



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, September 20, 2017
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
843.255.2805

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

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – July 19, 2017 and August 16, 2017 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – No Report
5. UNFINISHED BUSINESS
6. NEW BUSINESS
 - A. Update from City of Beaufort on Mossy Oaks Drainage Issues
 - B. Proposed Revision to County Code of Ordinance Chapter 99 for Transportation Exemption ([backup](#))
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. October 18, 2017 ([backup](#))
9. ADJOURNMENT



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

July 19, 2017 at 2:00 p.m. in Executive Conference Room, Administration Building, Beaufort County Government Robert Smalls Complex, 100 Ribaut Road, Beaufort, South Carolina

Draft Minutes 07/24/2017

Board Members

Present

Don Smith
William Bruggeman
James Fargher
Larry Meisner
Patrick Mitchell

Absent

Marc Feinberg
Allyn Schneider

Ex-Officio Members

Present

Andy Kinghorn
Kim Jones

Absent

Scott Liggett
Van Willis

Beaufort County Staff

Eric Larson
David Wilhelm
Rebecca Baker
Melissa Allen
Patricia Wilson
Donald McKay

Visitors

Alice Howard, County Council District 4
Jeff Netzinger, Town of Hilton Head
Jeff Buckalew, Town of Hilton Head
Denise Parsick, Beaufort SW Conservation District
Lamar Taylor, City of Beaufort

1. Meeting called to order – Don Smith

- A. Agenda – Approved.
- B. May 17, 2017 Minutes - Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

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:

<https://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2017/071917.pdf>

A. June Stormwater Manager Report – Eric Larson

Mr. Eric Larson thanked the Chairman, Mr. Don Smith, for making the decision to cancel June's meeting to allow staff the opportunity to attend the funeral for Jimmie Stanley who was a long time Public Works employee. He expressed that thoughts and prayers are with their family as they continue to heal.

Mr. Larson indicated that he will provide the July report and refer back to the June report on occasion.

B. Utility Update – Eric Larson

In reference to item #2, Mr. Eric Larson noted an increase in fees for Town of Hilton Head, as they have changed over Option E for their rate structure.

Mr. Larson mentioned that tax run work and preparation began on July 1st and staff is busy checking data.

C. Monitoring Update – Eric Larson

USCB has renewed their agreement with the Town of Bluffton and their funding levels stayed the same at \$120,000 a year.

Mr. Larson explained that the County is developing a monitoring plan with USCB to use as a pre-construction base line for new construction projects and these projects will likely take two years to complete. Mr. Don Smith asked if the County was happy with the work the lab is doing. Ms. Kim Jones said the Town of Bluffton has been working with them since 2009 and they have met every need they have had. Mr. Larson responded that the County is fine with their performance and indicated they meet with the lab on a regular basis to check on progress. He noted they are doing almost all of the MS4 monitoring and are fully accredited with all of their procedures and looking to expand their capabilities.

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

Mr. Larson mentioned that the SWIC did not meet over the last month. Mr. Andy Kinghorn asked if SWIC has been deemphasized. Mr. Larson explained that they are now meeting on an as needed basis, as content and attendance had been dropping due to other focuses such as MS4. He mentioned that they communicate through phone and email when it is necessary and meet as needed to discuss larger issues or updates.

E. Stormwater Related Projects – Eric Larson

In reference to Okatie West, Mr. Larson referred back to the June report explaining that DHEC informed the County that funding for the grant has been cut off early. The project is now scheduled for completion by July 31, 2018 and is currently ahead of that schedule.

Mr. Larson provided an update on easements, informing the board that the County has reached an agreement with the property owner on Pleasant Point, to include liability. An agreement (restricted covenant) has been signed and will be recorded in the future.

F. Professional Contracts Report – Eric Larson

Mr. Larson explained that Joe Mina with ATM is working on making a recommendation on the CIP list. When he finished with the modeling, he wasn't finding a correlation between the modeling results and the projects of the 2006 plan. After interviewing municipalities and jurisdictions and getting a list of their priorities, the recommendation for the Master Plan will consist of a blend of known hot spots, complaint areas, perceived problems from impaired watersheds, and projects as a result of the modeling.

In reference to the FY18 Project Grouping, Mr. Larson informed the board that there is a proposal out for consulting services for four projects, two from last year that were delayed due to Hurricane Matthew and two projects that were planned this year. In response to a question, Mr. Larson responded that it is all one package, but the option to select a second firm is available, should the selected firm not have the capacity or manpower to complete all

four projects. He noted Brewer Memorial is not part of the 2006 master plan; it is a smaller demonstration project that was added to solve an isolated drainage problem in a high profile location to demonstrate BMPs to the public.

Mr. Larson gave a brief overview of the other three projects.

- Sawmill Creek overtopping was noted as an issue in the 2006 master plan, located on HWY 278 which is an evacuation route. A stormwater feature will be built in coordination with a frontage road that will connect the frontage road from BMW over to Tanger 1. The embankment that creates the frontage road will be used as a dam, stormwater detention facility, to help regulate the flow and prevent the overtopping of 278.
- Salt Creek near Battery Creek High School will be a regional wet detention facility to try to intercept some of the flow from that sub watershed into Albergotti Creek.
- Shanklin Road goes into Albergotti Creek and is in front of the runway on the Air Station. The government purchased the land to create a wetland bank, the County's goal is to create a water quality feature in that sub watershed that will meet approval of the Marine Corps, without attracting birds.

G. Regional Coordination – Eric Larson

Mr. Larson noted he will be meeting with the consultant for an update on the Factory Creek Watershed (Coleman Pond) project. They will be going over final design and ensuring all permits are in place for construction in the final phase.

In reference to item #4, Municipal “County” Infrastructure, Mr. Larson pointed out that discussion is taking place about the Attorney General’s option, which expanded from roads to all infrastructures. County Council has authorized the County Administrator, Gary Kubic, to discuss this opinion on County roads within incorporated areas with the Town and City Managers. He noted is important for the Board to be aware of, as it could affect operations and funding of the utility.

H. Municipal Reports – Eric Larson

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

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

Mr. Larson noted that that you can see by the report that the work load is starting to substantially increase with the MS4 program in place. Stormwater regulation started reporting the number of violations that the County had had to issue.

Regarding #4, MS4 permit by rule, Mr. Larson mentioned that it was approved by County Council and a letter has been sent to DHEC. The County began operating as such and has begun NPDES permitting (construction stormwater) as an MS4 and on behalf of DHEC as of July 1, 2017.

