

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

December 14, 2016 at 2:00 p.m. in Executive Conference Room, Administration Building,
Beaufort County Government Robert Smalls Complex, 100 Ribaut Road, Beaufort, South Carolina

Board Members

Present

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

Absent

James Fargher

Ex-Officio Members

Present

Kim Jones
Andy Kinghorn
Van Willis

Absent

Scott Liggett

Beaufort County Staff

Eric Larson
David Wilhelm
Melissa Allen
Carolyn Wallace
Rebecca Baker
Jason Wood
Jim Beckert

Visitors

Alice Howard, County Council
Ellen Comeau, Clemson University
Rikki Parker, Coastal Conservation League
Lamar Taylor, City of Beaufort
Neil Desai, City of Beaufort
Paul Moore, Ward Edwards

1. Meeting called to order – Don Smith

- A. Agenda – Approved.
- B. November 9, 2016 - Approved.

2. Introductions – Completed.

3. Public Comment(s) – Nothing Reported.

4. Reports – Mr. Eric Larson and Mr. David Wilhelm provided a written report which is included in the posted agenda and can be accessed at:

<http://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2016/121416.pdf>

A. Utility Update – Eric Larson

Mr. Larson highlighted item #8, indicating it is an ongoing issue that we are investigating. The South Carolina Attorney General's office has issued an opinion on roads that are "county roads" within in a municipality boundary. There was a case in which a town asked a County in SC to fix roads within their jurisdiction. Their opinion is that once the town or city

annexes beyond that limit that the infrastructure, specifically roads, is included in that annexation and it is no longer county roads regardless of who built it or has traditionally maintained it. The County Attorney's Office is looking into this and whether not the storm sewer systems, ditches, and the pipes that serve these roads and right of ways should be included as well. It has a huge impact on the county and municipal operations, as the county imposed the County Wide Infrastructure (CWI) fee two years ago with the rate change to address this issue. If County Council chooses to take action on this, our staff is looking to see if a correlation needs to be made to the storm sewers as well as the roads. Mr. Larson mentioned we are working on the numbers that would be associated with that, so if it comes to a public forum we will have documentation on the stormwater side to support discussion.

Mr. Van Willis mentioned it is just an Attorney General's opinion; there is no case law on it. Municipal residences do pay county taxes, so they would have to address that as well. Mr. Larry Meisner asked Mr. Larson if it includes DOT roads because that would have a huge implication for municipalities. Mr. Larson indicated he did not see any reference to state roads as far as the county or town's issue was concerned. He mentioned that it is just a discussion to get started because if it carried out the way the opinion carried out, it would dramatically change how Stormwater and Public Works department operate and the municipals and CWI index. The county would no longer need to collect the CWI fee because we wouldn't have infrastructures within municipal boundaries to maintain. Each town and city would probably have to increase their operating budget, as responsibility would shift. It would not be cheaper on the citizens; it would just shift the responsibilities.

Mr. Andy Kinghorn asked if the amount of revenue we collect currently covers all of the costs the county has within the municipalities related to stormwater. Mr. Larson said yes. Mr. Kinghorn asked if we did a good job estimating the total costs. Mr. Larson said yes, the CWI fees are based on hard calculations of production rates and inventory of our system.

B. Monitoring Update – Eric Larson

Lab Update – USCB WQL has obtained additional certifications for their lab. With regard to the illicit discharge at Coosaw Island, the E.coli numbers have dropped to a satisfactory level; the illicit discharge has been stopped and remediated to where no additional action is necessary. In reply to a question, Mr. Larson mentioned it was a manmade source (illegal dumping) that only law enforcement will be able to stop. Mrs. Rebecca Baker stated there is still an open investigation.

Monitoring Plan Development - A milestone in the MS4 program was made by developing and submitting a written monitoring plan to DHEC, meeting the December 1st deadline. Beaufort County and the Town of Bluffton have shared their plans, looking to identify commonalties where they can enter in to a MOA in the shared watersheds such as the May and Okatie, trading off on sampling sites and sharing the data.

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

The SWIC committee did not meet in December.

D. Stormwater Related Projects – Eric Larson

US 278 Retrofit Ponds –The 4th pond is almost complete and the embankment that was lost on the inlet pipe going into the pond is being reconstructed. This project should be wrapping up soon and will establish vegetation in the spring.

SC 170 Widening Pond #8 Project – This will be removed from future reports and added at a later date, once we have the management plan.

Complaints and Hurricane Recovery – Staff has mapped all of the drainage easements off of right of ways for damages and debris and there are roughly 350 trees over 36 miles of work shelf. Ceres will begin picking up this debris as part of a project task order.

Operations and Maintenance Workload – Currently the backlog of work is estimated to be 8 months behind, but the backlog is better than where we were a year ago as we are completing more projects than we are adding to the list each month. Some of the projects are hurricane related.

E. Professional Contracts Report – Eric Larson

SC 170 Widening Drainage – Need to regrade and redress the ditch on Hwy 170 northbound between Lawton Station and Bluffton Parkway that silted in and eroded during construction. Pulte (Sun City) had a commitment in their permit to remove the haul road at the end of construction, which has not happened. It has dammed up the wetland and prevented it from flowing naturally. We have reached out to Pulte and advised them to fulfill their permit requirements. Mr. Larson addressed a question about the extent of recommendations, indicating they also recommended monitoring future developments in the area to make sure they wouldn't negatively impact the water table. Mr. Marc Feinberg asked if there is a post construction inspection against the permit that takes place within the county to make sure those types of things aren't overlooked. Mr. Larson mentioned it's a permit from the US Corps of Engineering and the permit is still open, so they are not in any violation.

F. Regional Coordination – Eric Larson

Factory Creek Watershed Regional Detention Basin "Phase II" (Coleman site) – They are 50% complete with survey and wetland delineations. Phase II design will be ready by February to begin going through the permitting process. Phase I is actively being constructed.

Horne Development at Okatie Center in Jasper County – Results from ATM study comparing Beaufort County design standards to the municipalities and to those of Jasper County's have been received and are under review. He will report findings at a later date.

G. Municipal Reports – Eric Larson

Town of Hilton Head Island – Nothing reported.

City of Beaufort – Special Presentation in New Business.

Town of Bluffton – Ms. Kim Jones

MS4 Stormwater Management Plan was delivered to DHEC on November 30th. They did microbial source tracking to obtain results at key drainage areas at 5 different sites, where they tested for oysters, soil and water. One shipment damaged for water out of one site and one site didn't have oysters; not quite 15 samples were analyzed for human bio markers and they all came back negative. The samples were taken post hurricane, following a king tide in an area that is currently on septic.

Town of Port Royal – Mr. Van Willis

Working on a revised scope for the Cypress Wetland Project and completing repair work in the wetland from storm damage.

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

Best Management Practice (BMP) Manual – Incorporated the stormwater ordinance and all of the plans (i.e.: Monitoring Plan, IDDE Plan, Public Education plan) as Appendices in the BMP manual. Mr. Larson introduced Ms. Ellen Comeau, the new outreach agent with Clemson Extension. Ms. Comeau mentioned her title is Water Resources Extension Agent. *Stormwater Permitting* – Effective December 1st, the county is now issuing stormwater permits with all zoning, development and building permits, which is handled through the Planning Department. This includes single family homes, anything over 5,000 sq. feet of disturbed area.

I. Maintenance Projects Report – David Wilhelm

Project task list update from November 2015 through December 2016: 114 projects completed, 43 active projects, and 14 pending waiting for easement approval. Mr. Wilhelm reported on four major projects and three of seven minor projects.

Community Bible Church – A large sink hole off of Parris Island Gateway was repaired. They had to remove 177 feet pipe that collapsed and created a 15-16 foot deep hole.

Lady's Island Elementary School Ponds – Completed a project to address a stormwater basin issue and Beaufort County School District will be reimbursing the county 100%.

Eastern Road – Project was made more complicated due to the hurricane. Half way through the storm came and rework had to be done to complete the project.

Green Pond – This is the 1st phase of Green Pond (Shell Point Area) that included pumping down the water and putting in a drainage structure and piping.

Mr. Wilhelm noted that for minor projects that involve ditch cleaning and bush hogging they try to stay around \$.50-\$.75 a linear foot and for roadside ditch work between \$3.00-\$5.00 a linear foot.

Royal Pines Road – Cleared 4,100 ft. at \$.68 a foot and 3,000 ft. of channel at \$3.16 a foot.

Major Road – Pointed out there was no interference and the project cost \$3.05 a foot.

Fairfax Road – Mentioned the challenge of a one-way street, caused them to have to stop and move equipment to allow traffic through and re-set up to begin working again. 687 feet of work cost about \$12.00 a foot due to interruptions.

Mr. Allyn Schneider asked if they contact the neighborhood prior to doing a project like Fairfax Road. Mr. David Wilhelm indicated they go door to door to inform the neighbors and put out a notice. He mentioned they also consider the size of road and anything that might affect productivity when pricing out a job.

Mr. Don Smith asked if we knew who constructed the pipe that collapsed in the Community Bible Church area. Mr. Wilhelm was uncertain of who constructed the original pipe. Mr. Marc Feinberg asked if it was a corrugated pipe, replaced with corrugated pipe. Mr. Wilhelm indicated it was a metal replaced with HDPE pipe.

5. Unfinished Business – None.

6. New Business

A. Special Presentation: Battery Creek 319 Grant – Mr. Neil Desai and Mr. Paul Moore provided a presentation on the history and a project update on the Battery Creek 319 Grant project. In 2011-2012 there was an increase in shellfish harvesting area closures. A water quality project was initiated with the goal of securing 319 funds. With Mr. Andy Kinghorn's assistance, they contacted a private land owner (Dr. Gray) about using their private pond that would be retrofitted for water quality to help with Battery Creek watershed (near SC170 and US 21 and the Cross Creek Shopping Center). Construction began in 2015 and is expected to finish late 2016, early 2017. The Project is partially funded by a US EPA Section 319 grant (\$350,000) with the match being shared by the City of Beaufort and Beaufort County (\$400,000).

Beaufort County is located in the Salkehatchie Basin which is considered blackwater river basin and it is much smaller and runs slower than the rest of the state, which is why stormwater volume is important to us. There were eight sites that were determined as opportunities for improving watershed with impairments and the Battery Creek project was one of them. It was identified in 2006 that Battery Creek had extremely high bacteria counts. Originally, the idea was to expand the Walmart pond; however, after looking at aerial photos of the area, they noticed another pond. It posed a unique opportunity to get treatment at saltwater/freshwater divide, but needed to find a way to direct the flow into pond and filter back out. In 2009 a concept was developed to plug the ditch and divert water into pond and release treated water back into the ditch.

The property owner had two concerns; they didn't want an attractive nuisance or trash coming into pond. The original pond was only 3'-4' deep, too shallow for a stormwater pond, so they had to dewater the pond because it is groundwater fed and then had to excavate. They created a shelf, just below normal water level, to provide safety if anyone wandered out into the pond and allows vegetation to grow. A sediment forebay was installed to treat and remove litter using force water at low flow conditions to be routed for treatment, during high flow the water will spill over into the ditch and flow to prevent trash from getting into the pond.

Mr. Moore noted that as far as he knows the city will be maintaining the area, after being asked who will maintain the site. He mentioned there is an access road to the pond and there is still clean-up and grading to be done before the project will be complete. The pond is now 8-10 feet deep with 3-4 feet of working freeboard, about 12' top to bottom.

B. Shell Point Quitclaim Deed to NRC – Mr. Larson requested to add this as a new agenda item. He asked for the Board's endorsement on the acceptance of a quitclaim deed on some common open space for a neighborhood in Shell Point in the Magnolia/Dogwood area. The land is still in name of the developer and the needed work falls within the department's extent of service. Mr. Larson mentioned we have received multiple complaints in this area, but are unable to do any work because they are not our easements. The descendants of the original developer have been tracked down and have signed a quitclaim deed for the property.

Mr. Allyn Schneider asked if there are any aspects about this that could be negative. Mr. Larson stated that the only negative is the fact that we would be accepting more system, but that is our job as a utility is to maintain these drainage systems and when we increased the rates last year we committed to an expanded extent of service, where we would look at private systems like this and make a determination if we will take them over to service them for the greater good of the neighborhood. Currently people in this area are losing their yards to erosion and flooding. Mr. Larson indicated if we endorse the acceptance of the quitclaim deed, we will do operations and maintenance in this area immediately. This would become part of the routine operation and

maintenance budget; there will be no special appropriations for this work. Mr. Meisner asked how much tax revenue we would be losing if we approve the endorsement on the quitclaim deed. Mr. Larson mentioned that common open space is typically valued so low, so the impact would be minimal.

The Board unanimously (6:0) approved the endorsement of the quitclaim deed.

7. Public Comment(s) – None.

8. Next Meeting Agenda – Approved.

9. Meeting Adjourned



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



December 14, 2016

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Tax Run for Tax Year 2016 (TY16) – Bills were released mid-November. The staff is handling a small number of inquiries about billing.
2. Intergovernmental Agreements (IGAs) and Memorandums of Agreements (MOAs) for Fiscal Year 2017 (FY17) – All agreements for FY 17 are now signed and effective.
3. Fee inquiries – We continue to work on the SWU fee inquiry from the SC Port Authority related to the Port Royal Port.
4. Mr. Larson was elected 2017 President of the South Carolina Association of Stormwater Managers (SCASM) at their November meeting. Larson will be traveling to Columbia on December 15th for the Board's 2017 planning session.
5. Hurricane Matthew Response and Recovery – Crews and our contractor continue to inventory and clear debris from drainage easements.
6. Mr. Larson spoke at the Governors' South Atlantic Alliance (NC, SC, GA, FL) "Strategies and Tools to Protect and Restore Coastal Water Quality" conference on December 8. Beaufort County's Volume Control requirements and a related case study were presented.
7. Staff presented the Utility and County Stormwater Department mission and activities to new County Council members during new council orientation.
8. County infrastructure within municipal boundaries – Recently the Town of Williamston, in Anderson County, SC, received an opinion from the South Carolina Attorney General's office. The subject was related to the ownership and maintenance responsibilities of "roads" within the Town's jurisdictional limits. The opinion concluded the Town was responsible for the roads within their jurisdiction regardless of historical ownership and maintenance efforts. [A copy of the opinion is attached to this report.](#) As our staff reviewed this document, we noted the cites related to "powers, duties, and functions...for public works..." and questioned whether or not this ruling is also applicable to other county maintained infrastructure besides "roads", such as ditches and pipes which typically serve the road as a means to convey runoff away from the right of way. We are seeking clarification. This could have a huge impact on County, Town, and City services as well as Utility funding. As you will recall, the Countywide Infrastructure (CWI) fee was created specifically to address the cost of County services within a municipal area. We will report on this again at a future date once we have more information.

9. County Council Finance Committee 5-year outlook – Staff was recently asked to present our projected 5 year needs to the Natural Resources Committee in response to the Finance Committee’s request for review of all department’s long term needs. This is part of the annual budgeting process. Eric Larson presented the 5 year plan created in 2015 as part of the rate study. The committee accepted the report and will be using it as a basis for planning during the retreat.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel)
 - a) Since the last USCB WQL update, the USCB WQ Lab passed their on-site evaluation from SCDHEC for their additional certifications; HPC (Heterotrophic Plate Count), SpC (Specific Conductance) and TRC (Total Residual Chlorine) for drinking water. They are now certified for those additional parameters. In the future, TOC (Total Organic Carbon) is another certification that the WQ Lab would like to attain for the laboratory’s pure water requirement.
 - b) An investigation of a suspected illicit discharge on Coosaw Island requested by Beaufort County Stormwater Department was performed by the WQL. The WQL has also collected and analyzed water samples post clean-up. Dr. Alan Warren has discussed results with Rebecca Baker.
 - c) The Lab has just finished the quarterly sampling for the BECY sites, in which the new quarter will begin in January.
2. Monitoring Plan Development – The County staff has completed our monitoring plan with input from the USCB WQL. It was added to the BMP Manual. We are working with ToB to create a MOA that will formalize data sharing and sampling duties in the May, New, and Okatie watersheds.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC committee has not met since the last Board meeting.

