



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD
Wednesday, January 8, 2014
2:00 p.m.
Beaufort Industrial Village, Building 2 Conference Room
102 Industrial Village Road, Beaufort
843.255.2801

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

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – December 4, 2013 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Monitoring Update – Danny Polk
 - B. Utility Update – Eric Larson, P.E.
 - C. Upcoming Professional Contracts Report – Eric Larson, P.E.
 - D. Financial Report – Alan Eisenman ([backup](#))
 - E. Status of Utility's 2013 Goals - Carolyn Wallace ([backup](#))
 - F. Fiscal Year 2013 Actuals – Carolyn Wallace ([backup](#))
 - G. Utility's 2014 Goals –Eric Larson, P.E. ([backup](#))
 - H. Maintenance Project Report – Eddie Bellamy ([backup](#))
5. UNFINISHED BUSINESS
 - A. Regional Coordination – Eric Larson, P.E.
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. February 5, 2014 ([backup](#))
9. ADJOURNMENT



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

December 4, 2013 at 2:00 p.m. in Beaufort Industrial Village Building #2 Conference Room
Draft January 6, 2014

Board Members

Present	Absent
Don Smith	James Fargher
William Bruggeman	
Patrick Mitchell	
Allyn Schneider	

Ex-Officio Members

Present	Absent
Andy Kinghorn	Van Willis
Scott Liggett	
Kimberly Jones	

Beaufort County Staff

Robert McFee
Eric Larson
Eddie Bellamy
Carolyn Wallace
Danny Polk

Visitors

Paul Moore, Ward Edwards
Dr. Alan Warren, USCB
Lamar Taylor, City of Beaufort

- 1. Meeting called to order** – Don Smith
 - A. Agenda – approved.
 - B. November 6, 2013 Minutes – approved.
- 2. Introductions** – Completed.
- 3. Public Comment(s)** – None.
- 4. Reports** –
 - A. University Of South Carolina, Beaufort Water Quality Laboratory** – Dr. Alan Warren – Dr. Warren provided a presentation on the status of each piece of equipment purchased for the WQ lab. He mentioned that the equipment is not just for WQ analysis but also to be integrated in to the curriculum of the university.
He spoke with SCDHEC about certification. Not all testing methods require certification but for the ones that do, they will be pursuing to obtain and maintain certification. This may take a few months and may require split sample testing. He anticipates GEL Engineering being able to transition all non-certifiable sample testing to the USCB lab by January or February. They will work with GEL and the county to come up with a plan to transition the certifiable sample testing.
 - B. Monitoring Update** – Danny Polk – There was not many recent rain events. The September report from Gel Engineering shows total phosphorus slightly higher at BECY 15 (near the air station), BOD slightly higher at BECY 17 (near the county complex), and high fecal near Cross Creek Shopping Center in Battery Creek.
The annual report from GEL Engineering will be submitted to the county the first of the year and they would like to present the findings from the report at the Board’s February meeting.

He is in the process of doing the final collection of data from the field instruments for the Water Budget Study. Dr. Badr has a lot of data and working on compiling it. He should be providing the final report the first of the year.

Other than what has been reported in the media, Mr. Polk does not know of any other issues that may have caused the oyster die off in the county.

C. Upcoming Professional Contracts Report – Mr. Robert McFee – No new professional contracts to report.

D. Utility Updates – Mr. Eric Larson – Mr. Larson introduced himself as the new Stormwater Manager. He has an engineering degree from University of Kentucky. He was a road designer and Construction Manager for the Transportation Cabinet in Kentucky. Then he became the Planning/Zoning Engineer for the City of Bowling Green, Kentucky, and while there, the Kentucky Division of water designated Warren County, Kentucky as a Phase II community. He wrote the permit and started the county’s SW program. Next he became the city engineer for Georgetown, Kentucky. There MS4 program had already started but they rebuilt the program and it became a “flagship” program in the state. This lead to him being hired by the University of Kentucky to implement their SW program.

MS4 General Permit - To not be a MS4, Beaufort County already has the ground work laid for a very good SW program. The transition into a MS4 next year will not be a huge “ramp up” curve. Mr. McFee said the county maintains an extensive list of engineering firms that can address the stormwater needs.

Webinar – The county is hosting a webinar titled “Green Stormwater Utilities Updating & Upgrading Your Utility for Green Infrastructure” on tomorrow at 2pm in County Council Chambers.

Okatie East Project – Mr. Bellamy reported that the project is completed and Mr. Paul Moore said they monitored the gate during the most recent rain event and they are adjusting the gate. Mr. Danny Polk said they could not get a flow meter installed before hand for monitoring because it is an irregular channel but he is getting with Denise (Sanger) with SCDNR study (salinity study) to see since they have the equipment if they can help with the monitoring. Mr. Moore said they are considering putting a stream gauge upstream in the channel to measure how high the channel stage so they can estimate a discharge rate to compare to their model.

E. Financial Report – Copies of the October financials were provided.

F. Utility 2014 Goals – Mr. Larson presented 3 internal goals and the top 10 external goals ranked by staff. From the staff input there were a total of 26 external goals. Mr. Larson asked the board members to review the list, and if they have other goals they would like to suggest, to please e-mail to him. He will add any suggestions to the list and then forward the list to be ranked by the board members.

He authored one of the goals to revise the Stormwater Implementation Committee (SWIC) as he envisions expanding their role.

Mr. Don Smith and Mrs. Carolyn Wallace said the status of the 2013 goals is schedule to be provided at the January board meeting.

G. Maintenance Projects Report – Mr. Eddie Bellamy reported on (1) major project: Spann Circle, Phase II. He also presented (5) minor and/or routine maintenance projects in a shortened format.

Mr. Bellamy said he will revise his presentation to the board in the future to add the district to the location of each project.

5. Unfinished Business – Robert McFee

A. Regional Coordination

Highway 278 Retrofit Ponds – Will be advertised for bid.

County Administration Complex Retrofit Project – The project is being re-advertised next week with the modifications to the bid as outlined at the November board meeting.

Battery Creek – Mr. Moore said SCDHEC will be having their kick-off meeting with the county and the City of Beaufort on December 18th to discuss the grant requirements. Final design will begin after this meeting because the funding for the design is coming from the 319 grant.

Stoney Creek – Ms. Kim Jones have continued discussion with the property owners. They were on-site last week and the property owner gave them a tour. The next step is to issue a bid for surveying. She said the new LIDAR was very useful in locating some existing low areas in exploring the possible design of this retrofit.

319 Grant for the Okatie – The grant was obtained by the Lowcountry Council of Government (LCOG). Mr. McFee said Mr. Larson is in discussion with them to see how we can best maximize the next phase (Phase II) of the program. The work that has been done on the Okatie East project and will be done on the Hwy 278 pond project is the actual local match for the grant.

6. New Business

Board Chairman and Vice-Chairman Election – Mr. Don Smith and Mr. Allyn Schneider have been elected to continue their chair.

Organizational Charts – Mr. McFee said he will e-mail the Engineering Department and SWU's organizational chart to the board members.

7. Public Comment – Mr. Don Smith welcomed Mr. Larson as the new SW Manager.

8. Next Meeting Agenda – Approved.

9. Meeting Adjourned.

UNAUDITED AND PRELIMINARY
BEAUFORT COUNTY, SOUTH CAROLINA
STATEMENT OF NET ASSETS
Stormwater Utility
November 30, 2013 & November 30, 2012

	<u>November 30, 2013</u>	<u>November 30, 2012</u>
<u>ASSETS</u>		
Current Assets		
Cash and Investments with Trustee	\$ 2,209,544	\$ 1,805,902
Receivables, Net	22,131	24,692.00
Inventories	92,511	102,941
Total Current Assets	<u>2,324,186</u>	<u>1,933,535</u>
Capital Assets	2,904,079	2,798,912
Accumulated Depreciation	<u>(2,113,925)</u>	<u>(1,911,910)</u>
	790,154	887,002
Total Assets	\$ 3,114,340	\$ 2,820,537
<u>LIABILITIES</u>		
Liabilities		
Account Payable	24,204	49,688
Accrued Payroll	45,919	48,043
Accrued Compensated Absences	6,247	4,470
Total Current Liabilities	<u>76,370</u>	<u>102,201</u>
Long Term Liabilities		
Accrued Compensated Absences	55,379	64,937
Net Other Postemployment Benefits Obligation	<u>786,712</u>	<u>646,232</u>
Total Long Term Liabilities	842,091	711,169
Total Liabilities	918,461	813,370
<u>NET ASSETS</u>		
Invested in Capital Assets, Net of Related Debt	790,154	887,002
Reserved for Encumbrances	143,422	361,126
Unrestricted	<u>1,262,303</u>	<u>759,039</u>
Total Net Assets	<u>\$ 2,195,879</u>	<u>\$ 2,007,167</u>

Unaudited and Preliminary
 BEAUFORT COUNTY, SOUTH CAROLINA
 STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
 Stormwater Utility
 For the Period Ended November 30, 2013