Mr. Larson pointed out that the Pond Conference will be taking place at USCB in October with a full day of technical speakers, tailored toward a broad spectrum of audiences such as home owners, developers and engineers. In response to a questions Mr. Larson explained that Carolina Clear will be responsible for advertising and will do so by avenues such as email lists for their newsletters, social media, mailers, announcements during the SWUB meeting, and a County press release. He explained the County did this event in 2015 and had over 100 participants, and expects this year’s participation to be 100+ as well.

J. Maintenance Projects Report – David Wilhelm

Mr. David Wilhelm reported on the completion of the HWY 278 ponds, Warsaw Road, and Mint Farm Pond projects.

- The last of the four ponds on HWY 278 is complete. The final pond was a one acre pond located next to the Berkeley Hall construction entrance. The four ponds total about six and a half (6.5) acres: Pickney Hall is a one acre pond, Berkeley Hall is a one acre pond, Barrell Landing is two ponds totaling an acre, and Running Deer is about 3.5 acres. 84,000 cubic yards of material was removed from the pond sites and taken to the Bluffton recreation center to build up future sports fields. PALs partnered in this project, as they shared half of the excavation and hauling cost and in return got a large quantity of material at a greatly reduced rate. The County is monitoring the pond sites on a routine basis to ensure they are properly maintained.
- Warsaw Island Road project (3,500 feet of road side ditch was cleaned) was completed at end of September. The area was hydroseeded and since the vegetation didn't have a chance to establish before Hurricane Matthew, the County had to go back in and clean it up, which is why the cost is almost nearly double what a typical project of this nature would cost.
- Mint Farm Pond off of James Road the pond was constructed in a subdivision without any kind of outfall in it, so when the pond filled up the houses were subject to flooding. The water elevation was lowered, three catch basins and channel pipe were installed, so now as the pond water rises it will divert off once it reaches a certain elevation.

5. Unfinished Business – None.

6. New Business

A. Special Presentation: Town of Hilton Head Island – EWP Efforts – Mr. Jeff Buckalew gave an overview of the Town of Hilton Head's efforts with regard to disaster debris recovery from Hurricane Matthew. He explained that prior to the storm the Town had a debris management plan that was approved by FEMA which qualified them for an extra 2% in funding assistance. They also had drainage agreements with many of the gated communities as well as MOAs for debris removal, in addition to ordinances established prior to the storm, which helped them when applying for funding assistance.

After Hurricane Matthew passed it was essential for emergency clearing to begin to be able access critical facilities and begin damage assessments after getting staff back on island. After doing some research it was determined they needed to go through NRCS, using their Emergency Watershed Program (EWP) for funding assistance for debris removal. FEMA expressed that all resources needed to be exhausted before contacting them for additional assistance. The Town of Hilton Head began with the exigency program through NRCS, which is available for life threatening situations, which they identified with repetitive loss areas to flooding from their GIS system.

One challenge they ran into was that the local share for the grant was over \$100,000, so it was debated whether or not they needed to go to Town Council for approval. The exigency program allows only 10 days for all of the work to be completed from the date it is signed. Once signed, the Town immediately applied for the 10 day extension as the result of a recommendation

from NRCS to ensure they have plenty of time, should they run into challenges such as poor weather conditions or issues with equipment. Knowing that any unused funds had to go back to NRCS, the Town asked if they were allowed to do additional work if any money and time were left after completing the approved work. The Town was told they could do additional work only if it fell within the geographic zones that were approved and it was similar work. They had 11 channels approved and ended up being able to complete 13.

After finishing the exigency projects the Town began working on a standard grant through NRCS. This type of grant allows 220 days for work to be completed. They continued doing project scopes to determine the amount of work, cost estimates and review property rights. In some cases they had to go out and acquire right of entry and easements that were needed to complete work. The Town finished the standard grant work a few weeks ago and NRCS submitted a letter indicating they had depleted all available NRCS funds, so they could work on trying to get FEMA assistance.

The Town is currently working with FEMA and developed new project scopes and reviewed property rights. FEMA had different criteria for property rights, in which they require you to have them in place prior to a storm. They are expected to complete all federal subsidized drainage debris work by September.

Mr. Buckalew noted that NRCS and FEMA were very different to work with as NRCS utilized thorough bureaucracy (wait to start) versus proceed at your own risk with FEMA. The transition between the two for funding assistance was very unclear, but they worked through it. The local match for the assistance programs was 25%.

Some lessons that were learned throughout the process were to research up front, effective communication (knowing who the right person to reach out to), having organized data in GIS and property right agreements in place, knowing roles and responsibilities, creating a flow chart of the process, establishing a funding reserve, and having access to good contractors and monitors.

In reference to a question about the pump stations, Mr. Buckalew indicated that the Town has two pump stations with major damage that they are working to repair. They are looking into the possibility of installing a mechanical debris screen as a preventative measure for the future.

[The EWP presentation is attached to the minutes.](#)

B. SC170 Drainage Issues – The property owner was not present, so this agenda item was not discussed.

7. Public Comment(s) – None.

8. Next Meeting Agenda – Approved.

9. Meeting Adjourned



Town of Hilton Head Island

**Using Federal Assistance
to Remove Disaster Debris
from Drainage Ways**

Hurricane Matthew

June, 2017



Planning and Prior Knowledge

- Debris Management Plan
- Easements and MOA with PUD/POA
- Ordinances (Post-Disaster Debris Collection, and Storm Water Ord)
- Pre-Event Competitive Contracts



Hurricane Matthew

- Emergency Clearing
- Critical Facilities Access/Assessments
- Getting Staff back to the Island
- The Feds - Who does what?
- Direction and Action



USDA - NRCS

- Emergency Watershed Protection Program (EWP)
- Staff Research
- Data Development
- Coordination (local, state, federal)
- Exigency vs Standard work Grants



Exigency Grant

- Tied to Repetitive Loss Areas
- Developed Project Scopes/Estimates
- Debris Removal Only – (No Bank Stabilization or Sediment Removal)
- Attorney Opinion of Property Rights
- In-House Grant Execution
- Federal Grant Execution
- 10-Days to Complete all work