Stormwater Related Projects

1. US 278 Retrofit Ponds (\$356,000 Budget) – The 4th and final pond is 90% complete with excavation. The largest pond off of Barrel Landing Road was damaged by the Hurricane and needs to be repaired.
2. Okatie West / SC 170 Widening Retrofit (Design and Construction = \$915,000 Budget) – No update to report. Design is ongoing. The annual report on the grant was submitted and accepted by DHEC in November.
3. SC 170 Widening Pond #8 project (Design and Construction = \$630,840) – Project is on hold until results of the 2016 Management Plan are complete. This project is currently not funded. (This will be removed from future reports)
4. Easements – Staff is working on numerous easement requests. Significant locations

are Salem Dr. East and several on St. Helena Island. Gadwell Dr. East easement needs have been resolved.

5. Complaints and Hurricane Recovery – Staff continues to inspect our system looking for downed trees, clogged ditches and pipes, etc. for needed debris removal and damage. Staff is also pursuing grant funding options to help with the cost in addition to our plans to submit to FEMA for public assistance.
6. Operations and Maintenance Workload – Dave Wilhelm and Chad Stanley are working on a scheduling procedure to identify project needs and rank them on completion. We are working a large backlog of projects that have been previously identified but never scheduled in addition to newer projects that are needed in response to the Hurricane. The department is currently 8 months behind, but that is better than we were in November 2015 when the process of project review started.

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – (\$475,000 Budget; \$239,542 County portion) – ATM continues to work on the next steps of the plan. In November, ATM delivered the recommendations to the County on the unincorporated area monitoring needs for inclusion in the County’s monitoring plan.
2. Mint Farm Basin B Modification – (\$8,000 Budget) – Nothing new to report.
3. SC 170 Widening Drainage – (\$17,500 Budget with 50% of funding from the Stormwater Department. Change order for additional \$4,500 approved in October) – The 3rd party review report contained two recommendations that the Staff is acting upon. The first is construction of a roadside ditch that was not completed per the roadway plans. The second involves communicating a need to fulfill a USACE permitting requirement on Pulte Realty (Sun City) as part of their construction. We communicated with Sun City maintenance and they have forwarded the request to Pulte.

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase I” & Academy Park Subdivision (cost is pending) – Nothing new to report.
2. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Nothing new to report. Excavation continues as material is sold by the Developer.
3. Horne Development at Okatie Center in Jasper County (\$1,500) – ATM has been given a Task Order to review Jasper County and City of Hardeeville stormwater standards and compare to our own. Results are pending.
4. Hilton Head National Redevelopment – The Planning Commission approved the zone change at the December meeting. Many citizens commented on the need for strong environmental controls during design and construction. Eric Larson was in attendance. The applicant is aware of our stormwater design requirements and has commented they will have numerous water quality BMPs in the design.

Municipal Reports

1. Town of Hilton Head Island (From Bates Rambow, SW Data Analyst)
 - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. **WATERSHED MANAGEMENT**
 - a. **Stoney Creek Wetlands Restoration: Data Collection & Analysis Phase**
 - Final Summary Memo including conceptual design options are complete.
 - Conceptual designs have been forwarded to the property owners for initial review prior to on-site meeting.
 - Staff and the design consultant met with a property owner to review the conceptual designs on 11/23/16.
 - **Next Steps:**
 - Staff is coordinating with the design consultant to execute a contract for the design phase of the project.
 - Staff will present conceptual designs to additional property owner stakeholders on 1/13/17.
 - b. **319 Grant Phase 2 (Pine Ridge) - Construction Phase**
 - Staff submitted a 319 Grant amendment request to extend the grant deadline to 1/30/17 and reallocate unspent funds. The remaining 319 Grant Phase 2 funds will be reallocated to purchase engineered bacteria removal media filter socks to be installed in the wetland ditch downstream from the New Riverside Pond to maintain bacteria removal efficiency, and to install littoral shelf plantings within ponds in the Pine Ridge Community.
 - The grant amendment was approved by SCDHEC and the amended contract has been executed.
 - Contractor will complete final inspection punch list items by the first week of December.
 - **Next Steps:**
 - Obtain easement for installation and maintenance of bacteria removal filter socks.
 - Purchase and install engineered bacteria removal filter socks.
 - Design and install littoral shelf plantings as needed.
 - c. **319 Grant Phase 3 (May River Preserve Pond)**
 - SCDHEC notified staff that the EPA has approved the grant application and the grant of \$231,350 has been awarded.
 - After receiving property access approval, pre-project water quality and flow monitoring has commenced.
 - The grant contract has been approved by the EPA and executed by the Town.
 - Staff obtained verbal agreement from adjacent parcel property owner for a construction and maintenance easement.
 - **Next Steps:**

- Obtain easement for construction and maintenance from property owner and adjacent parcel property owner.

d. Stormwater Utility Management Plan Update

- Beaufort County is the managing partner for this county-wide stormwater master plan update by Applied Technology & Management (ATM).
- Staff provided updated Best Management Practice locations throughout the watershed to the contractor.
- Staff received a preliminary scope and budget estimate not to exceed \$75,000 to complete the May River Watershed Water Quality Model from ATM.
- **Next Steps:**
 - Staff will propose completion of the Water Quality Model in FY2018 Budget.
 - Staff will continue to participate in the county-wide effort to update the Beaufort County Stormwater Management Plan as needed.

ii. DIVISION/STAFF UPDATES

a. Watershed Management

- In support of the Development Review process staff performed:
 - 23 Development Plan Reviews
 - 8 Development Surety Reviews
 - 7 Certificate of Construction Compliance Inspections
 - 5 Pre-Construction Meetings
 - 4 Pre-Clearing Inspections
 - 1 Post-Construction BMP
- **November Data Collection –**
 - Collected data from five (5) monitoring stations at Stoney Crest Property.
 - Eight (8) in-stream flow/velocity measurements collected at our sampling locations in the headwaters of the May River.
 - Watershed Management staff sampled multiple parameters at four (4) locations associated with the May River Preserve 319 Grant Project.
- Jones received SCDHEC Certified Erosion Prevention & Sediment Control Inspector certification.
- Carey completed Clemson University’s Master Pond Manager training.
- Jones and Lewis presented “*Management Decision Implications based on Evaluation of a Stormwater Best Management Practice’s Downstream Impact*” to the quarterly meeting of the SC Association of Stormwater Managers in Columbia, SC
- Jones was the invited Keynote Address at the 18th International Conference on *Shellfish Restoration* in Charleston, SC to speak on the Town’s efforts to restore shellfish harvesting in the May River.
- Staff collected water, soil and oyster samples for microbial source tracking (MST) of bacterial sources from five (5) locations in the headwaters of the

May River, including coordinating sample collection with SCDHEC at Shellfish Station 19-19.

- Staff participated in the SC Sea Grant-sponsored South Atlantic Shellfish Initiative Planning Workshop in Charleston, SC.
- Staff attended the Toolkit of Available EPA Green Infrastructure Modeling Software Webinar on October 26, 2016.
- Staff attended Find Your Bacteria Sources - Microbial Source Tracking Webinar on October 31, 2016.
- Staff attended the Keep Beaufort County Beautiful Board meeting on November 3, 2016.

iii. Public Works

a. Ditch/Drainage Maintenance –

- Performed weekly street-sweeping on Calhoun Street, Highway 46, Simmonsville Road, and Buck Island Road curbs and medians.
- Continue to cut and pile up storm debris on Hampton Pkwy, May River road Heyward Street, Simmonsville road, Goethe road and Buck Island road.
- Performed inspection on the following ditches:
 - Brown’s property ditch
 - Palmetto Bluff Pond
 - Arrow ditch (2,569 LF)
 - Red Cedar ditch (966 LF)
 - Buck Island Roadside ditch (15,926 LF)
 - Simmonsville Roadside ditch (13,792 LF)
- Removed approximately 500 pounds of vegetative storm debris from the Brown property ditch culvert inlet.

b. City of Beaufort (From Neil Desai, Asst. Public Works Director)

- i. Battery Creek Pond Funded by an EPA 319 Grant (\$132,609 Budget – County Portion) – All major earthwork is complete including rough and final grading of pond. Installation of pond outfall structure complete. Installation of water quality device awaiting additional parts, anticipate installation before mid-December. Project is on track to be finished prior to the first of January.

c. Town of Port Royal (From Van Willis, Town Manager)

- i. No information was available at the time of this report.

MS4 Report

1. Plan review summary

Name	Date	Type	Results
St. James Pritchardville Dollar General	11/2/2016	Conceptual	Deferred
USCB Campus Center	11/2/2016	Final	Approved
St. James Pritchardville S/D	11/2/2016	Conceptual	Approved
Eddings Point	11/9/2016	Discussion	Approved
Grayco Bluffton Amendment	11/9/2016	Amendment	Plat approved
Fripp Island Lot 1B Tarpon Blvd.	11/9/2016	Buffer Waiver and bridge	Deferred
Lipmans Produce	11/16/2016	Conceptual	Approved

2. Inspection summary for November 2, 2016 to December 2, 2016

Number of active permits = 25

Number of inspections performed = 13

Number of drainage related complaints investigated = 8

3. BMP Manual – Additions were placed in the Appendix C and G to comply with the MS4 permit Year 1 deadline of December 1. The Monitoring Plan, IDDE Plan, SWMP Plan, and Public Education Plan, all internal procedures documents, were added.
4. Annual reporting and the SWMP – Rebecca Baker completed the revisions to our Management Plan as part of the submittal for the annual report to DHEC (see #3 above). The reporting period ended on December 1, 2016 and the report is due in February.
5. Stormwater Permitting – The new MS4 local stormwater permit became effective December 1, 2016. Stormwater and Planning staff have been trained on permit entry and inspection entry. Procedures and forms are located within the BMP Manual.
6. Bluffton Gateway Project – This project was presented as a special report at the November 2016 meeting of the Board. The project is nearing completion. As it was one of the first major projects to design for volume control, as well as the first major project subject to proactive inspection by the County Stormwater department, we held a joint pre-final inspection walk through to create a punch list. We are pleased to report the project was substantially built according to plan with little issues. The size and complexity of the project is not fully realized until you walk the site.



ALAN WILSON
ATTORNEY GENERAL

November 15, 2016

G. Lee Cole, Jr., Esq.
Town of Williamston Attorney
PO Box 315
Williamston, SC 29697

Dear Mr. Cole:

Our Office has received your opinion request regarding whether a county may require a municipality to be responsible for maintenance and repair of county roads located inside the corporate limits of a municipality. Specifically, you state the following:

[a] South Carolina municipality has, within its corporate limits, state maintained roads, roads that have been historically maintained by the county, and very few roads that have been built and maintained by the municipality. The municipality has never formally nor informally accepted the responsibility to repair or maintain any roads that have been historically maintained by the county, and the municipality considers these roads to be county roads. The municipality's position is that the maintenance and repair of said roads are the county's responsibility pursuant to S.C. Code Ann. Sec. 57-17-10, *et seq.* The county's position is that the repair and maintenance of said roads are the municipality's responsibility pursuant to S.C. Code Ann. Sec. 5-27-120.

Our understanding of your question is that the roads that you refer to as "county roads" were built and until recently, maintained by the county. The Town of Williamston has never repaired these "county roads." We will answer your question accordingly.

LAW/ANALYSIS:

We will begin our analysis by reviewing the language of sections 5-27-120 and 57-17-10 of the South Carolina Code and other related statutes. Section 5-27-120 addresses the repair of streets in municipalities which have a population of greater than 1,000¹ and it states:

[t]he city or town council of any city or town of over one thousand inhabitants shall keep in good repair all the streets, ways and bridges within the limits of the city or town and for such purpose it is invested

¹ According to its website, the Town of Williamston has a population of 3992. See <http://www.williamstonsc.us/about/>

with all the powers, rights and privileges within the limits of such city or town that are given to the governing bodies of the several counties of this State as to the public roads.

S.C. Code Ann. § 5-27-120 (1976 Code, as amended).

Section 5-27-10 is pertinent because it grants municipal councils the power to establish and improve roads. It states:

[w]henver the mayor and aldermen of any city or the intendant and wardens of any town in this State shall think it expedient to widen, open, lay out, extend or establish any street, alley, road, court or lane, they may purchase the lot, lots or parts of lots of land necessary for such street, alley, road, court or lane, and the fee simple of such land shall be vested in such city or town for the use of the public from the day of delivery of the deed of sale.

S.C. Code Ann. § 5-27-10 (1976 Code, as amended).

Section 57-17-10 grants county councils control over public roads, which includes the repair of the roads. It provides:

[a]ll roads, highways and ferries that have been laid out or appointed by virtue of an act of the General Assembly, an order of court or an order of the governing body of any county are declared to be public roads and ferries, and the county supervisor and the governing body of the county shall have the control and supervision thereof. The county supervisor and governing body of the county may order the laying out and repairing of public roads where necessary, designate where bridges, ferries or fords shall be made, discontinue such roads, bridges and ferries as shall be found useless and alter roads so as to make them more useful.

S.C. Code Ann. § 57-17-10 (1976 Code, as amended).

Additionally, county councils are required by statute to repair the roads in the county. Section 57-17-10 states:

[t]he governing body of each county shall take charge of and superintend the repair of the highways in the county. The bridges shall be repaired under its supervision, and the expense thereof shall be paid out of the money in the county treasury raised and appropriated for this purpose.

S.C. Code Ann. § 57-17-70 (1976 Code, as amended).

The language of section 5-27-120 is plain and clear that municipal councils in municipalities having a population greater than 1000 shall repair the streets within the municipal limits.² The court in Vaughan v.

² In a prior opinion, we discussed some principles of statutory construction:

Town of Lyman, 370 S.C. 436, 635 S.E.2d 631 (2006), agrees with this conclusion, stating that “section 5-27-120 “clearly defines the duty to the general public of a municipality to maintain its streets.” The issue appears to be whether county councils can also be responsible for repairing roads which are located within the limits of a municipality.

In a February 25, 1988 opinion, our Office discussed how “it is settled law that counties and municipal corporations have only such powers as are granted to them by legislative enactment.” Op. S.C. Atty. Gen., February 25, 1988 (1988 WL 383501) (quoting Williams, et al. v. Wylie, et al., 217 S.C. 247, 60 S.E.2d 586 (1950); 56 Am.Jur.2d, Municipal Corporations, etc., Section 193)). The South Carolina Constitution requires the Legislature to equip counties with certain powers, duties, and functions and it provides:

[t]he General Assembly shall provide by general law for the structure, organization, powers, duties, functions, and the responsibilities of counties, including the power to tax different areas at different rates of taxation related to the nature and level of governmental services provided.

S.C. Const. art. VIII, § 7.

In response to the State Constitution, the Legislature enacted section 4-9-30, which grants county councils certain powers, including the right to “make appropriations for functions and operations of the county, including, but not limited to, appropriations for general public works, including roads. . . .” S.C. Code Ann. § 4-9-30(5)(a)(1976 Code, as amended).

Similarly, the State Constitution requires the Legislature to provide municipalities with powers, duties, and functions. S.C. Const. art. VIII, § 9 states that “[t]he structure and organization, powers, duties,

“[t]he cardinal rule of statutory construction is to ascertain and effectuate the intent of the legislature.” Hodges v. Rainey, 341 S.C. 79, 86, 533 S.E.2d 578, 581 (2000). “[Courts] will give words their plain and ordinary meaning, and will not resort to a subtle or forced construction that would limit or expand the statute's operation.” Harris v. Anderson County Sheriffs Office, 381 S.C. 357, 362, 673 S.E.2d 423, 425 (2009). “If a statute's language is plain, unambiguous, and conveys a clear meaning, then the rules of statutory interpretation are not needed and a court has no right to impose another meaning.” Strickland v. Strickland, 375 S.C. 76, 85, 650 S.E.2d 465, 472 (2007). “[S]tatutes must be read as a whole, and sections which are part of the same general statutory scheme must be construed together and each one given effect, if reasonable.” State v. Thomas, 372 S.C. 466, 468, 642 S.E.2d 724, 725 (2007). “[C]ourts will reject a statutory interpretation that would lead to an absurd result not intended by the legislature or that would defeat plain legislative intention.” State v. Johnson, 396 S.C. 182, 189, 720 S.E.2d 516, 520 (Ct.App. 2011).

functions, and responsibilities of the municipalities shall be established by general law. . . .” The Legislature granted powers to municipalities through section 5-7-30, which provides:

[e]ach municipality of the State, in addition to the powers conferred to its specific form of government, may enact regulations, resolutions, and ordinances, not inconsistent with the Constitution and general law of this State, including the exercise of powers in relation to roads, streets. . . .