	Budget FY 2014	November 30, 2013	Budget to Actual	Percent of Budget
Operating Revenues				
Stormwater Utility Fees	\$ 3,475,000	\$ 832,900	(2,642,100)	24%
Stormwater Utility Project Billings	60,023	11,534	(48,489)	19%
Total Operating Revenues	<u>3,535,023</u>	<u>844,434</u>	<u>(2,690,589)</u>	<u>24%</u>
Operating Expenses				
Personnel	2,160,475	761,761	(1,398,714)	35%
Purchased Services	961,864	293,777	(668,087)	31%
Supplies	381,446	134,793	(246,653)	35%
Depreciation	242,119	100,885	(141,234)	42%
Total Operating Expenses	<u>3,745,904</u>	<u>1,291,216</u>	<u>(2,454,688)</u>	<u>34%</u>
Operating Income (Loss)	(210,881)	(446,782)	(235,901)	212%
Non-Operating Revenues (Expenses)				
Interest Earned	6,922	-	(6,922)	0%
Total Non-Operating Revenues (Expenses)	<u>6,922</u>	<u>-</u>	<u>(6,922)</u>	<u>0%</u>
Change in Net Assets	(203,959)	(446,782)	(242,823)	219%
Net Assets, Beginning	<u>2,642,661</u>	<u>2,642,661</u>		
Net Assets, Ending	<u>\$ 2,438,702</u>	<u>\$ 2,195,879</u>	(242,823)	90%

Unaudited and Preliminary
 BEAUFORT COUNTY, SOUTH CAROLINA
 STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
 Stormwater Utility
 For the Period Ended November 30, 2012

	Budget FY 2013	November 30, 2012	Budget to Actual	Percent of Budget
Operating Revenues				
Stormwater Utility Fees	\$ 3,469,180	\$ 456,561	(3,012,619)	13%
Stormwater Utility Project Billings	370,664	19,501	(351,163)	5%
Total Operating Revenues	<u>3,839,844</u>	<u>476,062</u>	<u>(3,363,782)</u>	<u>12%</u>
Operating Expenses				
Personnel	2,014,323	786,938	(1,227,385)	39%
Purchased Services	1,297,125	193,265	(1,103,860)	15%
Supplies	425,660	108,358	(317,302)	25%
Depreciation	273,545	113,980	(159,565)	42%
Total Operating Expenses	<u>4,010,653</u>	<u>1,202,541</u>	<u>(2,808,112)</u>	<u>30%</u>
Operating Income (Loss)	(170,809)	(726,479)	(555,670)	425%
Non-Operating Revenues (Expenses)				
Interest Earned	11,389	-	(11,389)	0%
Total Non-Operating Revenues (Expenses)	<u>11,389</u>	<u>-</u>	<u>(11,389)</u>	<u>100%</u>
Change in Net Assets	(159,420)	(726,479)	(567,059)	-100%
Net Assets, Beginning	<u>2,733,646</u>	<u>2,733,646</u>		
Net Assets, Ending	<u>\$ 2,574,226</u>	<u>\$ 2,007,167</u>	(567,059)	78%

Stormwater Utility Priorities for 2013

Overall Priority – Implementing the Utility Vision of an Efficient Utility Addressing the Stormwater Needs of the County, while Protecting its Water Resources

Top Three Internal Management Goals

1. Complete SW Utility building renovations (**Completed**)
2. Link EOS (**Delayed**), Management Plan (**Delayed until FY15**) and Capital Improvement Plan (**Completed**) into proposed FY2014 Budget
3. Clearer utility priorities stated during year so staff can better focus on current priorities (**On-Going – revisiting this item as staff dynamics have changed**)

Top Ten External Goals Nominees

1. Start preparations for NPDES MS4 permit (**No Action - SCDHEC delayed notification**)
 - a. Develop application
 - b. Determine utility outfalls under permit
2. Initiate agreements to start development of update to SW Management Plan (**Delayed until FY15**)
3. Develop inspection procedures/checklist for BMPs and to identify hot spots including SCDOT (**In-Progress**)
4. Develop Water Collection (Catch Basin) identification and inspection schedule (**On-Going**)
5. Complete the Easement/Drainage/Pipe Layer with files from Public Works and Engineering (**Completed**)
6. Develop Battery Creek watershed restoration agreements with City of Beaufort (**Completed**)
7. Obtain regulatory approvals for Okatie East retrofit (**Completed**)
8. Complete LIDAR (**75%**) and update drainage layer with 2013 DEM (**40%**) (**In-Progress**)
9. *Complete Drainage Characterization for Unincorporated County (completed) and Develop comprehensive graphical SW Needs picture with what we are and not doing (No action)*
10. Develop Plan and costs to address SC DOT outfalls and BCSD drainage issues (**As-Needed**)

Other Goals

11. Implement ditch Maintenance schedules with Pubworks (**In-Progress**)
12. *Develop Pond Maintenance System (On-Going)*
13. Continue to develop Utility capability to do water quality retrofit projects (**On-Going**)
14. Restoration Agreement with Town of Bluffton on May/Okatie Rivers (**No Action**)
15. Continue support for two R&D efforts – Water Budget (**90%**) and Salinity Study (**20%**) (**In-Progress**)
16. Implement a Utility Locate System (**In-Progress**)
17. Transition water quality monitoring contract from GEL to USCB (**In-Progress**)
18. Explore 319 funding for Battery Creek (**Completed**)

- 19. Pollution Prevention Plans for SW Utility **(No Action)**
- 20. *Look for ways to stress economic value of SW protecting water quality* **(on-Going)**
- 21. Follow-up on public education slots for County Channel **(No Action)**
- 22. Coordinate new Form-based code **(Completed)**
- 23. Actively participate in the Okatie 319 grant **(On-Going)**
- 24. *Interactive Website graphics on SW* **(No Action)**
- 25. Make purchase of property needed for Okatie West retrofit in time to utilize current wetlands delineation **(No Action)**
- 26. Explore with Public Works adopting CHS SWU use of GPS touch devices **(In-Progress)**

Note: goals in italics are recommendations by County Administrator in FY2012.

Guiding principles for Utility determinations were

1. Actions needed for NPDES Permit
2. Addressing WQ Issues
3. Improve efficiency in Utility operation



Beaufort County Public Works Stormwater Utility

Budget Comparison

Revised Date: January 6, 2013

Revenue/Reserve Utilization

	FY2012	FY2013			FY 2014
	Audited Actual	Requested Board Budget	Unaudited Actuals	Variance	Board Approved Budget
Revenue					
Admin SWU Fees	\$ 315,329	\$ 309,117	\$ 311,086	\$ (1,969)	\$ 312,064
Utility Activities SWU Fees	2,832,284	3,160,063	2,759,703	400,360	3,162,936
Total Revenue from SWU Fees	3,147,613	3,469,180	3,070,789	398,391	3,475,000
Reimbursable Projects	20,552	63,000	33,808	29,192	2,500
Interest	4,467	11,389	2,955	8,434	6,923
Other Charges	52,530	-	(2,920)	2,920	-
Cost-Share for Joint Efforts	39,200	307,664	50,403	257,261	57,522
Reserve Utilization					
Del Webb Agreement Fund	918	-	-	-	-
Stormwater Utility	(139,718)	159,420	90,986	68,434	-
	\$ 3,125,563	\$ 4,010,653	\$ 3,246,022	\$ 764,631	\$ 3,541,945

Efforts (Expenditures)

	FY2012	FY2013			FY2014
Admin	\$ 308,562	\$ 309,117	\$ 244,053	\$ 65,064	\$ 312,064
Utility Activities					
UA/Control Reg	92,043	113,560	78,147	35,413	73,147
UA/WQ Monitoring	106,614	148,200	174,766	(26,566)	160,000
UA/WQ Controls	436,383	440,580	60,248	380,332	200,000
UA/Annual Maintenance	2,039,127	2,364,776	2,376,048	(11,272)	2,679,069
UA/Public Information/Outreach	57,665	75,000	67,665	7,335	67,665
UA/Drainage Enhancement	-	25,000	2,700	22,300	25,000
UA/Additional Studies	84,250	375,000	242,394	132,606	25,000
<i>Utility Activities Subtotal</i>	<i>2,816,082</i>	<i>3,542,116</i>	<i>3,001,968</i>	<i>540,148</i>	<i>3,229,881</i>
*Reserve Utilization					
UA/WQ Controls	918	159,420	-	159,420	-
<i>Reserve Utilization Subtotal</i>	<i>918</i>	<i>159,420</i>	<i>-</i>	<i>159,420</i>	<i>-</i>
Efforts Total	\$ 3,125,563	\$ 4,010,653	\$ 3,246,022	\$ 764,631	\$ 3,541,945

*Efforts funded by utilizing the reserve are spread among all utility activities.

Change in Capital Assets On Balance Sheet

	FY2012	FY2013			FY2014
Capital Assets Additions	\$ 58,757	\$ 126,367	\$ 146,212	\$ (19,845)	\$ 455,991
Depreciation	(283,059)	(273,545)	(248,463)	(25,082)	(242,119)
	\$ (224,302)	\$ (147,178)	\$ (102,250)	\$ (44,928)	\$ 213,872

Stormwater Utility Priorities for 2014

Draft December 23, 2013

Overall Priority – Implementing the Utility Vision of an Efficient Utility Addressing the Stormwater Needs of the County, while Protecting its Water Resources

Staff's Top Three Internal Management Goals

1. Implement ditch Maintenance schedules with Pubworks.
2. GIS mapping efforts
 - a. Determine utility outfalls under permit – Once the permit is received, the county will identify the outfalls within their jurisdiction.
 - b. (Ongoing) Develop water collection (Catch Basin) identification and inspection schedule. Mosquito control inventoried all catch basins in the county. Now that we have received the data we would like to create a numbering system for the catch basins and start an inspection program.
 - c. (Ongoing) Complete drainage characterization (assigning a specific ID that's relative to the location of channels that are maintained by SW and adding this attribute to the Geographic Information System (GIS) drainage layer table) for Unincorporated County and develop comprehensive map of SW needs picture with what we are and not doing.
 - d. Implement a Utility Locate System. There has been new legislature requiring utilities to locate or hire a locate company to locate their underground systems. The new legislature DID NOT include counties. However, because the Infrastructure section has had to replace crossline pipes because of damage during contractors or utility companies' projects, the section would like to voluntarily join the 811 program that would require an agency request locates from the county before digging.
 - e. (Ongoing) Complete LIDAR (Light Detection and Ranging) and update drainage layer with 2013 DEM (digital elevation model shows land elevation change using a color scale). The county and municipalities purchased LIDAR 10 years ago and it was funded through a cost-share. The county and municipalities have again entered in to a cost-share program to fund the update. The data is being checked for quality and assurance (Q&A) by the county and municipalities' staff, and once completed will be shared with the municipalities. Once delivered the municipalities will be invoiced for their cost-share.
3. Develop a decision process to help move projects forward in a timely manner.

