

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

September 3, 2014 at 2:00 p.m. in Beaufort Industrial Village Building #3 Conference Room

Board Members

Present

Don Smith
Allyn Schneider
William Bruggeman
Patrick Mitchell

Absent

James Fargher

Ex-Officio Members

Present

Andy Kinghorn
Kimberly Jones
Scott Liggett

Absent

Van Willis

Beaufort County Staff

Eric Larson
Eddie Bellamy
Danny Polk
Carolyn Wallace
Alan Eisenman

Visitors

Lamar Taylor, City of Beaufort
Denise Parsick, Bft Soil & Water Conservation Dist

1. Meeting called to order – Don Smith

A. Agenda – Approved.

B. June 4, 2014, July 2, 2014 and August 6, 2014 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Reports – (Mr. Larson submitted his written report in advance. [Please see attachment.](#))

A. **Special Presentation** – Mr. Eric Larson provided a presentation on two current projects; Highway 278 retrofit project and the Administration Building Parking Lot Retrofit Project. ([please see attachment](#)).

B. **Utility Update** – Eric Larson

Annual Tax Run – The TY 2014 tax run preparations have begun. Mrs. Carolyn Wallace is coordinating with our stormwater staff to review the parcel information changes since last year.

Annual Reports – Per our IGA with the Towns and City, an annual report of fiscal year revenue projections and their rates was due August 15th. ToHHI and ToB submitted. A second report was due September 1 which summarizes revenue and expenses from the last fiscal year. Mr. Lamar Taylor mentioned that a key person in the City of Beaufort’s Finance Department was on vacation but the report would be provided soon.

C. **MS4 Update** – Eric Larson

MS4 Update – The contract for professional consulting services was approved by the County Council on August 18th. ATM is the consulting firm and Mr. Tony Maglione will be the Project Manager from the firm. Mr. Larson will be having a day long work session with the consultants tomorrow and he has several meetings set up with different county departments.

Stormwater Public Education and Outreach – The county has received one proposal from a team put together by the Beaufort Water and Soil Conservation District. The Stormwater Implementation

Committee reviewed the proposal at their last meeting. The committee has a list of questions to discuss with the proposer.

D. Monitoring Update – Eric Larson

University of South Carolina, Beaufort (USCB) Laboratory – Certification processes are on schedule.

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

SWIC Meeting – The committee met in August. They went over the Notice of Intent (NOI) template provided by SC Department of Health and Environmental Control (DHEC). They discussed what items of the application they could share in the preparation of. Because of scheduling conflicts, the next meeting will be in November and they will reviewing each other's NOI.

F. Stormwater Related Projects – Eric Larson

Policy for Acquisition of Stormwater Drainage Easements – The County Council approved the drainage easement acquisition protocol.

Stormwater Related Complaints – There seem to be a rise in complaints this month, probably due to more rainfall and more publicity of stormwater related issues. All complaints have been addressed.

G. Professional Contracts Report – Eric Larson

SC 170 Widening and Stormwater – The conceptual design study is due this week. Ward Edwards presented the draft document and they will be finalizing the draft document in written form. Mr. Larson will then be sharing the report with the County Administrator and the engineering report will probably be issued by the following week after that.

H. Regional Coordination - Eric Larson

Battery Creek Pond – Mr. Larson has been working with Mr. Taylor to draft and negotiate an easement with the property owner.

May River Watershed Action Plan – The Town of Bluffton has started the baseline study on their second 319 project which is the Pineridge Subdivision's retrofit of their ponds and reuse for irrigation. Ms. Kim Jones said this project is related to stormwater volume reduction. She also mentioned the May River Watershed Sewer Master Plan was developed, and they are currently investigating a mandatory sewer hookup policy and program. They are working with BJWSA on the mandatory hookup and expanding sewer services.

Salinity Study – The Watershed Action Plan Committee is meeting next week to review the work over the last year. Committee members received the draft document last week.

Sea Level Rise and Future Planning – Two public meetings were held last week. Mr. Larson attended both meetings and he said it was well attended by the public.

I. Financial Report – Alan Eisenman

Mr. Eisenman provided the timeline for the auditing process since the county has reached the end of the fiscal year. The auditors should be here next month and he hopes to present on the end of the fiscal year financials the next time he is scheduled to appear at the board meeting.

Mr. Eisenman provided a presentation on the stormwater July financials ([please see attachment](#)). There was not a lot to show this early in the budget cycle.

Mr. Don Smith said he would try to move Mr. Eisenman up on the agenda the next time he presents.

J. Maintenance Projects Report – Mr. Eddie Bellamy submitted his written report in advance ([please see attachment](#)) on five major and five minor projects.

5. Unfinished Business

Vacant SWMU Board Member Seats – Mr. Smith mentioned that he knows Mr. Larson has made several inquiries soliciting candidates for the vacant board seats. Mr. Larson said he has not received any responses for a candidate. Mr. Bellamy suggested that anyone who is interested enough to watch the board meeting on TV, would perhaps be interested in being a member of the board.

6. New Business – None.

7. Public Comment(s) –

No Wake Zone on the May River – Mr. Larson provided a copy of the Town of Bluffton staff's recommendation to their town council on their recommendation to SCDNR on a "no wake zone" on the May River advance ([please see attachment](#)). Of the three options, the town recommended option one and they are waiting on a response from DNR. A group of citizens have expressed concerns because they think the no wake zone should be option two or three. They have contacted the county because some of the parcels area in the unincorporated county. Mr. Larson suggested the board wait until SCDNR responds before weighing in, if needed.

8. Next Meeting Agenda – Mr. Larson said he anticipates having the Shadow Moss Subdivision Phase 7 Easement Release under New Business at the next board meeting and he is also anticipating the Town of Port Royal to be the presenters for the Special Presentation during the November board meeting.

9. Meeting Adjourned.



BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
Voice (843) 255-2801 Facsimile (843) 255-9478



September 3, 2014

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. I am working on a mid-year update to the 5 year plan submitted with the budget for FY 2015. This work is in preparation for a series of presentations to the Utility Board, County Council, and the public in upcoming months.
2. The TY 2014 tax run preparations have begun. Carolyn Wallace is coordinating with our stormwater staff to review the parcel information changes since last year.
3. Board Vacancies – I have made several inquiries to County Council, Administration, and several POA organizations to solicit member nominations. I have not received any feedback at this time.
4. Per our IGA with the Towns and City, an annual report of fiscal year revenue projections and their rates was due August 15th. ToHHI and ToB submitted. A second report was due September 1 which summarizes revenue and expenses from the last fiscal year.

MS4 Update

1. The contract for professional consulting services was approved by the County Council on August 18th. The contract has been signed. The first task order for \$6,767 has been issued. Work will consist of evaluating our current program and creating a work plan for the next 12-24 months to accomplish the other scope tasks.
2. Stormwater Public Education and Outreach – We received only one proposal for this RFP. The selection committee, made up of the SWIC members, met on August 28, 2014. Selection is pending and a recommendation for an award is expected for the September 3, 2014 Utility Board meeting.

Monitoring Update

1. USCB Lab – Nothing new to report this month. The lab continues to conduct field work with Danny Polk and GEL Engineering and continues to analyze our samples. Certification processes are on schedule. Danielle Mickel, lab manager, reports that “currently, the Water Quality Laboratory is working on proficiency testing. SCDHEC certification requires a proficiency test to be purchased from an approved supplier, and performed on each parameter that is requested for certification. Proficiency tests are scheduled tests in which results for submitted tests are supplied once the study has closed. These results, in our case, are not only supplied to the proficiency supplier, but also SCDHEC. Hard copy results are supplied to us within the time frame of approximately two weeks, once a study has closed. We have scheduled our proficiency testing to incorporate both Total Coliform/E.coli and Enterococci. Our study closes 8/28.

Proficiency testing is the first step towards certification and is the required start-up documentation for certification. We are also working on other documentation required for and included in the SCDHEC certification application; Quality Assurance Manual, Analysis Records, Training Records, QC Records (media, temperatures, sterility checks, QT sealer checks, autoclave checks), Resumes, Laboratory Director Designation letter, Standard Operating Procedures, and Qualifications for each employee and their responsibilities.”

Stormwater Implementation Committee (SWIC) Report

1. The SWIC met in August. The topic of discussion was the Notice of Intent submittal. We reviewed the DHEC template and discuss opportunities to partner on various items. [Minutes are attached.](#)
2. The next meeting is scheduled for November. The SWIC will be reviewing draft NOI applications for the MS4 permits.

Stormwater Related Projects

1. I have dealt with an unusual amount of stormwater related complaints this month. I am assuming the recent amount of wet weather and the press related to flooding in the County has prompted renewed interest in these isolated problems. I have been reviewing these problems individually with Eddie Bellamy and Ezekial Miller and we have addressed them as appropriate.
2. The County Council approved the drainage easement acquisition protocol. We now have a tool to use to obtain easements on projects staff determines are needed to protect public health, safety, welfare. Each request will go back through the Utility Board and County Council for approval. [See attached policy memo.](#)

Professional Contracts Report

1. US 278 retrofit ponds (\$356,000 budget) – The project is moving forward. We are soliciting bids for hauling and clearing. Engineering is preparing a site plan for the stockpile area. Construction is currently scheduled to start in November.
2. County Admin. Complex Retrofit Project (\$327,768 budget) – Bids were due Aug 7, 2014. We received 5 bids. JS Construction was selected and awarded the contract for \$299,653 by County Council on August 25. We are now working to get a signed contract and schedule for construction.
3. SC 170 widening and stormwater (\$14,000 budget) – The conceptual design study for the road corridor to determine methods, needs, and cost was due September 1, 2014. It will be reviewed and finalized in the first week or two in September.

Regional Coordination

1. Battery Creek Pond funded by an EPA 319 grant (\$132,609 budget – county portion) – On going. Preliminary design is complete. County and City staff are working with the property owner to negotiate an easement. (Lamar Taylor may also report)

2. May River Watershed Action Plan – On going. Town staff has begun base line monitoring at the second 319 grant site, Pine Ridge Subdivision. (Kim Jones may also report)
3. Salinity Study (\$25,000 budget – county portion) - On going. Nothing new to report.
4. Sea Level Rise and Future Planning – On going. Two public meetings were held on August 25 and 26 to review the work done and seek input.
5. Drainage issue on H.E. McCracken Circle in Bluffton – On going. The Town of Bluffton staff is performing additional field work to verify the feasibility of a conceptual solution.
6. Stormwater PSAs – The Town of Bluffton staff and County staff are preparing a series of stormwater public service announcements to be aired on the County Channel. Topic range from septic tank maintenance, pet waste, lawn care / fertilizer use, and a general topic segment.

Draft Minutes

August 13, 2014, 1:30pm at the BJWSA Community Room, 6 Snake Road, Okatie, SC

Attendees:	Eric Larson, Kim Jones, Jeremy Ritchie, Bryan McIlwee, Lamar Taylor, & Tony Maglione
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1. Approval of July minutes - Approved by common consent.
2. Status and Discussion of Public Education, Outreach, Involvement proposal solicitation and MOU - Proposals are due August 15th. The committee will meet to review the proposal Aug. 28, 2014 at 11am at **The Town of Bluffton Stormwater Office, 1261 May River Road**. The group briefly discussed other options for public education in the event the proposal process does not successfully yield a educational partner to work with.
3. Review and discussion of the DHEC NOI template - The group reviewed a template provided by DHEC staff for the completion of the Notice of Intent. It is called "Appendix C" from an early draft of the general permit issued in January. It was noted that this template is different from the adopted permit and has content not required in the permit, so caution is needed when using the template.

The first topic of discussion was the needed formation of citizen advisory groups. The SWIC members discussed various options ranging from expanding the SWIC with Ad Hoc members, adding MS4 progress and citizen input process as part of the regular SWU Board meetings, and establishing new Ad Hoc committees, either as one countywide group or individual committees formed by each MS4. It was suggested that we contact DHEC and ask if the concept of shared citizen input committees would be acceptable and if it would require a MOU between the various MS4s.

The next topic discussed in detail was related to developing a means for citizen input to report problems, etc. Everyone summarized their current process. Eric Larson discussed a proposed service called 311GIS that the County is evaluating. Eric encouraged everyone to discuss this with their respective IT staff and evaluate it for themselves.

Third, the SWIC discussed the development of a construction runoff program. Currently DHEC's program requires construction sites 1 acre or larger and smaller sites part of a common plan of development that is greater than 1 acres to be permitted. OCRM requirements drop that threshold to 1/2 acre under certain circumstances. It was discussed whether or not a local permitting program needed to go down to a lower threshold in order to be able to permit and inspect smaller sites such as single family lots not part of a common plan. Options were discussed but no decisions were made.

General consensus about the NOI development process was to submit a program that meets the intent of the permit without adding additional program elements that are higher standard than the permit. Once approved by DHEC, the MS4s would have the option of developing higher standards and reporting on those but would not be bound by them should those elements not get developed. It was also felt that submitting a "minimum requirements" permit application would speed up DHEC approval.

4. Additional discussion on Data Mgt., if needed - Not discussed.
5. August 15th FY 14 fee report - Larson reminded the group of the upcoming deadline.
6. September 1st financial report - Larson reminded the group of the upcoming deadline. He will email the submittal template again to the SWIC members.
7. Due to the proposal meeting on August 28 and schedule conflicts in September and October, the next meeting of the SWIC was moved to November 12, 2014 at 1:30pm at the Community room at BJWSA.



BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
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TO: Councilman Gerald Dawson, Chairman, Public Facilities Committee

FROM: Robert McFee, PE, Division Director for Engineering and Infrastructure
Eric W. Larson, Beaufort County Stormwater Utility

SUBJECT: Discussion of a Policy for Acquisition of Storm Water Drainage Easements.