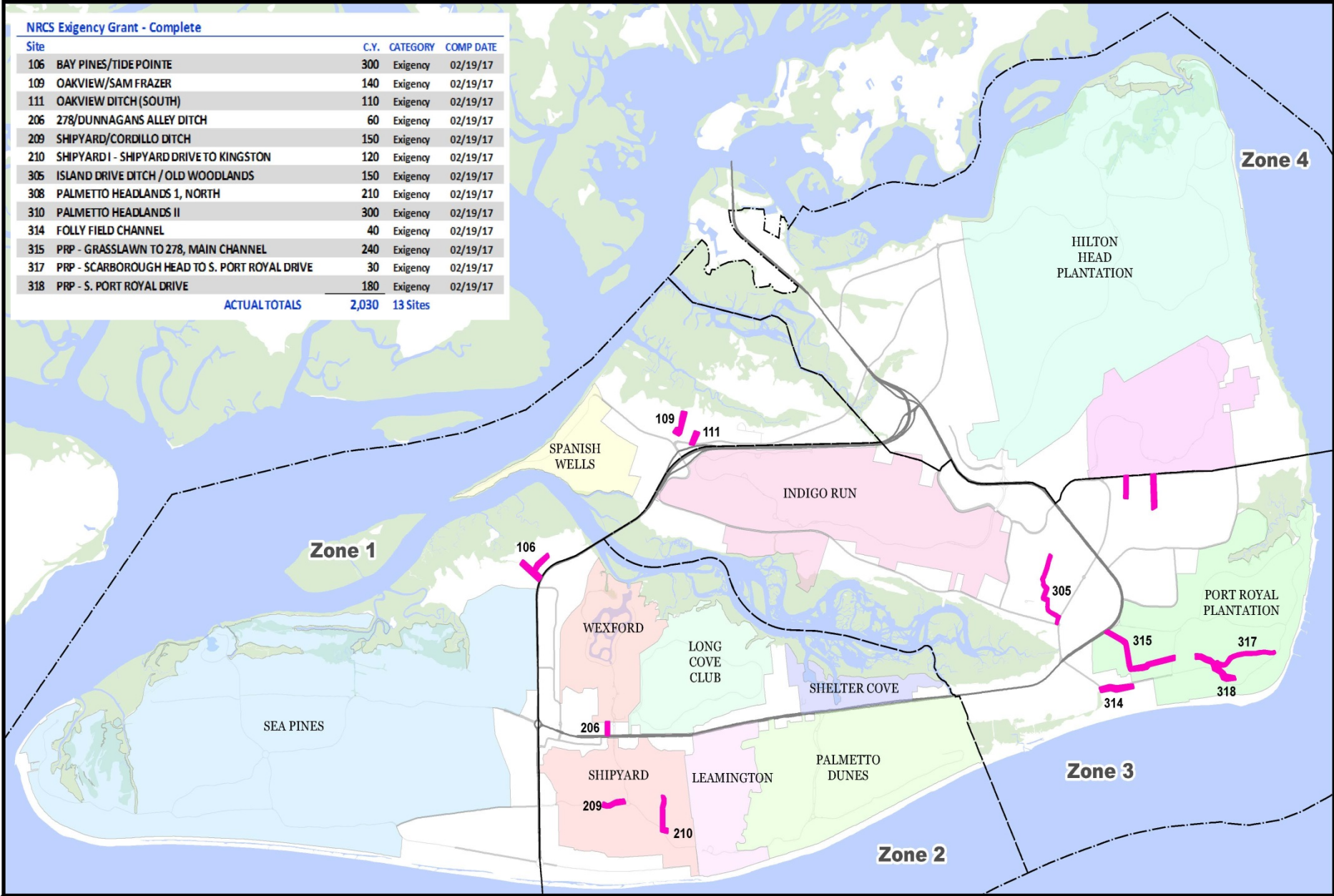


Exigency Grant

- Awarded 1/31/17
- Extension Requested Immediately
- Used Local on-call drainage contracts
- Work Completed 2/1/17 – 2/19/17
- **\$477,698 – Total Budget** (\$366,598 Fed, \$111,099 Local, \$30,909 T.A.)
- **\$222,896 = Actual Cost** (\$167,172 Fed, \$55,724 match)
- **13 Channels, 2030 CY removed**

NRCS Exigency Grant - Complete

Site	C.Y.	CATEGORY	COMP DATE
106 BAY PINES/TIDE POINTE	300	Exigency	02/19/17
109 OAKVIEW/SAM FRAZER	140	Exigency	02/19/17
111 OAKVIEW DITCH (SOUTH)	110	Exigency	02/19/17
206 278/DUNNAGANS ALLEY DITCH	60	Exigency	02/19/17
209 SHIPYARD/CORDILLO DITCH	150	Exigency	02/19/17
210 SHIPYARD I - SHIPYARD DRIVE TO KINGSTON	120	Exigency	02/19/17
305 ISLAND DRIVE DITCH / OLD WOODLANDS	150	Exigency	02/19/17
308 PALMETTO HEADLANDS 1, NORTH	210	Exigency	02/19/17
310 PALMETTO HEADLANDS II	300	Exigency	02/19/17
314 FOLLY FIELD CHANNEL	40	Exigency	02/19/17
315 PRP - GRASSLAWN TO 278, MAIN CHANNEL	240	Exigency	02/19/17
317 PRP - SCARBOROUGH HEAD TO S. PORT ROYAL DRIVE	30	Exigency	02/19/17
318 PRP - S. PORT ROYAL DRIVE	180	Exigency	02/19/17
ACTUAL TOTALS	2,030	13 Sites	