Staff's Top Ten External Goals Nominees (ongoing projects and tasks given higher priority to assure completion.)

1. (Ongoing) Promote use of the new University of South Carolina, Beaufort Campus (USCB) (located in the Hardeeville/Bluffton area) laboratory by towns and city in county. Also to expand the monitoring effort to address MS4 requirements for all agencies in county. Once the county has officially received their designation as a MS4 community, there will be other agencies within the county required to have a monitoring program.

2. (Ongoing) Continue support for two Research and Development (R&D) efforts – Water Budget and Salinity Study. The water budget study is almost complete and the final report should be presented the first of the year. Water budget study is comparing two watersheds of equal size (one developed, the other undeveloped), to see how much excess water is created and what happens to that excess. SC Department of Natural Resources (SCDNR) received a grant to accelerate the effort of the salinity study. The county and the ToB are also funding sources. Five watersheds are being studied simultaneously for several parameters to determine how salinity effects water quality.
3. (Ongoing) The construction of the Battery Creek retrofit project. Property in both the county and the City of Beaufort (CoB) tax district are in this impaired watershed. The CoB is the lead on this project and the county and the city have entered into a cost-share agreement to address the impairments and have received a grant to help with the funding to construct this project.
4. (Ongoing) The construction of the Highway (Hwy) 278 ponds. As part of this widening program, while the treatment of the increased runoff from the increase in impervious area had to be addressed, the county saw the opportunity to also incorporate retrofits to address the runoff from existing development.
5. (Ongoing) Actively participate in the Okatie 319 grant. This is a grant to address failing or septic systems needing repair. Phase I is completed and the county is engaged in developing the scope for Phase II. Also the cost of the county efforts to address WQ issues in the Okatie River watershed can be provided by LCOG, allowing LCOG to receive the grant funding.
6. Start preparations for National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) permit.
 - a. Develop application – Once South Carolina Department of Health and Environmental Control (SCDHEC) officially notify the county by letter, the county must submit its application within one year.
 - b. Establish program reporting elements – There are six Minimum Control Measures (MCM) in the permit. The County will be required to report their activities for each MCM.
 - c. If the municipalities would like to address some or all of the MCMs jointly with the county, then the Intergovernmental Agreements (IGAs) between the County and the municipalities will have to be revised to reflect new MS4 rules and activities.
 - d. Determine utility outfalls under permit – Once the permit is received, the county will identify the outfalls within their jurisdiction.
 - e. Pollution Prevention Plans for the SW Utility is required once the county is designated as a MS4. All government owned facilities will need to be inventoried and a plan for pollution prevention for each facility will be developed based on uses at the facility and pollution potential.
 - f. Develop inspection procedures/checklist for Best Management Practices (BMPs) and to identify “hot spots” including drainage systems owned by South Carolina Department of Transportation (SCDOT).
 - g. Develop Pond Maintenance System. The task is to develop a written operating procedure and annual inspection for all public and private owned ponds. We will develop a list of all county owned ponds and schedule for maintenance, chemical treatment, mowing, etc. We will also inventory private owned ponds and set up a

maintenance schedule to meet MS4 permit requirements. Resources such as Carolina Clear will be used to develop operating and inspection procedures.

- h. Develop Water Collection (Catch Basin) identification and inspection schedule. Mosquito control inventoried all catch basins in the county. Now that we have received the data we would like to create a numbering system for the catch basins and start an inspection program.
 - i. Explore with Public Works adopting a program and software similar to Charleston's SWU use of Global Positioning System (GPS) touch devices to locate and inventory their assets within their road and drainage system.
 - j. Research and select MS4 permit management software for permit reporting and inspections.**
7. Initiate agreements to start the development of the update to the Stormwater (SW) Management Master Plan. This is a ten year plan and was authored in 2006 and funded through a cost-share between the county and the municipalities. Therefore the plan should be updated by 2016 and the county needs to engage the municipalities.
8. Redefine the role of the SW Implementation Committee (SWIC) and how it relates to the Stormwater Management Utility (SWMU) board. The Stormwater Manager would like to expand the membership of the group to include members of the water quality community and development / construction community. The group can serve as a technical advisory body to the Stormwater Utility board and provide comment and recommendations on new policies, procedures, and activities.
9. Expand role of the SW manager to be more involved in storm water capital project development and implementation. Currently, the SW Manager is involved in the project identification level. Design and construction is handled by the County Engineer's office. The proposed change would keep capital projects within the Stormwater management division for contracting design services and construction, as well as oversight during construction. This will provide continuity throughout the process and into maintenance phases.
10. Look for ways to stress economic value of SW protecting water quality. The county's natural resources are appealing to industries, tourists, and for outdoor enthusiasts. Water quality is pertinent and connected with the environment. The protection of the WQ is valuable.
11. Restoration Agreement with Town of Bluffton on May/Okatie Rivers. The town is the primary on the efforts within the May River watershed to monitor, address impairments and water quality and the county is the primary on the efforts to monitor and address issues within the Okatie River watershed. Since they both have parcels in their tax district within these watersheds, the county and town needs to establish some type of cost-share agreement. This would include the Stormwater Manager participating in the MayRiver Watershed Action Plan Advisory Committee to show regional coordination and cooperation.
12. Make purchase of property needed for Okatie West retrofit in time to utilize current wetlands delineation. The wetlands delineation has expired and the county will have to apply again to have the wetlands boundaries determined. As indicated by the Ward Edward report that was funded by the county and the municipalities, this is a "highly feasible" and a "high priority" retrofit project.

13. Develop plan and costs to address SCDOT outfalls and Beaufort County School Districts (BCSD) drainage issues. Currently the Utility does not maintain these Outfalls. These tasks will determine feasibility and cost of implementation.
14. Continue to develop Utility capability to do water quality retrofit projects. The Infrastructure section has constructed two WQ projects – Backache Acres pond and Okatie East. The section would like to continue to develop these capabilities so that they can improve their efficiency and proficiency in constructing projects in the future.
15. Follow-up on public education slots for County Channel. There are slots available and the county could develop SW related educational segments. Town of Bluffton staff is working to develop 30 sec. Spots. Together for Beaufort Water Quality Coalition is also involved / available for public outreach efforts.
16. Create interactive website graphics on SW that can be used as tool to educate the public and students and to promote awareness in our communities. The Town of Bluffton has already developed some of these graphics and are willing to share with the County.

Guiding principles for Utility determinations were

1. Actions needed for NPDES Permit
2. Addressing WQ Issues
3. Improve efficiency in Utility operation



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Marina Boulevard Outfall

Activity: Drainage Improvement

Narrative Description of Project:

Completion: Nov-13

Project improved 515 L.F. of drainage system. Grubbed, cleared and cleaned out 485 L.F. of channel. Cleaned out 30 L.F. of roadside ditch. Extended (1) access pipe. Installed (1) access gate. Hydroseeded for erosion control.

2013-001 / Marina Boulevard Outfall	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AGI / Access Gate - Installed	15.0	\$355.10	\$30.54	\$195.38	\$0.00	\$243.15	\$824.17
APEX / Access Pipe - Extended	33.0	\$779.60	\$491.71	\$207.48	\$0.00	\$316.11	\$1,794.90
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	85.5	\$1,916.01	\$1,312.40	\$3,376.80	\$0.00	\$1,274.82	\$7,880.03
ODCO / Outfall ditch - cleaned out	65.0	\$1,521.43	\$364.46	\$130.49	\$0.00	\$605.50	\$2,621.88
ONJV / Onsite Job Visit	35.0	\$1,116.55	\$129.20	\$61.61	\$0.00	\$716.70	\$2,024.06
PP / Project Preparation	13.0	\$404.82	\$35.08	\$19.58	\$0.00	\$289.44	\$748.92
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$1,075.00	\$0.00	\$1,075.00
PRRECON / Project Reconnaissance	2.0	\$66.36	\$7.24	\$8.76	\$0.00	\$48.94	\$131.30
UC / Utility Coordination	3.0	\$99.54	\$10.86	\$8.76	\$0.00	\$73.41	\$192.57
UTLOC / Utility locates	2.5	\$51.15	\$7.24	\$8.76	\$0.00	\$33.08	\$100.23
WSGRB / Workshelf - Grubbed	84.0	\$1,900.50	\$1,088.40	\$265.78	\$0.00	\$861.58	\$4,116.26
2013-001 / Marina Boulevard Outfall Sub Total	341.0	\$8,320.06	\$3,477.13	\$4,283.41	\$1,075.00	\$4,543.87	\$21,699.47
Grand Total	341.0	\$8,320.06	\$3,477.13	\$4,283.41	\$1,075.00	\$4,543.87	\$21,699.47

