Circle South	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
RSDCL / Roadside Ditch - Cleanout	16.0	\$361.28	\$71.13	\$31.92	\$0.00	\$217.12	\$681.45
2017-504 / Bonaire Circle South	16.5	\$373.02	\$71.13	\$31.92	\$0.00	\$223.74	\$699.81
Sub Total							
Grand Total	16.5	\$373.02	\$71.13	\$31.92	\$0.00	\$223.74	\$699.81

Before



After





Project: Bonaire Circle South

Activity: Routine/ Preventive Maintenance

Project #: 2017-504

Township/SW Dist: Port Royal Island/6

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 = 210 feet

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF NET POSITION
Stormwater Utility and Capital Improvement Funds
June 30, 2016

	Stormwater Utility Fund June 30, 2016	Capital Improvement Fund June 30, 2016
ASSETS		
Current Assets		
Cash and Investments with Trustee	3,597,796	422,573
Receivables, Net	354	-
Prepaid Expenses	19,493	-
Inventories	73,741	-
Total Current Assets	3,691,385	422,573
Capital Assets	3,067,236	-
Accumulation Depreciation	(2,413,625)	-
	653,612	-
Total Assets	4,344,996	422,573
DEFERRED OUTFLOWS OF RESOURCES		
Contributions to pension plan	126,782	-
Pension experience differences	53,749	-
Total deferred outflows of resources	180,531	-
Total assets and deferred outflows of resources	4,525,527	422,573
LIABILITIES		
Liabilities		
Accounts Payable	292,414	43,771
Accrued Payroll	16,743	-
Accrued Compensated Absences	7,284	-
Total Current Liabilities	316,441	43,771
Long Term Liabilities		
Accrued Compensated Absences	80,122	-
Net Other Postemployment Benefit Obligation	17,770	-
Net Pension Liabilities	1,897,384	-
Total Long Term Liabilities	1,995,276	-
Total Liabilities	2,311,716	43,771
DEFERRED INFLOWS OF RESOURCES		
Net pension change in projected investment earnings	159,919	-
Total deferred inflows of resources	159,919	-
NET POSITION		
Invested in Capital Assets, Net of		
Related Debt	653,612	-
Reserved for Encumbrances	2,389	-
Reserved for Capital Improvements	-	378,803
Unrestricted (Deficit)	1,397,891	-
Total Net Position	2,053,892	378,803
Total Liabilities, deferred inflows and net position	4,525,527	422,573

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGE NET ASSETS
Stormwater Utility
June 30, 2016

	Budget FY 2016	Actual	Budget to Actual	Percent of Budget
Operating Revenues				
Stormwater Utility Fees	5,058,882	4,807,313	(251,569)	95%
Countywide Infrastructure	273,351	467,476	194,125	171%
Stormwater Utility Project Billings	498,648	1,492	(497,156)	0%
Total Operating Revenues	<u>5,830,881</u>	<u>5,276,281</u>	<u>(554,600)</u>	<u>90%</u>
Operating Expenses				
Personnel	2,563,225	2,231,961	(331,264)	87%
Purchased Services	1,303,977	837,327	(466,650)	64%
Supplies	362,504	253,344	(109,160)	70%
Capital Expenses	611,290	516,401	(94,889)	84%
Depreciation	248,486	248,492	6	100%
Total Operating Expenses	<u>5,089,482</u>	<u>4,087,525</u>	<u>(1,001,957)</u>	<u>80%</u>
Operating Income (Loss)	741,399	1,188,755	447,356	160%
Non-Operating Revenues (Expenses)				
Interest Earned	2,771	-	(2,771)	100%
Miscellaneous	-	1,995	1,995	100%
Total Non-Operating Revenues (Expenses)	<u>2,771</u>	<u>1,995</u>	<u>(776)</u>	<u>72%</u>
Transfers Out To Capital Improvement Fund	495,908	104,000	(391,908)	100%
Change in Net Position	248,262	1,086,750	838,488	438%
Net Position, Beginning	<u>967,142</u>	<u>967,142</u>		
Net Position, Ending	<u>1,215,404</u>	<u>2,053,892</u>	838,488	169%

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGE NET ASSETS
Stormwater Utility
June 30, 2016

	Budget FY 2016	Actual	Budget to Actual	Percent of Budget
Operating Revenues				
Intrafund Administrative Transfer	495,908	104,000	(391,908)	21%
Total Operating Revenues	<u>495,908</u>	<u>104,000</u>	<u>(391,908)</u>	<u>21%</u>
Operating Expenses				
Purchased Services	889,694	99,154	(790,540)	11%
Supplies	-	19,830	19,830	100%
Total Operating Expenses	<u>889,694</u>	<u>118,984</u>	<u>(770,710)</u>	<u>13%</u>
Operating Income (Loss)	(393,786)	(14,984)	378,802	0%
Non-Operating Revenues (Expenses)				
Interest Earned	-	-	-	0%
Total Non-Operating Revenues (Expenses)	<u>-</u>	<u>-</u>	<u>-</u>	<u>0%</u>
Transfers Out	-	-	-	0%
Change in Net Position	(393,786)	(14,984)	378,802	0%
Net Position, Beginning	<u>393,786</u>	<u>393,786</u>		
Net Position, Ending	<u>-</u>	<u>378,803</u>	378,803	

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF REVENUES, EXPENSES AND CHANGE NET POSITION
Capital Improvement Fund
June 30, 2016

	Budget FY 2016	Actual	Budget to Actual	Percent of Budget
Transfer in From Stormwater Utility Fund				
General Transfer From SWU	-	104,000	104,000	100%
Administration Complex Parking Lot Retrofit	-	-	-	0%
Okatie East Retrofit	-	-	-	0%
Highway 278 Retrofit	-	-	-	0%
Okatie East Retrofit	-	-	-	0%
Buckingham Plantation Retrofit	400,000	-	(400,000)	0%
Upper Battery Creek Retrofit	95,908	-	(95,908)	0%
Brewer Memorial Park	-	-	-	0%
Total Transfers in	<u>495,908</u>	<u>104,000</u>	<u>(391,908)</u>	
Capital Improvement Expenses				
Administration Complex Parking Lot Retrofit	-	-	-	100%
Okatie East Retrofit	-	-	-	100%
Highway 278 Retrofit	47,590	60,734	13,144	128%
Okatie West Retrofit	315,000	31,538	(283,462)	10%
Buckingham Plantation Retrofit	400,000	-	(400,000)	0%
Upper Battery Creek Retrofit	117,604	26,712	(90,892)	23%
Brewer Memorial Park	9,500	-	(9,500)	0%
Total Operating Expenses	<u>889,694</u>	<u>118,984</u>	<u>(770,710)</u>	<u>13%</u>
Change in Net Assets by Project				
Administration Complex Parking Lot Retrofit		-	-	
Okatie East Retrofit		-	-	
Highway 278 Retrofit		(60,734)	(60,734)	
Okatie East Retrofit		(31,538)	(31,538)	
Buckingham Plantation Retrofit		-	-	
Upper Battery Creek Retrofit		(26,712)	(26,712)	
Brewer Memorial Park		-	-	
Total Change in Net Position by Project		<u>(118,984)</u>	<u>(118,984)</u>	
Net Position, Beginning				
Administration Complex Parking Lot Retrofit	24,919	24,919		
Okatie East Retrofit	35,169	35,169		
Highway 278 Retrofit	143,670	143,670		
Okatie East Retrofit	62,285	62,285		
Buckingham Plantation Retrofit	2,500	2,500		
Upper Battery Creek Retrofit	125,243	125,243		
Brewer Memorial Park	-	-		
Total Net Position, Beginning	<u>393,786</u>	<u>393,786</u>		
Net Position, Ending				
General Transfer From SWU		104,000		
Administration Complex Parking Lot Retrofit		24,919		
Okatie East Retrofit		35,169		
Highway 278 Retrofit		82,936		
Okatie East Retrofit		30,747		
Buckingham Plantation Retrofit		2,500		
Upper Battery Creek Retrofit		98,531		
Brewer Memorial Park		-		
Total Net Position, Ending		<u><u>378,802</u></u>		

AN ORDINANCE TO AMEND THE STORMWATER MANAGEMENT UTILITY ORDINANCE AS ADOPTED AUGUST 22, 2005 SEPTEMBER 28, 2015 TO PROVIDE FOR AMENDMENT OF THE RATE STRUCTURE ACCPLIABLE TO PARCELS RELATED TO CONDOMINIUMS, SUBMERGED PROPERTIES, AND PARCELS CONTINGUOUS TO SALT WATER MARSH., ADJUST UTILITY RATES, AND TO MODIFY CERTAIN TERMS TO ACCURATELY REFLECT ADMINISTRATION STRUCTURE

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Comment [LE1]: Editorial Note: Yellow Highlighted changes are part of the proposed Ordinance revision related to the Condos and Submerged properties billing. This ordinance will be adopted prior to a second 2016 ordinance revision for MS4, specifically the addition of Articles 3, 4, 5, and 6. All other changes shown are associated with the second ordinance revision. The yellow highlighted sections will be effective at the time the second ordinance revision is submitted to County Council. EWL

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AN ORDINANCE TO AMEND THE STORMWATER MANAGEMENT UTILITY ORDINANCE AS ADOPTED _____, 2016, TO PROVIDE FOR THE ADDITION OF ARTICLES III, IV, V, AND VI RELATED TO ADOPTION OF STORMWATER MANAGEMENT STANDARDS TO MEET MUNICIPAL SEPARATE STORMSEWER SYSTEM (MS4) PERMIT REQUIREMENTS

WHEREAS, Act 283 of 1975, The Home Rule Act, vested Beaufort County Council with the independent authority to control all acts and powers of local governmental authority that are not expressly prohibited by South Carolina law; and

WHEREAS, Chapter 99, Article II, "Stormwater Management Utility" was adopted on August 27, 2001 and was modified by ordinance on August 22, 2005 and September 28, 2015 and _____, 2016; and

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WHEREAS, Stormwater Management Utility was established for the purpose of managing, acquiring, constructing, protecting, operating, maintaining, enhancing, controlling, and regulating the use of stormwater drainage systems in the county;

WHEREAS, to meet the increasing demands on the Stormwater Management Utility in the areas of federally mandated municipal Separate Stormsewer Systems (MS4) permitting, capital project needs, and cost of service of operations and maintenance, as well as an evolving understanding of the impacts of the urban environment on water quality, the Stormwater Management Utility finds it necessary to amend the structure in which rates are determined and adjust the rates charged to the citizens of Beaufort County to meet said demands in a fair and equitable manner; and

WHEREAS, the administrative structure of the Stormwater Management Utility needs to be amended to reflect the organization of the current administration; and

WHEREAS, further amendments are needed to make adjustments to the rate structure to address the differences in taxation and billing for condominiums and parcels affected by standing water or tidal impacts; and

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WHEREAS, pursuant to the requirements mandated by the Municipal Separate Stormsewer System (MS4) permit issued by the South Carolina Department of Health and Environmental Control (DHEC) on December 1, 2015, Beaufort County is required to adopt standards related to stormwater management and create an regulatory framework to enforce the same; and

WHEREAS, Beaufort County has amended the Best Management Practices (BMP) Manual as the source of the technical stormwater standards used in the development of Stormwater Plans and adopted the same by Resolution on _____, 2016; and

WHEREAS, Beaufort County Council believes to best provide for the health, safety, and welfare of its citizens it is appropriate to amend Chapter 99, ~~Article II~~ of the Beaufort County Code and to provide for additional terms to said Article; and

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WHEREAS, text that is underscored shall be added text and text ~~lined through~~ shall be deleted text; and

NOW, THEREFORE, BE IT ORDAINED BY BEAUFORT COUNTY COUNCIL, that Chapter 99, ~~Article II~~ of the Beaufort County Code is hereby amended and replaced with the following:

Chapter 99 - STORMWATER MANAGEMENT ~~UTILITY~~

ARTICLE I. - IN GENERAL

Secs. 99-1—99-100. - Reserved.