Date: August 6, 2014

JRM/Free
Eric W. Larson

BACKGROUND: The following Standard Operating Procedure is recommended for all drainage easement acquisitions:

- 1) Stormwater Engineer, assisted by Easement Manager, determines easement needs; the easement acquisition process is initiated
 - a) identification of adjacent property owners (names and mailing addresses)
 - b) preparation of easement request letters
 - c) drafting of easement deeds or easement agreements
 - d) initial request letter is mailed
 - e) second request letter, if necessary, is mailed
 - f) if all the easement requests are granted, Easement manager records the documents and the drainage project proceeds
 - g) if the requested easement is not granted, County Staff attorney reports the same to Public Facilities Committee/County Council and recommends one of two courses of action
 - 1) Council designates the drainage as private and removes it from the drainage maintenance inventory; property owners are notified of this action by mail
 - 2) Council agrees to provide funding for the condemnation of the easement; drainage project proceeds when County takes title to the condemned easement
- 2) Stormwater department conducts/oversees the contract letting process
- 3) Contract is awarded
- 4) Construction phase commences

FOR ACTION: Public Facilities Committee meeting occurring on August 18, 2014.

RECOMMENDATION: Staff recommends the above process to be endorsed by the Public Facilities Committee of County Council for the acquisition of drainage easements and maintenance of the stormwater system.

CC: Gary Kubic, County Administrator
Bryan Hill, Deputy Administrator

GH
BH

/ewl

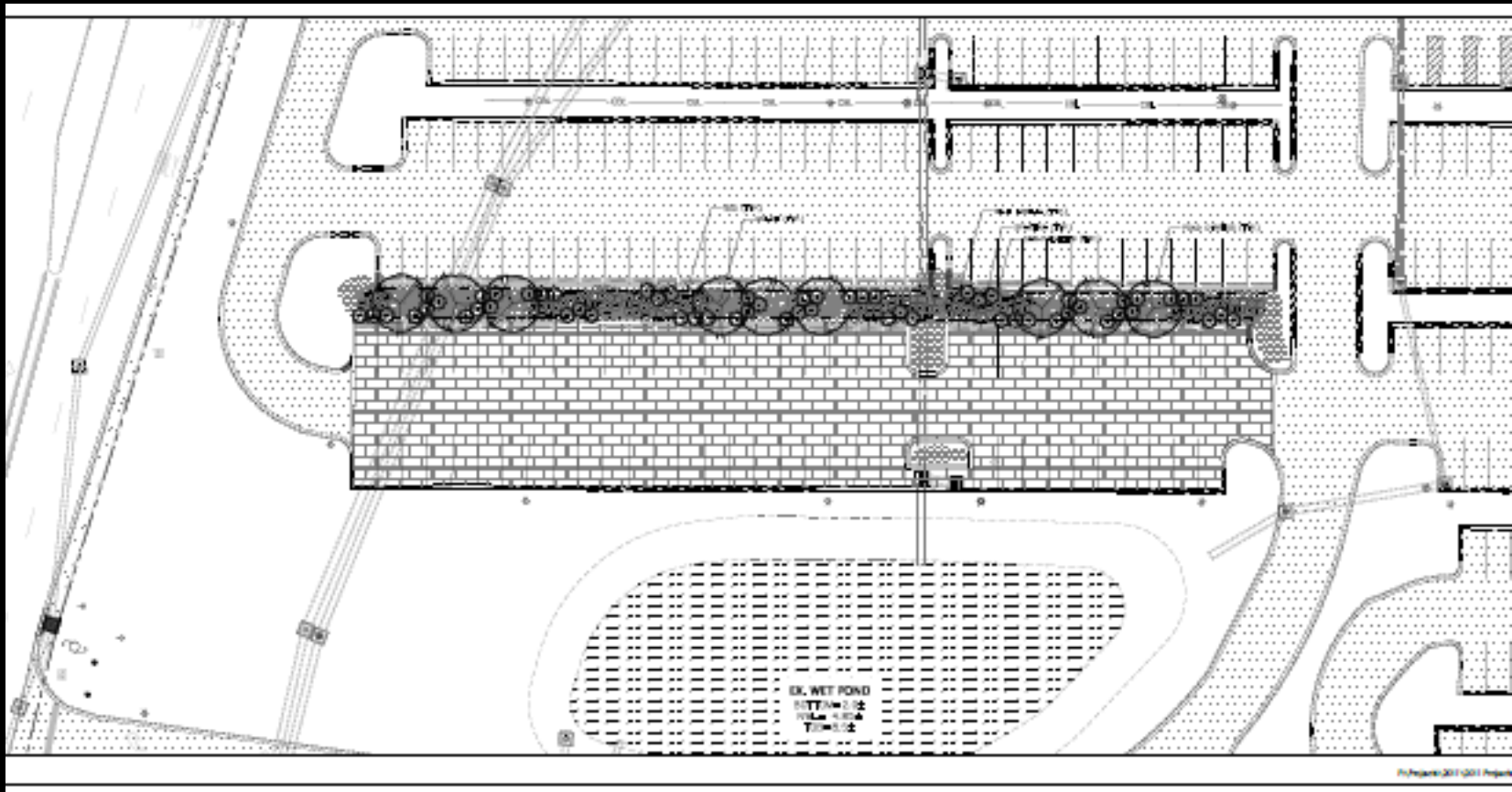
Government Complex Parking Lot Stormwater Retrofit Project

A Report to Beaufort County
Stormwater Utility Board

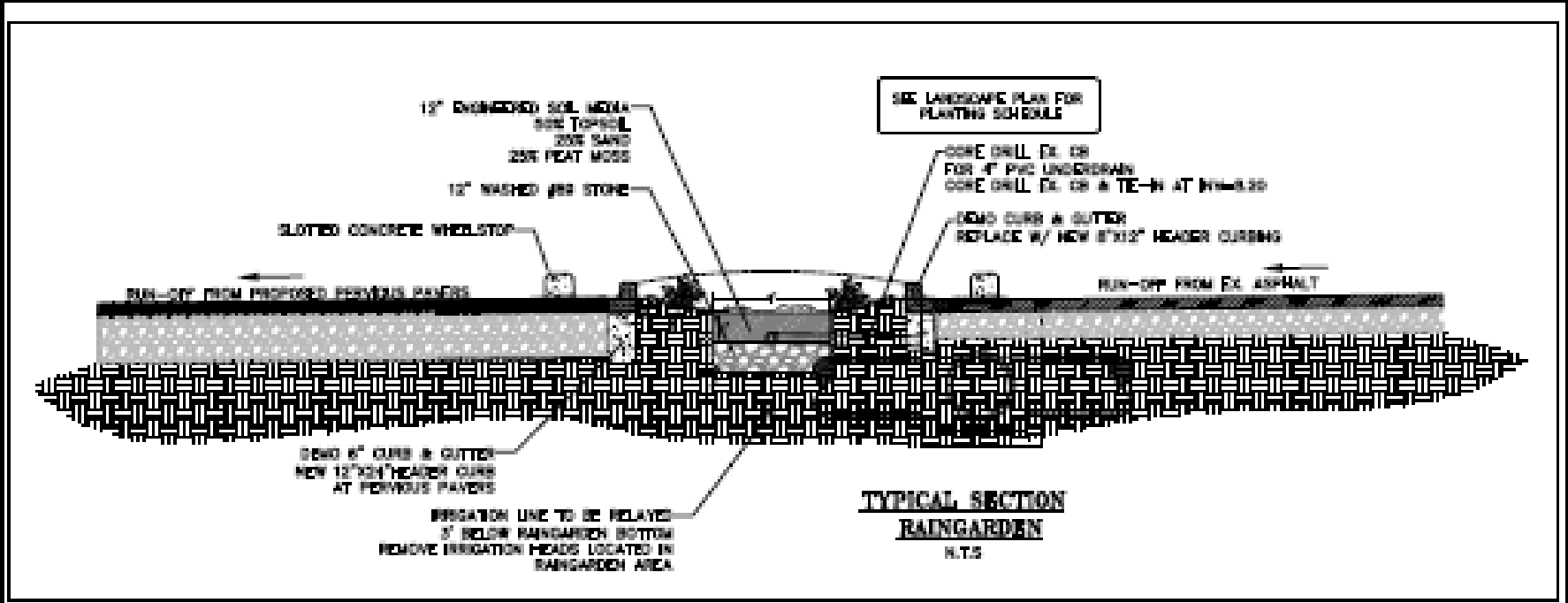
September 3, 2014



Plan View



Pavement Detail



Example of Completed Project



Project cost / schedule

- Construction Budget = \$327,768
- Contractor Bid = \$299,653
- Break ground on or about mid September



Pond Maintenance



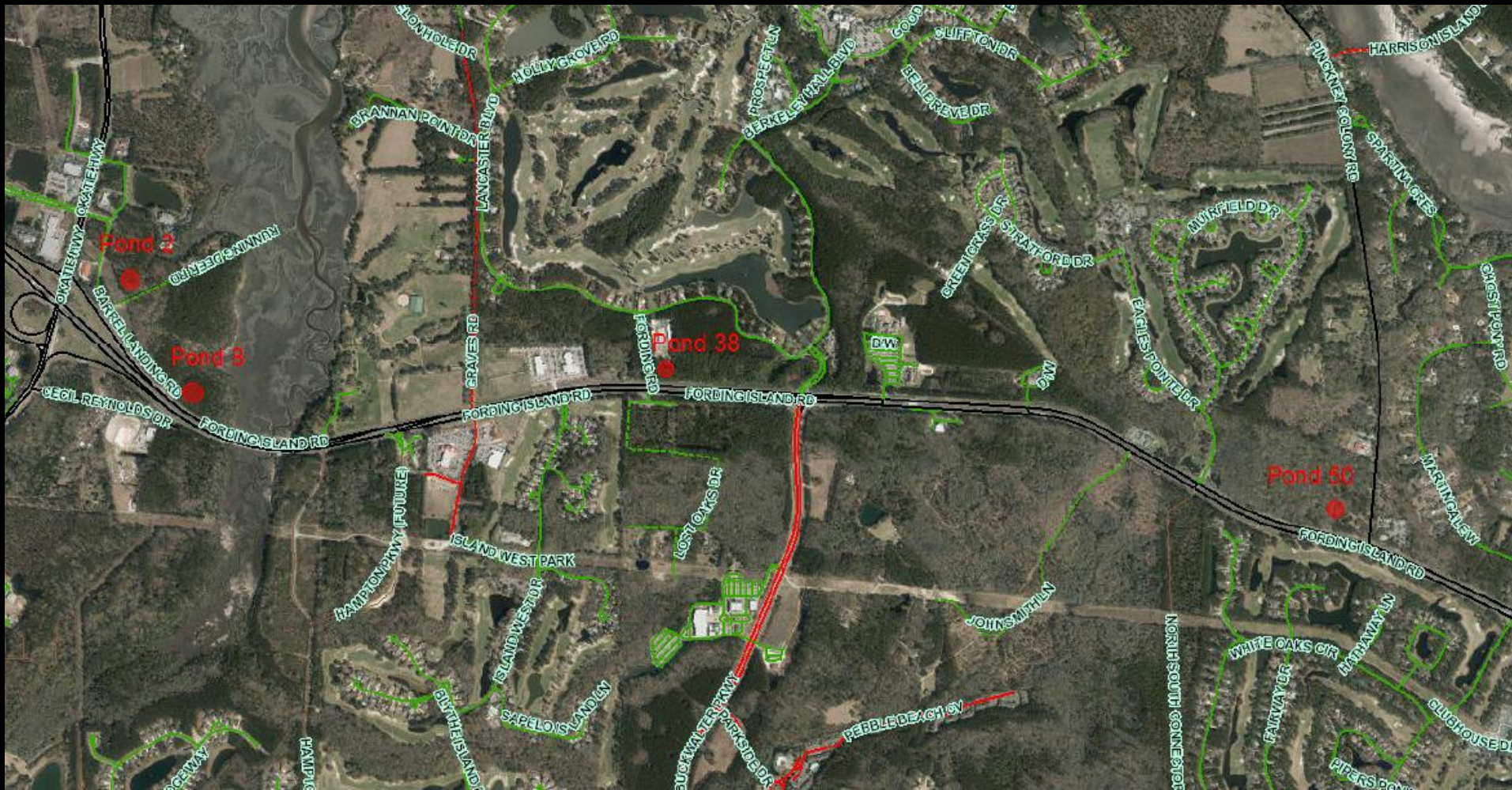
US 278 Widening Stormwater Retrofit Project