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Marina Blvd

Activity: Drainage Improvement

Project #: 2013-001

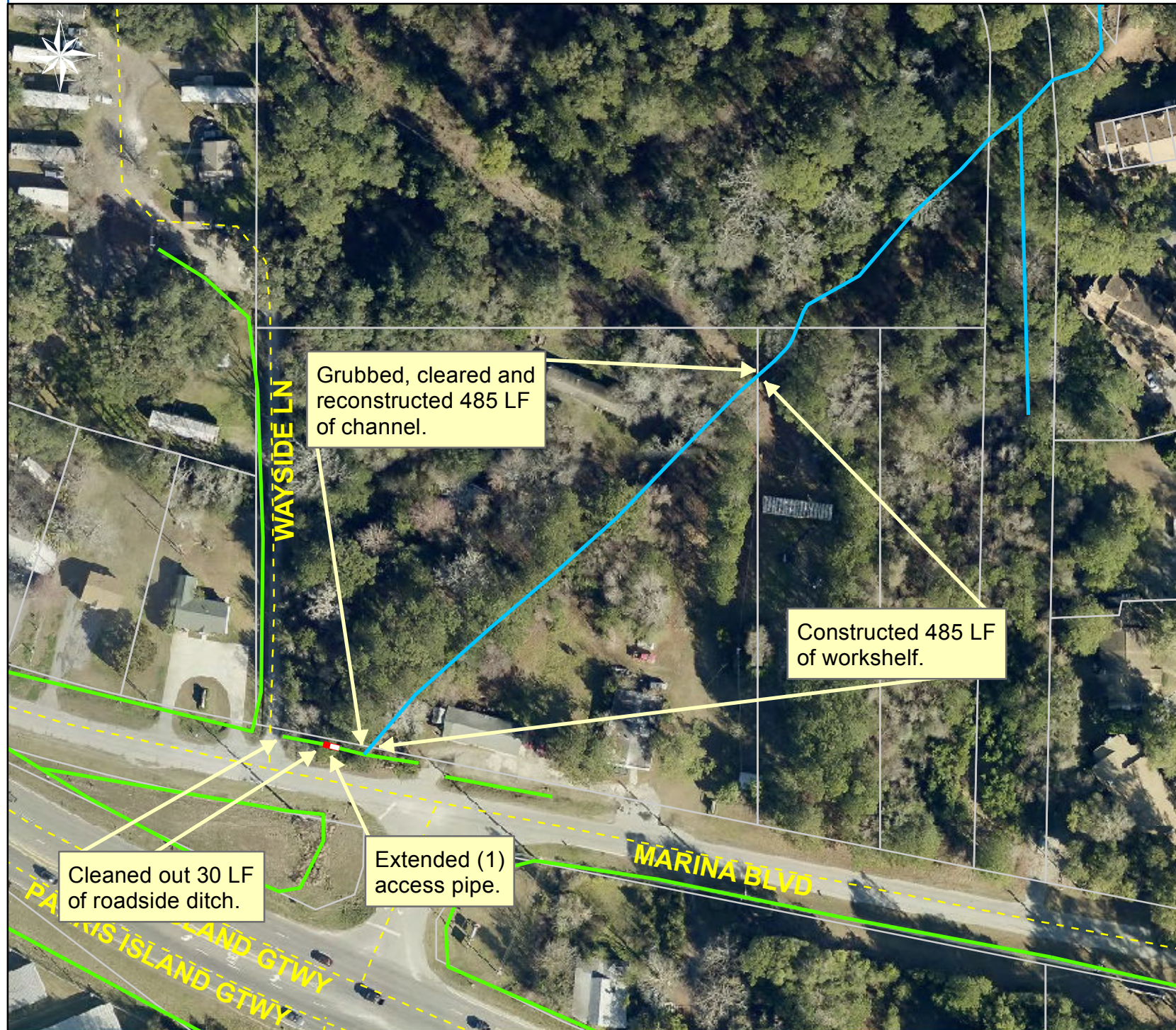
Township: Port Royal Island

Completed: November 2013

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 = 112 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Cape Jasmine Street, Abelia Lane, Zinnia Lane and Spirea Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Nov-13

Project improved 5,318 L.F. of drainage system. Cleaned out 207 L.F. of channel, 5,111 L.F. of roadside ditch and (1) catch basin. Jetted (3) crossline pipes and (38) driveway pipes.

2014-529 / Cape Jasmine Subdivision	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	20.0	\$451.86	\$221.60	\$115.75	\$0.00	\$308.90	\$1,098.11
CLPJT / Crossline Pipe - Jetted	8.0	\$173.02	\$88.64	\$43.16	\$0.00	\$65.88	\$370.70
DPJT / Driveway Pipe - Jetted	86.0	\$1,963.56	\$1,063.68	\$414.75	\$0.00	\$1,325.70	\$4,767.68
HAUL / Hauling	103.0	\$2,225.37	\$1,102.10	\$669.17	\$0.00	\$1,485.26	\$5,481.90
ODCO / Outfall ditch - cleaned out	30.0	\$674.89	\$86.09	\$52.39	\$0.00	\$451.80	\$1,265.17
ONJV / Onsite Job Visit	8.0	\$263.17	\$28.96	\$29.40	\$0.00	\$180.29	\$501.82
RSDCL / Roadside Ditch - Cleanout	225.0	\$5,061.46	\$1,049.63	\$391.93	\$0.00	\$3,388.50	\$9,891.52
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2014-529 / Cape Jasmine Subdivision Sub Total	481.5	\$10,844.02	\$3,640.70	\$1,716.54	\$0.00	\$7,226.17	\$23,427.43
Grand Total	481.5	\$10,844.02	\$3,640.70	\$1,716.54	\$0.00	\$7,226.17	\$23,427.43

Before



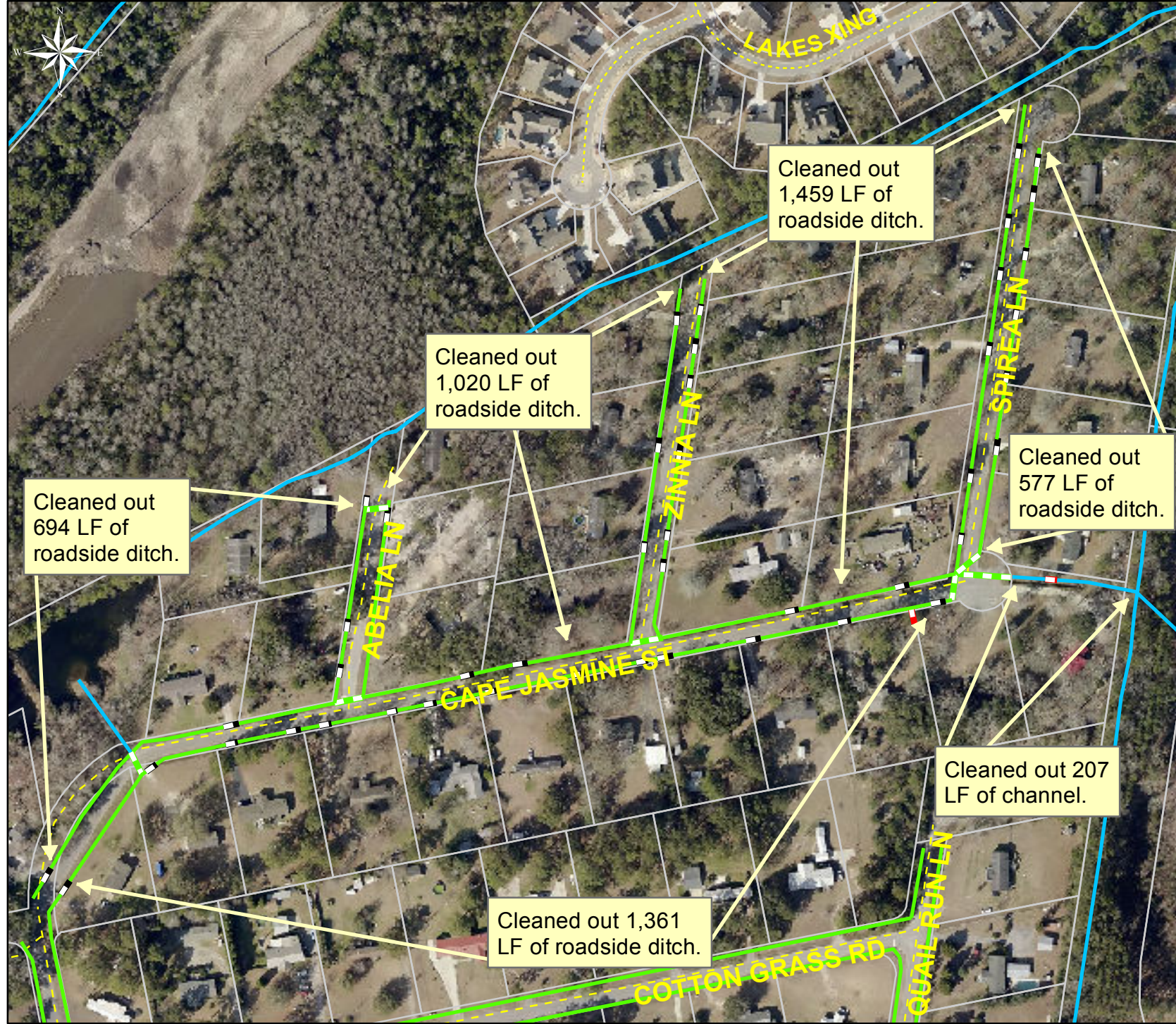
During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary



Project: Cape Jasmine Street, Spirea Lane, Abelia Lane, and Zinnia Lane Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2014-529

Township: Bluffton

Completed: November 2013

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 = 229 feet



Project: Cape Jasmine Street, Spirea Lane, Abelia Lane, and Zinnia Lane Map 2

Activity: Vacuum Truck

Project #: 2014-529

Township: Bluffton

Completed: November 2013

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 = 229 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Burton Wells Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Dec-13

Project improved 1,495 L.F. of drainage system. Cleaned out 1,495 L.F. of roadside ditch. Installed (1) driveway pipe. Repaired washouts. Jetted (4) driveway pipes. Hydroseeded for erosion control.