ARTICLE II. - STORMWATER MANAGEMENT UTILITY

Sec. 99-101. - Findings of fact.

The County Council of Beaufort County, South Carolina, makes the following findings of fact:

- (a) The professional engineering and financial analyses conducted on behalf of and submitted to the county properly assesses and defines the stormwater management problems, needs, goals, program priorities, costs of service, need for interlocal cooperation, and funding opportunities of the county.
- (b) Given the problems, needs, goals, program priorities, costs of service, needs for interlocal cooperation, and funding opportunities identified in the professional engineering and financial analyses submitted to the county, it is appropriate to authorize the establishment of a separate enterprise accounting unit which shall be dedicated specifically to the management, construction, maintenance, protection, control, regulation, use, and enhancement of stormwater systems and programs in Beaufort County in concert with other water resource management programs.
- (c) Stormwater management is applicable and needed throughout the unincorporated portions of Beaufort County, but interlocal cooperation between the county and the incorporated cities and towns within the county is also essential to the efficient provision of stormwater programs, services, systems, and facilities. Intense urban development in some portions of the county has radically altered the natural hydrology of the area and the hydraulics of stormwater systems, with many natural elements having been replaced or augmented by man-made facilities. Other areas of the county remain very rural in character, with natural stormwater systems predominating except along roads where ditches and culverts have been installed. As a result, the specific program, service, system, and facility demands differ from area to area in the county. While the county manages, operates, and improves stormwater programs, services, systems and facilities in the rural as well as urban areas, the need for improved stormwater management is greatest in the urban areas and nearby, including areas within incorporated cities and towns. Therefore, a stormwater utility service area subject to stormwater service fees should encompass, in so far as possible through interlocal agreements, the entirety of Beaufort

County and the stormwater management utility service fee rate structure should reflect the amount of impervious area on individual properties and the runoff impact from water quantity and water quality.

- (d) The stormwater needs in Beaufort County include but are not limited to protecting the public health, safety, and welfare. Provision of stormwater management programs, services, systems, and facilities therefore renders and/or results in both service and benefit to individual properties, property owners, citizens, and residents of the county and to properties, property owners, citizens, and residents of the county concurrently in a variety of ways as identified in the professional engineering and financial analyses.
- (e) The service and benefit rendered or resulting from the provision of stormwater management programs, services, systems, and facilities may differ over time depending on many factors and considerations, including but not limited to location, demands and impacts imposed on the stormwater programs, systems, and facilities, and risk exposure. It is not practical to allocate the cost of the county's stormwater management programs, services, systems, and facilities in direct and precise relationship to the services or benefits rendered to or received by individual properties or persons over a brief span of time, but it is both practical and equitable to allocate the cost of stormwater management among properties and persons in proportion to the long-term demands they impose on the county's stormwater programs, services, systems, and facilities which render or result in services and benefits.
- (f) Beaufort County presently owns and operates stormwater management systems and facilities that have been developed, installed, and acquired through various mechanisms over many years. The future usefulness and value of the existing stormwater systems and facilities owned and operated by Beaufort County, and of future additions and improvements thereto, rests on the ability of the county to effectively manage, construct, protect, operate, maintain, control, regulate, use, and enhance the stormwater systems and facilities in the county, in concert with the management of other water resources in the county and in cooperation with the incorporated cities and towns. In order to do so, the county must have adequate and stable funding for its stormwater management program operating and capital investment needs.
- (g) The county council finds, concludes, and determines that a stormwater management utility provides the most practical and appropriate means of properly delivering stormwater management services and benefits throughout the county, and the most equitable means to fund stormwater services in the county through stormwater service fees and other mechanisms as described in the professional engineering and financial analyses prepared for the county.
- (h) The county council finds, concludes, and determines that a schedule of stormwater utility service fees be levied upon and collected from the owners of all lots, parcels of real estate, and buildings that discharge stormwater or subsurface waters, directly or indirectly, to the county stormwater management system and that the proceeds of such charges so derived be used for the stormwater management system.
- (i) The county council finds that adjustments and credits against stormwater utility service fees are an appropriate means to grant properties providing stormwater management program services that would otherwise be provided by the county and will afford Beaufort County cost savings. These reductions will be developed by the Stormwater Manager and will be reviewed on an annual basis to allow for any modifications to practices required by Beaufort County.

The county council finds that both the total gross area and impervious area on each property are the most important factors influencing the cost of stormwater management in Beaufort County and, the runoff impact from water quantity and water quality.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-102. - Establishment of a stormwater management utility and a utility enterprise fund.

There is hereby established within the Environmental Engineering Division of Beaufort County a stormwater management utility for the purpose of conducting the county's stormwater management program. The county administrator shall establish and maintain a stormwater management utility enterprise fund in the county budget and accounting system, which shall be and remain separate from other funds. All revenues of the utility shall be placed into the stormwater management utility enterprise fund and all expenses of the utility shall be paid from the fund, except that other revenues, receipts, and resources not accounted for in the stormwater management utility enterprise fund may be applied to stormwater management programs, services, systems, and facilities as deemed appropriate by the Beaufort County Council. The county administrator may designate within the stormwater management utility enterprise fund such sub-units as necessary for the purpose of accounting for the geographical generation of revenues and allocation of expenditures pursuant to interlocal governmental agreements with the cities and towns of Beaufort County.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-103. - Purpose and responsibility of the utility.

The Beaufort County Stormwater Management Utility is established for the purpose of managing, acquiring, constructing, protecting, operating, maintaining, enhancing, controlling, and regulating the use of stormwater drainage systems in the county. The utility shall, on behalf of the county and the citizens of the county: administer the stormwater management program; perform studies and analyses as required; collect service fees; system development fees, in-lieu of construction fees and other funding as allowed by law, and obtain and administer grants and loans as authorized by the county council; prepare capital improvement plans and designs; perform routine maintenance and remedial repair of the stormwater systems; acquire, construct, and improve stormwater systems; acquire necessary lands, easements, rights-of-way, rights-of-entry and use, and other means of access to properties to perform its duties; regulate the on-site control, conveyance, and discharge of stormwater from properties; obtain federal and state permits required to carry out its purpose; enter into operating agreements with other agencies; allocate funds pursuant to interlocal governmental agreements; educate and inform the public about stormwater management; and perform, without limitation except by law, any stormwater management functions and activities necessary to ensure the public safety, protect private and public properties and habitat, and enhance the natural environment and waters of the county.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-104. - Limitation of scope of responsibility.

The purpose and responsibility of the stormwater management utility shall be limited by the following legal and practical considerations.

- (a) Beaufort County owns or has legal access for purposes of operation, maintenance, and improvement only to those stormwater systems and facilities which:
 - (1) Are located within public streets, other rights-of-way, and easements;
 - (2) Are subject to easements, rights-of-entry, rights-of-access, rights-of-use, or other permanent provisions for adequate access for operation, maintenance, monitoring, and/or improvement of systems and facilities; or
 - (3) Are located on public lands to which the county has adequate access for operation, maintenance, and/or improvement of systems and facilities.
- (b) Operation, maintenance, and/or improvement of stormwater systems and facilities which are located on private property or public property not owned by Beaufort County and for which there has been no public dedication of such systems and facilities for operation, maintenance, monitoring, and/or improvement of the systems and facilities shall be and remain the legal responsibility of the property owner, except as that responsibility may be otherwise affected by the laws of the State of South Carolina and the United States of America.

- (c) It is the express intent of this article to protect the public health, safety, and welfare of all properties and persons in general, but not to create any special duty or relationship with any individual person or to any specific property within or outside the boundaries of the county. Beaufort County expressly reserves the right to assert all available immunities and defenses in any action seeking to impose monetary damages upon the county, its officers, employees and agents arising out of any alleged failure or breach of duty or relationship as may now exist or hereafter be created.
- (d) To the extent any permit, plan approval, inspection or similar act is required by the county as a condition precedent to any activity or change upon property not owned by the county, pursuant to this or any other regulatory ordinance, regulation, or rule of the county or under federal or state law, the issuance of such permit, plan approval, or inspection shall not be deemed to constitute a warranty, express or implied, nor shall it afford the basis for any action, including any action based on failure to permit or negligent issuance of a permit, seeking the imposition of money damages against the county, its officers, employees, or agents.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-105. - Boundaries and jurisdiction.

The boundaries and jurisdiction of the stormwater management utility shall encompass all those portions of unincorporated Beaufort County, as they may exist from time to time and such additional areas lying inside the corporate limits of those cities and towns in Beaufort County as shall be subject to interlocal agreements for stormwater management as approved by county council and participating municipal councils.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-106. - Definitions.

Unless the context specifically indicates otherwise, the meaning of words and terms used in this article shall be as set forth in S.C. Code § 48-14-20, and 26 S.C. Code Regulation 72-301, mutatis mutandis.

Abatement. Any action deemed necessary by the county or its officers or agents to remedy, correct, control, or eliminate a condition within, associated with, or impacting a stormwater drainage system or the water quality of receiving waters shall be deemed an abatement action.