S.C. Code Ann. § 5-7-30 (1976 Code, as amended).

In our 1988 opinion, we discussed how sections 4-9-30³ and 5-7-30 granted police power to both counties and municipalities (although a municipality can only exercise its police power within the territory of the municipality). See Op. S.C. Atty. Gen., February 25, 1988, supra. Specifically discussing section 5-7-30, we determined that county councils can not exercise their police power within the territorial limits of municipalities without the consent of the municipal councils. Our explanation was that:

[t]his express grant of police power to municipalities, coupled with the apparent lack of any express grant of power to counties to regulate matters within municipalities, militates against any notion that a county, without first obtaining the agreement or permission of a municipality situated within geographic boundaries of the county, may extend its police power to reach matters occurring within the territorial limits of the municipality.

Id.

We further explained in our opinion that:

[t]his Office has, on several occasions, expressed its belief that a county's exercise of police power is restricted to the unincorporated areas of the county. In an opinion dated October 2, 1984, the ‘intent of the General Assembly to recognize the autonomy of a municipality within its borders and likewise recognizes the autonomy of the county within the unincorporated areas of the county’ was discussed. Likewise, in an opinion dated May 21, 1987, we concluded that a Richland County anti-smoking ordinance would be of no effect for facilities of the Richland County Recreation Commission located within a municipality of the county.

Our beliefs are in accordance with the general law on this issue. Counties and cities are viewed as co-equal political subdivisions which are independent of each other politically, geographically, and governmentally. City of Richmond v. Board of Supervisors of Henrico County, 199 Va. 679, 101 S.E.2d 641 (1958); Murray v. City of Roanoke, 194 Va. 321, 64 S.E.2d 804 (1951).

³ Section 4-9-30 was referred to in the opinion as section 4-9-10, et seq., Act 283, and the Home Rule Act.

Id.

Furthermore, case law shows that, as a result of sections 5-27-120 and 5-27-10 (and their prior versions), municipal councils are in control of the roads located within their municipal limits and they have the power to regulate and manage such roads. Our State Supreme Court explained in Leonard v. Talbert, 222 S.C. 79, 83–84, 71 S.E.2d 603, 604–05 (1952) that:

[o]rdinarily, county authorities have no power to control streets within municipalities, except where the statute so provides. Martin v. Saye, 147 S.C. 433, 145 S.E. 186. In this State, as in most States, there are statutes vesting such control in the corporate authorities of cities and incorporated towns. The usual effect of such statutes is to transfer from the county authorities to the municipality the power to regulate and control highways located therein. Chapman v. Greenville Chamber of Commerce, 127 S.C. 173, 120 S.E. 584, 587.⁴

Our State Supreme Court opined in Whitlock v. Town of Jonesville, 111 S.C. 391, 98 S.E. 142, 142 (1919), that section 2951 of the Code of 1912 (now section 5-27-120) “gives city councils the same rights in the management of its streets as are given to county boards of commissioners.” The court examined section 1932 of the Code of 1912 (now section 57-17-10), which gave “to the county boards of commissioners the right ‘to discontinue such roads, bridges and ferries as shall be found useless, and to alter roads so as to make them more useful’” and found that a town council had the same right to alter a road as a county council did under then section 1932.

After reviewing the law, our opinion is that the municipality, and not the county, is responsible for the maintenance and repair of the roads located inside its corporate limits. The Legislature granted municipal councils police power over roads and streets located within the municipal limits. As previously stated, section 5-27-120 requires the municipal councils of municipalities of a certain size to repair the streets within their municipal limits⁵. Section 5-27-120 also grants municipal councils the same control and

⁴ When reaching its conclusion, the court in Chapman v. Greenville Chamber of Commerce, *supra* considered section 2951 of the Code of 1912, which was a prior version of section 5-27-120, and which stated that the municipal council was vested “with all the powers, rights and privileges within the limits of said city that are now given, or that may hereafter be given to the county board of commissioners of the several counties of this state as to the public roads.” The court also considered section 2926 of the Code of 1912, which was a prior version of section 5-27-10, and which stated that “the said city council shall have, and is hereby given, the further authority to lay out and open new streets in said city, and to close up, widen, or to otherwise alter those now in use, or those which may hereafter be established, whenever, in their judgment, the same may be necessary for the improvement or convenience of said city.”

⁵ As section 5-27-120 specifically directs municipal councils to “repair all the streets, ways and bridges within the limits of the city or town,” we believe it is irrelevant if the municipal streets were laid out or appointed by General Assembly act, court order, or county council order, as provided for in section 57-17-10. See Op. S.C. Atty. Gen., July 11, 2008 (2008 WL 3198122) (quoting Capco of Summerville, Inc. v. J.H. Gayle Constr. Co. Inc., 368 S.C. 137, 142, 628 S.E.2d 38, 41 (2006)) (“[w]here there is one statute addressing an issue in general terms and another statute dealing with the identical issue in a more specific and definite manner, the more specific statute will be considered an exception to, or a qualifier of, the general statute and given such effect”); Op. S.C. Atty. Gen., March 20, 2006 (2006 WL 981695) (quoting Criterion Insurance Company v. Hoffman, 258 S.C. 282, 188 S.E.2d 459 (1972); Op. Atty. Gen. dated August 5, 1986)) (“[i]t is a rule of statutory construction that general and specific

supervision over the city streets as the county councils have over the public roads, and the same rights to lay out, repair, discontinue, and alter the city streets under section 57-17-10.

We believe that county councils are only responsible for repairing roads which are in unincorporated areas of the county. Section 57-17-10 expressly states that county councils are responsible for repairing highways in the county. The Legislature did not grant county councils the ability to exercise any power within the territory of a municipality without the permission of the municipal council. And as we stated in our February 25, 1988 opinion, “[a]s a governmental entity of the state, a county possesses only such powers as are expressly or impliedly conferred upon it by constitutional provisions or legislative enactments; and powers not conferred are just as plainly prohibited as though expressly forbidden.” 20 C.J.S. Counties, Section 49, pp. 802–803. Op. S.C. Atty. Gen., February 25, 1988, supra.

Our conclusion is supported by other provisions of law which recognize the autonomy of municipalities. In our prior opinion, we opined that in section 4-9-40, “the legislature, itself, seems to have, at least, implicitly recognized a limitation on the authority of counties to act within the boundaries of municipal corporations.” See Op. S.C. Atty. Gen., February 25, 1988, supra. Section 4-9-40 grants the county the ability to contract for services within municipalities. It states:

[a]ny county may perform any of its functions, furnish any of its services within the corporate limits of any municipality, situated within the county, by contract with any individual, corporation or municipal governing body, subject always to the general law and the Constitution of this State regarding such matters. *Provided*, however, that where such service is being provided by the municipality or has been budgeted or funds have been applied for that such service may not be rendered without the permission of the municipal governing body.

S.C. Code Ann. § 4-9-40 (1976 Code, as amended).

As shown above, a function of the county is roads. See S.C. Code Ann. § 4-9-30(5)(a), supra. Therefore, a county council would have to contract with a municipal council in order to repair roads within the municipal limits.

Furthermore, the State Constitution allows political subdivisions to jointly administer functions and exercise powers. Article VIII, section 13 of the S.C. Constitution provides:

(A) Any county, incorporated municipality, or other political subdivision may agree with the State or with any other political subdivision for the joint administration of any function and exercise of powers and the sharing of the costs thereof.

(B) Nothing in this Constitution may be construed to prohibit the State or any of its counties, incorporated municipalities, or other political

statutes should be harmonized if possible. However to the extent of any conflict between the two, the special [sic] statute usually prevails”).

subdivisions from agreeing to share the lawful cost, responsibility, and administration of functions with any one or more governments, whether within or without this State. . . .

S.C. Const. art. VIII, § 13.

In our 1988 opinion, we concluded, regarding Article VIII, section 13, that:

[c]learly, by these provisions, counties and municipal corporations may agree to jointly administer services or exercise powers. By reasonable implication, a county could not exercise power within an incorporated municipality unless such an agreement existed or, in effect, the municipality has assented to the county's exercise of power.

Op. S.C. Atty. Gen., February 25, 1988, supra.

CONCLUSION

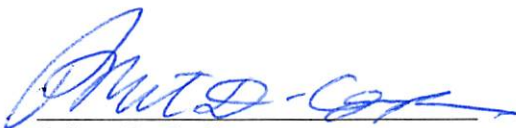
Our opinion is that the municipality, and not the county, is responsible for the maintenance and repair of the roads located inside its corporate limits. We believe that county councils are only responsible for repairing roads which are in unincorporated areas of the county. As section 5-27-120 clearly and specifically directs municipal councils to “repair all the streets, ways and bridges within the limits of the city or town,” we believe it is irrelevant what political subdivision built or traditionally maintained the streets.

Sincerely,



Elinor V. Lister
Assistant Attorney General

REVIEWED AND APPROVED BY:



Robert D. Cook
Solicitor General



MEMORANDUM

Date: December 14, 2016

To: Stormwater Management Utility Board

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

Re: **Maintenance Project Report**

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

Major Projects – Storm Drainage System Improvements:

- **Community Bible Church Channel - Town of Port Royal; Stormwater Utility District (SWUD) 2:** This major project consisted of improving 314 feet of drainage system. Work included replacing 177 feet of stormwater pipe, jet cleaning 140 feet of channel pipe, and cleaning one catch basin. The disturbed area was hydroseeded and sodded for erosion control. Work began November 30, 2015 and was completed March 9, 2016. The total cost of the project was **\$84,556.10**.
- **Lady's Island Elementary School Ponds – Lady's Island (SWUD 7):** This project improved 320 feet of drainage system. The major element of this project was dewatering and reconstructing two ponds. Additional work included modifying the outlet weir, cleaning out two catch basins and 120 feet of channel, extending an existing access pipe, installing 40 feet of channel pipe and jetting of various drainage pipes. Work began April 14, 2016 and was completed August 2, 2016. The total cost of the project was **\$39,780.68**. *Beaufort County School District is reimbursing the SWUD for this work.*
- **Eastern Road - Port Royal Island (SWUD 6):** Work for this project consisted of improving 217 feet of drainage system by installing 217 feet of new 36" ADS stormwater drainage pipe between Eastern Road and Parris Island Gateway. The disturbed area was hydroseeded for erosion control. Work began September 7, 2016 and was completed October 24, 2016. The total cost of the project was **\$32,919.44**.
- **Green Pond - Port Royal Island (SWUD 6):** This project consisted of supplying and operating a large pump for an extended period of time to dewater the pond and maintain the water elevation at an acceptable level. The water was pumped to an existing drainage channel. Work began February 2, 2016 and was completed August 8, 2016. The total cost of the project was **\$15,368.31**.

Minor or Routine Projects:

- **Royal Pines Boulevard – Lady’s Island (SWUD 7):** This project improved more than 4,000 feet of drainage system. Work consisted of bush hogging 4,166 feet of channel and cleaning out 3,084 feet of channel. The total cost of the project was **\$12,623.34.**
- **Major Road – St. Helena Island (SWUD 8):** Work for this project included cleaning 2,897 feet of roadside ditch and jetting of various driveway, crossline and access pipes. The total cost of this project was **\$9,735.20.**
- **Fairfax Street – Bluffton (SWUD 4):** This project improved 711 feet of drainage system. 687 feet of roadside ditch was cleaned, one driveway pipe was replaced and one driveway pipe was jet cleaned. The total project cost was **\$8,424.88.**
- **Vineyard Point Road – St. Helena Island (SWUD 8):** This project consisted of installing one driveway pipe. The total cost of this project was **\$4,207.44.**
- **Jesse Chisholm Road – Sheldon (SWUD 5):** Work included replacing one driveway pipe and placing riprap for erosion control. The total cost was **\$2,393.99.**
- **Edward Court – Port Royal Island (SWUD 6):** Work consisted of cleaning out 477 feet of roadside ditch and bush hogging. The total cost was **\$2,080.18.**
- **Davis Road - Bluffton (SWUD 4):** Work included hydroseeding the existing roadside ditch to control erosion. The total cost was **\$633.41.**



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Community Bible Church Channel

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 11/30/15 - 3/9/16

Project improved 314 L.F. drainage system. Cleaned out (1) catch basin. Replaced 177 L.F. of channel pipe. Jetted 140 L.F. of channel pipe. Installed sod and hydroseeded for erosion control.

2016-008 / Community Bible Church	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APREP / Asphalt Preparation	25.0	\$572.85	\$64.18	\$37.75	\$0.00	\$349.90	\$1,024.68
AUDIT / Audit Project	3.0	\$70.47	\$0.00	\$0.00	\$0.00	\$39.69	\$110.16
BKFILL / Back Fill	35.0	\$788.20	\$174.90	\$25.67	\$0.00	\$496.50	\$1,485.27
CBCO / Catch basin - clean out	12.0	\$274.56	\$52.08	\$30.50	\$0.00	\$178.20	\$535.34
CLJS / Cleaned up jobsite	10.0	\$228.85	\$17.70	\$10.57	\$0.00	\$148.50	\$405.62
CPJ / Channel Pipe - Jetted	20.0	\$457.60	\$86.80	\$84.76	\$0.00	\$297.00	\$926.16
CPRP / Channel Pipe - Replaced	289.0	\$6,687.92	\$2,023.88	\$10,241.49	\$0.00	\$4,236.93	\$23,190.22
HAUL / Hauling	210.5	\$4,765.09	\$1,713.23	\$5,384.73	\$0.00	\$3,068.64	\$14,931.68
HYDR / Hydroseeding	90.0	\$2,024.60	\$162.96	\$309.64	\$0.00	\$1,281.90	\$3,779.10
LM / Loading Materials	56.0	\$1,285.10	\$222.89	\$48.14	\$0.00	\$820.49	\$2,376.62
ONJV / Onsite Job Visit	193.0	\$6,285.04	\$695.84	\$167.56	\$0.00	\$3,984.09	\$11,132.53
PI / Project Inspection	14.0	\$365.77	\$54.18	\$11.63	\$0.00	\$246.12	\$677.70
PL / Project Layout	4.0	\$182.40	\$14.48	\$5.68	\$0.00	\$135.84	\$338.40
PP / Project Preparation	108.0	\$2,533.96	\$311.66	\$91.06	\$0.00	\$1,610.60	\$4,547.28
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$1,972.59	\$0.00	\$1,972.59
PRRECON / Project Reconnaissance	2.0	\$61.50	\$7.08	\$2.84	\$0.00	\$36.46	\$107.88
SD / Soft Digging	12.0	\$274.56	\$52.08	\$25.57	\$0.00	\$178.20	\$530.41
SI / Sod - Installation	161.0	\$3,594.60	\$385.68	\$126.09	\$2,150.00	\$2,225.26	\$8,481.63
SPSWI / Special Project - SWI	7.5	\$167.05	\$21.70	\$37.55	\$0.00	\$107.32	\$333.62
SR / Sinkhole repair	4.0	\$91.53	\$7.08	\$25.15	\$0.00	\$59.40	\$183.16
STAGING / Staging Materials/Equipment	76.0	\$1,751.60	\$345.79	\$138.92	\$0.00	\$1,119.34	\$3,355.65
WSDR / Workshelf - Dressed	99.0	\$2,219.96	\$377.25	\$103.28	\$0.00	\$1,429.92	\$4,130.41
2016-008 / Community Bible Church	1,431.0	\$34,683.20	\$6,791.44	\$16,908.57	\$4,122.59	\$22,050.30	\$84,556.10
Sub Total							
Grand Total	1,431.0	\$34,683.20	\$6,791.44	\$16,908.57	\$4,122.59	\$22,050.30	\$84,556.10

Before



During



After



Project: Community Bible Church Channel

Activity: Routine/ Preventive Maintenance

Project #: 2016-008














Township/SW Dist: Town of Port Royal/ 2

Completed: March 2016



Legend

Drainage Type

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



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/05/16

File: C:\project summaries map\Community Bible Church Channel_2016-008



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Ladys Island Elementary School Ponds (Reimbursement)

Activity: Pond Maintenance

Narrative Description of Project:

Duration: 4/14/16 - 8/2/2016

Project improved 320 L.F. of drainage system. Bush hogged perimeter of ponds. Dewatered and reconstructed 2 ponds. Lowered weir to correct elevation. Cleaned out (2) catch basins and 120 L.F. of channel. Extended 16 L.F. of access pipe. Installed 40 L.F. of channel pipe, rip rap and hydroseeded for erosion control. Jetted (1) crossline pipe, (1) access pipe and 144 L.F. of channel pipe.