A Report to Beaufort County
Stormwater Utility Board

September 3, 2014

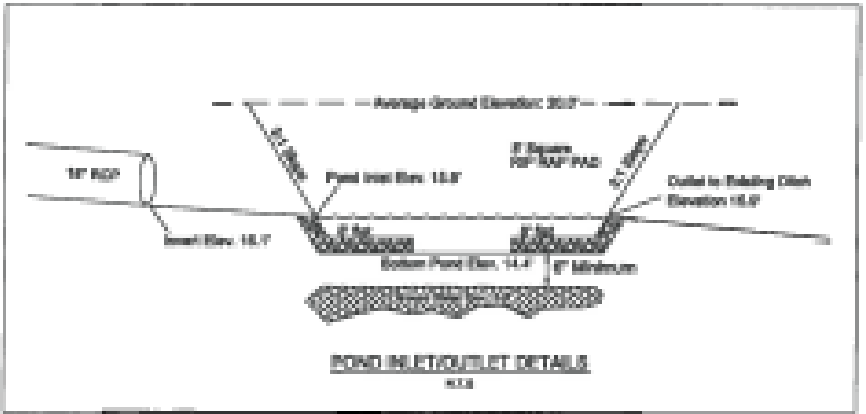
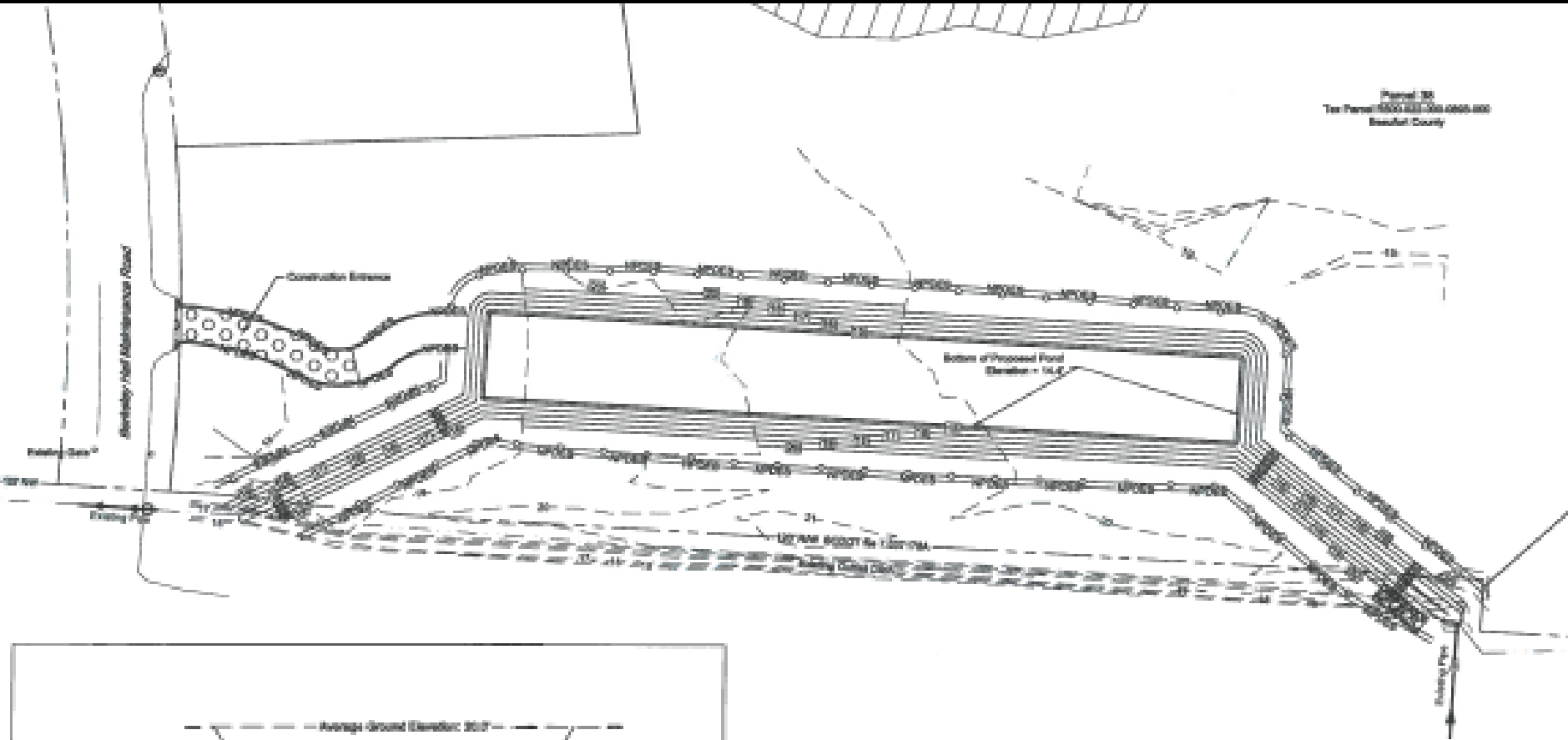


Overview



Pond 38

Project 38
The Pond at 1000 S. 10th St. 2000
Beaufort County

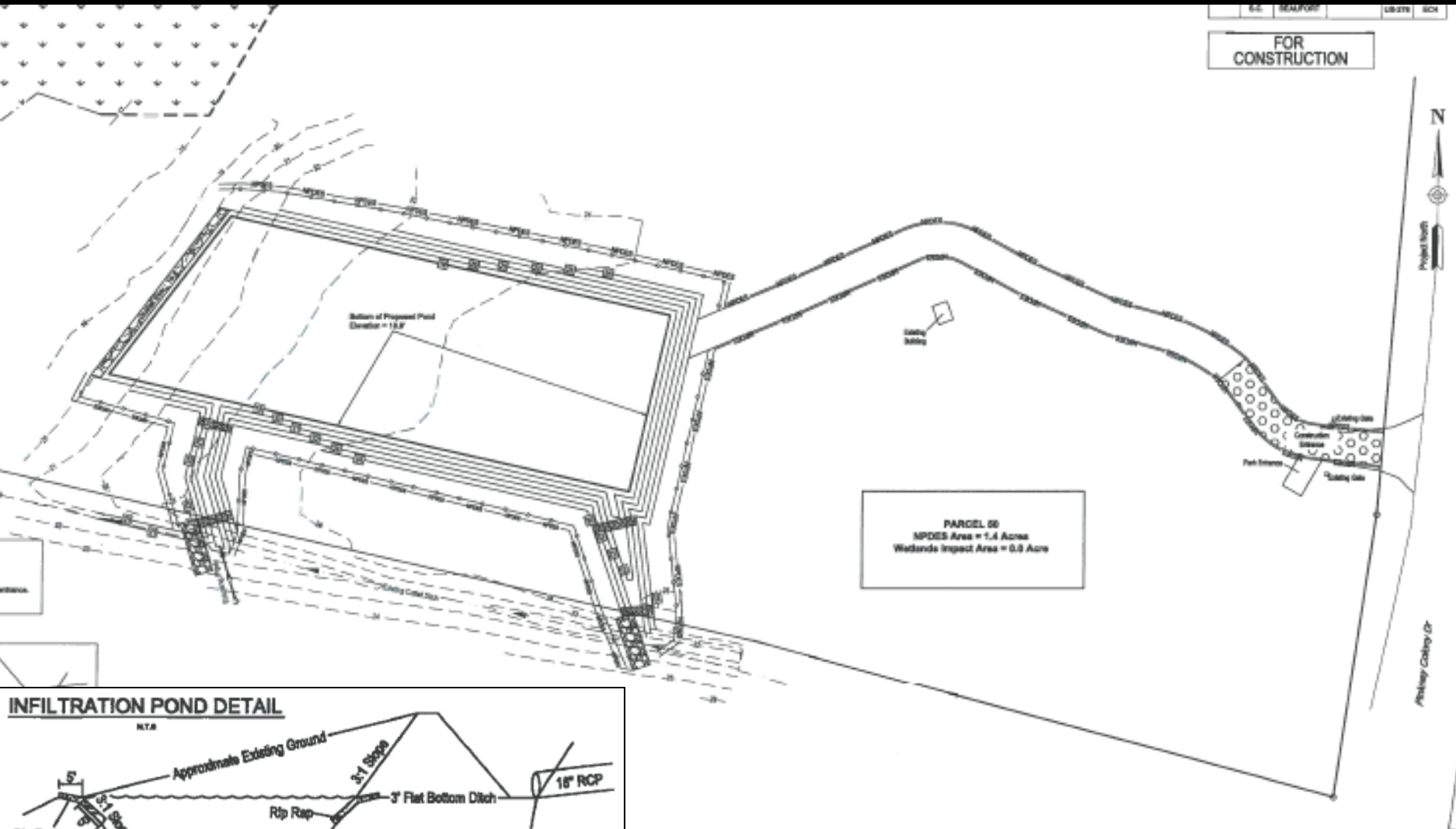


Gate Details



Pond 50

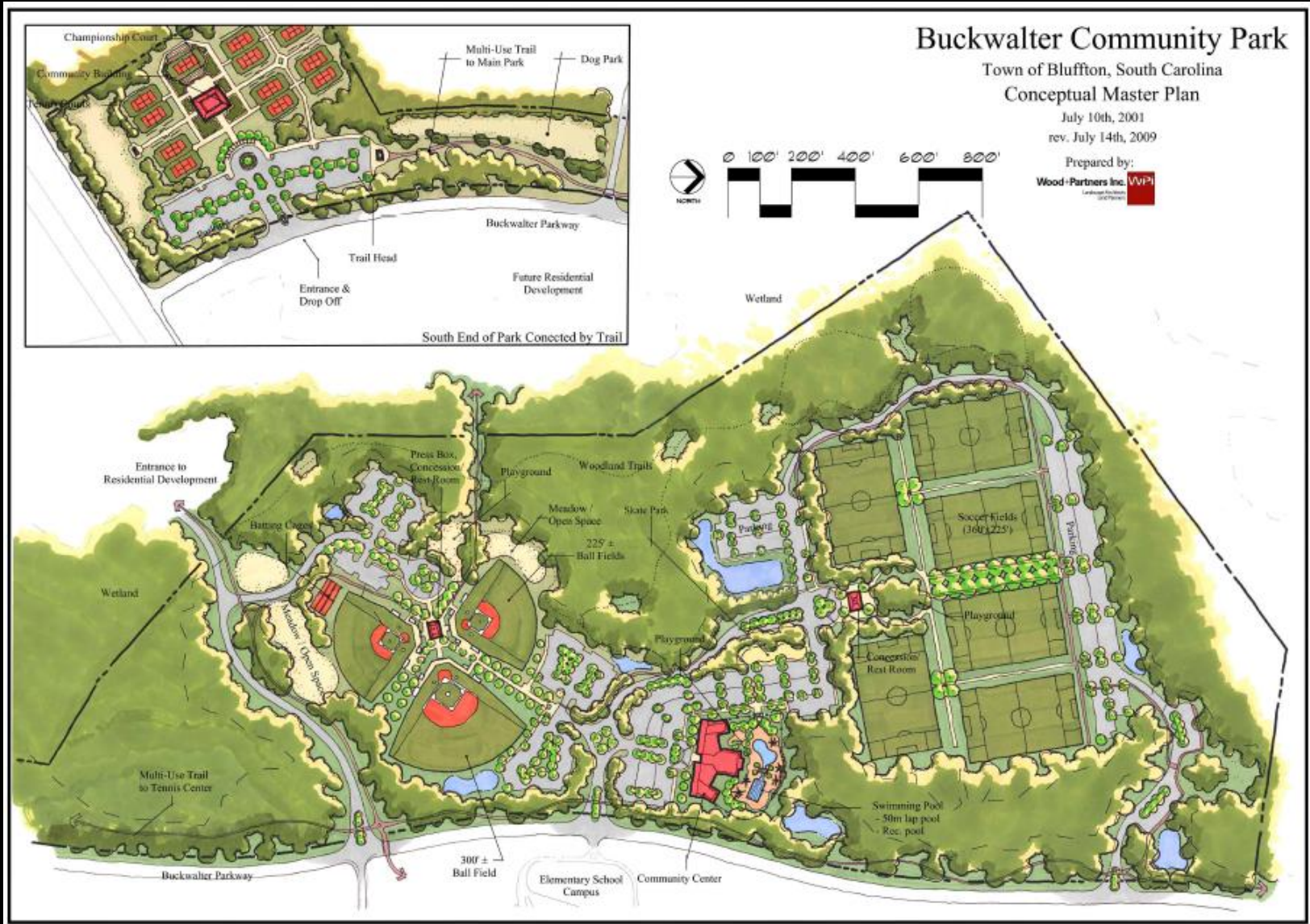
E.C. SCAFFOLD LB-278 BCH
FOR CONSTRUCTION



INFILTRATION POND DETAIL



Win-Win Project Coordination



Stockpile site



Project cost / schedule

- Construction Budget = \$359,400
- In-House Estimate of Direct Costs = \$256,592
- Estimated savings to the County = \$137,620