2014-513 / Burton Wells 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
DPINS / Driveway Pipe - Installed	36.0	\$775.95	\$137.45	\$275.54	\$0.00	\$498.45	\$1,687.39
DPJT / Driveway Pipe - Jetted	22.0	\$513.42	\$199.44	\$56.13	\$0.00	\$350.04	\$1,119.02
HAUL / Hauling	52.0	\$1,124.76	\$556.40	\$255.67	\$0.00	\$749.84	\$2,686.67
HYDR / Hydroseeding	50.0	\$1,098.40	\$167.99	\$134.73	\$0.00	\$732.60	\$2,133.72
ONJV / Onsite Job Visit	35.5	\$1,167.74	\$130.01	\$93.44	\$0.00	\$816.04	\$2,207.23
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$624.46	\$0.00	\$624.46
RPWO / Repaired Washout	9.0	\$196.20	\$27.49	\$8.99	\$0.00	\$130.05	\$362.73
RSDCL / Roadside Ditch - Cleanout	149.0	\$3,261.77	\$440.97	\$183.93	\$0.00	\$2,140.89	\$6,027.56
UTLOC / Utility locates	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
2014-513 / Burton Wells Road Sub Total	355.5	\$8,179.16	\$1,659.75	\$1,008.43	\$624.46	\$5,444.36	\$16,916.16
Grand Total	355.5	\$8,179.16	\$1,659.75	\$1,008.43	\$624.46	\$5,444.36	\$16,916.16

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Burton Wells Road Map 1

Activity: Routine/ Preventive Maintenance















Project #: 2014-513

Township: Port Royal Island

Completed: December 2013

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

Cleaned out 862 LF of roadside ditch. Hydroseeded for erosion control.

Cleaned out 633 LF of roadside ditch. Hydroseeded for erosion control.



1 inch = 125 feet

Project: Burton Wells Road Map 2

Activity: Routine/ Preventive Maintenance

Project #: 2014-513

Township: Port Royal Island

Completed: December 2013



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 55 110 220 330 440 Feet

1 inch = 208 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/30/13

File: C:/sethdata/projects/projectmaps/Burton Wells Rd 2014-513 Map2

Project: Burton Wells Road Map 3

Activity: Routine/ Preventive Maintenance

Project #: 2014-513

Township: Port Royal Island

Completed: December 2013



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



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Jasmine Hall Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Dec-13

Project improved 8,844 L.F. of drainage system. Cleaned out 8,194 L.F. of roadside ditch and 650 L.F. of lateral ditch. Jetted (5) access pipes, (6) crossline pipes and (11) driveway pipes.

2014-515 / Jasmine Hall Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APJT / Access pipe - jetted	10.0	\$222.18	\$110.80	\$15.00	\$0.00	\$148.50	\$496.48
AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
CLPJT / Crossline Pipe - Jetted	30.0	\$666.58	\$332.40	\$144.73	\$0.00	\$445.50	\$1,589.21
DPJT / Driveway Pipe - Jetted	20.0	\$444.37	\$221.60	\$15.00	\$0.00	\$297.00	\$977.97
HAUL / Hauling	148.5	\$3,229.34	\$1,588.95	\$1,008.99	\$0.00	\$2,165.91	\$7,993.19
ONJV / Onsite Job Visit	51.5	\$1,667.49	\$186.43	\$157.68	\$0.00	\$1,160.63	\$3,172.23
RSDCL / Roadside Ditch - Cleanout	404.5	\$9,007.46	\$1,637.19	\$592.60	\$0.00	\$6,014.74	\$17,252.00
UTLOC / Utility locates	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
2014-515 / Jasmine Hall Road Sub Total	666.5	\$15,278.34	\$4,077.37	\$1,934.00	\$0.00	\$10,258.74	\$31,548.45
Grand Total	666.5	\$15,278.34	\$4,077.37	\$1,934.00	\$0.00	\$10,258.74	\$31,548.45

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Jasmine Hall Road Map 1

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-515**

**Township:
Sheldon**

**Completed:
December 2013**

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

Cleaned out 3,925
LF of roadside ditch.

Cleaned out 650
LF of lateral ditch.

Cleaned out 4,269
LF of roadside ditch.



1 inch = 469 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/10/13

File: C:/sethdata/projects/projectmaps/Jasmine Hall Rd 2014-515 Map1

Project: Jasmine Hall Road Map 2

Activity: Vacuum Truck

**Project #:
2014-515**















**Township:
Sheldon**

**Completed:
December 2013**



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 = 358 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/10/13

File: C:\sethdata\projects\projectmaps\Jasmine Hall Rd 2014-515 Map2



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Shell Point Recreation Park

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 240 L.F. of drainage system. Cleaned out 240 L.F. of roadside ditch. Replaced (1) crossline pipe. Installed rip rap for erosion control.

Completion: Jul-13

2014-504 / Shell Point Recreation Park	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
HAUL / Hauling	19.5	\$421.79	\$208.65	\$2,057.68	\$0.00	\$275.24	\$2,963.35
OFPRP / Outfall Pipe - Replaced	45.0	\$1,039.23	\$138.35	\$780.81	\$0.00	\$482.40	\$2,440.79
ONJV / Onsite Job Visit	10.0	\$312.83	\$36.20	\$17.76	\$0.00	\$198.03	\$564.82
RSDCL / Roadside Ditch - Cleanout	24.0	\$547.33	\$88.96	\$49.83	\$0.00	\$239.40	\$925.52
UTLOC / Utility locates	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
2014-504 / Shell Point Recreation Park Sub Total	100.0	\$2,351.87	\$472.16	\$2,906.07	\$0.00	\$1,214.91	\$6,945.02
Grand Total	100.0	\$2,351.87	\$472.16	\$2,906.07	\$0.00	\$1,214.91	\$6,945.02

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Shell Point Recreation Park

Activity: Routine/ Preventive Maintenance

Project #: 2014-504

Township: Port Royal Island

Completed: July 2013



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 = 105 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/6/13

File: C:/sethdata/projects/projectmaps/Shell Point Rec Pk 2014-504



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Ladys Island Tree Removal - Francis Marion Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed fallen tree from workshelf.

Completion: Aug-13

2014-517 / Ladys Island Tree Removal	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
HAUL / Hauling	3.0	\$64.89	\$32.10	\$67.92	\$0.00	\$43.26	\$208.17
RMTRW / Remove trees - Workshelf	9.0	\$202.47	\$27.49	\$13.16	\$0.00	\$135.54	\$378.66
2014-517 / Ladys Island Tree Removal Sub Total	12.5	\$277.59	\$59.59	\$81.08	\$0.00	\$185.42	\$603.67
Grand Total	12.5	\$277.59	\$59.59	\$81.08	\$0.00	\$185.42	\$603.67

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Lady's Island Tree Removal
Francis Marion Circle

Activity: Routine/
Preventive
Maintenance

Project #:
2014-517

Township: Lady's
Island

Completed:
August 2013

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 tree
from workshelf.



1 inch = 125 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Seabrook Road Outfall

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired washout.

Completion: Aug-13

2014-521 / Seabrook Road Outfall	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
HAUL / Hauling	3.0	\$79.74	\$32.10	\$209.89	\$0.00	\$56.16	\$377.89
ONJV / Onsite Job Visit	4.0	\$133.79	\$14.98	\$15.65	\$0.00	\$88.65	\$253.07
PP / Project Preparation	1.0	\$44.27	\$0.00	\$0.00	\$0.00	\$33.96	\$78.23
RPWO / Repaired Washout	6.0	\$115.68	\$10.86	\$6.72	\$0.00	\$40.20	\$173.46
2014-521 / Seabrook Road Outfall Sub Total	14.5	\$383.72	\$57.94	\$232.26	\$0.00	\$225.59	\$899.50
Grand Total	14.5	\$383.72	\$57.94	\$232.26	\$0.00	\$225.59	\$899.50

(Pictures Not Available)

Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

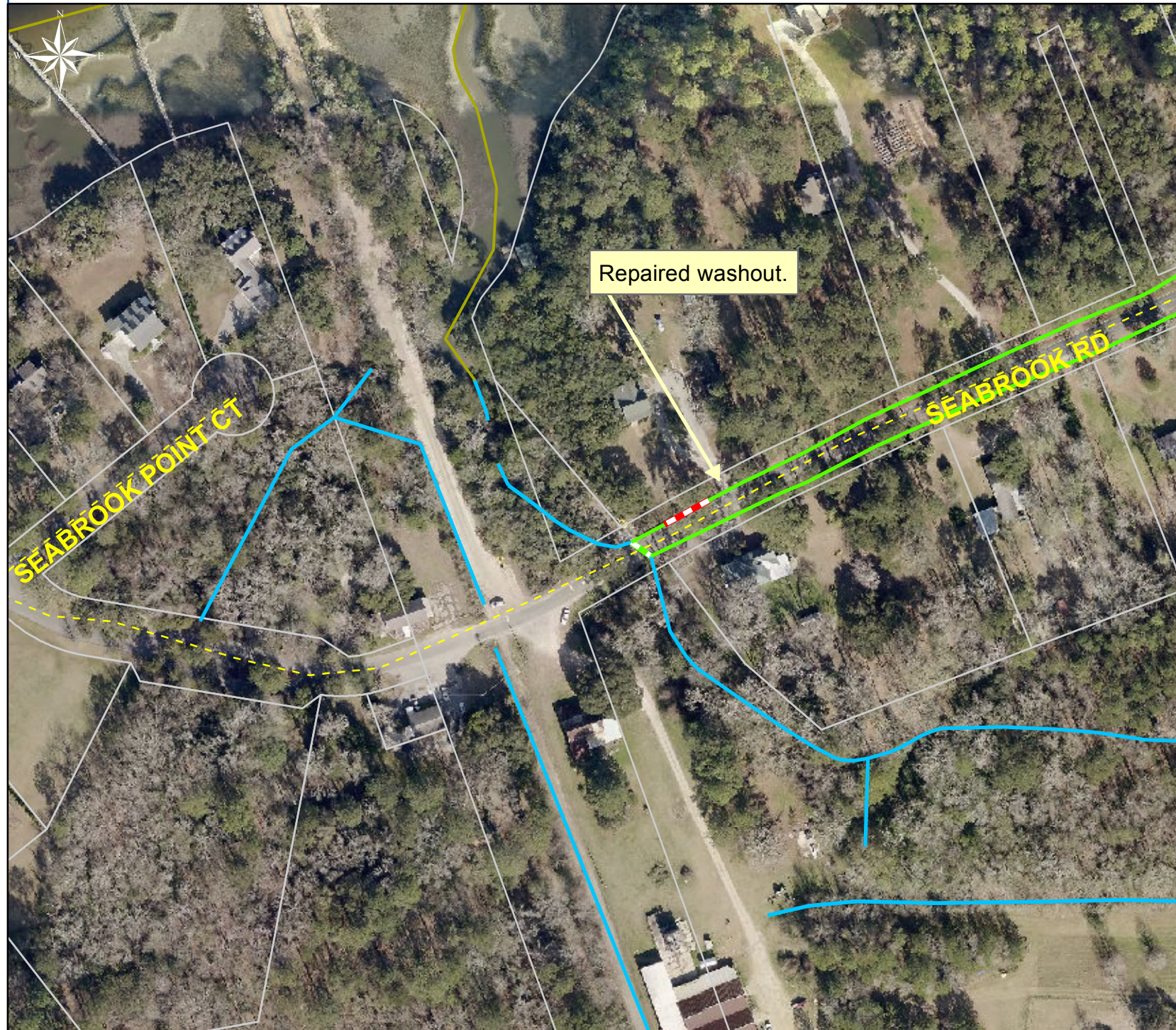
Project: Seabrook Road Outfall

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-521**

**Township: Port
Royal Island**

**Completed:
August 2013**



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 40 80 160 240 320
Feet

1 inch = 167 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/20/13

File:C:/sethdata/projects/projectmaps/Seabrook Rd OF 2014-521



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: St. Helena Island Bush Hog

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Oct-13

First rotation from August 2013 to October 2013. This project improved 119,362 L.F. of drainage system. Bush hogged 119,362 L.F. of outfall ditch and weedeat around catch basins. This project consisted of the following areas: Faith Memorial Church (1,765 L.F.), Orange Grove Road (4,145 L.F.), Hunters Grove Road (460 L.F.), Mary Smalls Road (1,460 L.F.), James D. Washington Road (370 L.F.), Storyteller Road (2,935 L.F.), David Green Road (2,499 L.F.), Capers Island Road (531 L.F.), Bridgewood Road (804 L.F.), Ball Park Road (2,743 L.F.), Scott Hill Road (8,806 L.F.), Warsaw Island Road (3,436 L.F.), Major Road (2,420 L.F.), Candy Johnson Road (646 L.F.), Vineyard Point Road (6,005 L.F.), Gillison Loop (156 L.F.), Gardner Drive (370 L.F.), No Man Land Road (750 L.F.), Patchwork Lane (856 L.F.), JB Lane (1,576 L.F.), Peaches Hill Circle (7,471 L.F.), James Grant Road (1,321 L.F.), Mattis Drive (812 L.F.), St Helena Island Drop Off Center (1,647 L.F.), Tombee Road (1,535 L.F.), Sanders Packing Shed Outfall (200 L.F.), Polowana Road (1,426 L.F.), Old Polowana Road (1,748 L.F.), Toomer Road (4,200 L.F.), Eddings Point Road (2,252 L.F.), Ernest Drive (2,233 L.F.), Beautyberry Lane (1,641 L.F.), Archer Fields Lane (511 L.F.), Chowan Creek Bluff (1,850 L.F.), Queens Road (1,346 L.F.), Ephraim Road (4,465 L.F.), Kelis Lane (3,081 L.F.), Halifax Drive (4,474 L.F.), Shiney Road (1,641 L.F.), J&J Drive (250 L.F.), Seaside Road (985 L.F.), White Sands Circle (3,828 L.F.), Cuffy Drop Off Center (409 L.F.), Tropicana Road (909 L.F.), Luther Warren Drive (708 L.F.), Ladson Road (1,504 L.F.), Folly Road (2,994 L.F.), Simmons Road (2,323 L.F.), Nathan Pope Road (5,611 L.F.), Cee Cee Road (2,332 L.F.), John Fripp Circle (840 L.F.), Langford Road (2,891 L.F.), Bible Camp Road (5,173 L.F.), Dulamo Road (258 L.F.), Oaks (1,000 L.F.), Oaks True Holiness Church (540 L.F.) and Adams Street (220 L.F.)

2014-300 / St. Helena Island Bush Hog	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	2.0	\$40.92	\$0.00	\$0.00	\$0.00	\$26.46	\$67.38
ODBH / Outfall ditch - bushhogged	933.5	\$19,882.83	\$17,866.36	\$3,847.22	\$0.00	\$10,714.91	\$52,311.31
ONJV / Onsite Job Visit	54.0	\$1,847.17	\$195.48	\$246.51	\$0.00	\$1,368.83	\$3,657.99
2014-300 / St. Helena Island Bush Hog	989.5	\$21,770.92	\$18,061.84	\$4,093.73	\$0.00	\$12,110.20	\$56,036.68
Sub Total							
Grand Total	989.5	\$21,770.92	\$18,061.84	\$4,093.73	\$0.00	\$12,110.20	\$56,036.68

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Beaufort County
Public Works
Stormwater Infrastructure
Project Summary



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Lilac Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 298 L.F. of drainage system. Cleaned out 298 L.F. roadside ditch. Replaced (1) driveway pipe. Jetted (9) driveway pipes.

Completion: Oct-13

2014-526 / Lilac Lane	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
DPJT / Driveway Pipe - Jetted	20.0	\$432.54	\$221.60	\$116.39	\$0.00	\$164.70	\$935.23
HAUL / Hauling	28.0	\$601.44	\$299.60	\$159.65	\$0.00	\$391.86	\$1,452.55
ONJV / Onsite Job Visit	1.0	\$33.18	\$3.62	\$5.94	\$0.00	\$24.47	\$67.21
PRRECON / Project Reconnaissance	1.0	\$44.27	\$3.62	\$2.97	\$0.00	\$33.96	\$84.82
RSDCL / Roadside Ditch - Cleanout	40.0	\$908.78	\$137.45	\$211.02	\$0.00	\$610.50	\$1,867.75
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2014-526 / Lilac Lane Sub Total	91.0	\$2,040.67	\$665.89	\$495.97	\$0.00	\$1,238.72	\$4,441.25
Grand Total	91.0	\$2,040.67	\$665.89	\$495.97	\$0.00	\$1,238.72	\$4,441.25

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary



Project: Lilac Lane

Activity: Routine/ Preventive Maintenance

Project #: 2014-526

Township: Bluffton

Completed: October 2013

Jetted (9) driveway pipes.

Cleaned out 123 LF of roadside ditch.

Replaced (1) driveway pipe.

Cleaned out 175 LF of roadside ditch.

LILAC LN

BAYWOOD DR

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 = 42 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Keans Neck Road Channel #2

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 710 L.F. of drainage system. Cleaned out 710 L.F. of channel. Jetted (1) crossline pipe.

Completion: Nov-13

2014-522 / Keans Neck Road Outfall	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
CLPJT / Crossline Pipe - Jetted	6.0	\$133.31	\$66.48	\$31.75	\$0.00	\$89.10	\$320.63
HAUL / Hauling	2.0	\$53.16	\$21.40	\$11.19	\$0.00	\$37.44	\$123.19
ODCO / Outfall ditch - cleaned out	30.0	\$663.20	\$120.25	\$48.49	\$0.00	\$455.60	\$1,287.54
ONJV / Onsite Job Visit	2.0	\$66.36	\$7.24	\$11.88	\$0.00	\$48.94	\$134.42
PP / Project Preparation	4.0	\$79.48	\$7.24	\$7.46	\$0.00	\$53.68	\$147.86
TC / Traffic Control - Jobsite	8.0	\$154.24	\$14.48	\$11.19	\$0.00	\$53.60	\$233.51
2014-522 / Keans Neck Road Outfall Sub Total	52.5	\$1,159.98	\$237.09	\$121.96	\$0.00	\$744.98	\$2,264.00
Grand Total	52.5	\$1,159.98	\$237.09	\$121.96	\$0.00	\$744.98	\$2,264.00

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Keans Neck Road Channel #2

Activity: Routine/ Preventive Maintenance

Project #: 2014-522

Township: Sheldon

Completed: October 2013



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 = 250 feet

Prepared By: BC Stormwater Management Utility

Date Print: 11/22/13

File: C:/sethdata/projects/projectmaps/Keans Neck Rd Ditch #2 2014-522



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Horace Dawson Lane Outfall

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed blockages from (5) bleeder pipes.