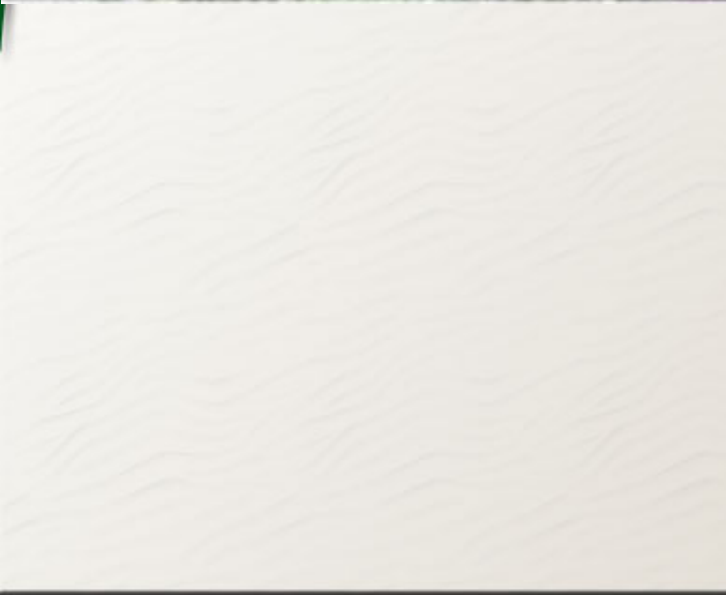


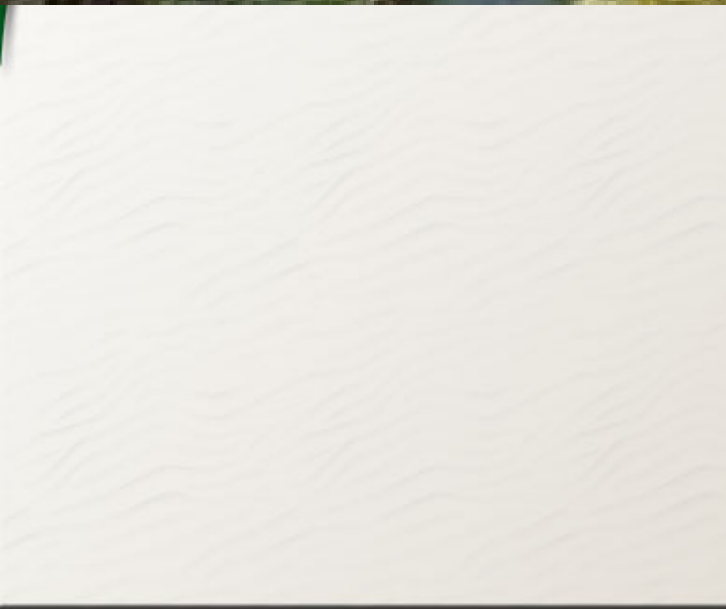












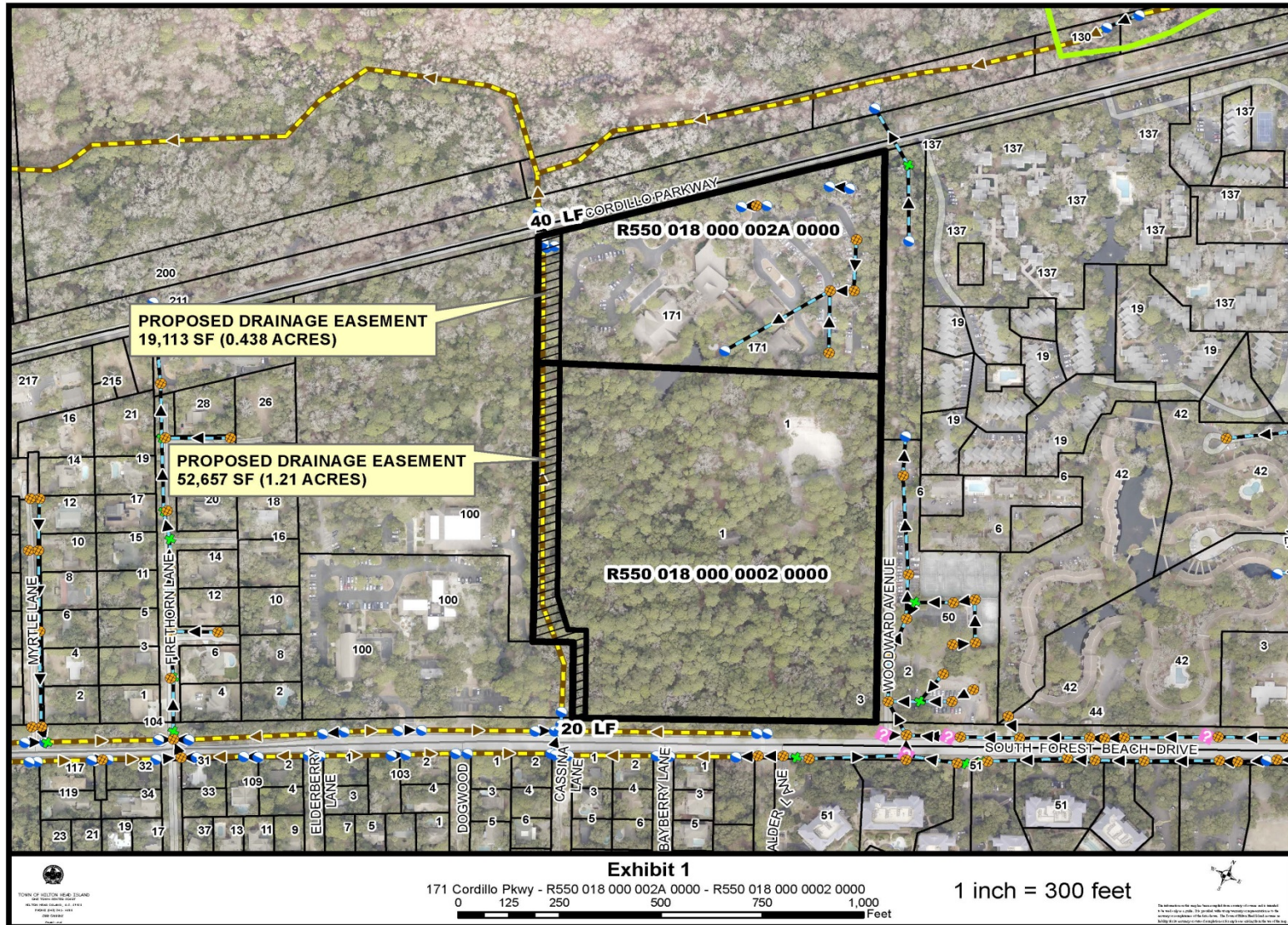


Standard Grant

- Developed Project Scopes/Estimates
- Property Rights
- Federal Grant Execution
- Awarded 5/11/17
- 220-Days to Complete all work
- Work Began 5/15/17
- Work was Completed as of 7-5-17