Adjustments. Adjustments shall mean a change in the amount of a stormwater service fee predicated upon the determination reached by the Stormwater Manager and referenced to the Adjustments and Credit Manual.

Bill Class. Every property falls into one of several bill classes. The bill class determines the fee calculation of that property.

Condominiums. Properties with individual ownership of a particular dwelling unit in a building and the common right to share, with other co-owners, in the general and limited common elements of the real property.

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Countywide Infrastructure Operation and Maintenance and Capital Projects. The County maintains some typically larger infrastructure within each of the four municipalities in addition to within the unincorporated area. The rate structure will allocate the costs for the County to maintain just the countywide drainage infrastructure across the entire rate base in all jurisdictions based on infrastructure linear feet per jurisdiction.

Customers of the stormwater management utility. Customers of the stormwater management utility shall be broadly defined to include all persons, properties, and entities served by and/or benefiting, directly and indirectly, from the utility's acquisition, management, construction, improvement, operation,

maintenance, extension, and enhancement of the stormwater management programs, services, systems, and facilities in the county, and by its control and regulation of public and private stormwater systems, facilities, and activities related thereto.

Developed land. Developed land shall mean property altered from its natural state by construction or installation of improvements such as buildings, structures, or other impervious surfaces, or by other alteration of the property that results in a meaningful change in the hydrology of the property during and following rainfall events.

Exemption. Exemption shall mean not applying to or removing the application of the stormwater management utility service fee from a property. No permanent exemption shall be granted based on taxable or non-taxable status or economic status of the property owner.

Fixed costs. Costs associated with the public service provided equally to each property owner. These costs include, but are not limited to the following: billing and collections, data management and updating, programming, and customer support.

Gross Area. Gross area is the acreage of a parcel as identified by the Beaufort County Assessor records.

Hydrologic response. The hydrologic response of a property is the manner whereby stormwater collects, remains, infiltrates, and is conveyed from a property. It is dependent on several factors including but not limited to the size and overall intensity of development of each property, its impervious area, shape, topographic, vegetative, and geologic conditions, antecedent moisture conditions, and groundwater conditions and the nature of precipitation events. Extremely large undeveloped properties naturally attenuate but do not eliminate entirely the discharge of stormwater during and following rainfall events.

Jurisdictional Infrastructure Operations, Maintenance and Capital Projects. Each of the five jurisdictions maintains its own stormwater drainage infrastructure and funds those costs from utility revenue. Revenue from this fee component will be returned to the service provider, the individual jurisdiction.

Impervious surfaces. Impervious surfaces shall be a consideration in the determination of the development intensity factor. Impervious surfaces are those areas that prevent or impede the infiltration of stormwater into the soil as it entered in natural conditions prior to development. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel and soil surfaces, awnings and other fabric or plastic coverings, and other surfaces that prevent or impede the natural infiltration of stormwater runoff that existed prior to development.

Minimum Charge. A charge that reflects the minimum amount of demand a property will place on the service provider.

MS4 Permit. Each jurisdiction within Beaufort County will be subject to the federally mandated MS4 permit requirements. Compliance requirements include, but are not limited to monitoring, plan review, inspections, outreach and public education,

Nonresidential properties. Properties developed for uses other than permanent residential dwelling units and designated by the assigned land use code in the Beaufort County tax data system.

Other developed lands. Other developed lands shall mean, but not be limited to, mobile home parks, commercial and office buildings, public buildings and structures, industrial and manufacturing buildings, storage buildings and storage areas covered with impervious surfaces, parking lots, parks, recreation properties, public and private schools and universities, research facilities and stations, hospitals and convalescent centers, airports, agricultural uses covered by impervious surfaces, water and wastewater treatment plants, and lands in other uses which alter the hydrology of the property from that which would exist in a natural state. Properties that are used for other than single family residential use shall be deemed other developed lands for the purpose of calculating stormwater service fees.

Residential dwelling classifications. The following categories will identify the appropriate dwelling unit classifications to be utilized in applying the stormwater utility fee structure to the designations contained in the Beaufort County tax data system:

- Single-family
- Apartments
- Townhouses
- Condominiums
- Mobile Home

Salt Water Marsh. Those parcels, typically contiguous to water, identified as inundated daily due to tidal action and unbuildable. These properties are 100% below mean high tide and/or beyond established critical line as defined by the South Carolina Department of Health and Environmental Control's Office of Coastal Resource Management. (DHEC-OCRM). The County Tax Assessor's Office shall make this determination based on best available data.

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Stormwater management programs, services, systems and facilities. Stormwater management programs, services, systems and facilities are those administrative, engineering, operational, regulatory, and capital improvement activities and functions performed in the course of managing the stormwater systems of the county, plus all other activities and functions necessary to support the provision of such programs and services. Stormwater management systems and facilities are those natural and man-made channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties, and improvements which transfer, control, convey or otherwise influence the movement of stormwater runoff and its discharge to and impact upon receiving waters.

Stormwater service fees. Stormwater service fees shall mean the service fee imposed pursuant to this article for the purpose of funding costs related to stormwater programs, services, systems, and facilities. These fees will be calculated based upon the impervious and gross area at an 80/20 allocation; storm water service fee categories; any State agricultural exemptions or caps; an account administrative fee, countywide jurisdiction operation maintenance and capital project fees; and jurisdictional operation, maintenance and capital project fee.

Single-family unit (SFU). The single-family unit shall be defined as the impervious area measurements obtained from a statistically representative sample of all detached single-family structures within Beaufort County. The representative value will be 4,906 square feet.

Stormwater service fee categories. The appropriate categories for determining SFUs will be as follows:

	SFU Calculation (SFUs equal)
Tier 1 Single-family Unit (≤2,521 square feet)	Dwelling units x 0.5
Tier 2 Single-family Unit (2,522 to 7,265 square feet)	Dwelling units x 1
Tier 3 Single-family Unit (≥7,266 square feet)	Dwelling units x 1.5
Mobile Home	Dwelling units x 0.36

Apartments	Dwelling units x 0.39
Townhouses	Dwelling units x 0.60
Condominiums	Dwelling units x 0.27
Commercial	Impervious area x 4,906 sq. ft.*

*Commercial billed at a rate of 1 SFU per 4,906 square feet or a portion thereof

Submerged property. Those parcels, typically contiguous to water, identified as eroded due to tidal action and unbuildable. These properties are 100% below mean low tide and/or beyond established critical line as defined by the South Carolina Department of Health and Environmental Control's Office of Coastal Resource Management. (DHEC-OCRM). The County Tax Assessor's Office shall make this determination based on best available data.

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Townhomes. See Condominiums.

Variable Costs. An impervious and gross area rate structure that allocates some cost to each of the two variables based on the amount of impervious surface and gross area.

(Ord. No. 2015/24, 9-28-2015; Ord. No. 2016/ - -2016)

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Sec. 99-107. - Requirements for on-site stormwater systems: enforcement, methods and inspections.

- (a) All property owners and developers of real property to be developed within the unincorporated portions of Beaufort County shall provide, manage, maintain, and operate on-site stormwater systems and facilities sufficient to collect, convey, detain, control, and discharge stormwater in a safe manner consistent with all county development regulations and the laws of the State of South Carolina and the United States of America, except in cases when the property is located within an incorporated city or town subject to an interlocal governmental agreement with the county for stormwater management and the city or town has regulations that are more stringent than the county, in which case the city's or town's development regulations shall apply. Any failure to meet this obligation shall constitute a nuisance and be subject to an abatement action filed by the county in a court of competent jurisdiction. In the event a public nuisance is found by the court to exist, which the owner fails to properly abate within such reasonable time as allowed by the court, the county may enter upon the property and cause such work as is reasonably necessary to be performed, with the actual cost thereof charged to the owner in the same manner as a stormwater service fee as provided for in this article.
- (b) In the event that the county shall file an action pursuant to subsection 99-107(a), from the date of filing such action the county shall have all rights of judgment and collection through a court of competent jurisdiction as may be perfected by action.
- (c) The county shall have the right, pursuant to the authority of this article, for its designated officers and employees to enter upon private property and public property owned by other than the county, upon reasonable notice to the owner thereof, to inspect the property and conduct surveys and engineering tests thereon in order to assure compliance with any order or judgment entered pursuant to this section.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-108. - General funding policy.

- (a) It shall be the policy of Beaufort County that funding for the stormwater management utility program, services, systems, and facilities shall be equitably derived through methods which have a demonstrable relationship to the varied demands and impacts imposed on the stormwater program, services, systems, and facilities by individual properties or persons and/or the level of service rendered by or resulting from the provision of stormwater programs, systems and facilities. Stormwater service fee rates shall be structured so as to be fair and reasonable, and the resultant service fees shall bear a substantial relationship to the cost of providing services and facilities throughout the county. Similarly situated properties shall be charged similar rentals, rates, fees, or licenses. Service fee rates shall be structured to be consistent in their application and shall be coordinated with the use of any other funding methods employed for stormwater management within the county, whether wholly or partially within the unincorporated portions of the county or within the cities and towns. Plan review and inspection fees, special fees for services, fees in-lieu of regulatory requirements, impact fees, system development fees, special assessments, general obligation and revenue bonding, and other funding methods and mechanisms available to the county may be used in concert with stormwater service fees and shall be coordinated with such fees in their application to ensure a fair and reasonable service fee rate structure and overall allocation of the cost of services and facilities.
- (b) The cost of stormwater management programs, systems, and facilities subject to stormwater service fees may include operating, capital investment, and non-operating expenses, prudent operational and emergency reserve expenses, and stormwater quality as well as stormwater quantity management programs, needs, and requirements.
- (c) To the extent practicable, adjustments to the stormwater service fees will be calculated by the Beaufort County Stormwater Manager in accordance with the standards and procedures adopted by the Stormwater Manager's office.
- (d) The stormwater service fee rate may be determined and modified from time to time by the Beaufort County Council so that the total revenue generated by said fees and any other sources of revenues or other resources allocated to stormwater management by the county council to the stormwater management utility shall be sufficient to meet the cost of stormwater management services, systems, and facilities, including, but not limited to, the payment of principle and interest on debt obligations, operating expense, capital outlays, nonoperating expense, provisions for prudent reserves, and other costs as deemed appropriate by the county council.

Beaufort County service fee rate will be based on impervious and gross area at an 80/20 allocation; storm water service fee categories; any State agricultural exemptions or caps; an account administrative fee, countywide jurisdiction operation maintenance and jurisdictional operation, maintenance and capital project fee. The rates are set by the Beaufort County Stormwater Rate Study dated August 18 and adopted August 24, 2015.