Completion: Nov-13

2014-541 / Horace Dawson Lane Outfall	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
HAUL / Hauling	3.5	\$75.71	\$37.45	\$17.15	\$0.00	\$50.47	\$180.78
ODCO / Outfall ditch - cleaned out	12.0	\$275.20	\$62.42	\$44.59	\$0.00	\$179.46	\$561.67
PP / Project Preparation	10.0	\$229.34	\$18.10	\$10.29	\$0.00	\$149.55	\$407.27
2014-541 / Horace Dawson Lane Outfall Sub Total	26.0	\$590.47	\$117.97	\$72.03	\$0.00	\$386.09	\$1,166.57
Grand Total	26.0	\$590.47	\$117.97	\$72.03	\$0.00	\$386.09	\$1,166.57

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Horace Dawson Lane

Activity: Routine/ Preventive Maintenance

Project #: 2014-541

Township: Sheldon

Completed: November 2013

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 blockages from (5) bleeder pipes.



1 inch = 218 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/6/13

File:C:/sethdata/projects/projectmaps/Horace Dawson Ln 2014-541



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Woodbridge Subdivision - Knightsbridge Road, Parkside Drive, Hyde Park Circle and Bridgewater Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired (9) catch basin lids and sinkholes. Handseeded for erosion control.

Completion: Nov-13

2014-549 / Woodbridge Subdivision	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
CBREP / Catch basin - repaired	30.0	\$654.00	\$119.35	\$115.61	\$0.00	\$433.50	\$1,322.46
ERCON / Erosion control	18.0	\$392.40	\$21.72	\$62.35	\$0.00	\$260.10	\$736.57
HAUL / Hauling	22.0	\$473.34	\$235.40	\$148.49	\$0.00	\$317.24	\$1,174.47
ONJV / Onsite Job Visit	17.0	\$544.02	\$61.54	\$52.56	\$0.00	\$378.55	\$1,036.67
PRRECON / Project Reconnaissance	3.0	\$99.54	\$10.86	\$17.52	\$0.00	\$73.41	\$201.33
2014-549 / Woodbridge Subdivision Sub Total	90.5	\$2,173.53	\$448.87	\$396.53	\$0.00	\$1,469.42	\$4,488.34
Grand Total	90.5	\$2,173.53	\$448.87	\$396.53	\$0.00	\$1,469.42	\$4,488.34

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Woodbridge
Subdivision-
Parkside Drive

Activity: Routine/
Preventive
Maintenance

Project #:
2014-549

Township:
Bluffton

Completed:
November 2013

Repaired (2) catch basin lids and
sinkholes. Handseeded for erosion
control.

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 = 67 feet

Project: Woodbridge Subdivision-Knightsbridge Road

Activity: Routine/ Preventive Maintenance

Project #: 2014-549

Township: Bluffton

Completed: November 2013



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 = 104 feet

Project: Woodbridge
Subdivision-
Hyde Park Circle &
Bridgewater Drive

Activity: Routine/
Preventive
Maintenance

Project #:
2014-549

Township:
Bluffton

Completed:
November 2013

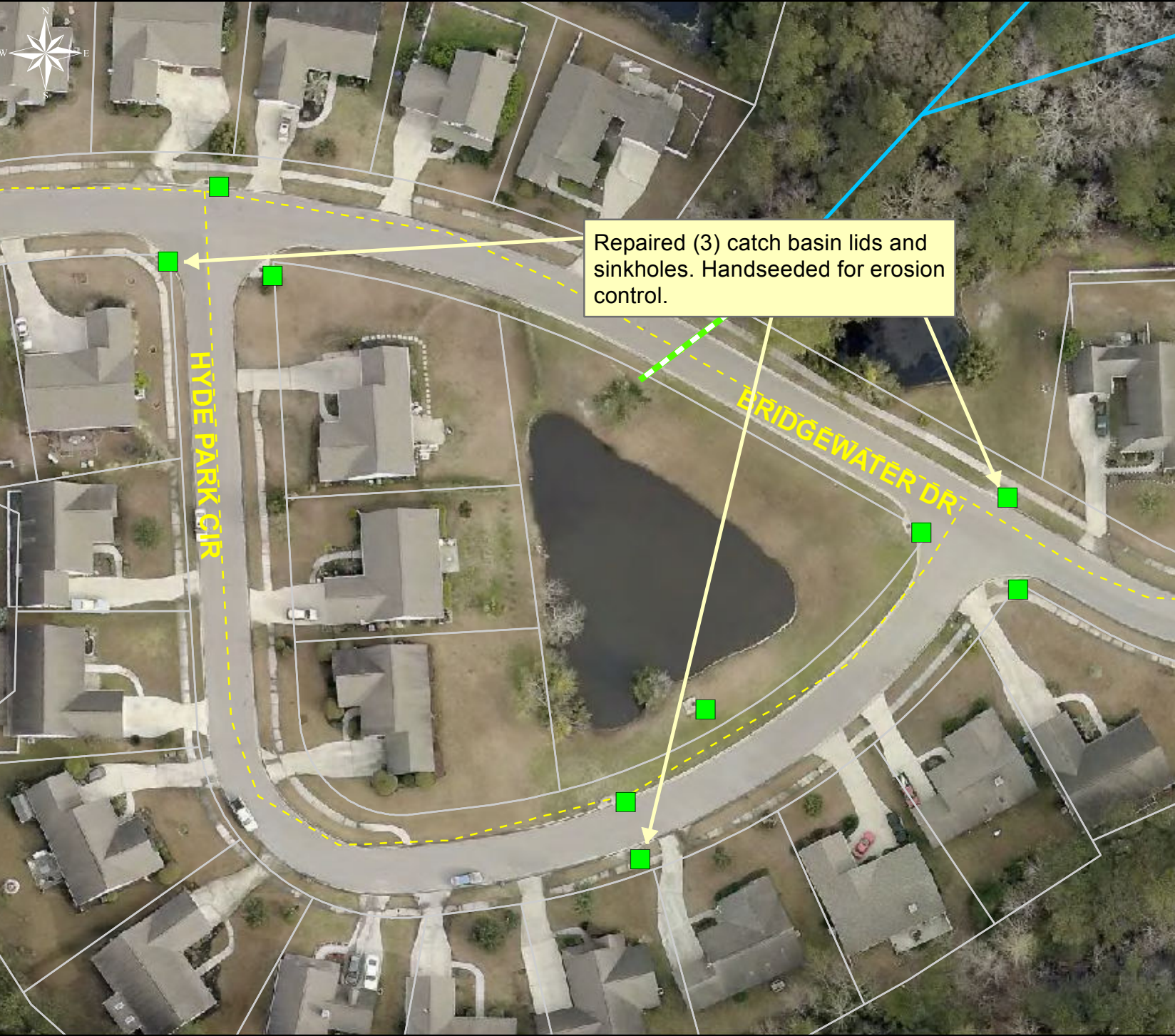
Repaired (3) catch basin lids and
sinkholes. Handseeded for erosion
control.

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 = 67 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Najas Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Installed (1) driveway pipe.

Completion: Nov-13

2014-551 / Najas Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Cost	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
DPINS / Driveway Pipe - Installed	9.0	\$198.21	\$27.49	\$257.55	\$0.00	\$79.89	\$563.14
HAUL / Hauling	6.0	\$121.47	\$64.20	\$64.26	\$0.00	\$43.26	\$293.19
ONJV / Onsite Job Visit	5.0	\$149.20	\$18.10	\$8.76	\$0.00	\$91.15	\$267.21
2014-551 / Najas Drive Sub Total	20.5	\$479.11	\$109.79	\$330.57	\$0.00	\$220.91	\$1,140.38
Grand Total	20.5	\$479.11	\$109.79	\$330.57	\$0.00	\$220.91	\$1,140.38

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Najas Drive

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2014-551**

**Township: Lady's
Island**

**Completed:
November 2013**

Installed (1) driveway 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 = 64 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Chisholm Hill Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Dec-13

Project improved 6,045 L.F. of drainage system. Bush hogged 6,045 L.F. of channel. Cleaned out 3,860 L.F. of channel.

2014-547 / Chisholm Hill Road Channel #1	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
HAUL / Hauling	13.0	\$281.19	\$139.10	\$56.61	\$0.00	\$187.46	\$664.36
ODBH / Outfall ditch - bushhogged	60.0	\$1,227.15	\$1,077.20	\$170.73	\$0.00	\$432.60	\$2,907.68
ODCO / Outfall ditch - cleaned out	90.0	\$1,962.00	\$374.68	\$117.39	\$0.00	\$1,300.50	\$3,754.57
ONJV / Onsite Job Visit	6.0	\$192.40	\$21.72	\$23.36	\$0.00	\$134.34	\$371.82
PP / Project Preparation	10.0	\$222.20	\$18.10	\$2.92	\$0.00	\$133.35	\$376.57
2014-547 / Chisholm Hill Road Channel #1 Sub Total	179.5	\$3,895.17	\$1,630.80	\$371.01	\$0.00	\$2,194.86	\$8,091.84
Grand Total	179.5	\$3,895.17	\$1,630.80	\$371.01	\$0.00	\$2,194.86	\$8,091.84