- Break ground on or about Nov. 1, 2014

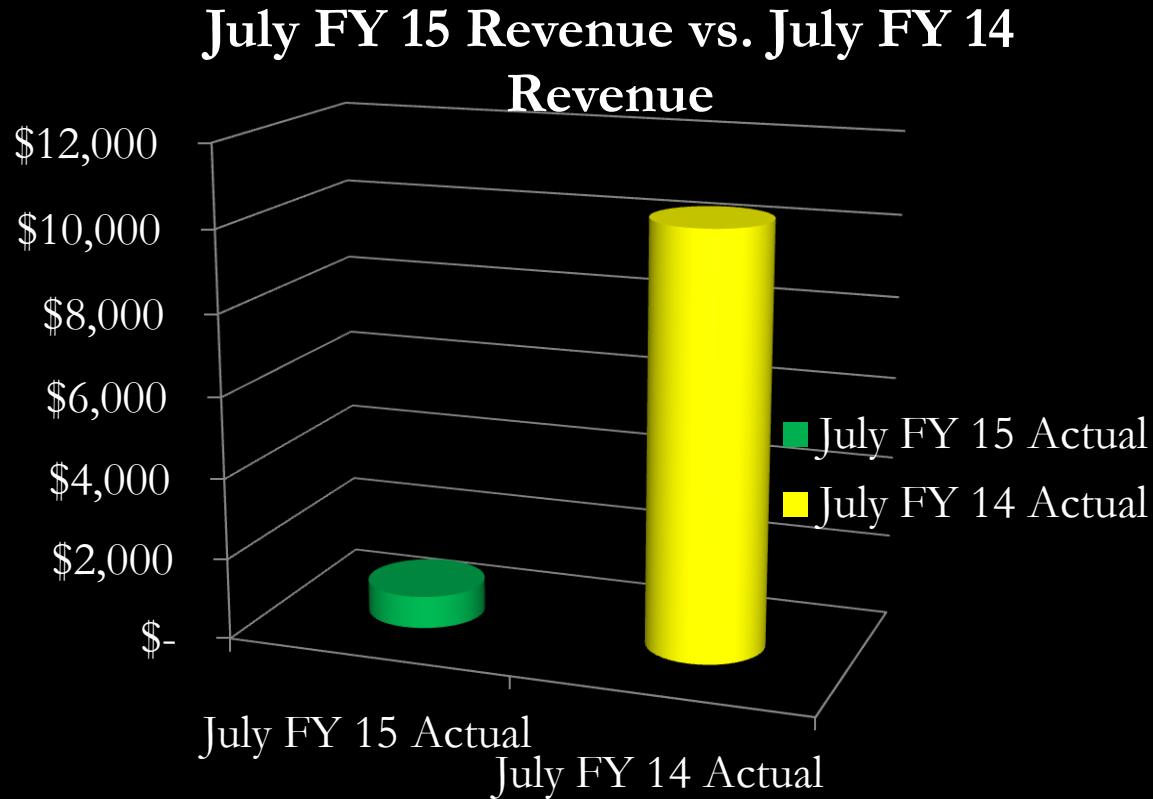




Stormwater Management Utility Meeting Board

STORMWATER FINANCIALS

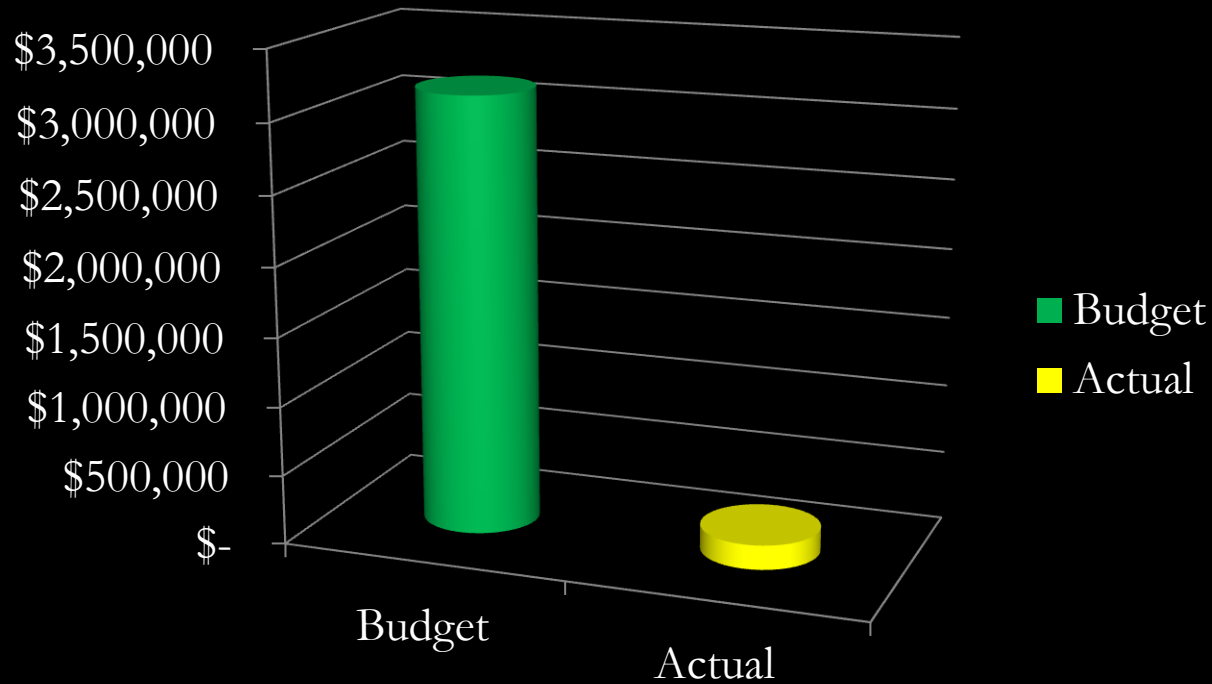
July Unaudited Financials



Actual FY15 revenues are \$9,500 less or 92% than actual FY 14 revenues

July Unaudited Financials

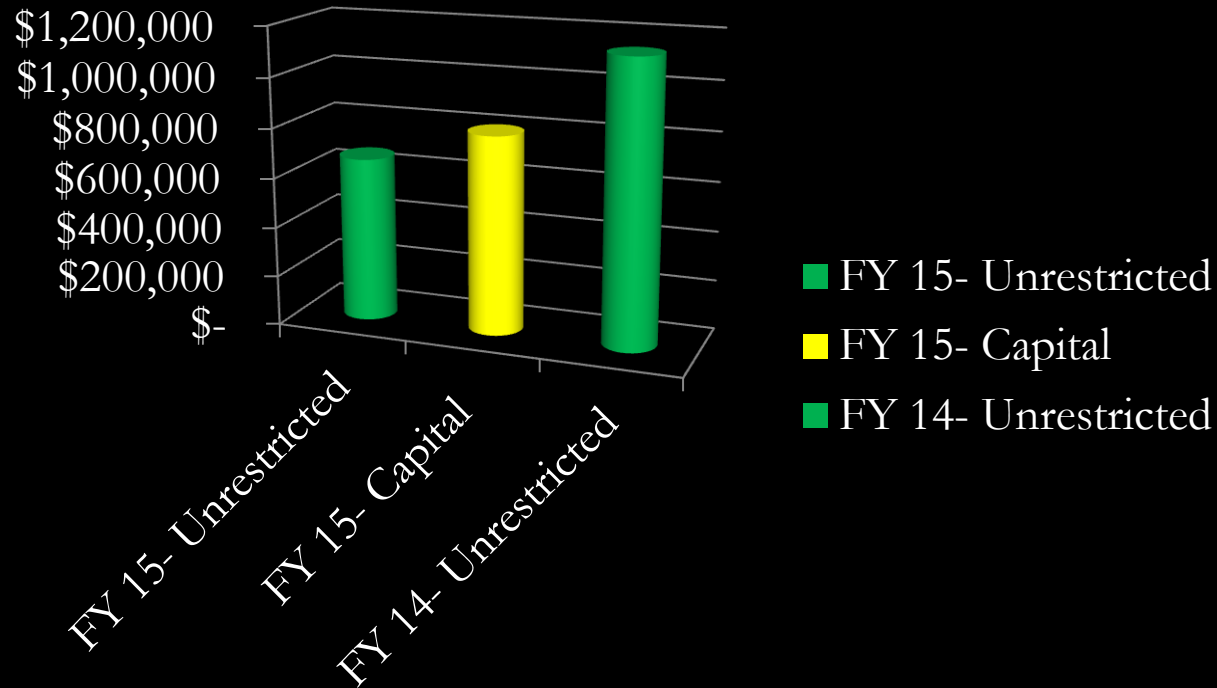
July FY 15 Expenses vs. FY 15 Budget



Actual July FY15 expenses are at 6% of budget for FY 15

July Unaudited Financials

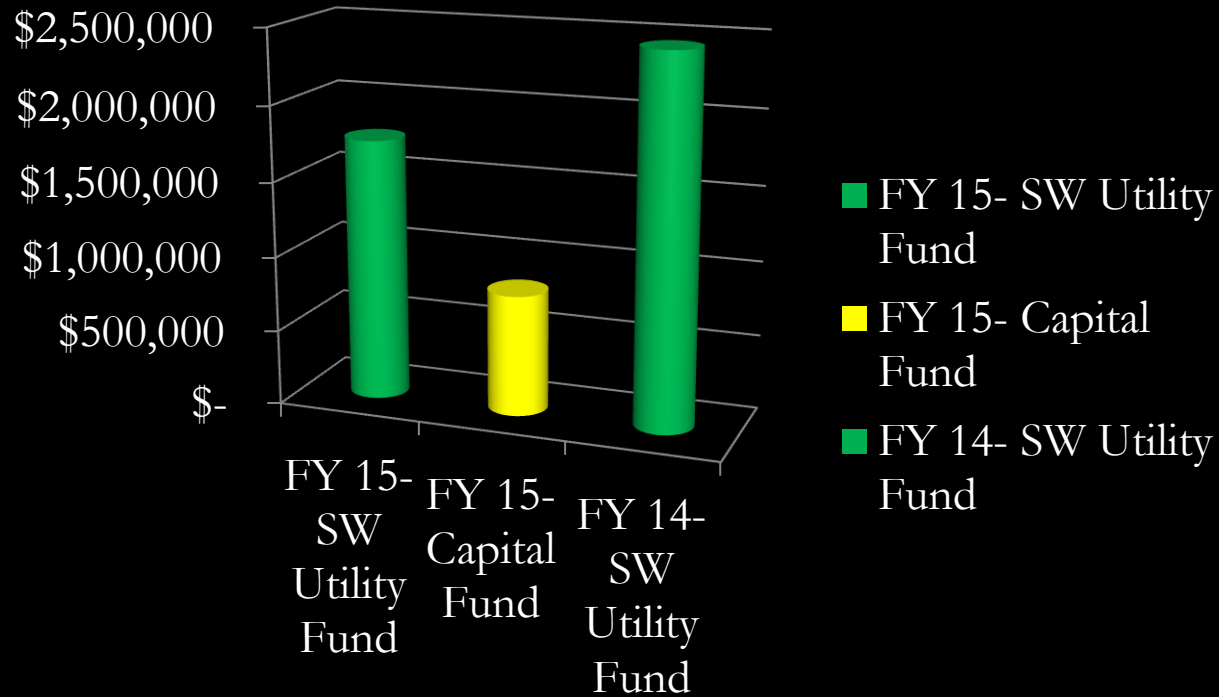
Fund Balance from Balance Sheet



FY15 Fund Balances increased by \$114,000 or 10%

July Unaudited Financials

Cash from Balance Sheet



FY15 Cash Balances increased by \$111,000 or 4.5%



MEMORANDUM

Date: September 3, 2014

To: Stormwater Management Utility Board

From: Eddie Bellamy, Public Works Director

Re: **Maintenance Project Report for September 2014**

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

2. Major Projects:

- A. **Town of Hilton Head Island Bush Hog and Clean-out (Reimbursement)**, completed in March within the Town of Hilton Head Island, District 3; we bush hogged 19,428 feet of channel and the perimeter of a pond for a total of 19,782 feet. We also cleaned out three catch basins and jetted out three crossline pipes, five driveway pipes, 140 feet of channel pipe, and 214 feet of roadside pipe. Total cost of the project was **\$23,523**.
- B. **Confederate Avenue**, completed in May in the Alljoy area of Bluffton Township, District 9; we cleaned out 2,314 feet of roadside ditch, repaired a separated joint in a crossline pipe, and jetted out three crossline pipes, 15 driveway pipes, and 90 feet of roadside pipe. Total cost of the project was **\$28,844**.
- C. **Kitties Landing Road and Drive**, completed in June in Bluffton Township, District 9; we cleaned out 671 feet of roadside ditch and three catch basins and jetted out two access pipes, two crossline pipes, and seven driveway pipes. Total cost of the project was **\$18,021**.
- D. **Pinckney Colony Road**, completed in July in Bluffton Township, District 9; we bush hogged 3,530 feet of channel, cleaned out 5,205 feet of channel, and installed seven access pipes. We also jetted two crossline pipes and seven access pipes. Total cost of the project was **\$28,291**.
- E. **Hewlett Road**, completed in July on Lady's Island, District 7; we bush hogged 1,583 feet of workshelf and cleaned out three catch basins, 3,891 feet of roadside ditch, and 830 feet of channel. We also jetted one access pipe, nine crossline pipes, and 35 driveway pipes. Total cost of the project was **\$40,385**.

3. Minor or Routine Projects:

- A. **Town Of Hilton Head Island Tree Removal (Reimbursement)**, completed in February within the Town of Hilton Head Island, District 3; we removed fallen trees and debris from channels in three different areas.

- B. Hilton Head Airport Main Outfall Channel**, completed in July within the Town of Hilton Head Island, District 3; we bush hogged 3,772 feet of channel.
- C. Hilton Head Airport Secondary Channels and Ponds**, completed in July within The Town of Hilton Head Island, District 3; we bush hogged 4,402 feet of channel, the perimeter of three ponds, and 1,080 feet of fence line. We also removed one tree.
- D. Boundary Street (Reimbursement)**, completed in July within the City of Beaufort, District 1; we cleaned out two catch basins, jetted out 184 feet of channel pipe and 220 feet of roadside pipe, and used the pole camera to view the extent of blockage in the system.
- E. Keans Neck Road Channel #4**, completed in May in the Dale area, District 5; we bush hogged 1,683 feet of channel, cleaned out 2,666 feet of channel, and jetted one crossline pipe and three access pipes.



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: ToHHI Bush Hog (Reimbursement)

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Mar-14

Project improved 19,782 L.F. of drainage system. Bush hogged 19,428 L.F. of channel and perimeter of pond. This project consisted of the following areas: Mathews Drive (8,095 L.F.), Muddy Creek Road (1,637 L.F.), Oakview Road (1,292 L.F.), Nazarene Road (650 L.F.), Wildhorse Road (200 L.F.), Gum Tree Road (3,409 L.F.), Island Drive (819 L.F.), Marshland Road (855 L.F.), Miller Road (1,500 L.F.) and Benjamin Drive (971 L.F.). Cleaned out (3) catch basins. Jetted (3) crossline pipes, (5) driveway pipes, 140 L.F. of channel pipe and 214 L.F. of roadside pipe.

AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
AW / Administrative Work	10.0	\$442.70	\$0.00	\$0.00	\$0.00	\$339.60	\$782.30
CBCO / Catch basin - clean out	20.0	\$432.56	\$221.60	\$155.08	\$0.00	\$286.80	\$1,096.04
CLPJT / Crossline Pipe - Jetted	20.0	\$432.56	\$221.60	\$109.12	\$0.00	\$286.80	\$1,050.08
ODBH / Outfall ditch - bushhogged	327.0	\$7,270.67	\$3,112.12	\$1,229.03	\$0.00	\$4,695.57	\$16,307.38
ONJV / Onsite Job Visit	37.5	\$1,277.52	\$135.75	\$184.59	\$0.00	\$946.10	\$2,543.96
PRRECON / Project Reconnaissance	12.0	\$398.16	\$43.44	\$46.88	\$0.00	\$293.64	\$782.12
WSBH / Workshelf - Bush Hogged	20.0	\$420.88	\$64.80	\$165.62	\$0.00	\$276.50	\$927.80
2014-305A / ToHHI Bush Hog 2014-305A	447.5	\$10,695.50	\$3,799.31	\$1,890.32	\$0.00	\$7,138.23	\$23,523.36
Sub Total							
Grand Total	447.5	\$10,695.50	\$3,799.31	\$1,890.32	\$0.00	\$7,138.23	\$23,523.36

Before



During



After



Project: Benjamin Drive Reimbursement

Activity: Bush Hog

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014

Bush hogged 971 LF of channel.

Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe
	sde.SDE.HHRds



1 inch = 125 feet

Project: Gum Tree Road and Wild Horse Road Reimbursement

Activity: Bush Hog

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014



1 inch = 337 feet

**Project: Island Drive
Reimbursement**

Activity: Bush Hog















**Project #:
2014-305A**

**Township: Town of
Hilton Head Island**

**Completed:
March 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Bush hogged 410
LF of channel.

Bush hogged 409
LF of channel.



1 inch = 161 feet

Project: Marshland Road Reimbursement

Activity: Bush Hog

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014



Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 167 feet

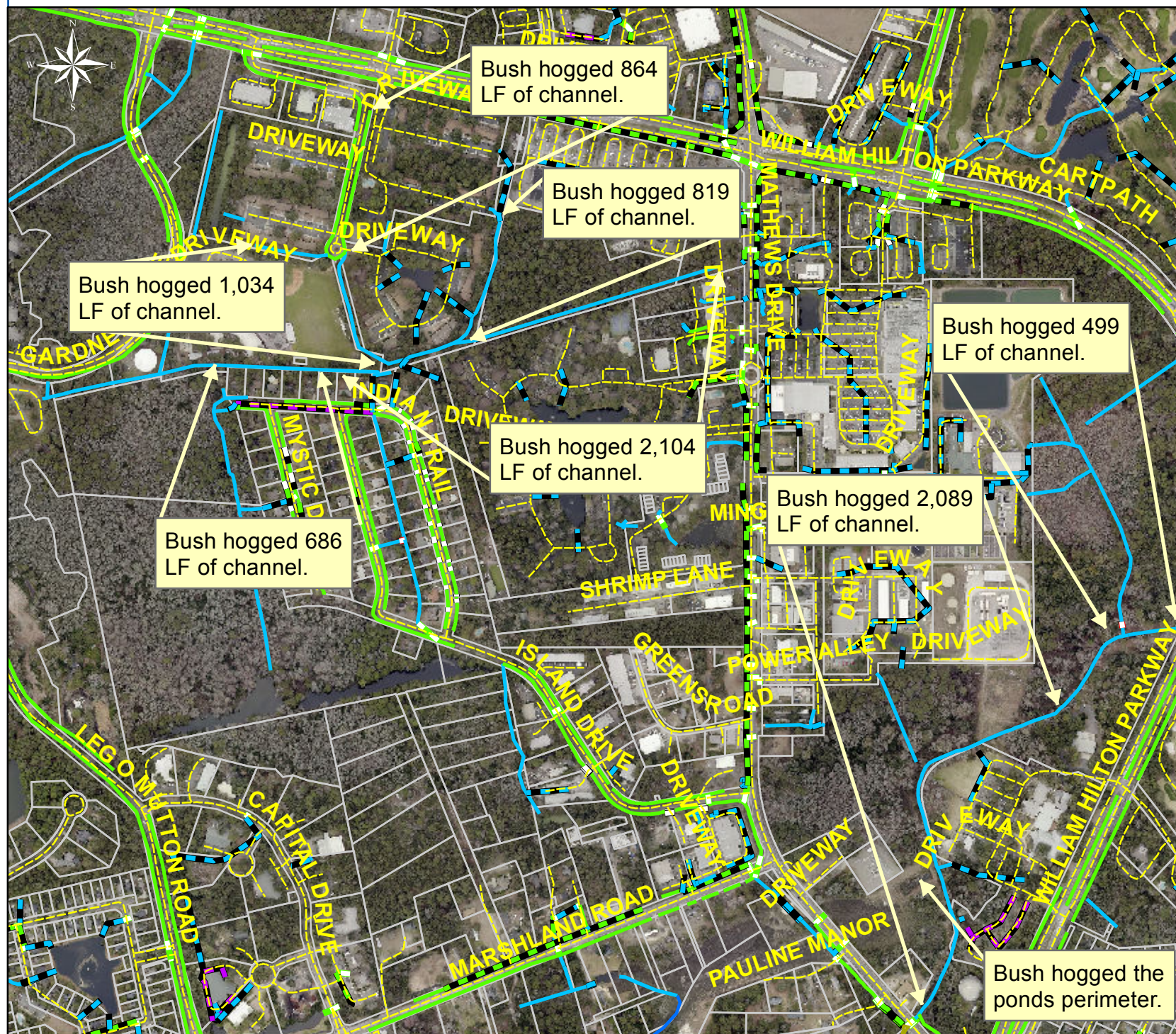
**Project: Mathews Drive
Reimbursement**

Activity: Bush Hog

**Project #:
2014-305A**

**Township: Town of
Hilton Head Island**

**Completed:
March 2014**



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

0 175 350 700 1,050 1,400
Feet

1 inch = 671 feet

Prepared By: BC Stormwater Management Utility

Date Print: 7/30/14

File: C:/sethdata/projects/projectmaps/BH/Mathews Dr 2014-305A

Project: Miller Road Reimbursement

Activity: Bush Hog

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe
- sde.SDE.HHRds



1 inch = 208 feet

Project: Muddy Creek Road Reimbursement

Activity: Bush Hog















Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 239 feet

Project: Nazarene Road Reimbursement

Activity: Bush Hog

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

Bush hogged 650 LF of channel.



1 inch = 83 feet

**Project: Oakview Road
Reimbursement**

Activity: Bush Hog

**Project #:
2014-305A**

**Township: Town of
Hilton Head Island**

**Completed:
March 2014**



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 202 feet

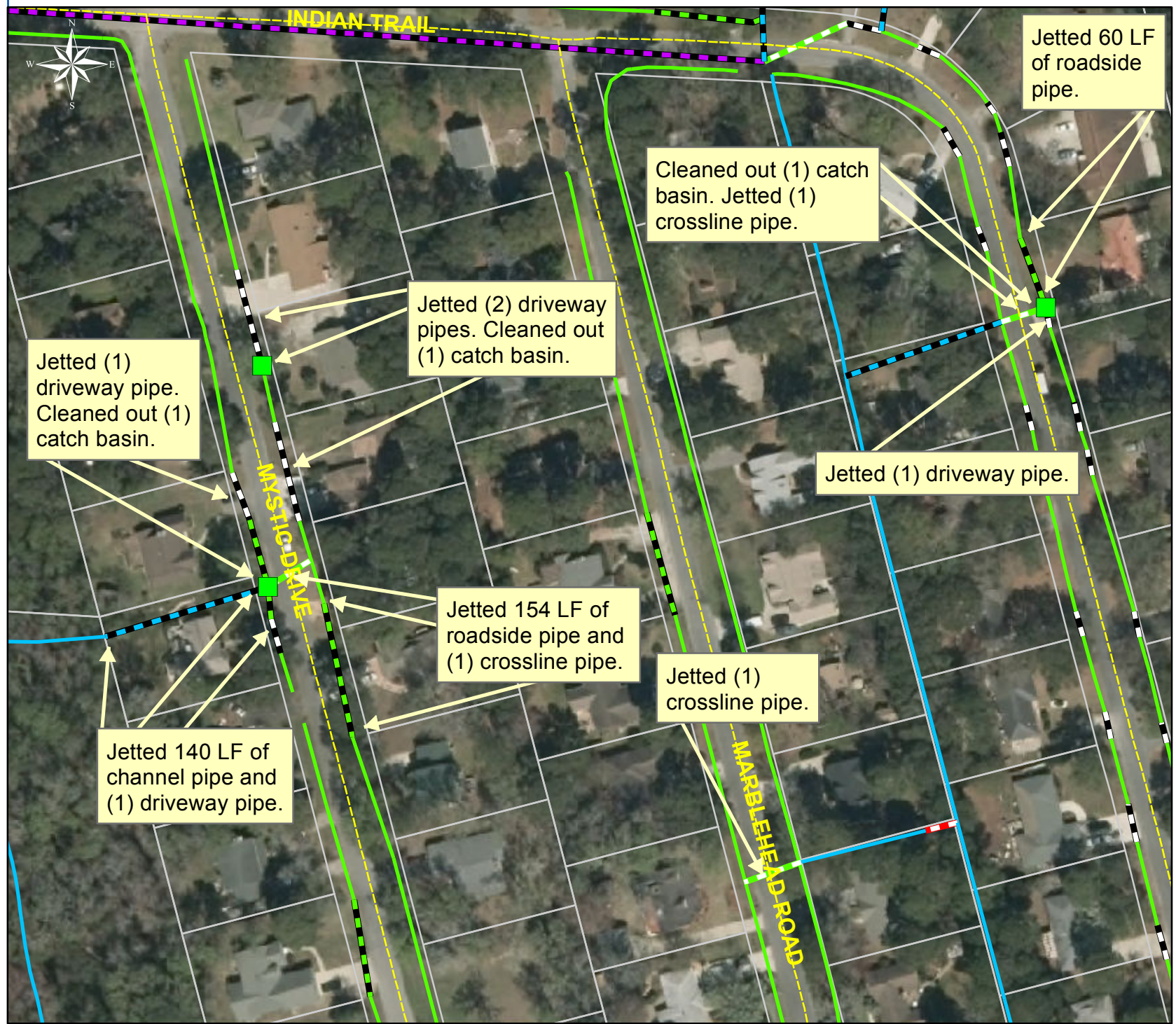
Project: Old Woodlands S/D Reimbursement

Activity: Vacuum Truck

Project #: 2014-305A

Township: Town of Hilton Head Island

Completed: March 2014



Legend

- Catch Basin

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 111 feet



Beaufort County Public Works

Stormwater Infrastructure

Project Summary

Project Summary: Confederate Avenue

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: May-14

Project improved 2,314 L.F. of drainage system. Cleaned out 2,314 L.F. of roadside ditch. Removed 4 L.F. of crossline pipe. Repaired separated joint. Installed rip rap for erosion control. Jetted (3) crossline pipes and (23) driveway pipes.

2014-613 / Confederate Avenue	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CPREP / Crossline Pipe - Repaired	32.0	\$692.24	\$28.96	\$85.40	\$0.00	\$449.28	\$1,255.88
DPJT / Driveway Pipe - Jetted	45.5	\$989.94	\$531.84	\$325.57	\$0.00	\$657.80	\$2,505.15
HAUL / Hauling	167.0	\$3,612.21	\$1,786.90	\$888.06	\$0.00	\$2,277.75	\$8,564.92
ONJV / Onsite Job Visit	22.5	\$750.36	\$81.45	\$90.00	\$0.00	\$535.24	\$1,457.05
PI / Project Inspection	4.0	\$177.08	\$14.48	\$12.00	\$0.00	\$135.84	\$339.40
RSDCL / Roadside Ditch - Cleanout	371.0	\$7,888.67	\$1,120.75	\$627.10	\$0.00	\$5,068.32	\$14,704.84
2014-613 / Confederate Avenue Sub Total	642.5	\$14,120.73	\$3,564.38	\$2,028.13	\$0.00	\$9,130.83	\$28,844.08
Grand Total	642.5	\$14,120.73	\$3,564.38	\$2,028.13	\$0.00	\$9,130.83	\$28,844.08

Before



During



After



Project: Confederate Avenue Map 1

Activity: Routine/
Preventive
Maintenance

Project #:
2014-613

Township:
Bluffton

Completed:
May 2014

Removed 4 LF of crossline pipe.
Repaired separated joint.
Installed rip rap on both ends for
erosion control.

Cleaned out 774
LF of roadside ditch.

Cleaned out 1,540
LF of roadside ditch.