Property Rights



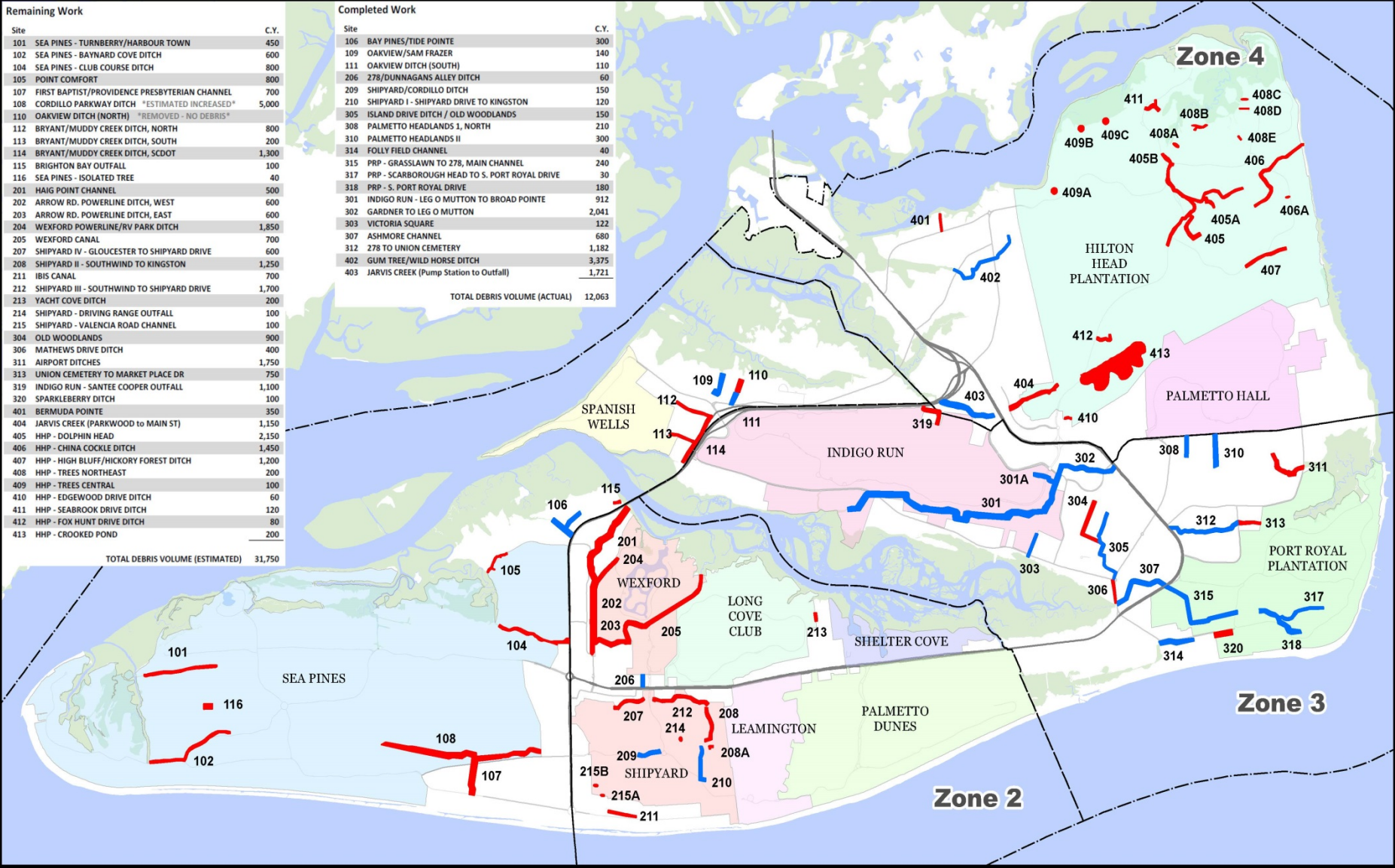


Standard Grant

- Using Crowder Gulf and Tetra Tech – Debris Contracts
- \$1,316,219 – Total Grant Award - (\$1,010,122 Fed, \$306,097 Local Match, \$91,829 TA)
- \$1,419,516 = Actual Cost (\$1,010,122 Fed, \$409,394 Local Match and TA)
- 14 Channels, 18,460 CY (actuals)
- Depleted All Available Funds

Remaining Work	
Site	C.Y.
101 SEA PINES - TURNBERRY/HARBOUR TOWN	450
102 SEA PINES - BAYNARD COVE DITCH	600
104 SEA PINES - CLUB COURSE DITCH	800
105 POINT COMFORT	800
107 FIRST BAPTIST/PROVIDENCE PRESBYTERIAN CHANNEL	700
108 CORDILLO PARKWAY DITCH *ESTIMATED INCREASED*	5,000
110 OAKVIEW DITCH (NORTH) *REMOVED - NO DEBRIS*	
112 BRYANT/MUDDY CREEK DITCH, NORTH	800
113 BRYANT/MUDDY CREEK DITCH, SOUTH	200
114 BRYANT/MUDDY CREEK DITCH, SCDOT	1,300
115 BRIGHTON BAY OUTFALL	100
116 SEA PINES - ISOLATED TREE	40
201 HAIG POINT CHANNEL	500
202 ARROW RD. POWERLINE DITCH, WEST	600
203 ARROW RD. POWERLINE DITCH, EAST	600
204 WEXFORD POWERLINE/RV PARK DITCH	1,850
205 WEXFORD CANAL	700
207 SHIPYARD IV - GLOUCESTER TO SHIPYARD DRIVE	600
208 SHIPYARD II - SOUTHWIND TO KINGSTON	1,250
211 IBIS CANAL	700
212 SHIPYARD III - SOUTHWIND TO SHIPYARD DRIVE	1,700
213 YACHT COVE DITCH	200
214 SHIPYARD - DRIVING RANGE OUTFALL	100
215 SHIPYARD - VALENCIA ROAD CHANNEL	100
304 OLD WOODLANDS	900
306 MATHEWS DRIVE DITCH	400
311 AIRPORT DITCHES	1,750
313 UNION CEMETERY TO MARKET PLACE DR	750
319 INDIGO RUN - SANTEE COOPER OUTFALL	1,100
320 SPARKLEBERRY DITCH	100
401 BERMUDA POINT	350
404 JARVIS CREEK (PARKWOOD to MAIN ST)	1,150
405 HHP - DOLPHIN HEAD	2,150
406 HHP - CHINA COCKLE DITCH	1,450
407 HHP - HIGH BLUFF/HICKORY FOREST DITCH	1,200
408 HHP - TREES NORTHEAST	200
409 HHP - TREES CENTRAL	100
410 HHP - EDGEWOOD DRIVE DITCH	60
411 HHP - SEABROOK DRIVE DITCH	120
412 HHP - FOX HUNT DRIVE DITCH	80
413 HHP - CROOKED POND	200
TOTAL DEBRIS VOLUME (ESTIMATED)	31,750