2016-322 / Ladys Island Elementary School Ponds	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APEX / Access Pipe - Extended	10.0	\$228.64	\$51.65	\$180.05	\$0.00	\$141.58	\$601.92
APJT / Access pipe - jetted	8.0	\$187.92	\$34.72	\$28.90	\$0.00	\$123.56	\$375.10
AUDIT / Audit Project	2.0	\$46.98	\$0.00	\$0.00	\$0.00	\$26.46	\$73.44
CPI / Channel Pipe - Installation	20.0	\$461.90	\$154.15	\$390.20	\$0.00	\$307.20	\$1,313.45
CPJ / Channel Pipe - Jetted	4.0	\$93.96	\$0.00	\$20.20	\$0.00	\$61.78	\$175.94
DWP / Dewatered Pond	22.0	\$509.86	\$529.68	\$99.72	\$0.00	\$340.14	\$1,479.40
HAUL / Hauling	235.5	\$5,464.28	\$2,398.01	\$2,636.59	\$0.00	\$3,526.57	\$14,025.44
HYDR / Hydroseeding	46.0	\$1,032.81	\$173.18	\$1,030.64	\$0.00	\$652.20	\$2,888.84
LM / Loading Materials	100.0	\$2,264.10	\$1,656.12	\$375.72	\$0.00	\$1,489.35	\$5,785.29
ONJV / Onsite Job Visit	30.0	\$933.62	\$106.20	\$48.72	\$0.00	\$656.62	\$1,745.16
PDBH / Ponds - bushhogged	20.0	\$461.90	\$318.21	\$13.44	\$0.00	\$307.20	\$1,100.75
PI / Project Inspection	5.0	\$131.65	\$18.00	\$0.00	\$0.00	\$92.55	\$242.20
PM / Ponds - Maintenance	109.5	\$2,477.29	\$894.79	\$414.86	\$0.00	\$1,628.51	\$5,415.45
PP / Project Preparation	9.0	\$195.15	\$0.00	\$0.00	\$0.00	\$119.58	\$314.73
PRRECON / Project Reconnaissance	20.0	\$513.96	\$24.78	\$6.96	\$0.00	\$318.06	\$863.76
PS / Push up soil	10.0	\$230.95	\$107.32	\$40.68	\$0.00	\$153.60	\$532.55
RRI / Rip Rap - Installed	10.0	\$224.10	\$37.63	\$32.96	\$0.00	\$144.45	\$439.14
SPSWI / Special Project - SWI	10.0	\$214.90	\$21.44	\$10.40	\$0.00	\$130.28	\$377.02
UC / Utility Coordination	4.0	\$140.62	\$7.20	\$3.36	\$0.00	\$94.38	\$245.56
UTLOC / Utility locates	3.0	\$74.10	\$8.04	\$6.72	\$0.00	\$39.69	\$128.55
WEED / Weedeating	28.0	\$646.66	\$49.56	\$18.48	\$0.00	\$430.08	\$1,144.78
WVEHE / Washing Vehicles/Equipment	12.0	\$263.70	\$36.66	\$42.88	\$0.00	\$168.99	\$512.23
2016-322 / Ladys Island Elementary School Ponds Sub Total	718.0	\$16,799.04	\$6,627.33	\$5,401.48	\$0.00	\$10,952.83	\$39,780.68
Grand Total	718.0	\$16,799.04	\$6,627.33	\$5,401.48	\$0.00	\$10,952.83	\$39,780.68

Before



During



After





Project: Ladys Island Elementary School Ponds Map #1 (Reimbursement)

Activity: Pond Maintenance

Project #: 2016-322

Township/SW Dist: Ladys Island/7

Completed: August 2016



1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/27/2016

File: C:\project summaries map\Ladys Island Elementary School Ponds Map1Reimbursement _2016-322



Project: Ladys Island Elementary School Ponds Map #2 (Reimbursement)

Activity: Pond Maintenance

Project #: 2016-322

Township/SW Dist: Ladys Island/7

Completed: August 2016

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



1 inch = 67 feet

Prepared By: BC Stormwater Management Utility

Date Print: 09/27/2016

File: C:\project summaries map\Ladys Island Elementary School Ponds Map2Reimbursement _2016-322



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Eastern Road

Activity: Drainage Improvement

Narrative Description of Project:

Duration: 9/7/16 - 10/24/16

Project improved 217 L.F. of drainage system. Installed 217 L.F. of channel pipe. Hydroseeded for erosion control.

2017-002 / Eastern Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CPI / Channel Pipe - Installation	157.0	\$3,670.06	\$884.95	\$7,164.32	\$0.00	\$2,156.49	\$13,875.81
CPRE / Channel Pipe - Reinstalled	80.0	\$1,903.50	\$372.07	\$92.84	\$0.00	\$1,100.40	\$3,468.81
HAUL / Hauling	117.0	\$2,620.30	\$1,045.62	\$3,063.06	\$0.00	\$1,687.14	\$8,416.12
HYDR / Hydroseeding	40.0	\$910.70	\$148.04	\$179.36	\$0.00	\$545.30	\$1,783.40
ONJV / Onsite Job Visit	7.0	\$191.14	\$18.00	\$7.52	\$0.00	\$130.62	\$347.28
PI / Project Inspection	5.0	\$123.50	\$47.10	\$7.64	\$0.00	\$72.10	\$250.34
PL / Project Layout	10.0	\$225.20	\$18.00	\$5.95	\$0.00	\$133.35	\$382.49
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$798.71	\$0.00	\$798.71
UC / Utility Coordination	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
WSL / Workshelf - Level	70.0	\$1,750.85	\$592.53	\$199.94	\$0.00	\$977.90	\$3,521.22
2017-002 / Eastern Road Sub Total	488.0	\$11,444.04	\$3,126.31	\$10,720.62	\$798.71	\$6,829.76	\$32,919.44
Grand Total	488.0	\$11,444.04	\$3,126.31	\$10,720.62	\$798.71	\$6,829.76	\$32,919.44

During



After





Project: Eastern Road
 Activity: Drainage Improvement
 Project #: 2017-002
 Township/SW Dist: Port Royal Island/6
 Completed: October 2016

Legend

Drainage Type

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



1 inch = 120 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 11/29/16
 File: C:\project summaries map\Eastern Road_2017-002



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Green Pond

Activity: Pond Maintenance

Narrative Description of Project:

Dewatered retention pond.

Duration: 2/22/16 - 8/18/16

2016-325 / Green Pond

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
DWP / Dewatered Pond	252.0	\$5,817.06	\$565.28	\$449.80	\$0.00	\$3,605.28	\$10,437.41
FUEL / Fueling Vehicle/Equipment	42.0	\$969.46	\$96.53	\$147.24	\$0.00	\$564.50	\$1,777.73
HAUL / Hauling	9.0	\$197.67	\$10.62	\$5.40	\$0.00	\$120.21	\$333.90
ONJV / Onsite Job Visit	35.0	\$1,241.94	\$113.84	\$57.12	\$0.00	\$860.48	\$2,273.38
PL / Project Layout	2.0	\$91.20	\$7.24	\$3.36	\$0.00	\$67.92	\$169.72
SVCREQ / Service Request	4.0	\$182.40	\$14.48	\$6.72	\$0.00	\$135.84	\$339.44
2016-325 / Green Pond Sub Total	345.0	\$8,523.22	\$807.99	\$669.64	\$0.00	\$5,367.46	\$15,368.31

Grand Total **345.0** **\$8,523.22** **\$807.99** **\$669.64** **\$0.00** **\$5,367.46** **\$15,368.31**

Before



During





Project: Green Pond
 Activity: Pond Maintenance
 Project #: 2016-325
 Township/SW Dist: Port Royal Island/6
 Completed: August 2016

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



1 inch = 100 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Royal Pines Boulevard

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 4,166 L.F. of drainage system. Bush hogged 4,166 L.F. channel. Cleaned out 3,084 L.F. of channel.

Duration: 7/6/16 - 7/18/16

2017-501 / Royal Pines Blvd

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	1.0	\$23.49	\$0.00	\$0.00	\$0.00	\$13.23	\$36.72
CBH / Channel- bushhogged	50.0	\$1,089.45	\$861.12	\$205.38	\$0.00	\$698.90	\$2,854.85
CCO / Channel - cleaned out	84.5	\$1,974.21	\$813.38	\$199.44	\$0.00	\$1,246.39	\$4,233.43
HAUL / Hauling	85.0	\$1,931.58	\$962.94	\$456.62	\$0.00	\$1,243.78	\$4,594.92
ONJV / Onsite Job Visit	14.0	\$478.52	\$50.40	\$31.92	\$0.00	\$342.58	\$903.42
2017-501 / Royal Pines Blvd Sub Total	234.5	\$5,497.25	\$2,687.84	\$893.36	\$0.00	\$3,544.88	\$12,623.34

Grand Total **234.5** **\$5,497.25** **\$2,687.84** **\$893.36** **\$0.00** **\$3,544.88** **\$12,623.34**

Before



During



After



Project: Royal Pines Boulevard

Activity: Routine/
Preventive
Maintenance

Project #:
2017-501

Township/SW Dist:
Ladys Island/7

Completed:
July 2016



Legend

Drainage Type

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



1 inch = 420 feet



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

Project Summary: Major Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Duration: 7/28/16 - 8/10/16

Project improved 2,971 L.F. of drainage system. Cleaned out (1) catch basin and 2,897 L.F. of roadside ditch. Jetted (1) access pipe, (2) crossline pipes, (7) driveway pipes and 74 L.F. of roadside pipe. Hydroseeded for erosion control.

2017-509 / Major Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CLPJT / Crossline Pipe - Jetted	20.0	\$445.60	\$86.80	\$72.48	\$0.00	\$286.80	\$891.68
HAUL / Hauling	40.0	\$915.40	\$333.90	\$186.62	\$0.00	\$576.80	\$2,012.72
HYDR / Hydroseeding	12.0	\$264.45	\$34.04	\$240.42	\$0.00	\$169.11	\$708.02
RSACL / Roadside Ditch - Cleanout	140.0	\$3,256.78	\$773.86	\$126.12	\$0.00	\$1,928.70	\$6,085.46
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2017-509 / Major Road Sub Total	213.0	\$4,906.32	\$1,228.60	\$625.64	\$0.00	\$2,974.64	\$9,735.20
Grand Total	213.0	\$4,906.32	\$1,228.60	\$625.64	\$0.00	\$2,974.64	\$9,735.20