The gross area charge for all parcels, EXCEPT master account properties for condominiums is calculated in equivalent units as follows:

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First 2 acres	\$X per acre
For every acres above 2 acres and up to 10 acres	0.5 x \$X
For every acre above 10 acres, and up to 100 acres	0.4 x \$X
For very acre above 100 acres	0.3 x \$X

Condominium accounts will receive a minimum gross area charge of 0.2 x \$X. The master account associated with the condominium subdivision will not receive a gross area charge.

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Each municipal jurisdiction may have a different fee predicated upon the municipal jurisdiction's revenue needs. The stormwater service fee rates shall be adopted by the municipal jurisdictions and may be amended from time to time by the individual governing body.

(Ord. No. 2015/24, 9-28-2015; Ord. No. 2016/ , - -2016)

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Sec. 99-109. - Exemptions and credits applicable to stormwater service fees.

Except as provided in this section, no public or private property shall be exempt from stormwater utility service fees. No exemption, credit, offset, or other reduction in stormwater service fees shall be granted based on the age, tax, or economic status, race, or religion of the customer, or other condition unrelated to the stormwater management utility's cost of providing stormwater programs, services, systems, and facilities. A stormwater management utility service fee credit manual shall be prepared by the Stormwater Manager specifying the design and performance standards of on-site stormwater services, systems, facilities, and activities that qualify for application of a service fee credit, and how such credits shall be calculated.

(a) Credits. The following types of credits against stormwater service fees shall be available:

(1) Freshwater wetlands. All properties except those classified as detached single-family dwelling units may receive a credit against the stormwater service fee applicable to the property based on granting and dedicating a perpetual conservation easement on those portions of the property that are classified as freshwater wetlands and as detailed in the stormwater management utility service fee credit manual. The conservation easement shall remove that portion of the subject property from any future development.

(2) Salt Water Marsh. All properties except those classified as detached single-family dwelling units may receive a credit against the stormwater service fee applicable to the property based on those portions of the property that are classified as salt water marsh and as detailed in the stormwater management utility service fee credit manual.

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(3) Submerged properties. All properties may receive a credit against the stormwater service fee applicable to the property based on those portions of the property that are classified as submerged and as detailed in the stormwater management utility service fee credit manual.

(2)(4) Those properties that apply for consideration of an adjustment shall satisfy the requirements established by the Beaufort County Stormwater Manager and approved reduced stormwater service fee.

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(b) Exemptions. The following exemptions from the stormwater service fees shall be allowed:

(1) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by the state department of transportation and are available for use in common for vehicular transportation by the general public.

(2) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by Beaufort County and are available for use in common for vehicular transportation by the general public.

(3) Improved private roadways that are shown as a separate parcel of land on the most current Beaufort County tax maps and are used by more than one property owner to access their property.

(4) Railroad tracks shall be exempt from stormwater service fees. However, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall not be exempt from stormwater service fees.

(5) Condominium boat slips shall be exempt from stormwater service fees.

(6) Properties determined by the Assessor having 100% of the gross area of the property submerged, salt water marsh, or freshwater wetland will not receive an administrative charge, if applicable in the utility rate structure. AFTER the applicable credit defined in paragraph (a) above has been applied to the account.

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(Ord. No. 2015/24, 9-28-2015; Ord. No. 2016/ , - -2016)

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Sec. 99-110. - Stormwater service fee billing, delinquencies and collections.

- (a) Method of billing. A stormwater service fee bill may be attached as a separate line item to the county's property tax billing or may be sent through the United States mail or by alternative means, notifying the customer of the amount of the bill, the date the fee is due (January 15), and the date when past due (March 17 - see Title 12, Section 45-180 of the South Carolina State Code). The stormwater service fee bill may be billed and collected along with other fees, including but not limited to the Beaufort County property tax billing, other Beaufort County utility bills, or assessments as deemed most effective and efficient by the Beaufort County Council. Failure to receive a bill is not justification for non-payment. Regardless of the party to whom the bill is initially directed, the owner of each parcel of land shall be ultimately obligated to pay such fees and any associated fines or penalties, including, but not limited to, interest on delinquent service fees. If a customer is under-billed or if no bill is sent for a particular property, Beaufort County may retroactively bill for a period of up to one-year, but shall not assess penalties for any delinquency during that previous unbilled period.
- (b) Declaration of delinquency. A stormwater service fee shall be declared delinquent if not paid within 60 days of the date of billing or upon the date (March 17) of delinquency of the annual property tax billing if the stormwater service fee is placed upon the annual property tax billing or enclosed with or attached to the annual property tax billing.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-111. - Appeals.

Any customer who believes the provisions of this article have been applied in error may appeal in the following manner and sequence.

- (a) An appeal of a stormwater service fee must be filed in writing with the Beaufort County Stormwater Manager or his/her designee within 30 days of the fee being mailed or delivered to the property owner and stating the reasons for the appeal. In the case of stormwater service fee appeals, the appeal shall include a survey prepared by a registered land surveyor or professional engineer containing information on the impervious surface area and any other feature or conditions that influence the development of the property and its hydrologic response to rainfall events.
- (b) Using information provided by the appellant, the county Stormwater Manager (or his or her designee) shall conduct a technical review of the conditions on the property and respond to the appeal in writing within 30 days. In response to an appeal, the Stormwater Manager may adjust the stormwater service fee applicable to the property in conformance with the general purposes and intent of this article.
- (c) A decision of the county Stormwater Manager that is adverse to an appellant may be further appealed to the county administrator or his designee within 30 days of the adverse decision.

The appellant, stating the grounds for further appeal, shall deliver notice of the appeal to the county administrator or his designee. The county administrator or his designee shall issue a written decision on the appeal within 30 days. All decisions by the county administrator or his designee shall be served on the customer personally or by registered or certified mail, sent to the billing address of the customer. All decisions of the county administrator or his designee shall be final.

- (d) The appeal process contained in this section shall be a condition precedent to an aggrieved customer seeking judicial relief. Any decisions of the county administrator or his designee may be reviewed upon application for writ of certiorari before a court of competent jurisdiction, filed within 30 days of the date of the service of the decision.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-112. - No suspension of due date.

No provision of this article allowing for an administrative appeal shall be deemed to suspend the due date of the service fee with payment in full. Any adjustment in the service fee for the person pursuing an appeal shall be made by refund of the amount due.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-113. - Enforcement and penalties.

Any person who violates any provision of this article may be subject to a civil penalty of not more than \$1,000.00, or such additional maximum amount as may become authorized by state law, provided the owner or other person deemed to be in violation has been notified of a violation. Notice shall be deemed achieved when sent by regular United States mail to the last known address reflected on the county tax records, or such other address as has been provided by the person to the county. Each day of a continuing violation may be deemed a separate violation. If payment is not received or equitable settlement reached within 30 days after demand for payment is made, a civil action may be filed on behalf of the county in the circuit court to recover the full amount of the penalty. This provision on penalties shall be in addition to and not in lieu of other provisions on penalties, civil or criminal, remedies and enforcement that may otherwise apply.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-114. - Investment and reinvestment of funds and borrowing.

Funds generated for the stormwater management utility from service fees, fees, rentals, rates, bond issues, other borrowing, grants, loans, and other sources shall be utilized only for those purposes for which the utility has been established as specified in this article, including but not limited to: regulation; planning; acquisition of interests in land, including easements; design and construction of facilities; maintenance of the stormwater system; billing and administration; water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection; public information and education, and other activities which are reasonably required. such funds shall be invested and reinvested pursuant to the same procedures and practices established by Title 12, Section 45-70 of the South Carolina State Code for investment and reinvestment of funds. County council may use any form of borrowing authorized by the laws of the State of South Carolina to fund capital acquisitions or expenditures for the stormwater management utility. County council, in its discretion and pursuant to standard budgetary procedures, may supplement such funds with amounts from the general fund.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-115. - Responsibilities of the stormwater management utility.

The county stormwater management utility shall perform adequate studies throughout the area served by the utility to determine the following:

- (1) Baseline study of water quality in the receiving waters;
- (2) Identification of pollutants carried by stormwater runoff into the receiving waters;
- (3) Recommended mitigation efforts to address pollutants carried by stormwater runoff into the receiving waters;
- (4) Inventory of the existing drainage system;
- (5) Recommended maintenance practices and standards of the existing drainage system;
- (6) Identification of capital improvements to the system to include construction or installation of appropriate BMPs.
- (7) A five-year spending plan.
- (8) Ensure compliance with the federally mandated MS4 permit requirements
- (9) Efficient utility administration including but not limited to billing, collection, defining rate structures, data management and customer support.

(Ord. No. 2015/24, 9-28-2015)

Sec. 99-116. - Stormwater utility management board.

- (1) Purpose. In compliance with and under authority of Beaufort County Ordinance 2001/23, the Beaufort County Council hereby establishes the stormwater management utility board (hereinafter referred to as the "SWU board") to advise the council as follows:
 - (a) To determine appropriate levels of public stormwater management services for residential, commercial, industrial and governmental entities within Beaufort County;
 - (b) To recommend appropriate funding levels for provision of services in the aforementioned sectors;
 - (c) To advise the staff of the stormwater management utility on master planning efforts and cost of service/rate studies; and
 - (d) To support and promote sound stormwater management practices that mitigates non-point source pollution and enhances area drainage within Beaufort County.

Municipal councils are encouraged to organize similar boards to advise them on stormwater management programs and priorities within their boundaries.

In keeping with discussions held during the formation of the stormwater utility, it is anticipated that the municipalities will appoint staff professionals as their representative on the advisory board.

- (2) Stormwater districts. Stormwater districts are hereby established as follows:

District 1 - City of Beaufort

District 2 - Town of Port Royal

District 3 - Town of Hilton Head Island

District 4 - Town of Bluffton

District 5 - Unincorporated Sheldon Township

District 6 - Unincorporated Port Royal Island

District 7 - Unincorporated Lady's Island

District 8 - Unincorporated St. Helena Island Islands East

District 9 - Unincorporated Bluffton Township and Daufuskie Island

(3) Membership.

(a) The SWU board is formed in accordance with Beaufort County Ordinance 92-28 and shall consist of a total of seven voting representatives from each of the following districts as noted below:

No. of Reps.	Stormwater District	Area
1	5	Unincorporated Sheldon Township
1	6	Unincorporated Port Royal Island
1	7	Unincorporated Lady's Island
1	8	Unincorporated St. Helena Island Islands East
2	9	Unincorporated Bluffton Township and Daufuskie Island
1	—	"At large"

All members of the SWU board will be appointed by county council and shall be residents of those districts or "at large" members from unincorporated Beaufort County.