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 314 feet

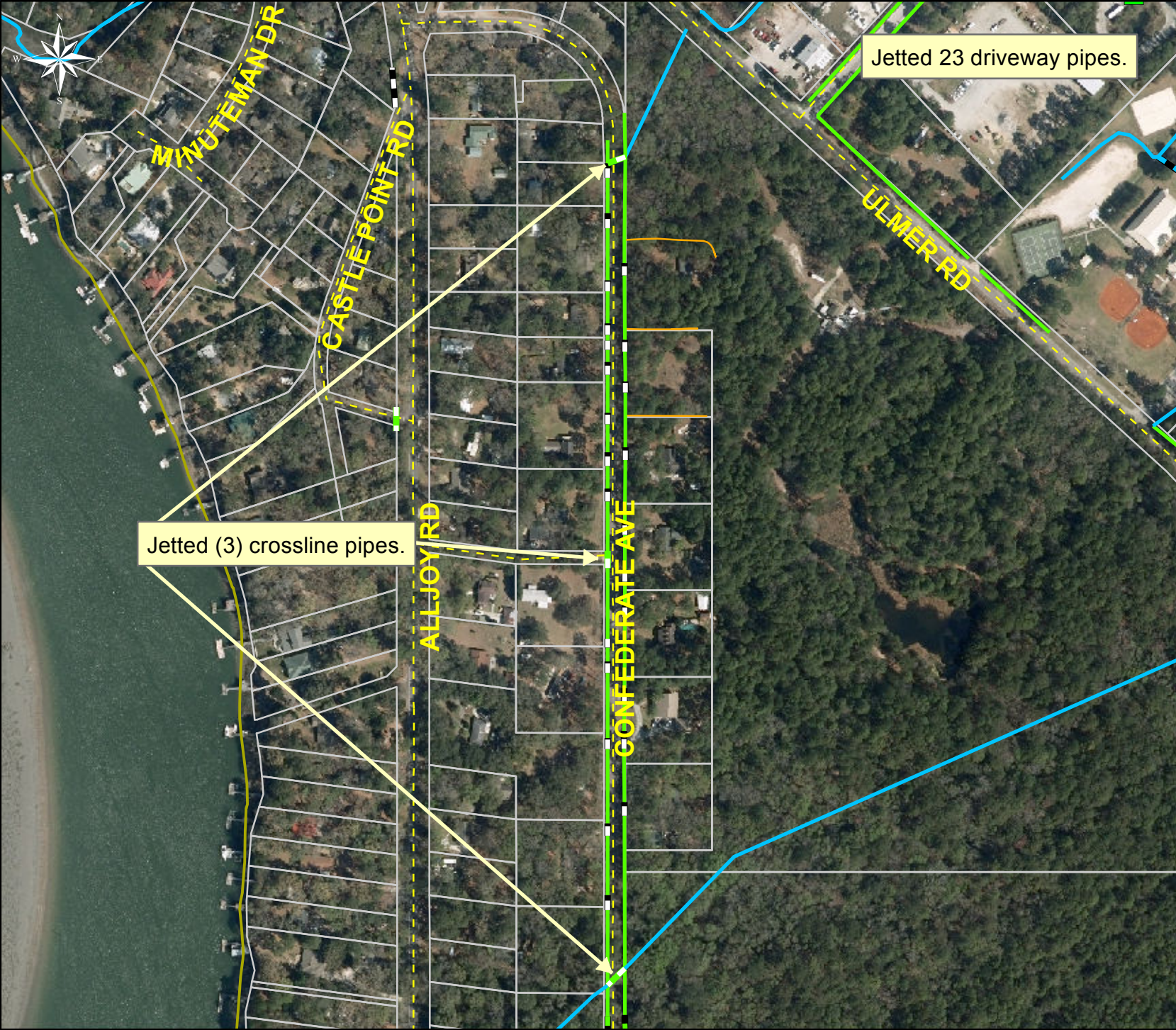
Project: Confederate Avenue Map 2

Activity: Vacuum Truck

Project #: 2014-613

Township: Bluffton

Completed: May 2014



Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 314 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Kitties Landing Road/Kitties Landing Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 761 L.F. of drainage system. Cleaned out 671 L.F. of roadside ditch and (3) catch basins. Jetted (3) crossline pipes, (15) driveway pipes and 90 L.F. of roadside pipe.

Completion: Jun-14

2014-624 / Kitties Landing Rd/Kitties Landing Dr	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CBCO / Catch basin - clean out	20.0	\$446.76	\$221.60	\$92.13	\$0.00	\$299.10	\$1,059.59
DPJT / Driveway Pipe - Jetted	6.0	\$134.03	\$66.48	\$50.97	\$0.00	\$89.73	\$341.21
HAUL / Hauling	83.5	\$1,806.11	\$893.45	\$415.29	\$0.00	\$1,092.47	\$4,207.31
OFPJ / Outfall Pipe - Jetted	20.0	\$446.76	\$221.60	\$107.13	\$0.00	\$299.10	\$1,074.59
ONJV / Onsite Job Visit	20.0	\$690.06	\$72.40	\$66.99	\$0.00	\$471.46	\$1,300.91
PL / Project Layout	47.0	\$1,022.59	\$94.12	\$108.78	\$0.00	\$663.93	\$1,889.42
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$109.35	\$0.00	\$109.35
PRRECON / Project Reconnaissance	14.5	\$363.09	\$16.29	\$36.69	\$0.00	\$247.54	\$663.60
RSDCL / Roadside Ditch - Cleanout	160.0	\$3,461.20	\$855.81	\$230.74	\$0.00	\$2,246.40	\$6,794.15
STBY / Stand By	8.0	\$173.04	\$85.60	\$22.89	\$0.00	\$115.36	\$396.89
TRAIN / Training	3.0	\$57.84	\$0.00	\$0.00	\$0.00	\$36.63	\$94.47
UTLOC / Utility locates	1.5	\$42.60	\$0.00	\$0.00	\$0.00	\$30.21	\$72.81
2014-624 / Kitties Landing Rd/Kitties Landing Dr Sub Total	384.0	\$8,654.30	\$2,527.35	\$1,131.60	\$109.35	\$5,598.54	\$18,021.13
Grand Total	384.0	\$8,654.30	\$2,527.35	\$1,131.60	\$109.35	\$5,598.54	\$18,021.13

Before



During



After



Project: Kitties Landing Road & Kitties Landing Drive Map 1

Activity: Routine/ Preventive Maintenance















Project #: 2014-624

Township: Bluffton

Completed: June 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 148 feet

Project: Kitties Landing Drive & Kitties Landing Road Map 2

Activity: Vacuum Truck















Project #: 2014-624

Township: Bluffton

Completed: June 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 139 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Pinckney Colony Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 5,205 L.F. of drainage system. Bush hogged 3,530 L.F. of channel. Cleaned out 5,205 L.F. of channel. Installed (7) access pipes and rip rap for erosion control. Jetted (2) crossline pipes and (7) access pipes.

Completion: Jul-14

2014-631 / Pinckney Colony Rd Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	59.5	\$1,313.11	\$390.48	\$1,045.78	\$0.00	\$873.84	\$3,623.21
APJT / Access pipe - jetted	10.0	\$223.38	\$110.80	\$47.70	\$0.00	\$149.55	\$531.43
AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
DLO / Ditch Layout	15.0	\$331.62	\$18.10	\$27.21	\$0.00	\$220.80	\$597.73
HAUL / Hauling	63.0	\$1,344.78	\$642.00	\$1,025.91	\$0.00	\$875.88	\$3,888.57
LM / Loading Materials	30.0	\$687.90	\$363.82	\$174.95	\$0.00	\$463.95	\$1,690.62
ODBH / Outfall ditch - bushhogged	58.0	\$1,289.73	\$526.18	\$313.92	\$0.00	\$860.76	\$2,990.59
ODCO / Outfall ditch - cleaned out	219.0	\$4,873.13	\$1,942.04	\$991.34	\$0.00	\$3,252.51	\$11,059.01
ONJV / Onsite Job Visit	19.5	\$635.12	\$61.54	\$67.20	\$0.00	\$452.58	\$1,216.44
PP / Project Preparation	3.0	\$132.81	\$10.86	\$12.80	\$0.00	\$101.88	\$258.35
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$109.35	\$0.00	\$109.35
RRI / Rip Rap - Installed	20.0	\$458.60	\$195.24	\$123.15	\$0.00	\$309.30	\$1,086.29
STAGING / Staging Materials	6.0	\$137.58	\$10.86	\$26.16	\$0.00	\$92.79	\$267.39
STBY / Stand By	2.0	\$43.26	\$21.40	\$29.43	\$0.00	\$28.84	\$122.93
TRAIN / Training	2.0	\$38.56	\$0.00	\$0.00	\$0.00	\$24.42	\$62.98
WSGRB / Workshelf - Grubbed	18.0	\$397.92	\$61.48	\$27.70	\$0.00	\$264.96	\$752.06
2014-631 / Pinckney Colony Rd Channel #1 Sub Total	526.0	\$11,927.96	\$4,354.80	\$3,913.23	\$109.35	\$7,985.29	\$28,290.63
 Grand Total	526.0	\$11,927.96	\$4,354.80	\$3,913.23	\$109.35	\$7,985.29	\$28,290.63

Before



During



After



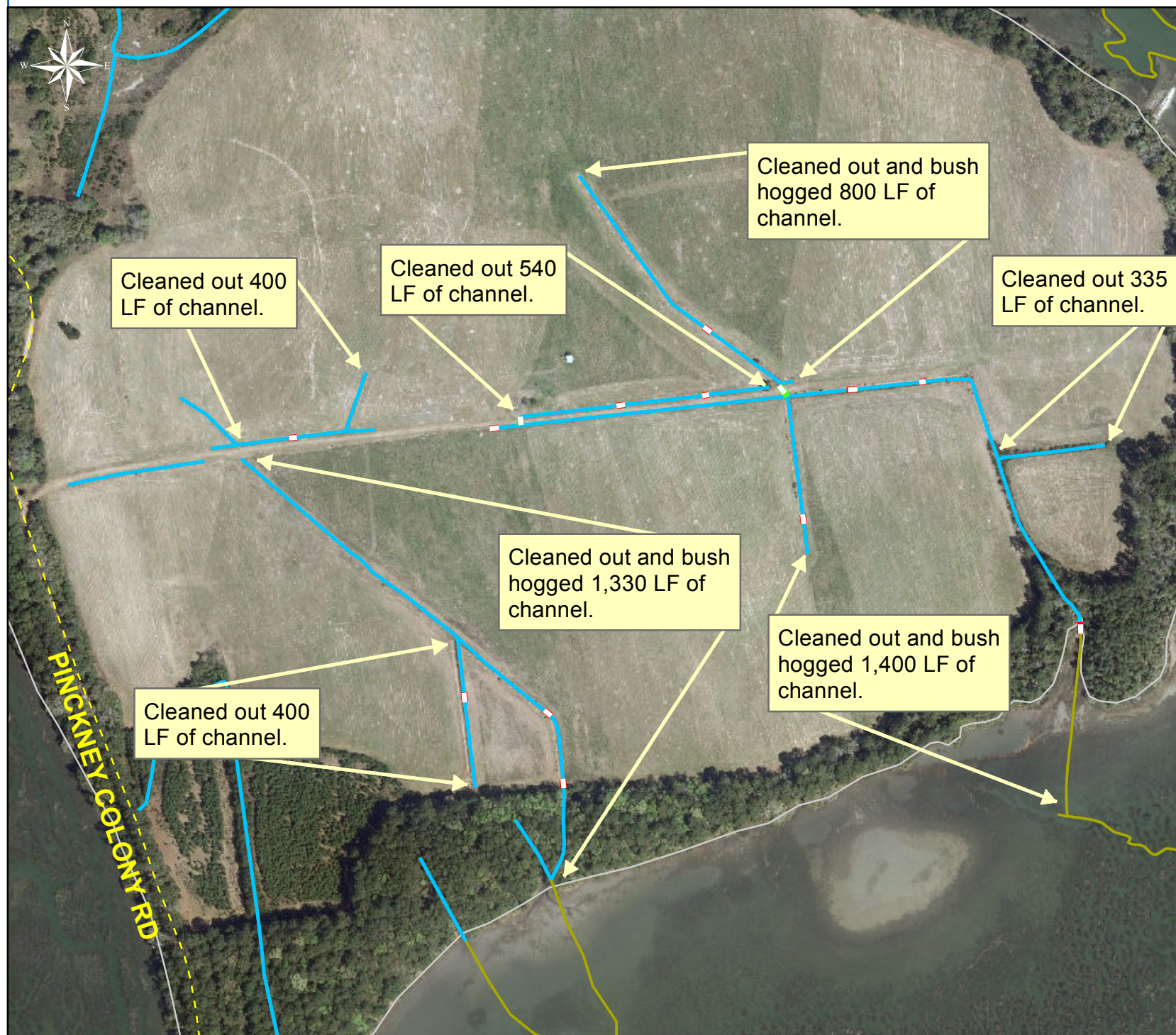
Project: Pinckney Colony Road Map 1

Activity: Routine/
Preventive
Maintenance

Project #:
2014-631

Township:
Bluffton

Completed:
July 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 383 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/25/14

File: C:/sethdata/projects/projectmaps/Pinckney 2014-631 Map1

**Project: Pinckney
Colony Road Map 2**

**Activity: Vacuum
Truck**

**Project #:
2014-631**

**Township:
Bluffton**

**Completed:
July 2014**















Jetted (3) access pipes
and (1) crossline pipe.

Jetted (1) crossline pipe.

Jetted (3)
access pipes.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 319 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/13/14

File:C:/sethdata/projects/projectmaps//Vac/Pinckneyt 2014-631 Map2

**Project: Pinckney
Colony Road Map 3**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-631**

**Township:
Bluffton**

**Completed:
July 2014**



Installed (1)
access pipe.

Installed (1) access pipe.

Installed (1)
access pipe.

Installed (1)
access pipe.

Installed (3)
access pipes.