Before

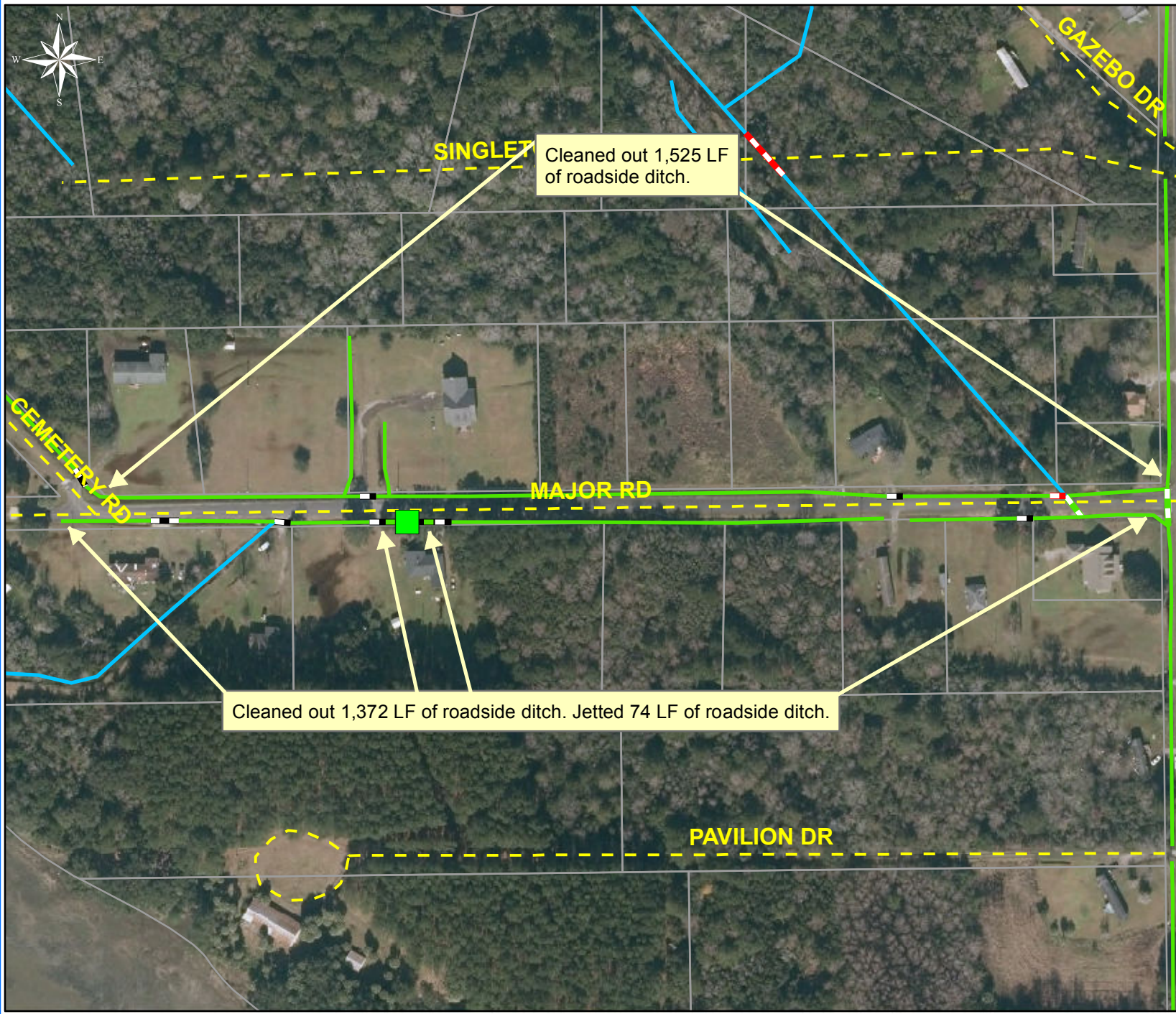


During



After





Project: Major Road Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2017-509

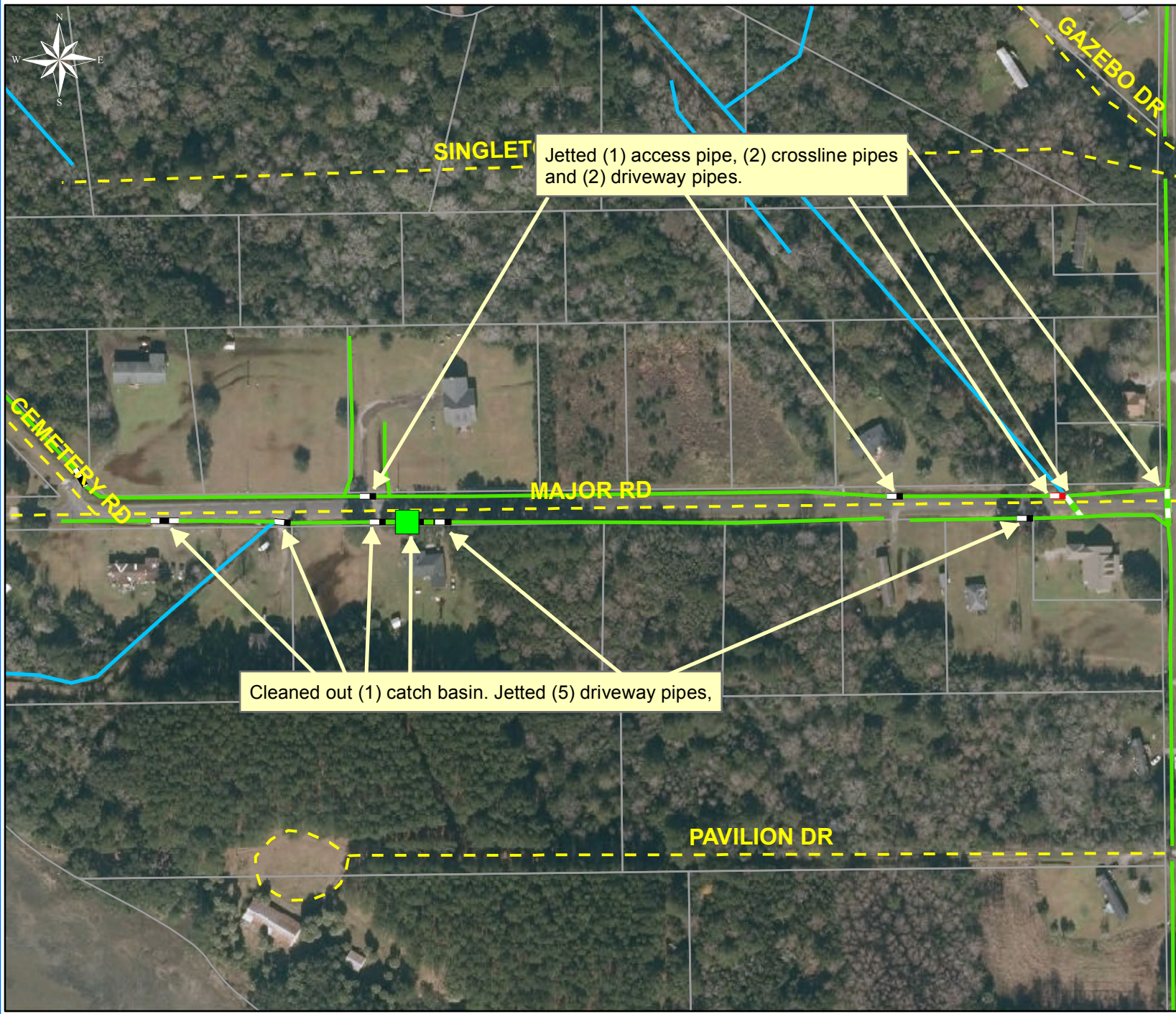
Township/SW Dist: St. Helena Island/8

Completed: August 2016

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



1 inch = 210 feet



Project: Major Road Map 2

Activity: Routine/ Preventive Maintenance

Project #: 2017-509

Township/SW Dist: St. Helena Island/8

Completed: August 2016

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



1 inch = 210 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Fairfax Street

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 711 L.F. of drainage system. Cleaned out 687 L.F. of roadside ditch. Upsized (1) driveway pipe. Jetted (1) driveway pipe.

Duration: 5/31/16 - 6/8/16

2015-552 / Fairfax Street

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPJT / Driveway Pipe - Jetted	3.0	\$66.84	\$26.04	\$32.72	\$0.00	\$43.26	\$168.86
HAUL / Hauling	45.0	\$1,002.15	\$359.55	\$217.36	\$0.00	\$648.90	\$2,227.96
RSDCL / Roadside Ditch - Cleanout	147.0	\$3,210.66	\$397.71	\$341.90	\$0.00	\$2,021.51	\$5,971.78
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2015-552 / Fairfax Street Sub Total	196.5	\$4,316.10	\$783.30	\$591.97	\$0.00	\$2,733.52	\$8,424.88
 Grand Total	196.5	\$4,316.10	\$783.30	\$591.97	\$0.00	\$2,733.52	\$8,424.88

Before



During



After



Project: Fairfax Street

Activity: Routine/
Preventive
Maintenance

Project #:
2015-552

Township/SW Dist:
Bluffton/4

Completed:
June 2016



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



1 inch = 130 feet

Prepared By: BC Stormwater Management Utility
Date Print: 11/29/16
File: C:\project summaries map\Fairfax Street_2015-552



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Vineyard Point Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Installed (1) driveway pipe.

Duration: 9/7/16 - 11/16/16

2017-505 / Vineyard Point Road

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APREP / Asphalt Preparation	12.0	\$268.32	\$34.03	\$13.37	\$0.00	\$172.56	\$488.28
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPINS / Driveway Pipe - Installed	20.0	\$484.35	\$64.63	\$300.99	\$0.00	\$277.55	\$1,127.52
DWASPH / Driveway - Asphalt	21.0	\$469.56	\$77.61	\$37.99	\$0.00	\$301.98	\$887.14
HAUL / Hauling	18.0	\$422.73	\$169.56	\$621.29	\$0.00	\$278.01	\$1,491.59
ONJV / Onsite Job Visit	3.0	\$82.14	\$10.80	\$7.52	\$0.00	\$56.16	\$156.62
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2017-505 / Vineyard Point Road Sub Total	75.5	\$1,763.55	\$356.63	\$981.16	\$0.00	\$1,106.10	\$4,207.44
 Grand Total	75.5	\$1,763.55	\$356.63	\$981.16	\$0.00	\$1,106.10	\$4,207.44

Before



During



After





Project: Vineyard Point Road

Activity: Routine/ Preventive Maintenance

Project #: 2017-505

Township/SW Dist: St. Helena Island/8

Completed: November 2016

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



1 inch = 83 feet

Prepared By: BC Stormwater Management Utility
 Date Print: 11/30/16
 File: C:\project summaries map\Vineyard Point Road_2017-505



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Jesse Chisholm Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Upsized (1) driveway pipe and rip rap for erosion control.

Duration: 11/3/16

2017-518 / Jesse Chisholm Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
DPUP / Driveway Pipe - Upsized	18.0	\$437.34	\$120.09	\$315.38	\$0.00	\$252.42	\$1,125.23
HAUL / Hauling	10.0	\$222.70	\$94.20	\$616.20	\$0.00	\$144.20	\$1,077.30
ONJV / Onsite Job Visit	3.0	\$82.14	\$10.80	\$5.04	\$0.00	\$56.16	\$154.14
UTLOC / Utility locates	0.5	\$12.35	\$0.00	\$0.00	\$0.00	\$6.62	\$18.97
2017-518 / Jesse Chisholm Road Sub Total	32.0	\$766.28	\$225.09	\$936.62	\$0.00	\$466.01	\$2,393.99
Grand Total	32.0	\$766.28	\$225.09	\$936.62	\$0.00	\$466.01	\$2,393.99

Before



During



After





Project: Jesse Chisholm Road

Activity: Routine/ Preventive Maintenance














Project #: 2017-518

Township/SW Dist: Sheldon/5

Completed: November 2016

Legend

Drainage Type

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



1 inch = 83 feet



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

Project Summary: Edward Court

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 477 L.F. of drainage system. Bush hogged 214 L.F. of roadside ditch. Cleaned out 477 L.F. of roadside ditch.

Duration: 9/19/16 - 9/26/16

2017-516 / Edward Court

	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$11.75	\$0.00	\$0.00	\$0.00	\$6.62	\$18.36
CBH / Channel- bushhogged	2.0	\$42.14	\$33.53	\$3.48	\$0.00	\$26.63	\$105.78
HAUL / Hauling	8.0	\$190.31	\$75.36	\$72.00	\$0.00	\$125.61	\$463.28
ONJV / Onsite Job Visit	3.0	\$81.36	\$10.80	\$5.04	\$0.00	\$55.53	\$152.73
RSDCL / Roadside Ditch - Cleanout	30.0	\$721.60	\$150.52	\$19.08	\$0.00	\$410.90	\$1,302.10
UTLOC / Utility locates	1.0	\$24.70	\$0.00	\$0.00	\$0.00	\$13.23	\$37.93
2017-516 / Edward Court Sub Total	44.5	\$1,071.85	\$270.21	\$99.60	\$0.00	\$638.52	\$2,080.18
 Grand Total	44.5	\$1,071.85	\$270.21	\$99.60	\$0.00	\$638.52	\$2,080.18

Before



After





Project: Edward Court
Map 1

Activity: Routine/
Preventive
Maintenance

Project #:
2017-516

Township/SW Dist:
Port Royal Island/6

Completed:
September 2016

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



1 inch = 42 feet

Prepared By: BC Stormwater Management Utility
Date Print: 11/29/16
File: C:\project summaries map\Edward Court Map1_207-516



Project: Edward Court
Map 2

Activity: Routine/
Preventive
Maintenance

Project #:
2017-516

Township/SW Dist:
Port Royal Island/6

Completed:
September 2016

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



1 inch = 42 feet

Prepared By: BC Stormwater Management Utility
Date Print: 11/29/16
File: C:\project summaries map\Edward Court Map2_207-516



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Davis Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Hydroseeded roadside ditch.

Duration: 6/23/16

2016-627 / Davis Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	2.5	\$58.73	\$0.00	\$0.00	\$0.00	\$33.08	\$91.80
HYDR / Hydroseeding	7.5	\$152.60	\$46.17	\$245.64	\$0.00	\$97.20	\$541.61
2016-627 / Davis Road Sub Total	10.0	\$211.33	\$46.17	\$245.64	\$0.00	\$130.28	\$633.41
Grand Total	10.0	\$211.33	\$46.17	\$245.64	\$0.00	\$130.28	\$633.41

(Pictures Not Available)



Project: Davis Road

Activity: Routine/
Preventive
Maintenance














Project #:
2016-627

Township/SW Dist:
Bluffton/4

Completed:
June 2016

Legend

Drainage Type

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

0 40 80 160 240 320
Feet

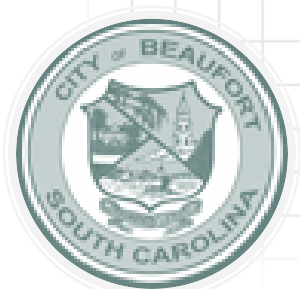
1 inch = 170 feet

Prepared By: BC Stormwater Management Utility
Date Print: 06/23/16
File:C:\project summaries map/Davis Road_2016-627

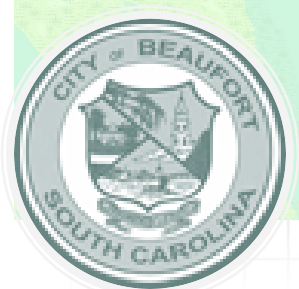
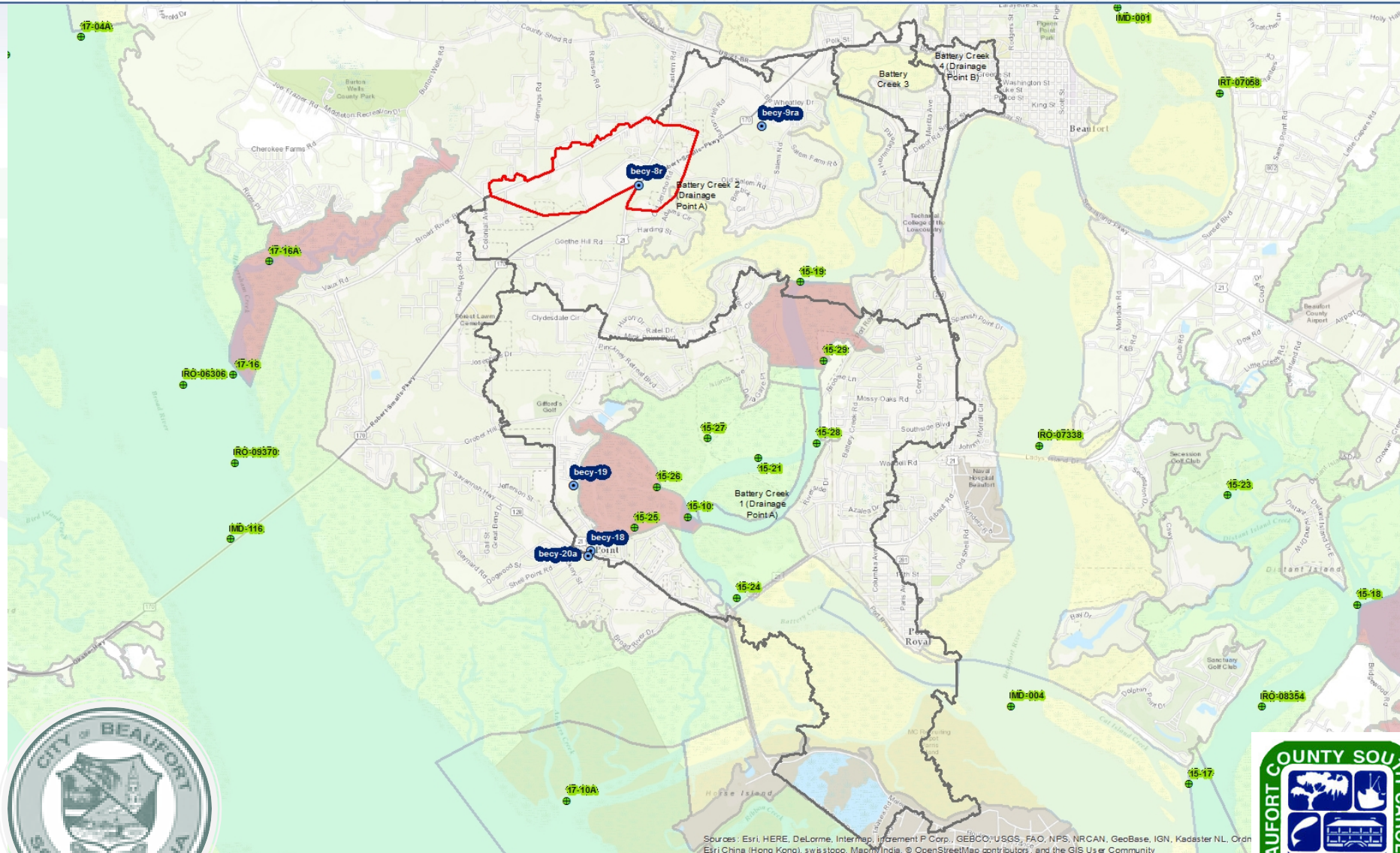
Progress Update to SW Utility Board

Paul Moore, P.E. – Project Manager, Ward Edwards Engineering

Neil Desai, P.E. – City Engineering, City of Beaufort



Battery Creek – Known Impairments

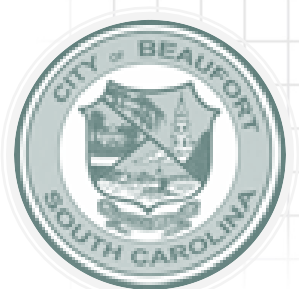
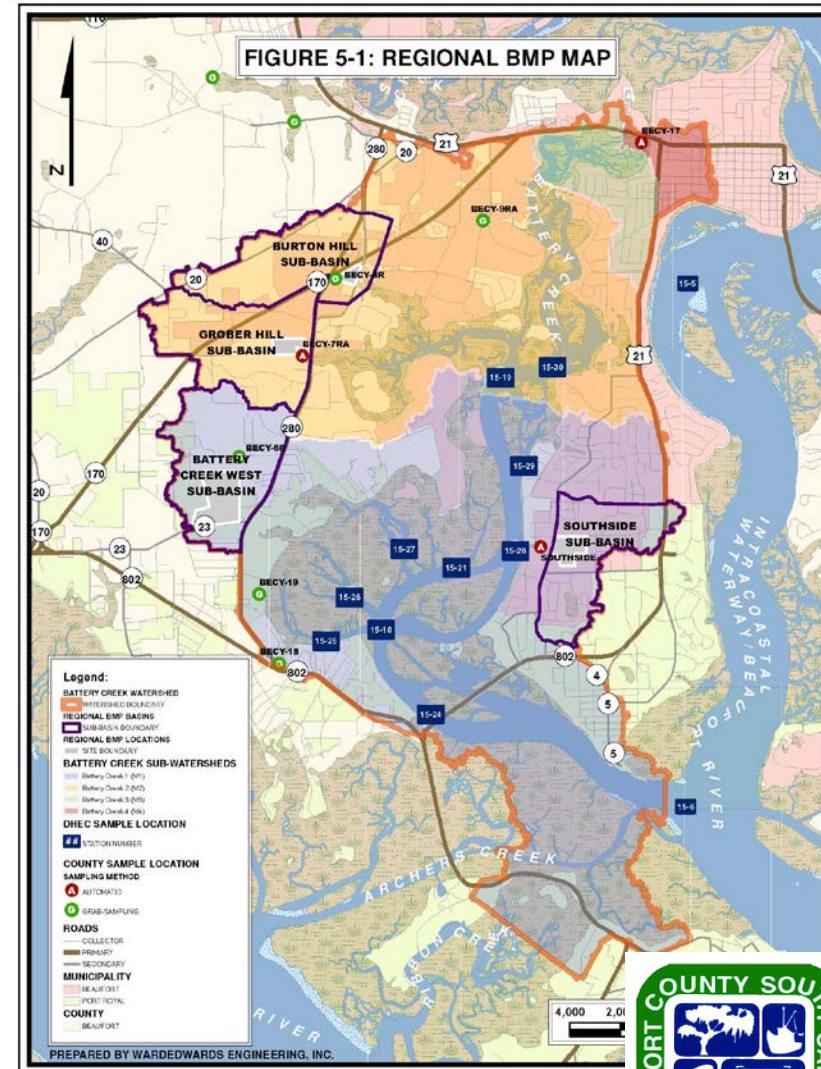


Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordn Esri China (Hong Kong), swis stopo, Mapbox India, © OpenStreetMap contributors, and the GIS User Community

Shellfish Harvesting Closures

Battery Creek Water Quality Retrofit

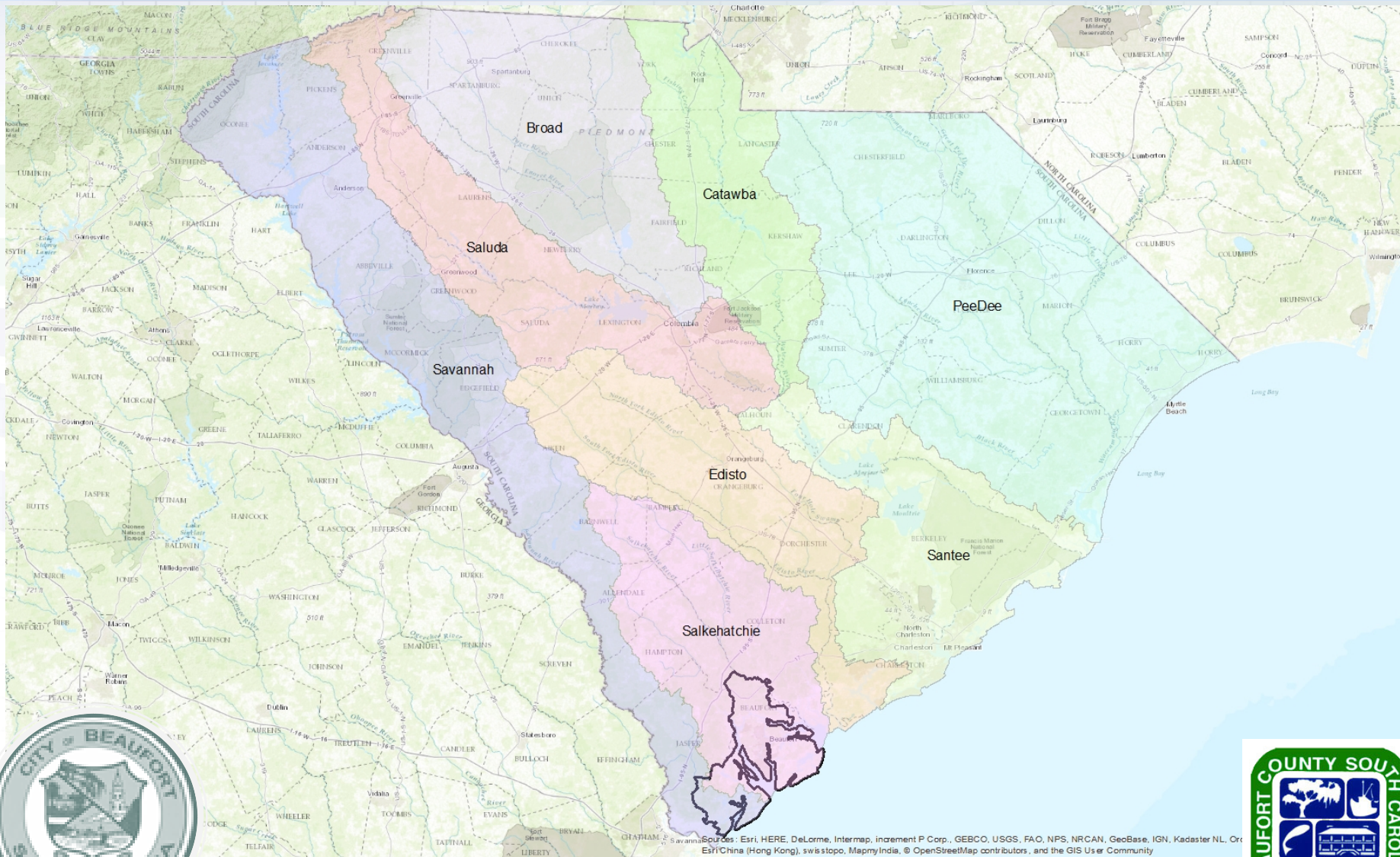
- EPA Section 319 Water Quality Grant - \$350,000
- Ward Edwards & City Prepared Watershed Management Plan and Grant Application - 2013
- County partnered with City as Applicant
- City, County and Ward Edwards negotiated with private land owner for property access.



Project Funding



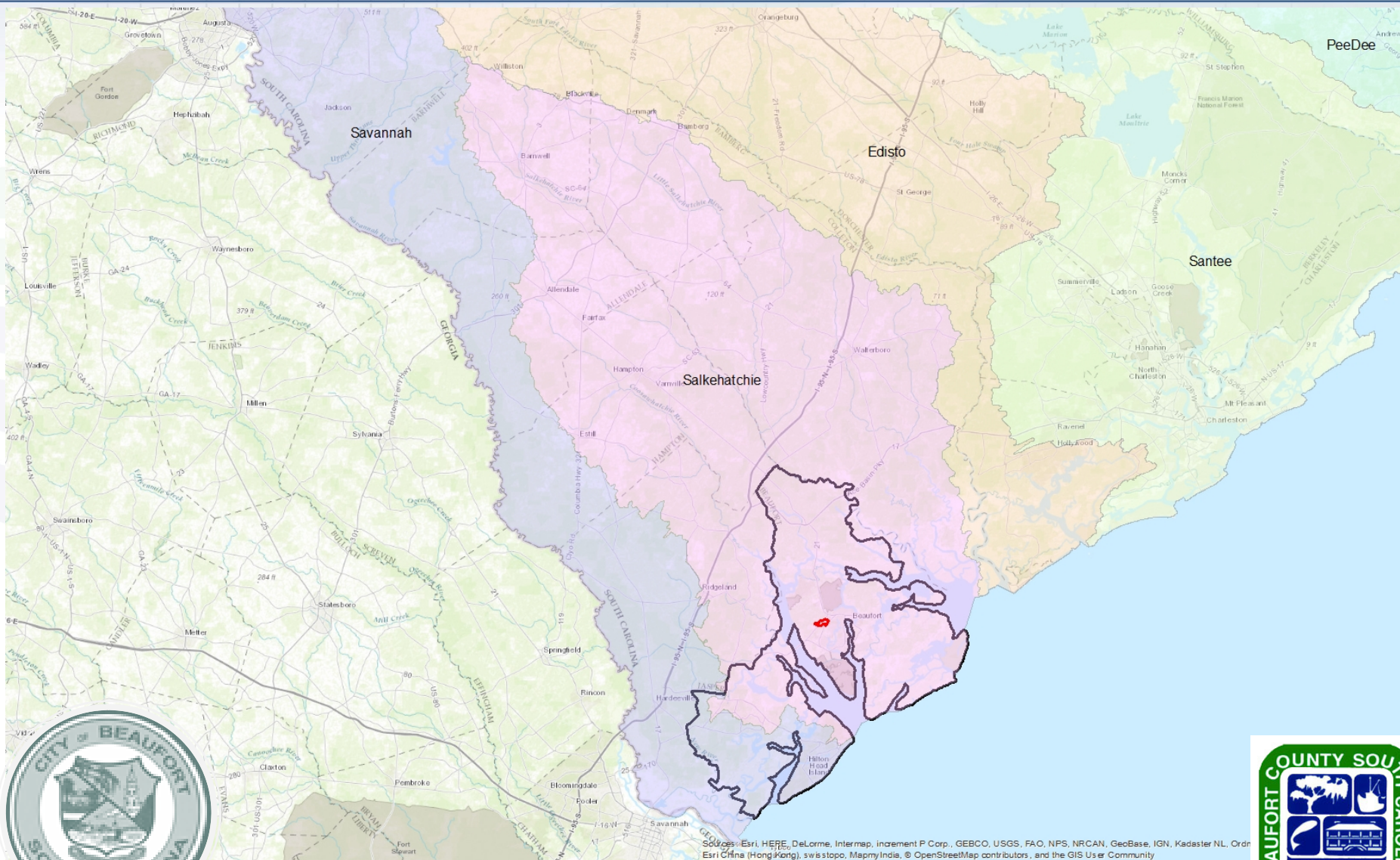
Battery Creek Water Quality Retrofit



S.C. Major Watersheds



Battery Creek Water Quality Retrofit

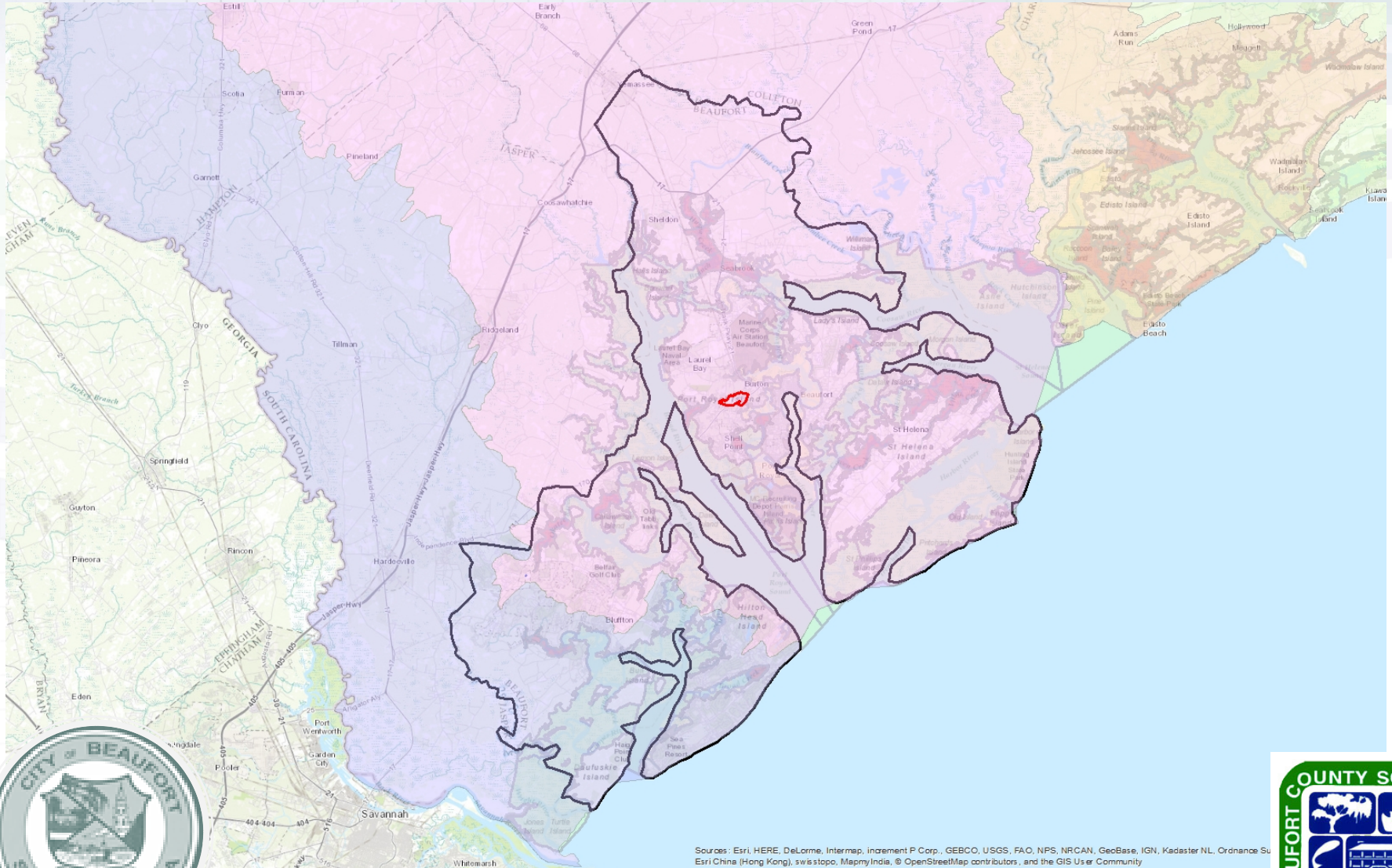


Coosawhatchie Watershed

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



Battery Creek Water Quality Retrofit

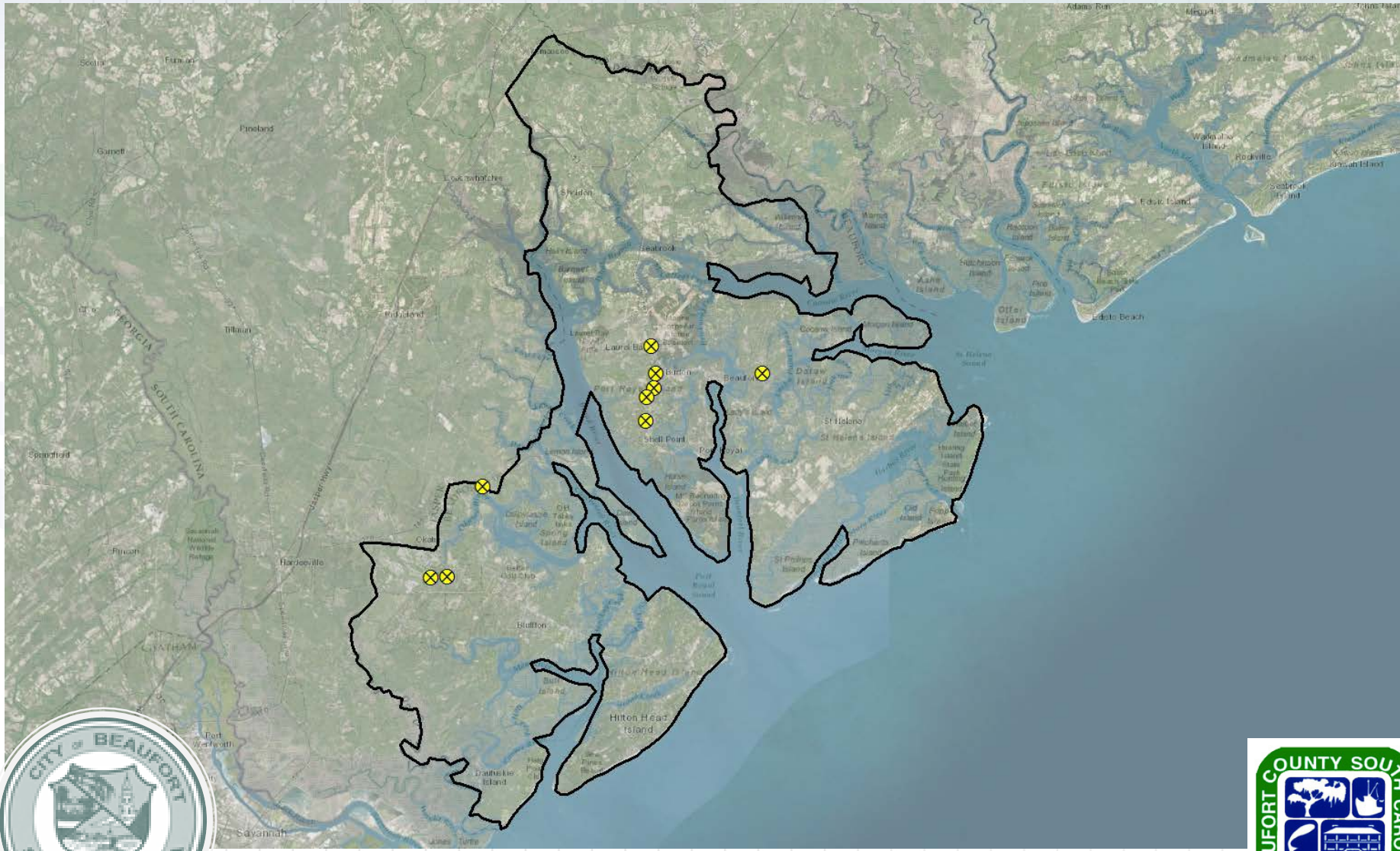


Beaufort County

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCO, IGN, Kadaster NL, Ordnance Survey, Esri China (Hong Kong), swisstopo, Mapny India, © OpenStreetMap contributors, and the GIS User Community