Completed Work	
Site	C.Y.
106 BAY PINES/TIDE POINT	300
109 OAKVIEW/SAM FRAZER	140
111 OAKVIEW DITCH (SOUTH)	110
206 278/DUNNAGANS ALLEY DITCH	60
209 SHIPYARD/CORDILLO DITCH	150
210 SHIPYARD I - SHIPYARD DRIVE TO KINGSTON	120
305 ISLAND DRIVE DITCH / OLD WOODLANDS	150
308 PALMETTO HEADLANDS 1, NORTH	210
310 PALMETTO HEADLANDS 2	300
314 FOLLY FIELD CHANNEL	40
315 PRP - GRASSLAWN TO 278, MAIN CHANNEL	240
317 PRP - SCARBOROUGH HEAD TO S. PORT ROYAL DRIVE	30
318 PRP - S. PORT ROYAL DRIVE	180
301 INDIGO RUN - LEG O MUTTON TO BROAD POINTE	912
302 GARDNER TO LEG O MUTTON	2,041
303 VICTORIA SQUARE	122
307 ASHMORE CHANNEL	680
312 278 TO UNION CEMETERY	1,182
402 GUM TREE/WILD HORSE DITCH	3,375
403 JARVIS CREEK (Pump Station to Outfall)	1,721
TOTAL DEBRIS VOLUME (ACTUAL)	12,063



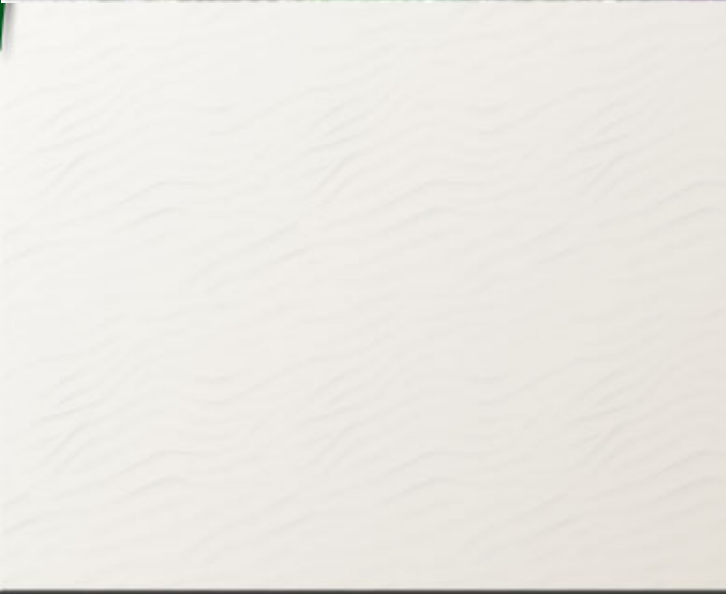
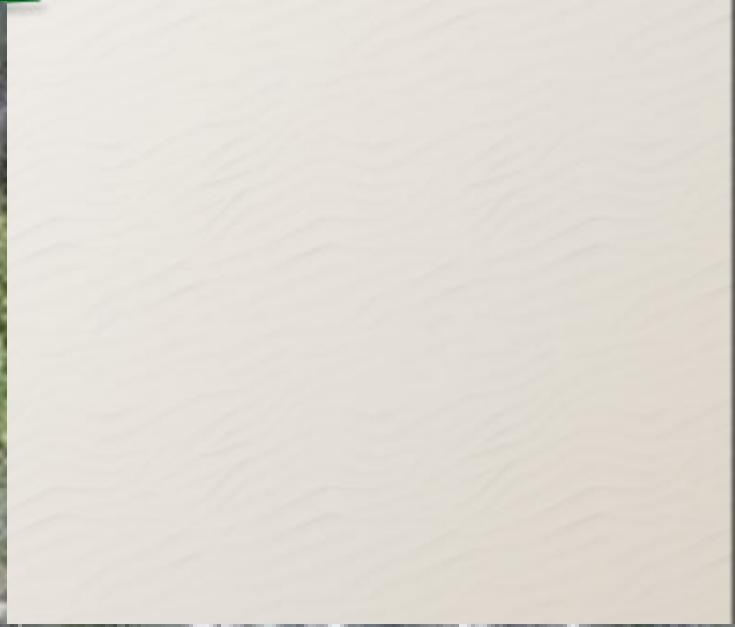
TOWN OF HILTON HEAD ISLAND
 1000 TOWN CENTER DRIVE
 HILTON HEAD ISLAND, SC 29928
 PHONE 843.666.4883
 FAX 843.666.4883
 Date Created: Tuesday, June 13, 2017
 Please Contact the 311 Call Center