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

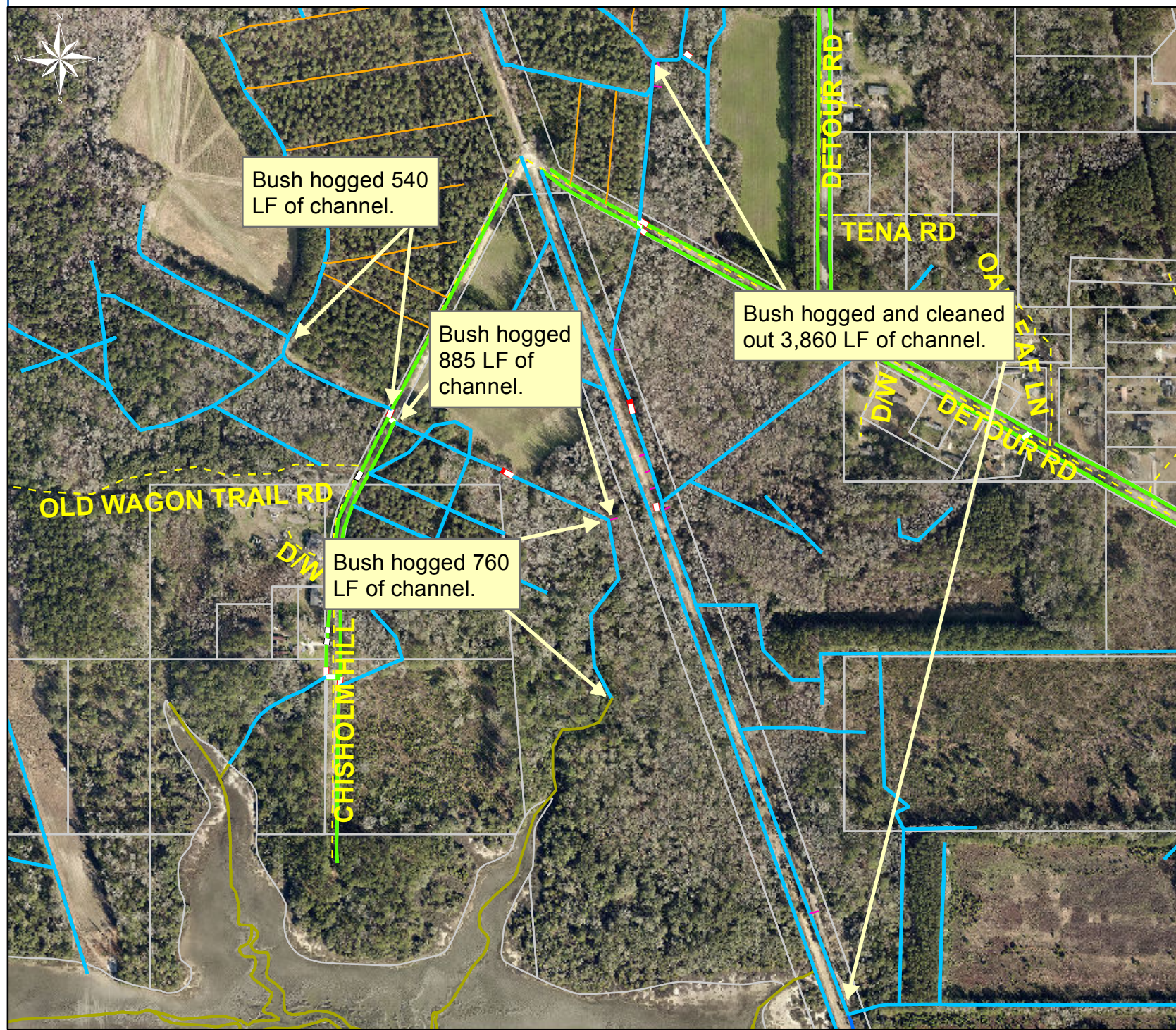
Project: Chisholm Hill Road Channel #1

Activity: Routine/ Preventive Maintenance

Project #: 2014-547

Township: Port Royal Island

Completed: December 2013



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 = 511 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: The Willows Subdivision - Heartstone Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired catch basin lid and sinkhole.

Completion: Dec-13

2014-548 / The Willows Subdivision	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
CBREP / Catch basin - repaired	30.0	\$654.00	\$69.46	\$63.70	\$0.00	\$433.50	\$1,220.66
HAUL / Hauling	15.0	\$320.25	\$160.50	\$92.56	\$0.00	\$216.30	\$789.61
ONJV / Onsite Job Visit	4.0	\$126.04	\$14.48	\$14.60	\$0.00	\$85.40	\$240.52
2014-548 / The Willows Subdivision Sub Total	49.5	\$1,110.52	\$244.44	\$170.86	\$0.00	\$741.82	\$2,267.64
Grand Total	49.5	\$1,110.52	\$244.44	\$170.86	\$0.00	\$741.82	\$2,267.64

Before



During



After



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

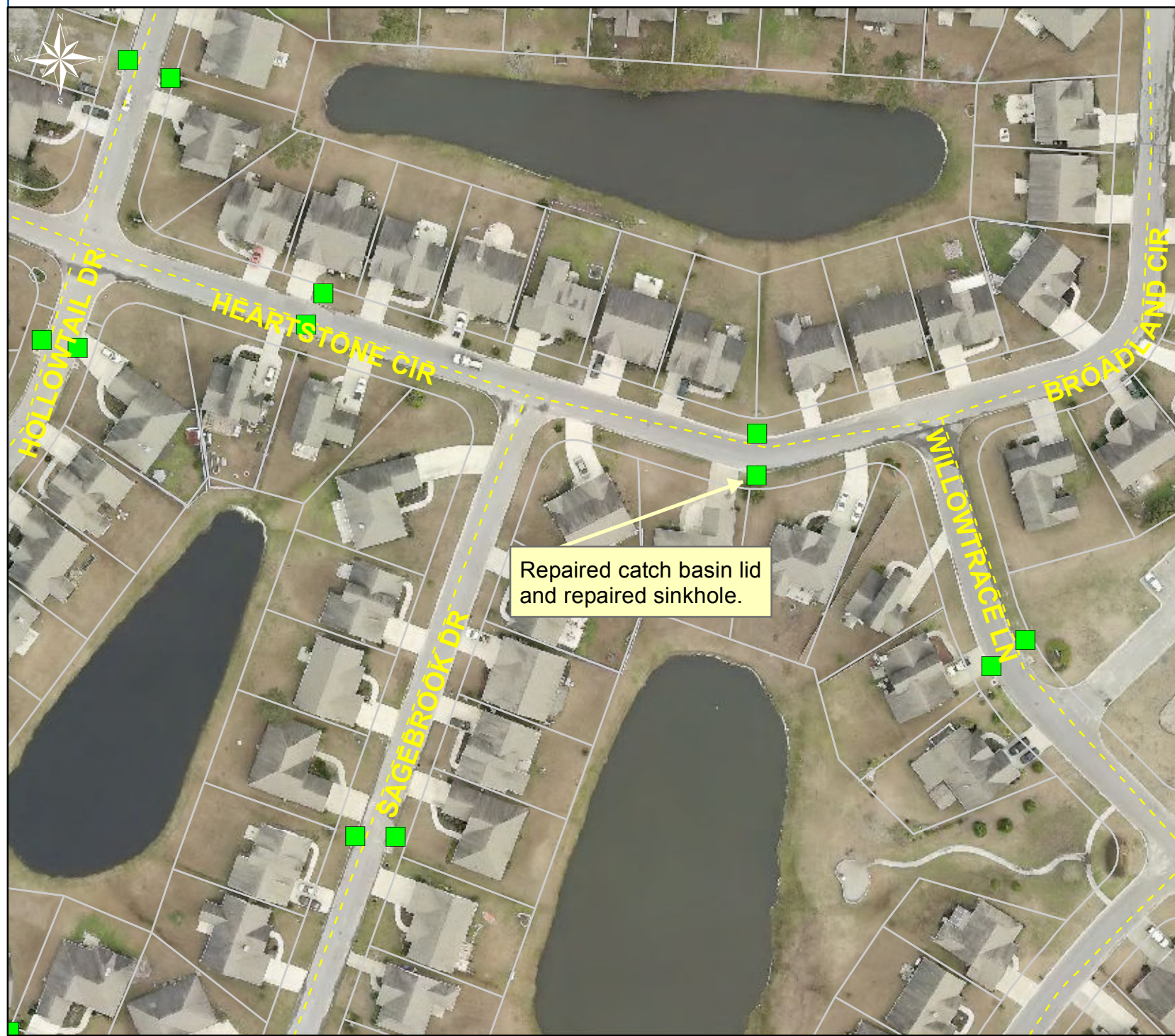
Project: The Willows Subdivision - Heartstone Circle

Activity: Routine/ Preventive Maintenance

Project #: 2014-548

Township: Bluffton

Completed: December 2013



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 = 96 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Zehm Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Dec-13

Replaced (1) access gate.

2014-554 / Zehm Lane 2014-554	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AGREP / Access Gate - Replaced	15.0	\$355.10	\$18.10	\$126.84	\$0.00	\$243.15	\$743.19
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2014-554 / Zehm Lane 2014-554	15.5	\$365.33	\$18.10	\$126.84	\$0.00	\$249.77	\$760.04
Sub Total							
Grand Total	15.5	\$365.33	\$18.10	\$126.84	\$0.00	\$249.77	\$760.04

(Pictures Not Available)

Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project: Zehm Lane

Activity: Routine/
Preventive
Maintenance

Project #:
2014-554

Township: Port
Royal Island

Completed:
December 2013



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 = 140 feet



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD
Wednesday, February 5, 2014
2:00 p.m.
Beaufort Industrial Village, Building 2 Conference Room
102 Industrial Village Road, Beaufort
843.255.2801

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 – January 8, 2014 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Monitoring Update – Danny Polk
 - B. Utility Update – Eric Larson, P.E.
 - C. Upcoming Professional Contracts Report – Eric Larson, P.E.
 - D. Financial Report ([backup](#))
 - E. GEL Engineering’s Annual Monitoring Report - Jack Walker/Reggie Reeves ([backup](#))
 - F. Maintenance Project Report – Eddie Bellamy ([backup](#))
5. UNFINISHED BUSINESS
 - A. Regional Coordination – Eric Larson, P.E.
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. March 5, 2014 ([backup](#))
9. ADJOURNMENT