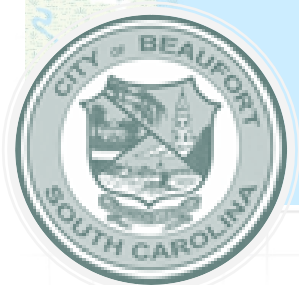
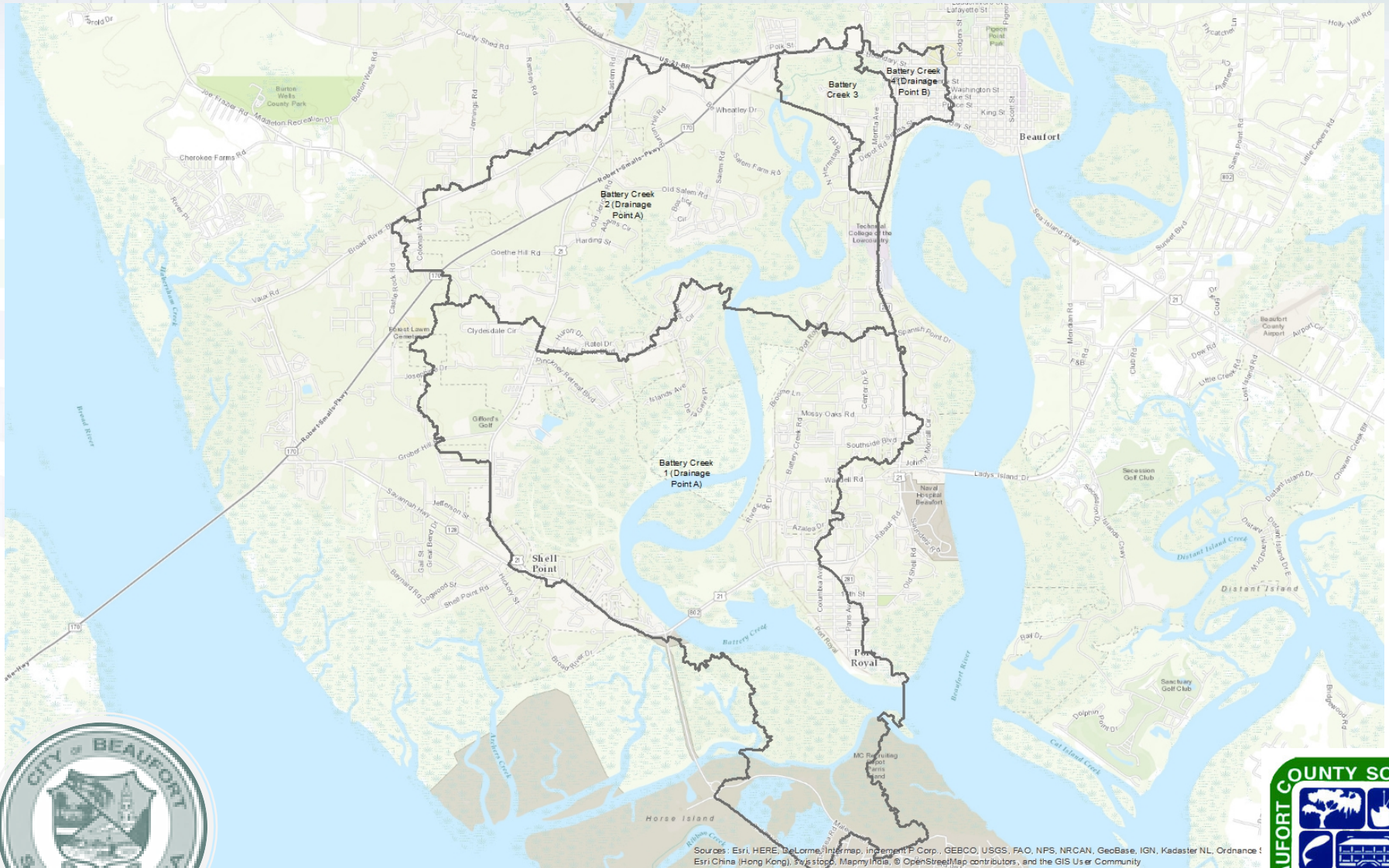
Battery Creek Water Quality Retrofit



Beaufort County



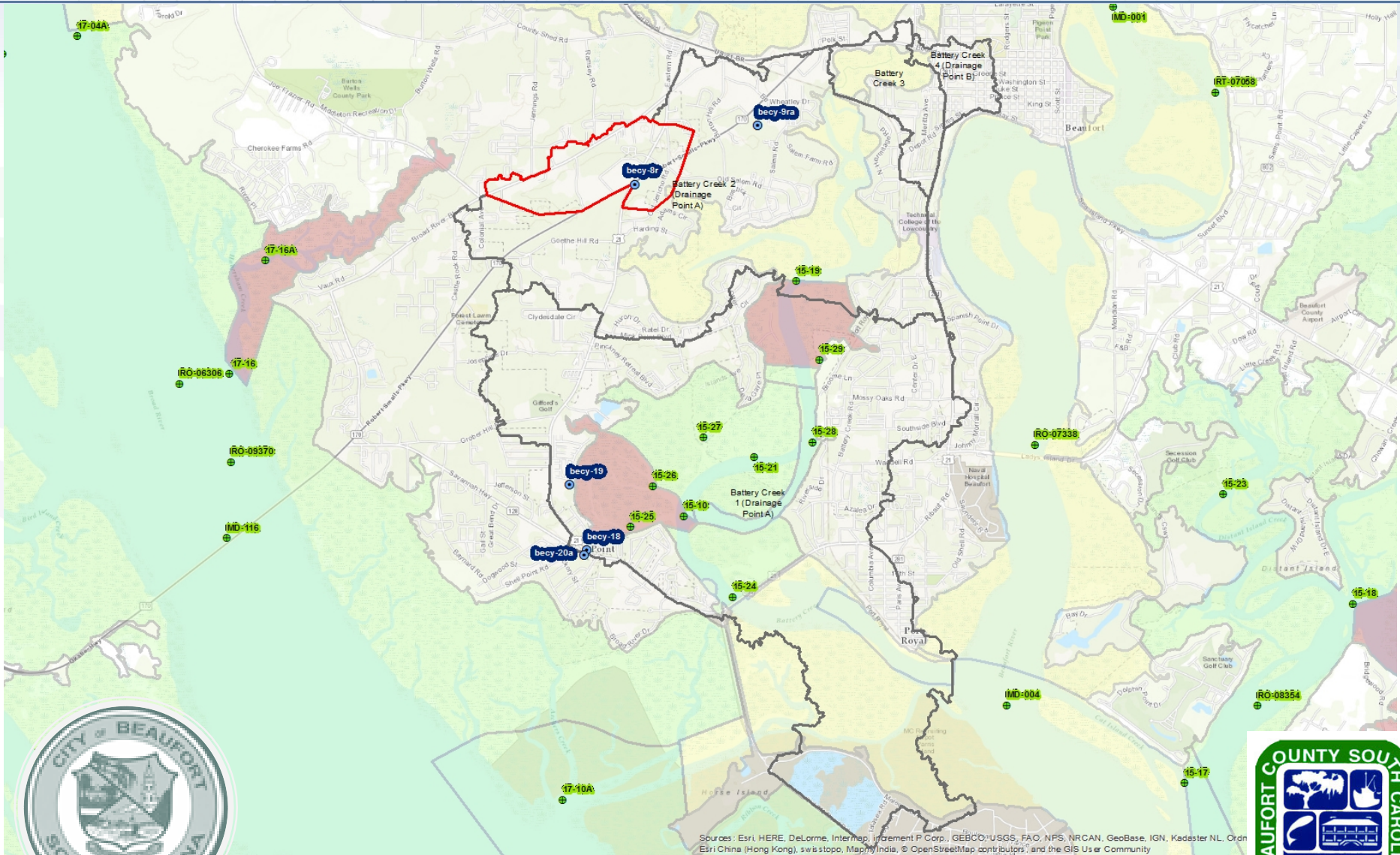
Battery Creek Water Quality Retrofit



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri China (Hong Kong), Swisstopo, Mapbox India, © OpenStreetMap contributors, and the GIS User Community

Battery Creek Watershed

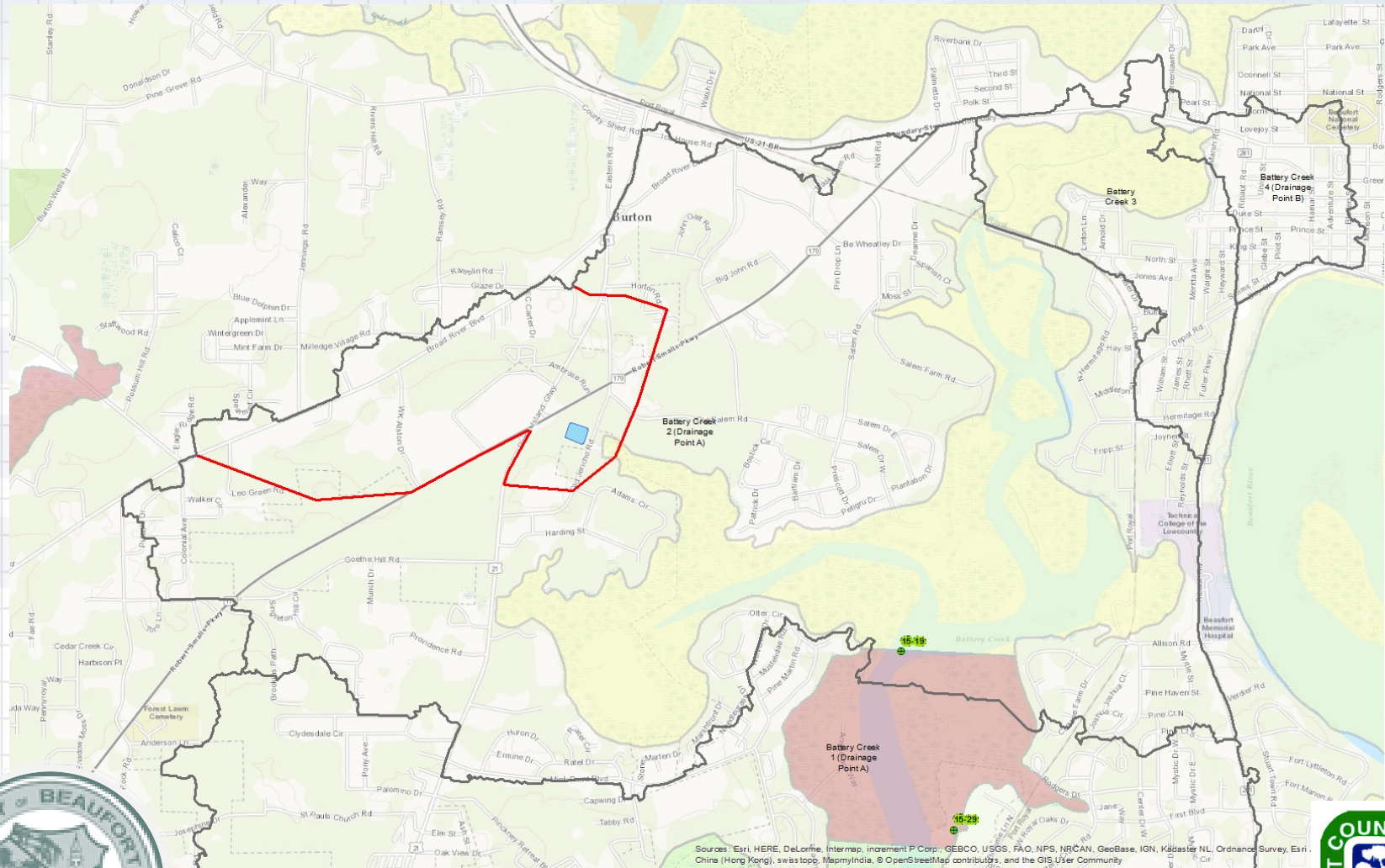
Battery Creek Water Quality Retrofit



Sources: Esri, HERE, DeLorme, Intermap, Inetramet P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordn Esri China (Hong Kong), swis stopo, Mapbox India, © OpenStreetMap contributors, and the GIS User Community

Shellfish Harvesting Closures

Battery Creek Water Quality Retrofit



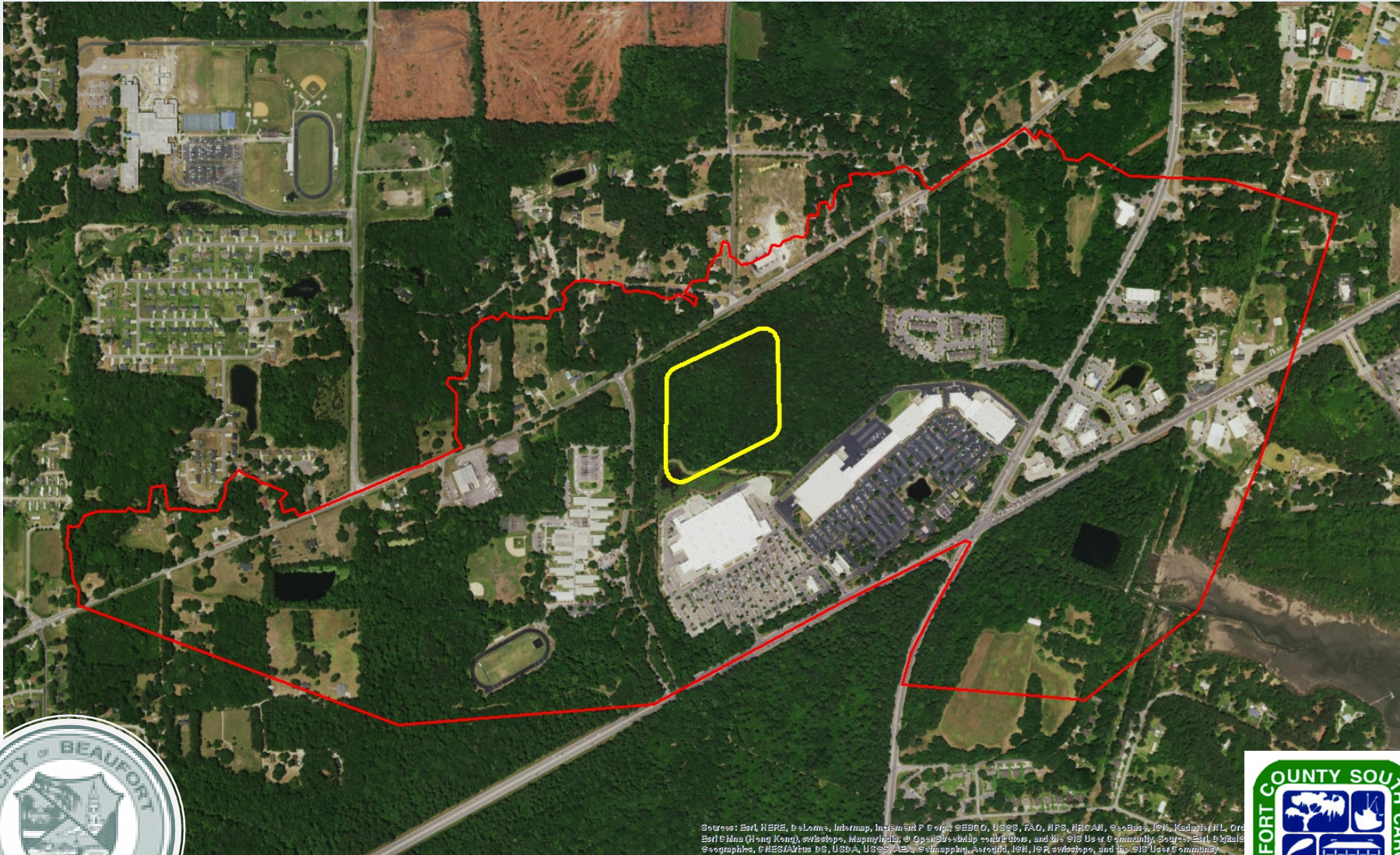
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri, China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