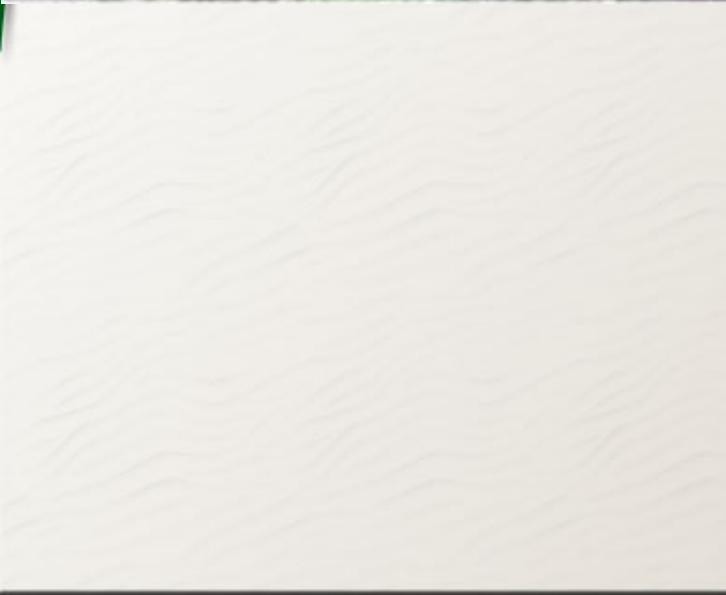
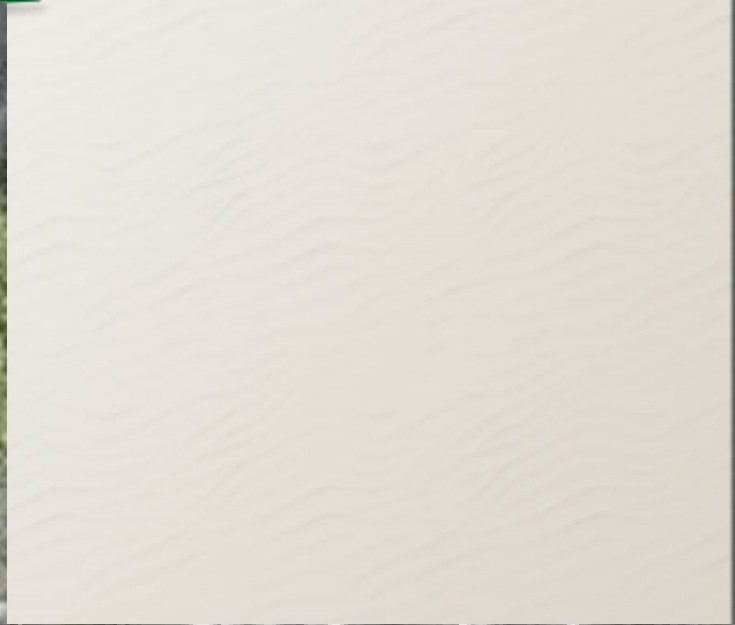
COMPLETE
NOT COMPLETE

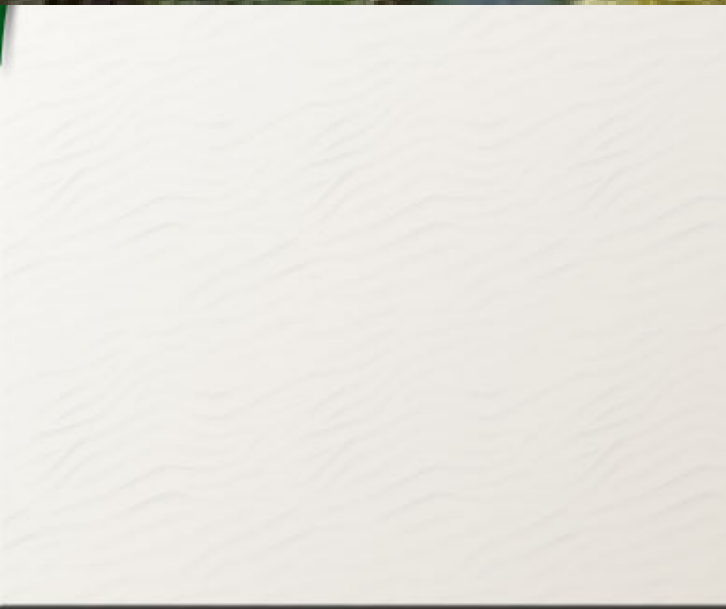
Town of Hilton Head Island
 Hurricane Matthew Recovery
 Drainageway Debris Removal
 Site Status Map

1 inch = 4,000 feet
 June 13, 2017

This information is for informational purposes only and is not intended to be used as a basis for any legal action. It is provided without any warranty or representation as to the accuracy or completeness of the data shown. The Town of Hilton Head Island assumes no liability for any errors or omissions in this information.









FEMA Public Assistance

- Developed Project Scopes/Estimates (for FEMA PW)
- Property Rights (different criteria)
- \$2,079,300 Job Order
- 38 Channels @ 27,200 CY (est.)
- Work Began 7/11/17
- Work to be Completed by 10/9/17



NRCS vs. FEMA

- Differences in Programs / Agencies
- NRCS-EWP
 - Thorough Bureaucracy
- FEMA – Public Assistance
 - Proceed at Your Risk
- The Nebulous Transition



Total Projected Costs

- NRCS expected to provide \$1,177,294 with a local match (25%) of \$480,118
- FEMA expected to provide \$1,778,000, with a local match (25%) of \$593,000
- Total Fed Assistance \$2,955,294
- Total Town Cost \$1,073,118



Total Project Completion

- We expect to be completed with all federally subsidized drainage debris work by September.



Lessons Learned

- Research
- Communication
- Organized Data – GIS is key
- Property Rights – Dedications / Town Codes
- Funding Reserves
- Process – Map with flow chart
- Roles and Responsibilities – Org Chart
- Good Contractors / Monitors

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

August 16, 2017 at 2:00 p.m. in Executive Conference Room, Administration Building, Beaufort County Government Robert Smalls Complex, 100 Ribaut Road, Beaufort, South Carolina

Draft Minutes 08/21/2017

Board Members

Present

Don Smith
William Bruggeman
Marc Feinberg

Absent

Allyn Schneider
Larry Meisner
Patrick Mitchell
James Fargher

Ex-Officio Members

Present

Andy Kinghorn
Scott Liggett
Van Willis

Absent

Kim Jones

Beaufort County Staff

David Wilhelm
Rebecca Baker
Melissa Allen
Matthew Rausch

Visitors

Alice Howard, County Council District 4
Bill Baugher, Town of Bluffton
Tony Maglione, Consultant
Ellen Comeau, Clemson Extension
Alan Warren, USCB Lab
Steve Andrews, Andrews Engineering

1. Meeting called to order – Don Smith

- A. Agenda
- B. May 17, 2017 Minutes

2. Introductions – Completed.

3. Public Comment(s) – None.

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

<http://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2017/081617.pdf>

A. Utility Update –

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

B. Monitoring Update –

Mr. Andy Kinghorn asked Dr. Alan Warren if results from 319 Battery Creek have come in. Dr. Warren indicated that the outgoing concentrations are lower than the incoming and that the BMP looks to be functioning reasonably well. He noted that six months ago there was a high goose population, but not currently.

C. Stormwater Implementation Committee (SWIC) Report –

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

D. Stormwater Related Projects –

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

E. Professional Contracts Report –

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

F. Regional Coordination –

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

G. Municipal Reports –

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

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

In response to a question, Mrs. Rebecca Baker explained she is part of the staff review team (SRT) which is why plan review is included in the report. She clarified that if a permit is deferred or approved with conditions it may not necessarily be stormwater related.