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

0 80 160 320 480 640
Feet

1 inch = 319 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/13/14

File:C:/sethdata/projects/projectmaps/Pinckney 2014-631 Map3



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Hewlett Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Jul-14

Project improved 5,794 L.F. of drainage system. Bush hogged 1,583 L.F. of workshelf. Cleaned out (3) catch basins, 3,891 L.F. of roadside ditch and 830 L.F. of channel. Jetted (1) access pipe, (9) crossline pipes and (35) driveway pipes. Hydroseeded for erosion control.

2014-635 / Hewlett Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
CBCO / Catch basin - clean out	12.0	\$268.08	\$132.96	\$73.86	\$0.00	\$179.46	\$654.36
CLPJT / Crossline Pipe - Jetted	26.0	\$580.79	\$288.08	\$140.79	\$0.00	\$388.83	\$1,398.49
DPJT / Driveway Pipe - Jetted	56.0	\$1,255.08	\$664.80	\$253.22	\$0.00	\$831.24	\$3,004.34
HAUL / Hauling	159.0	\$3,403.97	\$1,630.50	\$863.28	\$0.00	\$2,154.91	\$8,052.66
HYDR / Hydroseeding	12.0	\$259.59	\$23.30	\$78.16	\$0.00	\$168.48	\$529.53
ODBH / Outfall ditch - bushhogged	27.0	\$585.25	\$55.75	\$28.54	\$0.00	\$380.91	\$1,050.45
ODCO / Outfall ditch - cleaned out	63.0	\$1,373.40	\$278.03	\$90.21	\$0.00	\$892.83	\$2,634.47
ONJV / Onsite Job Visit	56.0	\$1,871.18	\$202.72	\$208.00	\$0.00	\$1,327.42	\$3,609.32
PI / Project Inspection	1.0	\$44.27	\$3.62	\$3.20	\$0.00	\$33.96	\$85.05
PP / Project Preparation	2.0	\$88.54	\$7.24	\$6.40	\$0.00	\$67.92	\$170.10
RSDCL / Roadside Ditch - Cleanout	427.0	\$9,159.44	\$1,680.49	\$501.18	\$0.00	\$5,964.66	\$17,305.77
TC / Traffic Control - Jobsite	20.0	\$385.60	\$72.40	\$28.80	\$0.00	\$244.20	\$731.00
UC / Utility Coordination	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
UTLOC / Utility locates	2.0	\$88.54	\$7.24	\$9.60	\$0.00	\$67.92	\$173.30
WSBH / Workshelf - Bush Hogged	20.0	\$469.15	\$80.20	\$50.69	\$0.00	\$318.45	\$918.48
2014-635 / Hewlett Road Sub Total	885.0	\$19,873.80	\$5,127.33	\$2,335.92	\$0.00	\$13,047.65	\$40,384.69
Grand Total	885.0	\$19,873.80	\$5,127.33	\$2,335.92	\$0.00	\$13,047.65	\$40,384.69

Before



During



After



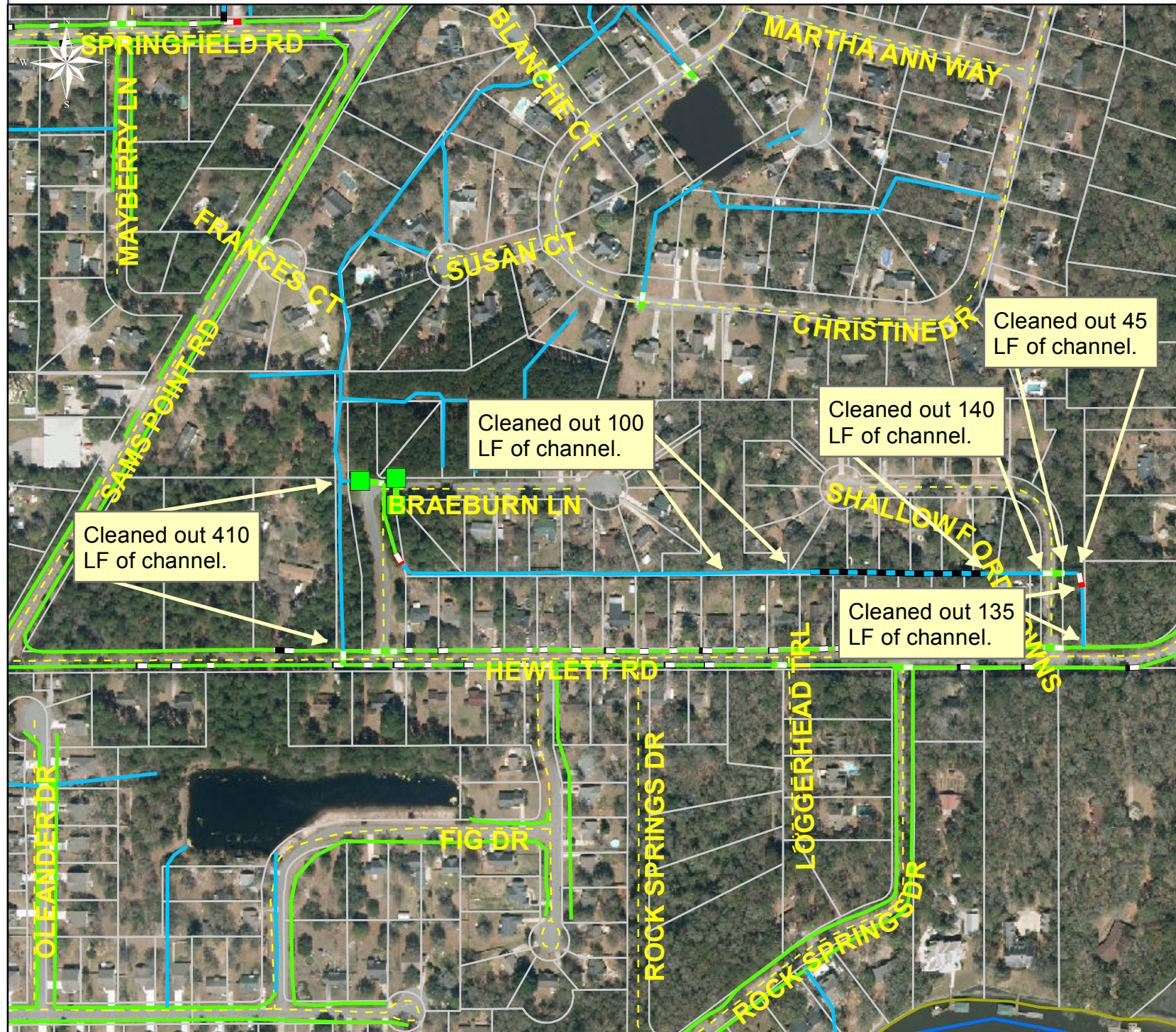
Project: Hewlett Road Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2014-635

Township: Lady's Island

Completed: July 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe
- Catch Basin



1 inch = 311 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/6/14

File:C:/sethdata/projects/projectmaps/Hewlett Rd 2014-635 Map1

Project: Hewlett Road Map 2

Activity: Routine/ Preventive Maintenance

Project #: 2014-635

Township: Lady's Island

Completed: July 2014



Cleaned out 248 LF of roadside ditch and hydroseeded for erosion control.

Cleaned out 1,175 LF of roadside ditch.

Cleaned out 418 LF of roadside ditch.

Cleaned out 1,550 LF of roadside ditch.

Cleaned out 140 LF of roadside ditch.

Cleaned out 162 LF of roadside ditch and hydroseeded for erosion control.

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe
- Catch Basin



1 inch = 311 feet

Project: Hewlett Road Map 3

Activity: Bush Hog

Project #: 2014-635

Township: Lady's Island

Completed: July 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe
- Catch Basin



1 inch = 311 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/6/14

File: C:/sethdata/projects/projectmaps/BH/Hewlett Rd 2014-635 Map3

Project: Hewlett Road Map 4

Activity: Vacuum Truck
















Project #: 2014-635

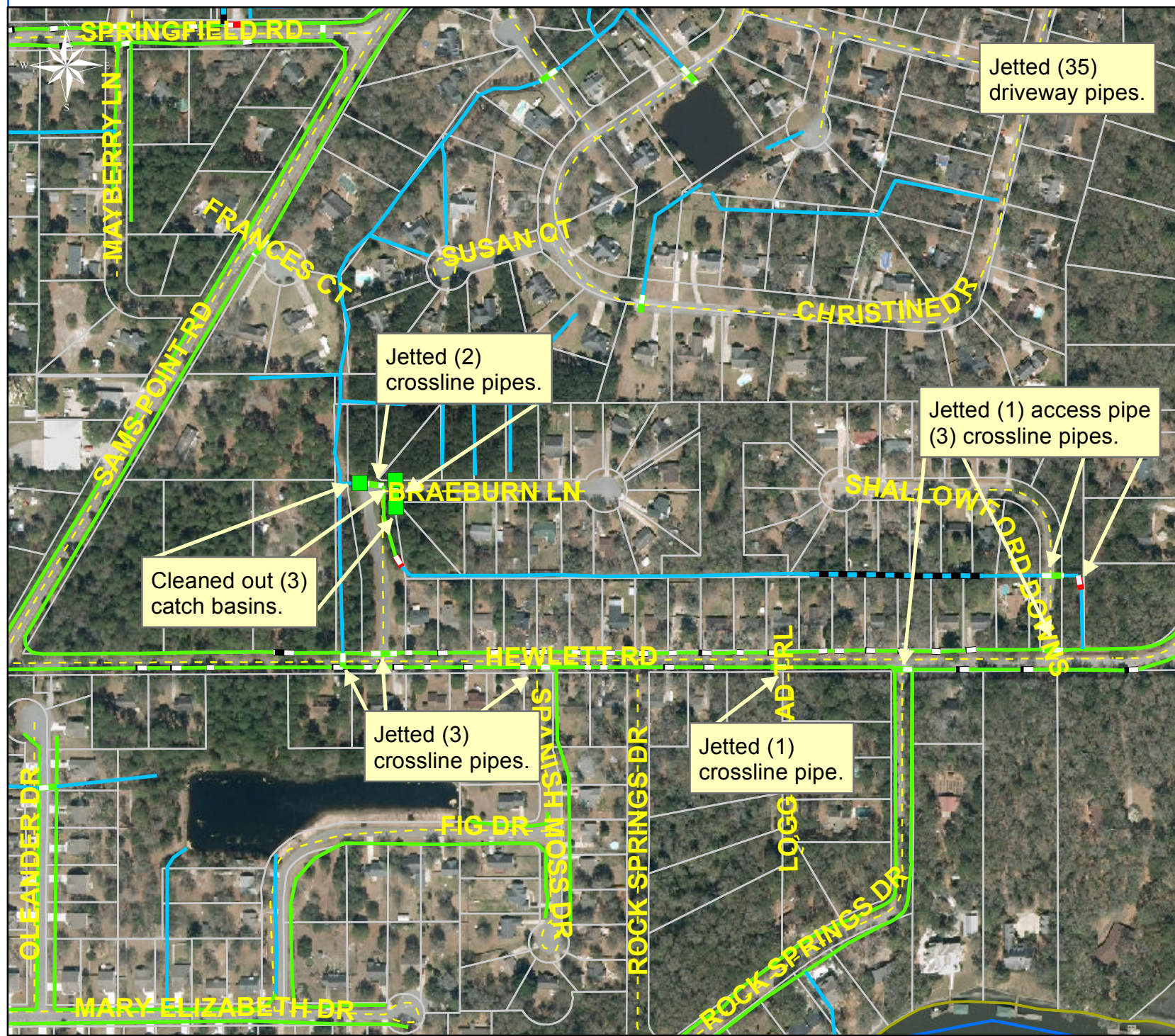
Township: Lady's Island

Completed: July 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe
-  Catch Basin



1 inch = 311 feet



Beaufort County Public Works

Stormwater Infrastructure

Project Summary

Project Summary: ToHHI -Tree Removal (Reimbursement) - Oakview Drive, Matthew Drive,
and Gum Tree Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Feb-14

Removed fallen trees and debris from workshelf and channel.

2014-572 / ToHHI -Tree Removal	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
AW / Administrative Work	2.0	\$88.54	\$0.00	\$0.00	\$0.00	\$67.92	\$156.46
HAUL / Hauling	79.5	\$1,790.09	\$840.03	\$1,168.37	\$0.00	\$1,164.80	\$4,963.28
ONJV / Onsite Job Visit	20.0	\$640.09	\$72.40	\$91.52	\$0.00	\$411.79	\$1,215.80
RMTRD / Remove trees - Ditch	40.0	\$865.27	\$157.56	\$109.56	\$0.00	\$563.30	\$1,695.69
RMTRW / Remove trees - Workshelf	80.0	\$1,812.67	\$310.17	\$165.00	\$0.00	\$1,164.70	\$3,452.54
2014-572 / ToHHI -Tree Removal Sub Total	222.5	\$5,217.11	\$1,380.16	\$1,534.45	\$0.00	\$3,385.73	\$11,517.46
Grand Total	222.5	\$5,217.11	\$1,380.16	\$1,534.45	\$0.00	\$3,385.73	\$11,517.46

Before



During



After

















**Project: Oakview
Road Tree Removal
Reimbursement**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-572**

**Township: Town of
Hilton Head Island**

**Completed:
March 2014**

Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe

Removed fallen trees
and debris.



1 inch = 128 feet

**Project: Gum Tree
Road Tree Removal
Reimbursement**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-572**

**Township: Town of
Hilton Head Island**

**Completed:
March 2014**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

Removed fallen trees
and debris.