(b) The SWU board shall also consist of one nonvoting (ex officio) representative from the following districts:

Stormwater District	Municipality
1	City of Beaufort
2	Town of Port Royal
3	Town of Hilton Head Island
4	Town of Bluffton

All ex officio members from municipalities shall be appointed by their respective municipal councils for four-year terms.

- (c) All citizen members shall be appointed for a term of four years. The terms shall be staggered with one or two members appointed each year.
 - (d) While no other eligibility criteria is established, it is recommended that members possess experience in one or more of the following areas: Stormwater management (drainage and water quality) issues, strategic planning, budget and finance issues or established professional qualifications in engineering, construction, civil engineering, architectural experience, commercial contractor or similar professions.
- (4) Officers.
- (a) Officers. Selection of officers and their duties as follows:
 - 1. Chairperson and vice-chair. At an annual organizational meeting, the members of the SWU board shall elect a chairperson and vice-chairperson from among its members. The chair's and vice-chair's terms shall be for one year with eligibility for reelection. The chair shall be in charge of all procedures before the SWU board, may administer oaths, may compel the attendance of witnesses, and shall take such action as shall be necessary to preserve order and the integrity of all proceedings before the SWU board. In the absence of the chair, the vice-chair shall act as chairperson.
 - 2. Secretary. The county professional staff member shall appoint a secretary for the SWU board. The secretary shall keep minutes of all proceedings. The minutes shall contain a summary of all proceedings before the SWU board, which include the vote of all members upon every question, and its recommendations, resolutions, findings and determinations, and shall be attested to by the secretary. The minutes shall be approved by a majority of the SWU board members voting. In addition, the secretary shall maintain a public record of SWU board meetings, hearings, proceedings, and correspondence.
 - 3. Staff. The Stormwater Manager shall be the SWU board's professional staff.
 - (b) Quorum and voting. Four SWU board members shall constitute a quorum of the SWU board necessary to take action and transact business. All actions shall require a simple majority of the number of SWU board members present.
 - (c) Removal from office. The county council, by a simple majority vote, shall terminate the appointment of any member of the SWU board and appoint a new member for the following reasons:
 - 1. Absent from more than one-third of the SWU board meetings per annum, whether excused or unexcused;
 - 2. Is no longer a resident of the county;
 - 3. Is convicted of a felony; or
 - 4. Violated conflict of interest rules according to the county-adopted template ordinance.Moreover, a member shall be removed automatically for failing to attend any three consecutive regular meetings.
 - (d) Vacancy. Whenever a vacancy occurs on the SWU board, the county council shall appoint a new member within 60 days of the vacancy, subject to the provisions of this section. A new member shall serve out the former member's term.
 - (e) Compensation. The SWU board members shall serve without compensation, but may be reimbursed for such travel, mileage and/or per diem expenses as may be authorized by the SWU board-approved budget.
- (5) Responsibilities and duties.

- (a) Review and recommend to the county council for approval, a comprehensive Beaufort County Stormwater Management Master Plan and appropriate utility rate study which is in accordance with the South Carolina Stormwater Management and Sediment Reduction Act; and
 - (b) Review and comment to the county administrator on the annual stormwater management utility enterprise fund budget; and
 - (c) Cooperate with the South Carolina Department of Health and Environmental Control (DHEC), Office of Coastal Resource Management (OCRM), the Oversight Committee of the Special Area Management Plan (SAMP), the Beaufort County Clean Water Task Force as well as other public and private agencies having programs directed toward stormwater management programs; and
 - (d) Review and make recommendations concerning development of a multiyear stormwater management capital improvement project (CIP) plan; and
 - (e) Review and advise on proposed stormwater management plans and procurement procedures; and
 - (f) Provide review and recommendations on studies conducted and/or funded by the utility; and
 - (g) Review and advise on actions and programs to comply with regulatory requirements, including permits issued under the State of South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (MS4).
- (6) Meetings. Meetings of the SWU board shall be held as established by the SWU board on a monthly basis and a calendar will be prepared giving the date, time and location of such meetings. Additionally, meetings may be called by the chairperson or at the request of four SWU board members. The location of all SWU board meetings shall be held in a public building in a place accessible to the public. The following shall apply to the conduct of all meetings:
- (a) Meeting records. The SWU board shall keep a record of meetings, resolutions, findings, and determinations. The SWU board may provide for transcription of such hearings and proceedings, or portions of hearings and proceedings, as may be deemed necessary.
 - (b) Open to public. All meetings and public hearings of the SWU board shall be open to the public.
 - (c) Recommendations or decisions. All recommendations shall be by show of hands of all members present. A tie vote or failure to take action shall constitute a denial recommendation. All recommendations shall be accompanied by a written summary of the action and recommendations.
 - (d) Notice and agenda. The SWU board must give written public notice of regular meetings at the beginning of each calendar year. The SWU board must post regular meeting agendas at the meeting place 24 hours before any meeting. Notices and agenda for call, special or rescheduled meetings must be posted at least 24 hours before such meetings. The SWU board must notify any persons, organizations and news media that request such notification of meetings.

(Ord. No. 2015/24, 9-28-2015)

Article III. – REGULATORY GENERAL PROVISIONS

Sec. 99-200. - Authority

This Ordinance is adopted pursuant to the authority conferred upon the Beaufort County (County) by the South Carolina Constitution, the South Carolina General Assembly and in accordance with Federal Clean Water Act, the South Carolina Pollution Control Act, and regulations promulgated there under.

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(Ord. No. 2016/ _____ - _____-2016)

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Sec. 99-201. - Findings

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The County Council makes the following findings:

- (a) Beaufort County's Waters contain some of the few remaining pristine shellfish harvesting areas in the southern coastal counties of South Carolina many of its waters have been designated by the State of South Carolina as an Outstanding Resource Waters. This use has historical and traditional significance to the area. It is in the public interest that the condition of these areas be maintained and preserved for future generations. Uncontrolled stormwater runoff may have significant, adverse impact on the health, safety and general welfare of the County and the quality of life of its citizens by transporting pollutants into receiving waters and by causing erosion and/or flooding. Development and redevelopment may alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, non-point pollution, and sediment transport and deposition, as well as reducing groundwater recharge. These changes in stormwater runoff may contribute to increased quantities of water-borne pollutants and alterations in hydrology which are harmful to public health, safety, and welfare, as well as to the natural environment.
- (b) Point source pollution may have significant, adverse impact on the health, safety and general welfare of the County and the quality of life of its citizens by transporting pollutants into receiving waters. The allowance of discharge pipes and outfalls for non-stormwater discharges, illegal dumping, and improper handling of accidental spills and intentional disposals increase the quantities of water-borne pollutants which are harmful to public health, safety, and welfare, as well as to the natural environment.
- (c) The effects of point and non-point source pollution, such as uncontrolled runoff, have shown evidence of degradation of the County's receiving waters; thereby adversely affecting the unique qualities of the County's receiving waters, its recreational opportunities and commercial, oystering, boating and fishing, the ecosystem's ability to naturally reproduce and thrive, and the general ability of the area to sustain its natural estuarine resources.
- (d) These deleterious effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from development and redevelopment sites, manage existing natural features that maintain hydrology and provide water quality control, and eliminate potential sources of pollution to receiving waters. Public education regarding the cause and effect of these types of pollutions and the implementation of the controls and management policies is key to fundamentally changing public behavior.
- (e) This Ordinance is not in conflict with any development agreements to which the County is a party and does not prevent the development set forth in any development agreement unless impairments to the County's receiving waters is linked to this development.
- (f) This Ordinance is essential to the public health, safety or welfare and shall apply to any development that is subject to a development agreement.
- (g) Laws of general application throughout the County necessary to protect health, safety and welfare are anticipated and are provided for in development agreements.
- (h) Substantial changes in developmental impacts have occurred since the time the development agreements were signed, which changes, if not addressed in this Ordinance would pose a threat to public health, safety or welfare.

(Ord. No. 2016/ _____ - _____-2016)

Sec. 99-202. - Purpose

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- (a) It is the purpose of this Ordinance to guide development in Beaufort County to protect, maintain, and enhance the environment of the County and the short and long-term public

health, safety, and general welfare of the citizens of the County by establishing requirements and procedures to control the potential adverse effects of increased stormwater runoff associated with both future development, re-development, and existing developed land. Proper management of stormwater runoff will minimize damage to public and private property, ensure a functional drainage system, reduce the effects of development on land and stream channel erosion, attain and maintain water quality standards, enhance the local environment associated with the drainage system, reduce local flooding, reduce pollutant loading to the maximum extent practicable and maintain to the extent practicable the pre-developed runoff characteristics of the area, and facilitate economic development while minimizing associated pollutant, flooding, and drainage impacts.

- (b) This Ordinance specifically authorizes and enables the County at a minimum to:
1. Prohibit Illicit Discharges to the Stormwater System and receiving waters.
 2. Define procedures for site plan review, inspection, and enforcement relative to stormwater management.
 3. Control the discharge of spills, dumping or disposal of materials other than stormwater to the Stormwater System and receiving waters.
 4. Address specific categories of non-stormwater discharges and similar other incidental non-stormwater discharges.
 5. Control importation of water that adversely impacts our receiving waters.
 6. Require temporary erosion and sediment controls to protect water quality to the maximum extent practicable during construction activities, in accordance with current state regulations.
 7. Define procedures for receipt and consideration of information submitted by the public.
 8. Address runoff, particularly volume, rate, and quality through the control and treatment of stormwater with stormwater management facilities and/or Best Management Practices (BMPs).
 9. Develop post-construction stormwater quality performance standards, through enforcement of minimum design standards for BMPs.
 10. Ensure effective long-term operation and maintenance of BMPs.
 11. Carry out all inspection, surveillance, monitoring, and enforcement procedures necessary to determine compliance and noncompliance with this Ordinance and stormwater permit conditions including the prohibition of Illicit Discharges to the County's Stormwater System and the protection of water quality of the receiving waters.
- (c) The Ordinance requires prudent site planning, including special considerations for the purposes of preserving natural drainage ways incorporating on-site stormwater detention and infiltration to minimize runoff from individual sites to receiving waters by use of effective runoff management, structural and non-structural BMPs, drainage structures, and stormwater facilities.

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(Ord. No. 2016/ . - -2016)

Sec. 99-203. - Definitions

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The following definitions shall apply in Articles III, IV, V, and VI this Ordinance. Any term not herein defined shall be given the definition, if any, as is found elsewhere in the Code of Ordinances of Beaufort County, including the Community Development Code (CDC) Ordinance.