Battery Creek Headwaters



Battery Creek Water Quality Retrofit



Burton Hill Sub-Basin



Battery Creek Water Quality Retrofit



Burton Hill Sub-Basin



Battery Creek Water Quality Retrofit



Drainage Flow Pattern



Battery Creek Water Quality Retrofit



BMP Concept



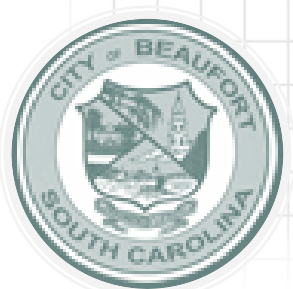
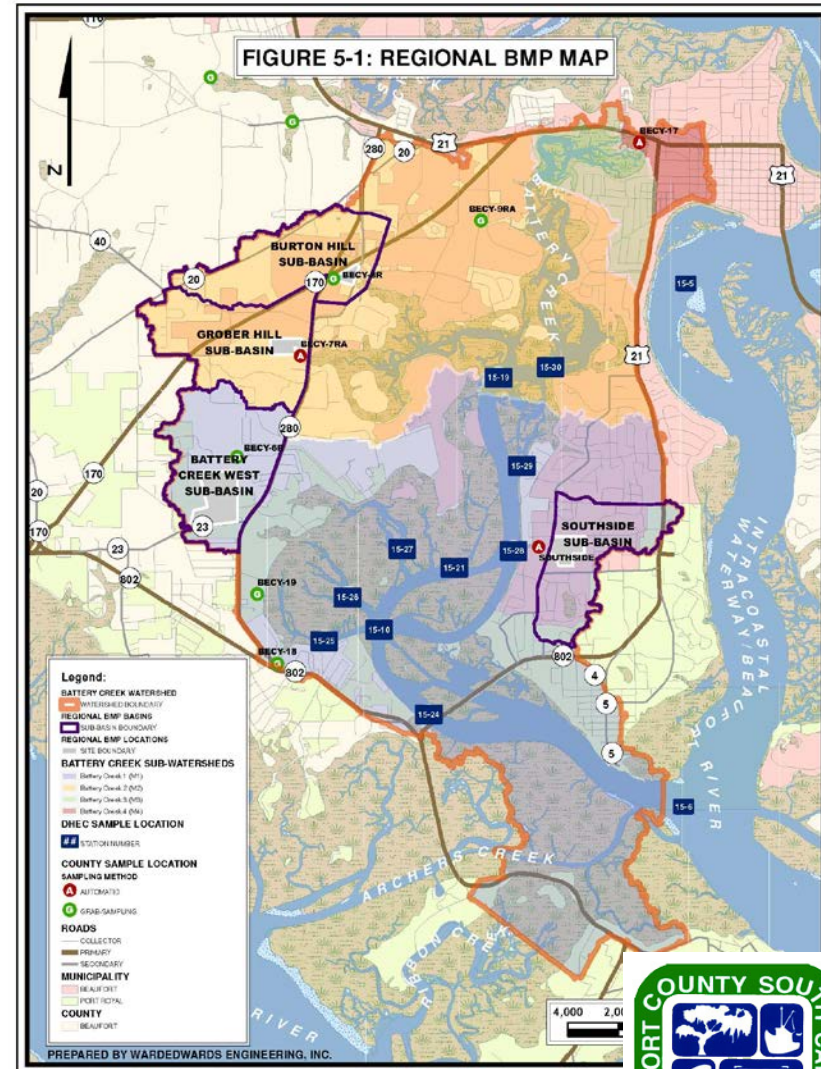
Battery Creek Water Quality Retrofit

- 2015 - Design & Permitting
- 2016 - Construction.
- Early 2017 - Grant Closeout.



Battery Creek Water Quality Retrofit

- EPA Section 319 Water Quality Grant - \$350,000
- Competitive grant administered by SCDHEC based on need and effectiveness.
- Remainder (\$400,000) funded by the City/County through the Stormwater Utility Fee.



Project Funding



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



Construction Progress



Battery Creek Water Quality Retrofit



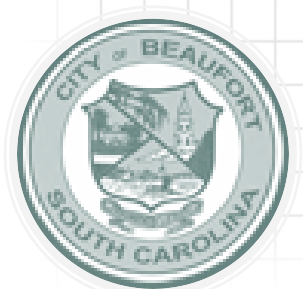
Construction Progress



Questions?

Paul Moore, P.E. – Project Manager, Ward Edwards Engineering

Neil Desai, P.E. – City Engineering, City of Beaufort



STATE OF SOUTH CAROLINA)
)
 COUNTY OF BEAUFORT)

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS, THAT **Shell Point Investments, LLC** (hereinafter "Grantor"), for and in consideration of the sum of Ten and No/100 Dollars (\$10.00) to it in hand paid at and before the sealing of these presents by **Beaufort County** (hereinafter "Grantee"), whose address is Post Office Drawer 1228, Beaufort, South Carolina 29901-1228, the receipt whereof is hereby acknowledged, has remised, released and forever quit-claimed, and by these presents does remise, release and forever quit-claim unto the said Grantee, its successors and assigns forever, all of its right, title and interest in and to the following described real property, to wit:

All those certain pieces, parcels or strips of land situate, lying and being in Shell Point Subdivision, Beaufort County, South Carolina, and being more particularly shown as 20' – 30' wide strips of land on a plat of Shell Point Subdivision recorded in the Beaufort County R.O.D. Office in Plat Book 17 at Page 28. A copy of said plat is attached hereto as Exhibit "B". The strips of land are also depicted in Exhibit "A".

Also, all that property which is shown in Exhibit "C" as the ditch area located within the parcel labeled "Temporarily Reserved". Exhibit "C" is derived from a plat recorded in Plat Book 18 at Page 126.

TOGETHER with all and singular, the rights, members, hereditaments and appurtenances to the said premises belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD all and singular the premises before mentioned unto the said **Beaufort County**, its successors and assigns forever.

WITNESS the hand and seal of the Grantor this 8th day of December, 2016.

WITNESSED BY:

SHELL POINT INVESTMENTS, LLC

Laura Holman McIntosh
Witness #1

By: James W. Pike
James W. Pike, Manager

Loretta D. Miranda
Witness #2

STATE OF SOUTH CAROLINA)
)
COUNTY OF BEAUFORT)

I, the undersigned Notary Public, do hereby certify that James W. Pike, personally appeared before me this day and, in the presence of the two witnesses above named, acknowledged the due execution of the foregoing instrument on behalf of Shell Point Investments, LLC.

Witness my Hand and Seal, this 8th day of December, 2016.

Loretta D. Miranda
Signature of Notary Public

Notary Public for the State of: South Carolina

My commission expires: May 24th, 2022

(Seal required if outside South Carolina)

LUELLA ST
GAIL ST

GREAT BEND DR

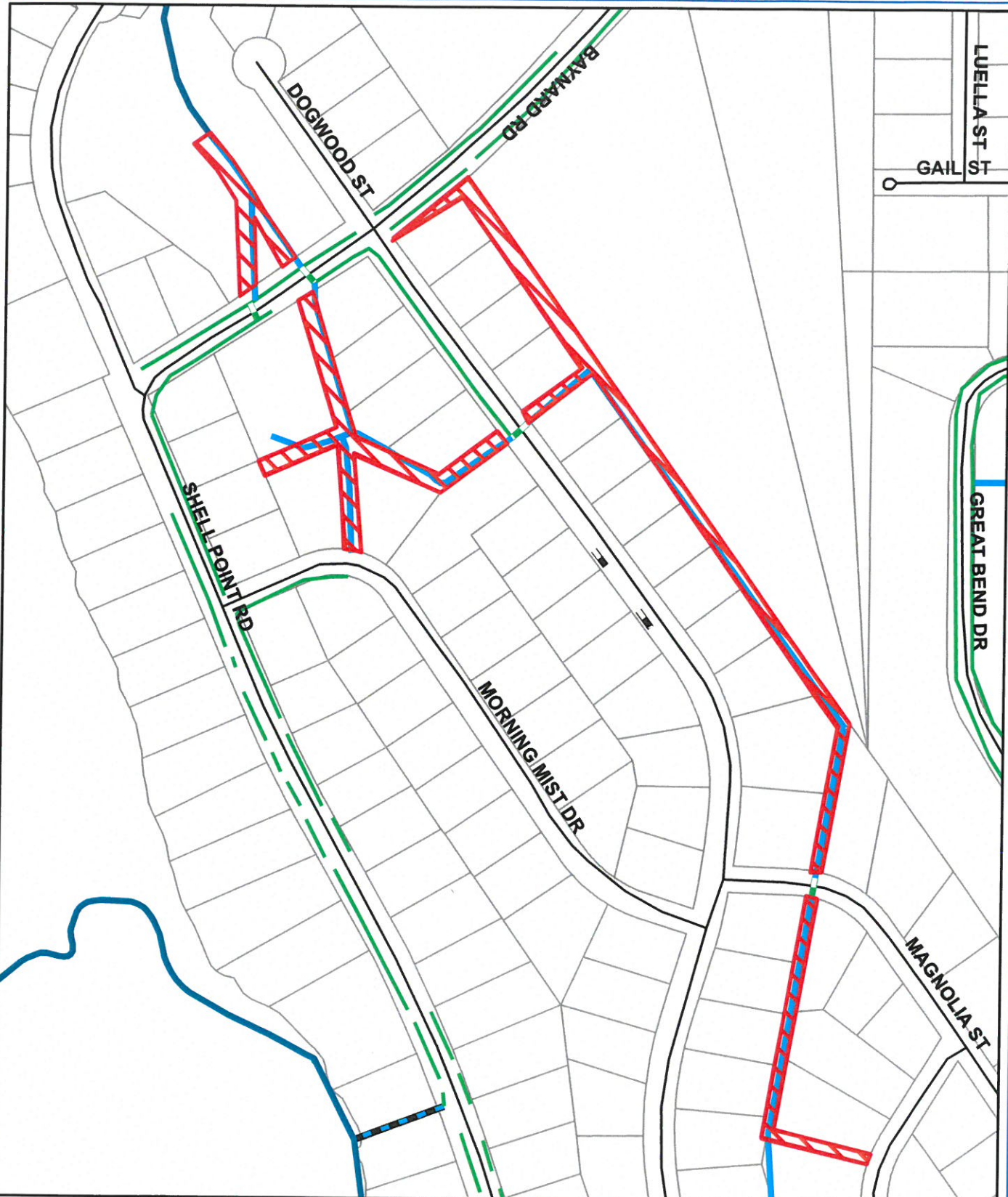
MAGNOLIA ST

DOGWOOD ST

MORNING MIST DR

SHELL POINT RD

BAYNARD RD



1 inch = 265 feet

(Exhibit "A")
Dogwood Street
Activity: Drainage
Easement Request
Township:
Port Royal Island

Legend	
	Requested Easement
Drainage	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (R/a Outfall)
	Channel Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Lateral
	Lateral Pipe
	Access Pipe
	Bleeder Pipe



PB 17/28

EXHIBIT "B"

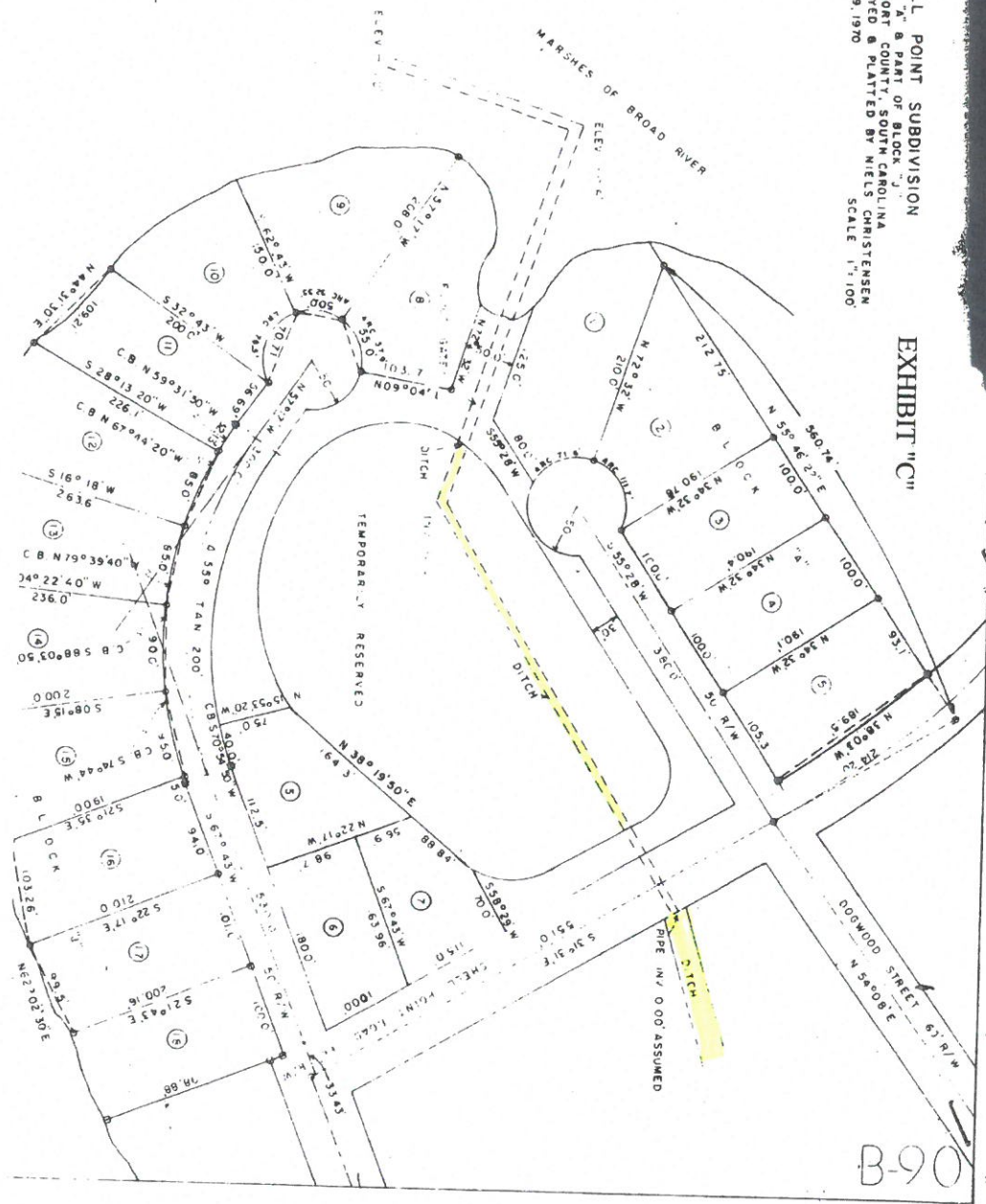


PLAT NO. 11207

SHELL POINT SUBDIVISION
BLOCK "A" & PART OF BLOCK "J"
BEAUFORT COUNTY, SOUTH CAROLINA
SURVEYED & PLATTED BY NIELS CHRISTENSEN
JUNE 9, 1970
SCALE 1" = 100'

EXHIBIT "C"

761
3/23/72
JCH
CCH



OLD PB 18/126

B-90