1 inch = 187 feet

Prepared By: BC Stormwater Management Utility

Date Print: 4/17/14

File:C:/sethdata/projects/projectmaps/Gum Tree Rd 2014-572

Project: Mathews Drive Tree Removal Reimbursement

Activity: Routine/ Preventive Maintenance

Project #: 2014-572

Township: Town of Hilton Head Island

Completed: March 2014

Legend

TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe

Removed fallen trees and debris.



1 inch = 212 feet



Beaufort County Public Works

Stormwater Infrastructure

Project Summary

Project Summary: Hilton Head Airport Channel

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Jul-14

Project improved 3,772 L.F. of drainage system. Bush hogged 3,772 L.F. of channel.

2015-305 / Hilton Head Airport Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
ODBH / Outfall ditch - bushhogged	31.0	\$677.52	\$309.48	\$211.00	\$0.00	\$450.93	\$1,648.93
ONJV / Onsite Job Visit	9.0	\$298.62	\$32.58	\$22.40	\$0.00	\$220.23	\$573.83
2015-305 / Hilton Head Airport Channel Sub Total	40.5	\$986.37	\$342.06	\$233.40	\$0.00	\$677.78	\$2,239.61
Grand Total	40.5	\$986.37	\$342.06	\$233.40	\$0.00	\$677.78	\$2,239.61

Before



During



After



Project: Hilton Head Airport Channel

Activity: Bush Hog

Project #: 2015-305















Township: Town of Hilton Head Island

Completed: July 2014

Bush hogged 3,772 LF of channel.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

0 205 410 820 1,230 1,640 Feet

1 inch = 778 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/25/14

File: C:/sethdata/projects/projectmaps/BH/ToHHI Airport 2015-305



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

Project Summary: Hilton Head Airport Channel

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Jul-14

Project improved 5,482 L.F. of drainage system. Bush hogged 4,402 L.F. of channel, perimeter of (3) ponds and 1,080 L.F. of fence line. Removed (1) tree.

2015-305A / Hilton Head Airport Channel	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
ODBH / Outfall ditch - bushhogged	63.0	\$1,369.62	\$620.84	\$288.97	\$0.00	\$909.81	\$3,189.24
PDBH / Ponds - bushhogged	40.0	\$865.16	\$325.84	\$126.08	\$0.00	\$573.60	\$1,890.68
PI / Project Inspection	2.0	\$88.54	\$7.24	\$12.80	\$0.00	\$67.92	\$176.50
2015-305A / Hilton Head Airport Channel Sub Total	105.5	\$2,333.55	\$953.92	\$427.85	\$0.00	\$1,557.95	\$5,273.26
Grand Total	105.5	\$2,333.55	\$953.92	\$427.85	\$0.00	\$1,557.95	\$5,273.26

Before



During



After



Project: Hilton Head Airport Channel

Activity: Bush Hog

**Project #:
2015-305A**















**Township: Town
of Hilton Head
Island**

**Completed:
July 2014**



Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 778 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: City of Beaufort - Boundary Street (Reimbursement)

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 404 L.F. of drainage system. Cleaned out (2) catch basins. Jetted 184 L.F. of channel pipe and 220 L.F. of roadside pipe. Pole Camera used to view extent of blockage in drainage system.

Completion: Jul-14

2015-507 / City of Beaufort - Boundary St	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CBCO / Catch basin - clean out	28.0	\$619.78	\$310.24	\$167.91	\$0.00	\$413.82	\$1,511.75
ESTP / Estimating Project	2.0	\$88.54	\$0.00	\$0.00	\$0.00	\$67.92	\$156.46
SD / Soft Digging	16.0	\$355.49	\$214.68	\$111.99	\$0.00	\$237.60	\$919.76
2015-507 / City of Beaufort - Boundary Stre	46.5	\$1,074.04	\$524.92	\$279.90	\$0.00	\$725.96	\$2,604.82
Sub Total							
Grand Total	46.5	\$1,074.04	\$524.92	\$279.90	\$0.00	\$725.96	\$2,604.82

Before



During



After



Project: Boundary Street Reimbursement

Activity: Vacuum Truck

Project #: 2015-507

Township: City of Beaufort

Completed: July 2014



Pole camera utilized to view extent of blockage in drainage system. Cleaned (2) catch basins. Jetted 184 LF of channel pipe.

Jetted 220 LF of roadside pipe.

Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 85 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Keans Neck Road Channel #4

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Jul-14

Project improved 2,666 L.F. of drainage system. Bush hogged 1,683 L.F. of channel. Cleaned out 2,666 L.F. of channel. Jetted (1) crossline pipe and (3) access pipes.

2015-512 / Keans Neck Road Channel #4	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APJT / Access pipe - jetted	18.0	\$402.08	\$199.44	\$98.98	\$0.00	\$269.19	\$969.69
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	47.0	\$1,074.76	\$502.90	\$298.37	\$0.00	\$662.04	\$2,538.07
ODBH / Outfall ditch - bushhogged	22.0	\$473.53	\$444.49	\$111.09	\$0.00	\$313.52	\$1,342.63
ODCO / Outfall ditch - cleaned out	97.0	\$2,191.34	\$987.18	\$204.38	\$0.00	\$1,267.13	\$4,650.02
ONJV / Onsite Job Visit	17.0	\$572.88	\$61.54	\$67.20	\$0.00	\$410.01	\$1,111.63
PP / Project Preparation	2.0	\$88.54	\$7.24	\$9.60	\$0.00	\$67.92	\$173.30
UTLOC / Utility locates	2.0	\$40.92	\$8.04	\$9.60	\$0.00	\$26.46	\$85.02
2015-512 / Keans Neck Road Channel #4 Sub Total	205.5	\$4,854.28	\$2,210.83	\$799.21	\$0.00	\$3,022.88	\$10,887.21
Grand Total	205.5	\$4,854.28	\$2,210.83	\$799.21	\$0.00	\$3,022.88	\$10,887.21

Before



During



After



Project: Keans Neck Road Channel #4 Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2015-512

Township: Sheldon

Completed: July 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 247 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/18/14

File: C:\sethdata\projects\projectmaps\Keans Neck 2015-512 Map1

Project: Keans Neck Road Channel #4 Map 2

Activity: Vacuum Truck















Project #: 2015-512

Township: Sheldon

Completed: July 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

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

Jetted (2) access pipes.

KEANS NECK RD

COKER LN



1 inch = 121 feet

Prepared By: BC Stormwater Management Utility

Date Print: 8/18/14

File: C:/sethdata/projects/projectmaps/Vac/Keans Neck 2015-512 Map2

TOWN COUNCIL



STAFF REPORT

Department of Engineering & Public Works Stormwater Management Division

DATE:	August 5, 2014
SUBJECT:	May River Update – No Wake Zone Establishment
STAFF:	Kim Jones, Director, Stormwater Management Division

Request: Staff requests Town Council’s guidance in determining the extent of a “No Wake Zone” request for the public landing.

Background: In September 2013, at Council’s direction, staff reported the current protocol for how an individual may request a designated “No Wake Zone” from the South Carolina Department of Natural Resources (DNR). The information has been posted on the Town’s website since that time.

As part of the Strategic Planning process, Council stated that establishing a “No Wake Zone” at the Public Landing was a top priority as part of its Policy Agenda for 2014.

Analysis: All boaters should be aware that per South Carolina Code of Laws SECTION 50-21-870 Personal watercraft and boating safety,

(B)(6) No Person may operate a personal watercraft, specialty propcraft, or vessel while upon the waters of this State in excess of idle speed within 50 feet of a moored or an anchored vessel, wharf, dock, bulkhead, pier, or a person in the water, or within 100 yards of the Atlantic Ocean coast line. The prohibitions contained in this item (6) do not apply to an unoccupied, moored vessel or watercraft.

However, based upon reading South Carolina Code of Laws SECTION 50-21 Equipment and Operation of Watercraft, as well as staff discussions with the DNR staff responsible for processing “no wake zone” requests, there is no standard “no wake zone” distance around a public landing. Each request is investigated by DNR staff to determine if a “no wake zone” is needed and to what area it may apply.

Based upon previous public comments, there are multiple “no wake zone” options for Council’s consideration.

1. Immediately surrounding the Oyster Factory Park landing (Attachment 1).

2. Extending from the Oyster Factory Park landing to the Calhoun Street dock (Attachment 2).
3. Extending the entire length of the Historic Presevation Overlay District (Attachment 3).
4. Other location as described by Town Council.

Next Steps: Following Council’s determination of the extent of the “No Wake Zone” request, staff will prepare and submit a formal request to DNR and await notification of the determination to share with Council.

Attachments:

1. Proposed No Wake Zone - Oyster Factory Park landing
2. Proposed No Wake Zone - Oyster Factory Park landing to Calhoun Street dock
3. Proposed No Wake Zone - The Historic Presevation Overlay District

ATTACHMENT 1



500'

500'

Town of Bluffton
Beaufort County, SC

NO WAKE ZONE **OPTION - 1**

A Zone beginning
500' East of Oyster
Factory Park
Boat Landing and
ending 500' West
of Oyster Factory
Park Boat Landing



ATTACHMENT 2

500'

1300'
2300' Total

500'

Town of Bluffton
Beaufort County, SC

NO WAKE ZONE OPTION - 2

A Zone beginning
500' East of Calhoun
Street Dock and ending
500' West of Oyster
Factory Park
Boat Landing



ATTACHMENT 3



Town of Bluffton
Beaufort County, SC

NO WAKE ZONE OPTION - 3

A Zone beginning
at the dock of
131 Pritchard St and
extending West to the dock
of 55 Verdier Cove Rd



Lisa Sulka
Mayor

Oliver Brown
Mayor Pro Tempore

Anthony Barrett
Town Manager



Council Members
Michael Raymond
Ted Huffman
Karen Lavery

Sandra Lunceford
Town Clerk

September 16, 2013

RE: Establishing a No Wake Zone

The procedure to request a no wake zone from the SC Department of Natural Resources (DNR) has been stream-lined from the cumbersome process of the past. No petition or resolution from a local municipality, nor support from the state legislature, is required any longer.

Any individual may request the establishment of a no wake zone by submitting a written request (via post or email) containing the following information:

1. An explanation as to why the no wake zone is needed, and
2. A map depicting the area in which the no wake zone is requested. This can be as simple as printing a map from online and highlighting the desired area.

The above materials should be sent to Mr. Donny Pritchard, P.O. Box 12559, Charleston, SC 29422 or via email to elliss@dnr.sc.gov.

Upon receipt of the request, a DNR investigator familiar with the area will evaluate the situation at various days/times and make a determination on the request.

The Island Packet

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Bluffton should help get no-wake zones in place

By IslandPacket

info@islandpacket.com September 13, 2013

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Blufftonian Dyane Lee demonstrates how she had to brace herself in order to keep from falling off her dock when the wake from a speeding boat hit it recently. To prevent such incidents in the future, Lee would like to see her area of the May River made into a no wake zone. The zone would run between the Bluffton Oyster Company on Wharf Street and public dock on Calhoun Street.

JAY KARR — Staff photo [Buy Photo](#)

Bluffton officials are correct in pointing out that it doesn't take town action to get a no-wake zone established in the May River.

But that doesn't mean the town shouldn't be involved. Establishing a no-wake zone in the vicinity of All Joy Landing and the Bluffton Oyster Co. landing was one of 11 priorities in the May River Waterbody Management Plan adopted in 2008. The issue goes back much farther than that, and five years seems a long time to wait to address a "priority."

Dock owners along the May River asked for help from the town in August. They complain that boats are regularly creating damaging wakes. They have good reason to complain. Wakes can toss around docks, boats tied to the docks and people standing on them.

And it's not just private property that gets hurt when boats travel too fast in our tidal creeks and rivers. More and more boats traveling our waterways mean more damaging wakes that erode shellfish beds and fragile, but critical, protective shorelines.

In 2007, the state Department of Natural Resources conducted a study on the impact of boat wakes in the New and Cooper rivers. The department found that some banks were eroding as much as 4 feet a year even in areas that didn't see a lot of boat traffic.

Researchers knew small creeks and estuaries changed shape naturally over time, but concerns about the impact of boats raised questions about how much they exacerbate erosion problems.

Mayor Lisa Sulka said of the residents' request for town help, "If each request is looked at the same, then there's no reason to stir the pot. For every 10 people who want a no-wake zone, I've got 10 more who don't."

Sulka and Town Council should be leading the way on appropriate no-wake zones, not avoiding the issue because someone objects.

Why does the town set priorities if only to ignore them?

A more streamlined process to get no-wake zones established is very welcome news. Previously, it took legislative action, a potentially tedious and acrimonious process.

Acrimony certainly was evident in 1998 when the legislature took up no-wake zones in Broad Creek on Hilton Head Island. Then-state Sen. Holly Cork of Hilton Head objected to every House bill that moved to the Senate, stalling more than 40 bills, after the House tabled her version of a no-wake measure that included a ban on boats anchoring within 100 feet of a private dock. Cork removed her objections once the no-wake bill was revived (without the no-anchoring provision).

Today, DNR is responsible for setting no-wake zones. The agency considers criteria that include channel size, boat traffic and water depth. When a request is received, a DNR investigator evaluates the area at high and low tides. A determination could be made within eight weeks. The zones are not automatic; the agency received 44 requests last year, but only granted three.

The town should help determine where no-wake zones would be most effective and help with the process of getting them established, especially since the town's Police Department would help enforce them.

Bluffton officials ought to consider the damage caused by excessive wakes as part of their push to protect the May River from environmental harm.

In the meantime, boaters should know that they are supposed to go no faster than idle speed within 50 feet of a moored or anchored vessel; a wharf, dock, bulkhead or pier; or a person in the water. That's state law, and it's too often ignored.

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