Administrators. The Director of Environmental Engineering and Land Management, the Stormwater Manager and other individuals designated by the County Administrator, from time to time, to administer interpret and enforce this Ordinance.

Record Drawings. A set of drawings prepared by and certified by a South Carolina registered professional engineer or landscape architect that accurately represents the actual final configuration of the stormwater and other related infrastructure constructed in a development.

Best Management Practices. Stormwater management practices, either structural, non-structural or natural that has been demonstrated to effectively control movement of Stormwater, pollutants, prevent degradation of soil and water resources, and that are compatible with the planned land use.

Clean Water Act. The Federal Water Pollution Control Act, as amended, codified at 33 U.S.C §1251 et. seq.

County. The Beaufort County, South Carolina.

County Council. The publicly elected official of Beaufort County, South Carolina.

Department. The Stormwater Department, or any duly authorized representatives thereof as designated by the County Administrator.

Development. All construction modification, or use of any lot, parcel, building, or structure on land and on water.

Disconnected Impervious Areas or Disconnected Impervious Surfaces. Those non-contiguous impervious areas or impervious surfaces which produce stormwater runoff that discharges through or across a pervious area or surface (i.e. vegetated cover), of sufficient width to reduce or eliminate pollutants associated with stormwater runoff, prior to discharge to the Stormwater System.

Environment. The complex of physical, chemical, and biotic factors that act upon an ecological community and ultimately determine its form and survival.

Evapotranspiration. The sum of evaporation and plant transpiration from the Earth's land surface to atmosphere.

Excess Stormwater Volume. The additional volume of Stormwater runoff leaving the site over and above the runoff volume which existed pre-development.

Illicit Connection. A connection to the County's Stormwater System or receiving water which results in a discharge that is not composed entirely of stormwater runoff and has a detrimental effect on the Stormwater System or receiving water except those granted coverage by an active NPDES permit.

Illicit discharge. Any activity, which results in a discharge to the County's Stormwater System or receiving waters that is not composed entirely of stormwater except (a) discharge pursuant to an NPDES permit and (b) other allowable discharges as defined and exempted in this Ordinance.

Impervious Surface. As defined in the County's Best Management Practices (BMP) Manual.

Improper disposal. Any disposal through an Illicit Discharge, including, but not limited to the disposal of used oil and toxic materials resulting from the improper management of such substances.

Land Disturbance or Land Disturbing Activity. The use of land by any person that results in a change in the natural vegetated cover or topography, including clearing that may contribute to or alters the quantity and/or quality of stormwater runoff.

Maintenance. Any action necessary to preserve stormwater management facilities in proper working condition, in order to serve the intended purposes set forth in this Ordinance and to prevent structural failure of such facilities.

MS4. Municipal Separate Storm Sewer System.

NPDES. National Pollutant Discharge Elimination System (see "Clean Water Act.")

Natural Resources. Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources.

Outfall. The point where County's Stormwater System discharges to waters of the United States or the State of South Carolina.

Person. Any and all persons, natural or artificial and includes any individual, association, firm, corporation, business trust, estate, trust, partnership, two or more persons having a joint or common interest, or an agent or employee thereof, or any other legal entity.

Pollutant. Those man-made or naturally occurring constituents that when introduced to a specific environment creates a deleterious effects. Typical pollutants found in stormwater include but are not limited to sediment (suspended and dissolved), nutrients (nitrogen and phosphorus, etc.), oxygen demanding organic matter, heavy metals (iron, lead, manganese, etc.), bacteria and other pathogens, oil and grease, household hazardous waste (insecticide, pesticide, solvents, paints, etc.) and Polycyclic Aromatic Hydrocarbons (PAHs).

Property Owner or Owner. The legal or equitable owner of land.

Receiving Waters. All natural water bodies, including oceans, salt and freshwater marsh areas, lakes, rivers, streams, ponds, wetlands, and groundwater which are located within the jurisdictional boundaries of County. Stormwater management ponds, man-made wetlands, ditches, and swales constructed for the sole purpose of controlling and treating stormwater are not considered Receiving Waters.

Redevelopment. As defined in the County's Best Management Practices (BMP) Manual.

Regulation. Any regulation, rule or requirement and promulgated by the County pursuant to this Ordinance.

Stormwater. Stormwater runoff, precipitation runoff, and surface runoff.

Stormwater management. The collection, conveyance, storage, treatment and disposal of Stormwater in a manner to meet the objectives of this Ordinance and its terms, including, but not limited to measures that control the increased volume and rate of stormwater runoff and water quality impacts caused by manmade changes to the land.

Stormwater Management Program, Services, Systems Facilities. Those administrative, engineering, operational, regulatory, and capital improvement activities and functions performed in the course of managing the Stormwater systems of the County, plus all services. Stormwater Management Systems and Facilities are those natural and manmade channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties, and improvements which transfer, control, convey or otherwise influence the movement of Stormwater runoff and its discharge to and impact upon receiving waters.

Stormwater Management Plan or SWMP. The set of drawings and other documents that comprise all of the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques for the control of stormwater.

Stormwater Pollution Prevention Plan or SWPPP. Erosion Prevention and Sediment Control (EPSC). Also See "Stormwater Management Plan".

Stormwater System. The conveyance or system of conveyances (including roads with drainage systems, highways, right-of-way, private streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains, detention ponds, and other stormwater facilities) which is designed or used for collecting or conveying Stormwater.

Structural Best Management Practices (BMP). A device designed and constructed to trap and filter pollutants from runoff.

Total Impervious Surface. All impervious surfaces on a site regardless if they are directly connected to another and that is not constructed using permeable pavement technology.

Utility. Beaufort County Stormwater Utility as established by County Ordinance Chapter 99 Article II.

Waiver. The modification of the minimum stormwater management requirements contained in these Articles and the BMP Manual for specific circumstances where strict adherence of the requirements would result in unnecessary hardship and not fulfill the intent of this Ordinance.

Water Quality. Those characteristics of stormwater runoff that relate to the physical, chemical, biological, or radiological integrity of water.

Water Quantity. Those characteristics of stormwater runoff that relate to the rate and volume of the stormwater runoff.

Wetlands. As defined by the Army Corps of Engineers and generally means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar type areas.

Working Day. Monday through Friday, excluding all County-observed holidays.

(Ord. No. 2016/____, ____ - ____-2016)

Sec. 99-204. - Applicability

Beginning with and subsequent to its effective date, this Ordinance shall be applicable to:

- (a) All Development and Redevelopment
- (b) Any illicit discharges
- (c) The provisions of this Ordinance shall apply throughout the unincorporated areas of the County

(Ord. No. 2016/____, ____ - ____-2016)

Sec. 99-205. - Regulations

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The County Council, may, in its discretion, amend or change this Ordinance, or adopt additional regulations to implement this Ordinance in order to comply with the State regulations, administer the Stormwater Management Department, or to otherwise further the goal of protecting the quality of the receiving waters into which the Stormwater System discharges.

(Ord. No. 2016/____, ____ - ____-2016)

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Sec. 99-206. - County Stormwater Management Administration

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The Stormwater Management will be administered by the Environmental Engineering and Land Management Division and the Stormwater Department developed by the County to administer and implement the regulations of this Ordinance as detailed in the CDC and BMP Manual.

(Ord. No. 2016/____, ____ - ____-2016)

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Sec. 99-207. - Administrators of Operations, Power and Duties

- (a) The Administrators shall administer, implement, and enforce provisions of this Ordinance on behalf of the County.
- (b) In addition to the powers and duties that may be conferred by other provisions of the County and other laws, the Administrators shall have the following powers and duties under this ordinance:
 - 1. To review and approve, approve with conditions, or disapprove applications for approval of a Stormwater Management Plan pursuant to this Ordinance;
 - 2. To make determinations and render interpretations of this Ordinance;
 - 3. To establish application requirements, ~~and~~ schedules and fees for submittal and review of applications and appeals, in accordance with the standards for County Development Permits and Stormwater Permits under the County's CDC Ordinance and this Ordinance;
 - 4. To review and make recommendations to the applications for development or redevelopment approvals;
 - 5. To enforce the provisions of this ordinance in accordance with its enforcement provisions;
 - 6. To maintain records, maps, and official materials related enforcement, or administration of this Ordinance;
 - 7. To provide expertise and technical assistance;
 - 8. To take any other action necessary to administer the provisions of this Ordinance.

(Ord. No. 2016/____, ____ - ____-2016)

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Sec. 99-208. - Coordination with Other Agencies

The Administrators will coordinate the County's activities with other federal, state, and local agencies, which manage and perform functions relating to the protection of receiving waters.

(Ord. No. 2016/____, ____ - ____-2016)

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Sec. 99-209. - Cooperation with Other Governments

The County may enter into agreements with other governmental and private entities to carry out the purposes of this Ordinance. These agreements may include, but are not limited to enforcement, resolution of disputes, cooperative monitoring, and cooperative management of stormwater systems and cooperative implementation of stormwater management programs.

Nothing in this Ordinance or in this section shall be construed as limitation or repeal of any ordinances of these local governments or of the powers granted to these local governments by the South Carolina Constitution or statues, including, without limitation, the power to require additional or more stringent stormwater management requirements within their jurisdictional boundaries.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-210. - Stormwater Management Standards

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(a) *Reference to Best Management Practices (BMP) Manual*

The Administrators shall use the policy, criteria, and information, including technical specifications and standards, in the BMP Manual as the basis for decisions about stormwater plans and about the design, implementation and performance of structural and non-structural stormwater BMPs. The Stormwater Management Standards shall describe in detail how post-development stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this ordinance. The referenced BMP Manual includes a list of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. These standards will be updated as Technology improves.

(b) *Relationship of Stormwater Management Standards to Other Laws and Regulations.* If the specifications or guidelines of the Standards are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Standards.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-211. - Review of Stormwater Management Plans

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Stormwater Management Plans shall be reviewed as a component of the Development Plan review process by the Administrators. They will be reviewed for compliance with standards in this ordinance and requirements in the CDC and BMP Manual. Procedures are outlined in BMP Manual. Requests for meetings and submission of plans will be submitted to Stormwater Department. The expected process will be as follows:

(Ord. No. 2016/ _____ - -2016)

Sec. 99-212. - Approvals

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(a) *Effect of Approval*

Approval authorizes the applicant to go forward with only the specific plans and activity authorized in the plan. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

(b) *Time Limit/Expiration*

Time limit, expiration and extensions shall be in accordance with the County's CDC Ordinance.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-213. - Appeals

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(a) *Scope of Appeal*

Any person aggrieved by a decision of the Administrators may appeal the same by filing an interim written notice of appeal, with the Administrators within thirty (30) days of the

issuance of said decision or Notice of Violation. The interim notice of appeal must specify with reasonable practicality the grounds of the appeal and relief sought. Stormwater Utility Management Board (SWUB) will review and provide a decision within fifteen (15) day of the next Board Meeting following the appeal. The decision of the SWUB shall be final. Appeals to SWUB's decision shall be processed in accordance with State Law.

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(b) Standards

1. The SWUB is limited to the following determinations for an administrative appeal:
 - (a) The administrators made an error in reviewing whether a standard was met. The record must indicate that an error in judgment occurred or facts, plans, or regulations were misread in determining whether the particular standard was met.
 - (b) Where conflicting evidence exists, the appeal is limited to determining what evidence or testimony bears the greatest credibility in terms of documentation and qualifications of those making the determination.
 - (c) The administrators made the decision on standards not contained in this chapter or other county ordinances, regulations, or state law, or a standard more strict or broad was applied. This chapter does not permit administrators to consider or create standards not officially adopted.
 - (d) An error in applying a standard or measuring a standard was made.
2. The board, on an appeal, shall not hear any evidence or make any decision based on hardships or special conditions.

(Ord. No. 2016/ - -2016)

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Article IV. – STORMWATER MANAGEMENT STANDARDS TO BE APPLIED

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Sec. 99-300. - General Requirements

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- (a) All development and redevelopment, including highways, shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume and duration of flow.
- (b) All development shall connect Impervious Surfaces to vegetative surfaces to the maximum extent practicable.
- (c) Stormwater runoff shall be controlled in a manner that:
 1. Promotes positive drainage from structures resulting from development.
 2. Includes the use of vegetated conveyances, such as swales and existing natural channels to promote infiltration and evapotranspiration.
 3. Reduces runoff velocities and maintains sheet flow condition to prevent erosion and promote infiltration.
 4. Limits its interaction with potential pollutant sources that may become water-borne and create non-point source pollution.
 5. Promotes reuse of excess stormwater volume to increase evapotranspiration.
- (d) Natural vegetative buffers play an integral part in minimizing the volume of stormwater runoff by promoting infiltration and increasing evapotranspiration to reduce SW volume to receiving waters and acting as a first line of treatment of water quality pollution. Development shall observe the buffer requirements of the County's CDC Ordinance or if applicable the relevant development agreement, concept plan, and/or approved master plan.

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(Ord. No. 2016/ _____ - -2016)

Sec. 99-301. - Stormwater Design Requirements for Development

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- (a) Development that incorporates engineered stormwater collection, conveyance, and storage systems shall design the systems to design criteria established in latest version of County's BMP Manual

(Ord. No. 2016/ _____ - -2016)

Sec. 99-302. - BMP Requirements

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- (a) Effectiveness of infiltration practices is dependant on the site conditions. The BMP manual outlines guidance for properly siting infiltration practices and shall be reviewed prior to the design phase.
- (b) The owners of all new developments that receive a Stormwater Permit from the County shall be required to perform stormwater quantity monitoring at their expense to ensure compliance with the provisions of this Ordinance and ensure that volume reduction plans are operated as intended.
- (c) All construction and implementation of erosion and sediment control BMPs shall comply with the requirements of the South Carolina Stormwater Management and Sediment Reduction Act and submit reports in accordance with the BMP manual.
- (d) The County reserves the right to perform other monitoring as it deems appropriate to determine compliance with the State Sediment and Erosion Control Act.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-303. - Impervious Requirements

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Development shall construct permeable paving where soil or other conditions allow.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-304. - Waiver

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Individuals seeking a waiver in connection with a Stormwater Plan may submit to the Administrators a request for a waiver from the requirements of this Ordinance if exceptional circumstances applicable to a site exist such that adherence to the provisions of the Ordinance will result in unnecessary hardship and will not fulfill the intent of the Ordinance.

(a) *Request of Waiver at Staff Level*

A written request for a waiver is required and shall state the specific waiver sought and the reasons, with supporting data, a waiver should be granted. The request shall include all information necessary to evaluate the proposed waiver. Requests must outline the need for such a waiver, such as site constraints, soil characteristics, or similar engineering limitations. Cost shall not be considered cause for a waiver. The applicant will address the four areas of consideration for waiver approval as follows:

1. *What exceptional circumstances to the site are evident?*
2. *What unnecessary hardship is being caused?*
3. *How will denial of the waiver be inconsistent with the intent of the Ordinance?*
4. *How will granting waiver comply with intent of ordinance?*

(b) *Review of Waivers*

The Administrators will conduct a review of the request and will issue a decision fifteen within (15) working days of receiving the request.

(c) *Appeal of Decision*

Any person aggrieved by the decision of the Administrators concerning a waiver request may appeal such decision in accordance with Section 99-213 above.

(Ord. No. 2016/____, - -2016)

Sec. 99-305. – Maintenance: General Requirements

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(a) *Function of BMPs as Intended*

The owner of each structural BMP installed pursuant to this Ordinance shall maintain and operate it to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the structural BMP was designed.

(b) *Right of County to Inspection*

Every Structural BMP installed pursuant to this ordinance shall be made accessible for adequate inspection by the County.

(c) *Annual Maintenance Inspection and Report*

The person responsible for maintenance of any structural BMP installed pursuant to this Ordinance shall submit to the Administrator(s) an inspection report from a registered South Carolina Professional Engineer. The inspection report, at a minimum, shall contain all of the following:

1. The name and address of the land owner;
2. The recorded book and page number of the lot of each structural BMP or a digital representation of the geographic location of each structural BMP;
3. A statement that an inspection was made of all structural BMPs;
4. The date the inspection was made;
5. A statement that all inspected structural BMPs are performing properly and comply with the terms and conditions of the approved maintenance agreement required by this Ordinance;
6. The original signature and seal of the engineer inspecting the structural BMPs;
and
7. Digital photographs of the structural BMPs and pertinent components integral to its operation, including but not limited to inlet/outlet control structures, downstream receiving channel/area, embankments and spillways, safety features, and vegetation.

All inspection reports shall be on forms supplied by the Administrators. An original inspection report shall be provided to the Administrators beginning one year from the date of record drawings certification and each year thereafter on or before the date of the record drawings certification.

(Ord. No. 2016/____, - -2016)

Sec. 99-306. - Operation and Maintenance Agreement

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(b) Prior to the conveyance or transfer of any lot or building site requiring a structural BMP pursuant to this Ordinance, the applicant or owner of the site must execute an operation and maintenance agreement (see BMP manual for form) that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the structural BMP. Until the transference of all property, sites, or lots served by the structural BMP, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

(b) The operation and maintenance agreement must be approved by the Administrators prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for

the site, then the operations and maintenance agreement shall be recorded upon the approval of a certificate of completion with the county Register of Deeds to appear in the chain of title of all subsequent purchasers under generally accepted searching principles. A copy of the recorded maintenance agreement shall be given to the Administrators within fourteen (14) days following its recordation.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-307. - Deed Recordation and Indications on Plat

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The applicable operations and maintenance agreement pertaining to every structural BMP shall be referenced on the final plat and in covenants and shall be recorded with the county Register of Deeds upon final plat approval.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-308. - Records of Installation and Maintenance Activities

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The owner of each structural BMP shall keep records of inspections, maintenance, and repairs for at least five (5) years from the date of the record and shall submit the same upon reasonable request to the Administrator(s).

(Ord. No. 2016/ _____ - -2016)

Sec. 99-309. - Nuisance

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The owner of each stormwater BMP shall maintain it so as not to create or result in a nuisance condition, such as but not limited to flooding, erosion, excessive algal growth, overgrown vegetation, mosquito breeding habitat, existence of unsightly debris, or impairments to public safety and health. Maintenance practices must not lead to discharges of harmful pollutants.

(Ord. No. 2016/ _____ - -2016)

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Article V. - ILLICIT DISCHARGES AND CONNECTIONS TO THE STORMWATER SYSTEM

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Sec. 99-400. - Illicit Discharges

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No person shall cause or allow the discharge, emission, disposal, pouring, or pumping directly or indirectly to any stormwater conveyance, receiving water, or upon the land in manner and amount that the substance is likely to reach a stormwater conveyance or the receiving waters, any liquid, solid, gas, or other substance(including animal waste), other than stormwater.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-401. - Non-Stormwater Discharges

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- (a) Non-Stormwater discharges associated with the following activities are allowed provided that acceptable BMPs are followed:
1. Water line and hydrant flushing;
 2. Landscape irrigation, unless it leads to excess SW Volume discharge
 3. Diverted stream flows;
 4. Rising ground waters;
 5. Untaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
 6. Untaminated pumped ground water;

7. Discharges from potable water sources (with dechlorination BMP utilized);
8. Foundation drains;
9. Air conditioning condensation;
10. Reuse water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Individual residential car washing;
15. Flows from riparian habitats and wetlands;
16. Dechlorinated swimming pool discharges; typically less than one part per million.
17. Street wash water; and
18. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of South Carolina, and provided that any such discharges to the County's Stormwater System have been approved if required by the County permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under EPA authority, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.;
19. Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety;
20. Dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the test; and
21. Firefighting.

(b) Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste, paints, garbage, and litter.

(Ord. No. 2016/ , - -2016)

Sec. 99-402. - Illicit Connections

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- (a) Connections to a receiving water and/or stormwater conveyance system that allow the discharge of non-stormwater, other than the exclusions described in Section 99-401 (a) above are unlawful. Prohibited connections include, but are not limited to floor drains, waste water from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and waste water from septic systems.
- (b) Where such connections exist in violation of this section and said connections were made prior to the adoption of this Ordinance or any other ordinance prohibiting such connections, the property owner or the person using said connection shall remove or correct the connection.

(Ord. No. 2016/ , - -2016)

Sec. 99-403. - Spills

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- (a) Spills or leaks of polluting substances released, discharged to, or having the potential to released or discharged to a receiving water or the stormwater conveyance system, shall be contained, controlled, collected, and properly disposed. All affected areas shall be restored to their preexisting condition.
- (b) Persons in control of the polluting substances shall immediately report the release or discharge to persons owning the property on which the substances were released or discharged, shall within two (2) hours of such an event shall notify the nearest Fire Department (who will also notify the Administrators), and all required federal and state agencies of the release or discharge. Notification shall not relieve any person of any

expenses related to the restoration, loss, damage, or any other liability which may be incurred as a result of said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by State or other law.

(Ord. No. 2016/ , - -2016)

Sec. 99-404. - Nuisance

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Illicit discharges and illicit connections which exist within the unincorporated County are hereby found, deemed, and declared to be dangerous and prejudicial to the public health, and welfare, and are found, deemed, and declared to be public nuisances. Such public nuisances shall be abated in accordance with the procedures set forth in Section 7.3, Corrective Action.

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Sec. 99-405. – Suspension of a MS4 discharge due to an illicit discharge.

- a) Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The authorized enforcement agency will notify a violator of the proposed termination of its' MS4 access. The violator may petition the authorized enforcement agency for a reconsideration and hearing.
- b) A person commits an offence if the person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the authorized enforcement agency.
- c) The Beaufort County, South Carolina staff may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

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(Ord. No. 2016/ , - -2016)

Article VI. - INSPECTION , ENFORCEMENT , AND CORRECTION

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Sec. 99-500. - Inspections

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The County will maintain the right to inspect any and all Stormwater Systems within it jurisdiction as outlined below:

- (a) An Inspector designated by the Administrators, bearing proper credentials and identification, may enter and inspect all properties for regular inspections, periodic investigations, monitoring, observation measurement, enforcement, sampling and testing, to ensure compliance with the provisions of this Ordinance.
- (b) Upon refusal by any property owner to permit an Inspector to enter or continue an inspection, the Inspector may terminate the inspection or confine the inspection to areas concerning which no objection is raised. The Inspector shall immediately report the refusal and the grounds to the Administrators. The Administrators will promptly seek the appropriate compulsory process.
- (c) In the event that the Administrators or Inspector reasonably believes that discharges from the property into the County's Stormwater System or receiving waters may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any time after an initial attempt to notify the owner of the property or a representative on site. The Inspector shall present proper credentials upon reasonable request by the owner or representative.

- (d) The Beaufort County, South Carolina, staff shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's stormwater discharge.
- (e) The Beaufort County, South Carolina, staff has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- (f) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the authorized enforcement agency and shall not be replaced. The costs of clearing such access shall be borne by the operator.
- (g) Unreasonable delays in allowing the Beaufort County, South Carolina, staff access to a permitted facility is a violation of a stormwater discharge permit and of this ordinance. A person who is the operator of a facility with a NPDES permit to discharge stormwater associated with industrial activity commits an offense if the person denies the authorized enforcement agency reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this ordinance.
- (h) Inspection reports will be maintained in a permanent file at the offices of the County.

(Ord. No. 2016/ , - -2016)

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Sec. 99-501. - Notice and Warning.

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- (a) Upon the County's attention to a violation of this ordinance, the Administrators shall investigate the violation and prepare a report concerning the violation. If a violation exists, a warning notice shall be delivered within five (5) working days to any person occupying the property or linked to a discharge, whether the person is the owner, renter, or lessee. If the nature of the violation is not correctable, a ~~notice to appear~~ stop work order shall be issued immediately. If no one is present or refuses to accept the notice, the Administrators shall post the warning notice on the residence or building entrance.
- (b) The warning notice shall contain the following:
 - 1. The address and legal description of the property.
 - 2. The section of this chapter being violated.
 - 3. The nature and location of the violation and the date by which such violation shall be removed or abated.
 - 4. A notice of the penalty for failing to remove or abate the violation, stating that if the nuisance recurs by the same occupant, owner, or person in charge, a notice of violation, stop work order, or notice to appear will be issued without further notice.
 - 5. The notice shall specify the number of days in which the violation shall be removed or abated, which time shall be not less than three (3) days nor more than ten (10) days, except in emergency cases.
- (c) If the violation occurs where the residence or building is unoccupied, the property may be posted as provided in this section. If the property is unimproved, the notice may be placed on a tree or other such object as available.

(d) A written notice containing the same information as the warning notice shall be sent to the owner or any other person having control of the property at the last known address of the owner, or at the address of the person having control, by ordinary mail.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-502. - Recurring Violations.

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Once a notice has been delivered pursuant to County CDC, Division 9.4.40 and the same violation recurs on the same lot or tract of land by the same person previously responsible, no further warning notice need be given. Each day a violation continues after the expiration of the warning period to abate such a violation shall constitute a separate offence. Thereafter, the County may issue a notice of violation, stop work order, or such person deemed responsible may be notified to appear in court to answer to the charge against such person.

(Ord. No. 2016/ _____ - -2016)

Sec. 99-503. - Failure to Act Upon Warning Notice.

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Upon neglect or failure to act upon the warning notice of violation, and/or stop work order given as provided in section 99-501 & 502, the County shall issue a notice to appear and shall follow the procedures as follows:

(a) Service of notice to appear. If a warning notice is given and, after the time for removal or abatement has lapsed, the property is reinspected and the County Official finds and determines the violation has not been removed or abated, the County Official shall fill out and sign, as the complainant, a complaint and information form or a notice to appear. The notice to appear shall include the following:

1. Name of the occupant, owner, or person in charge of the property.
2. The address or legal description of the property on which the violation is occurring.
3. This chapter section or other reference the action or condition violates.
4. The date on which the case will be on the court docket for hearing.
5. Any other information deemed pertinent by the County Official.

The original copy of the notice to appear shall be forwarded to the clerk of the court for inclusion on the court's docket for the date indicated on the notice to appear.

(b) Notice to appear; delivery by mail. If no one is found at the property to accept a notice to appear for failure to remove or abate a violation, the County Official shall fill out and sign the notice to appear as the complainant and deliver the original plus one copy to the Clerk of the Court. The Clerk shall verify or insert the date the case has been set for hearing before the Court. The Clerk shall mail the copy by certified mail to the person named in the notice to appear at that person's last known address.

(c) *Abatement by County; costs assessed to person responsible.* If the occupant, owner, or person in charge of the property for which a warning notice has been given fails to remove or abate the violation in the time specified in the notice, whether on public or private property, the County may, if severe conditions exist that affect health, welfare, safety or severe environmental degradation, remove the violation and thereby abate the violation. If necessary, the County may lawfully enter upon the property on which the violation remains unabated to remove or abate such violation at the cost of the person responsible for creating or maintaining the violation. The violation will be subject to civil fines reflecting the cost to the County, as prosecuted by the County Attorney.

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(d) *Payment of costs; special tax bill or judgment.* All costs and expenses incurred by the County in removing or abating any violation on any private property may be assessed against the property as a lien on the property. Alternatively, the cost of removing or abating the violation may be made part of the judgment by the judge, in addition to any other penalties and costs imposed if the person charged either pleads or is found guilty of causing, creating, or maintaining a violation.

~~(e) *Warning notice; first offense.* In all cases where the violation is the first offense of the specified chapter violation, the warning notice provisions of County CDC, Division 9.4.40 shall be observed. The notice shall specify the number of days in which the violation shall be removed or abated, which time shall not be less than three days nor more than ten days, except in emergency cases.~~

~~(f) *Warning notice; subsequent offenses.* In all cases where the violation on public or private property is a repeat or continued offense on such property, after the expiration of the time period set out in subsection (5) of this section, the warning notice sections of this division need not be observed. Each day a violation continues after the expiration of the warning period to abate such violation shall constitute a separate offense.~~

(Ord. No. 2016/ , - -2016)

Sec. 99-504. - Penalty for Violation.

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(a) Any person, group, firm, association or corporation violating any section of this chapter shall be guilty of a misdemeanor and, upon conviction thereof, shall pay such penalties as the court may decide, as prescribed by state law, not to exceed \$500.00 or 30 days imprisonment for each violation. Each day during which such conduct shall continue shall subject the offender to the liability prescribed in this article.

(b) In addition to the penalties established and authorized in subsection (a) of this section, the County Attorney shall take other actions at law or in equity as may be required to halt, terminate, remove, or otherwise eliminate any violations of this chapter.

(Ord. No. 2016/ , - -2016)

Sec. 99-505. - Interpretation

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(a) *Meaning and Intent*
All provisions, terms, phrases, and expressions contained in this ordinance shall be construed according to the general and specific purposes set forth in Section 99-202, Purpose. If a different or more specific meaning is given for a term defined elsewhere in

County's Code of Ordinances or in an existing development agreement, the meaning and application of the term in this Ordinance shall control for purposes of application of this Ordinance.

(b) *Text Controls in Event of Conflict*

In the event of a conflict or inconsistency between the text of this Ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

(c) *Authority for Interpretation*

The Administrators have, after consultation with County Attorney, authority to determine the interpretation of this Ordinance. Any person may request an interpretation by submitting a written request to the Administrators who shall respond in writing within thirty (30) days. The Administrators shall keep on file a record of all written interpretations of this ordinance.

(d) *References to Statutes, Regulations, and Documents*

Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the BMP Manual), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

(e) *Delegation of Authority*

Any act authorized by this Ordinance to be carried out by the County Administrator may be carried out by his or her designee.

(f) *Usage*

1. *Mandatory and Discretionary Terms*

The words "shall," "must," and "will" are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words "may" and "should" are permissive in nature.

2. *Conjunctions*

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word "and" indicates that all connected items, conditions, provisions or events apply. The word "or" indicates that one or more of the connected items, conditions, provisions or events apply.

3. *Tense, Plurals, and Gender Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.*

(g) *Measurement and Computation*

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

(Ord. No. 2016/____ - -2016)

Sec. 99-506. - Conflict of Laws

This ordinance is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare, shall control.

(Ord. No. 2016/____ - -2016)

Sec. 99-507. - Severability

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If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance.

(Ord. No. 2016/ , - -2016)

This Ordinance will become effective upon approval by Council Council.

Adopted this day of , 2016.

COUNTY COUNCIL OF BEAUFORT COUNTY

BY:

Paul Sommerville, Chairman

APPROVED AS TO FORM:

Thomas Keavney, County Attorney

ATTEST:

Suzanne M. Rainey, Clerk to Council

First Reading:

[Second Reading:](#)

[Public Hearing:](#)

[Third and Final Reading:](#)

(Ord. No. 2005/33, § 17, 8-22-2005; Ord. No. 2009/21, §§ I—VI, 5-26-2009; Ord. No. 2015/24, 9-28-2015; [Ord. No. 2016/ , - -2016](#); [Ord. No. 2016/ , - -2016](#))

DRAFT 6



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, October 12, 2016
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 – September 14, 2016 ([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 – Rebecca Baker ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. 2016 Tax Run Update
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. November 9, 2016 ([backup](#))
9. ADJOURNMENT