I. Maintenance Projects Report – David Wilhelm

Mr. David Wilhelm explained that the projects this past month were all routine maintenance. The budget goal for them is \$5.00 per foot for a channel clean out. All but one project came in under budget; Capehart Circle was slightly over at \$5.23 a foot.

5. Unfinished Business – None.

6. New Business

A. Special Presentation: Town of Port Royal – Cypress Wetlands Modification Project –
Mr. Tony Maglione explained that the Cypress Wetlands project was one of the first large scale regional BMPs in Port Royal; it was set up about five years ago and is three wetlands in series. It is now time for maintenance to clean out extra sediments and invasive species in the largest wetland.

The plan is to clean areas around the islands (red area in the map on page #4). Mr. Kinghorn asked about the quality of the sediment that will be removed. Mr. Maglione explained they ran TCLP tests and it was fine. He explained that this wetland captures a lot of sediment run off. The plan is to clear Island #1 of all invasive trees and plants and clear the western side of Island #2 of invasive trees and plant, leaving the Cypress trees on the east side. They will also remove various shrubs, floating plants, and invasive species in the red areas show on the map.

They plan to excavate to create open water areas and use Richmond Avenue access to remove the debris. The material will be disposed of at 6th Street, next to the dry stack marina. This area is planned to be an open park. This project is cost effective due to the short hauling distance of only 0.9 miles.

All organic material will be laid out to dry and then a mechanically ventilated burn pit will be constructed to burn the material. All sediment and excavated materials will be dried out and

spread above the critical line to build up the park area by 6-8 inches. It will then be seeded for protection and stabilization.

There is a possibility of creating a third rookery island. The advantages of an additional island is providing an additional protected rookery and would allow excavated sediment and soil to remain on site, avoiding hauling/drying and spreading costs.

The replanting plan is to replant as many native trees as possible, such as Cypress. If Island #3 is created they would plant native trees. Sufficient scrubs will remain and continue to grow in undisturbed areas. The maintenance plan for the islands is to hand spray invasive plants and tree seedlings with herbicide frequently and reduce spraying as new native plants establish. In the open water areas, they will continue to spray algaecide to manage algae and herbicide to manage duck weed.

The preliminary cost for the project is \$350,000 and funding plan is stormwater fees in the amount of \$250,000 and the Town of Port Royal is waiting on approval of a USFW North American Wetlands Conservation Act (NAWCA) grant for \$100,000, which is key.

In response to a question about how having a rookery in a stormwater BMP is compatible, Mr. Maglione explained that there are three wetlands in series, the wetland with the rookery goes into a smaller three (3) acre wetland where birds don't gather, then moves down to 15th Street into a two and half (2.5) acre wetland and discharges at two points at 12th Street into the harbor.

[The Cypress Wetlands presentation is attached to the minutes.](#)

B. Recommendation to Award Consultant Contracts for the FY18 Group CIP Projects –

Mrs. Rebecca Baker gave an overview of information that was included in the memo and packet regarding the four projects in the FY18 grouping. The County is recommending awarding Ward Edwards the Brewer Memorial Park and Sawmill Creek Projects. The proposal for Brewer Memorial came in at \$90,000. She noted that the full proposals have gone over the original budget, but the County has included an alternate plan that would reduce the costs of the project. An alternative plan for Brewer Memorial, removing water quality monitoring, would reduce the project down to \$66,000. The Sawmill Creek project (off of HWY 278) came in at \$112,000, but could be reduced down to \$88,000 if the water quality monitoring was removed from the scope.

The County is recommending awarding Andrews Engineering the Salt Creek and Shanklin Road projects. The Salt Creek proposal came in at \$222,387 and the County is not recommending an alternative plan for this project and the Shanklin Road proposal came in at \$319,572 and the alternative plan would be to remove the wetland enhancement to lower the cost to \$225,594.

Mrs. Baker noted that funding is available and the projects were approved in the 2015 CIP plan. She explained if the Board was not in favor of going over budget, the alternate plan will put the County under budget.

Discussion took place about the monitoring plan, alternative plans to monitoring and the importance of it. There were not enough members present to vote, but Mr. Don Smith mentioned that Mr. Larson does not need to have the Board's recommendation to go to NRC, but would like to get an idea of their thoughts. After discussion, it was evident that water quality monitoring was important to the Board.

C. Discussion about Work Shelves – Mr. William Bruggeman asked if the County has considered other ways to do work without cutting huge work shelves. Mr. David Wilhelm explained the work shelves are required for building and maintaining a ditch. He explained that we need a minimum of 10 feet and that the County will look at them case by case and determines

the size based on the size/depth of the ditch. The County doesn't request anything wider than what they need to do the work.

Mr. Bruggeman asked if we have gone out to see what others do. Mr. Wilhelm explained he could check into it, but is not aware of any other way to do it effectively. He explained during initial construction they can work backward, but indicated that the maintenance of the ditch would then be challenging as there is nowhere to work from. He noted that it is cheaper to build the work shelf initially than later on. Mr. Scott Liggett explained that the ditches on HHI appear to always be wet, which poses a challenge to maintain without a work shelf. Mr. Bill Baugher expressed that work shelves are important, especially with the time and resources available to get everything done and stay safe.

Mr. Bruggeman concern is that it seems to be the biggest complaint received is about the clearing of a bunch of trees when the County requests right of way. Mr. Don Smith mentioned that it seems most of the complaints are coming from older systems/ditches that haven't been maintained.

D. Outfalls without BMPS - Mr. Don Smith shared aerial photography of the shoreline off of Laurel Bay. He pointed out three old concrete channels that lead to the water. He was unsure if it is silt or scouring, but pointed out that you can visibly see they are having an effect on the shoreline. He noted these are a good example of outfalls without BMPs.

7. Public Comment(s) – None.

8. Next Meeting Agenda –

Addition – Update from City of Beaufort (culvert under Spanish Moss Trail near First Blvd. and Royal Oaks).

9. Meeting Adjourned

Town of Port Royal Cypress Wetlands Habitat Restoration Plan



Amphitheater

Island #1

YMCA

Richmond Overlook

Island #2

Existing Site

© 2016 Google

16th Street

Google



Project Team & Advisers

Team:

- Travis Folk, PhD – Folk Environmental
- Paul Hengecliff – Folk Environmental
- Bridget Lussier – Biologist

Advisers:

- Jason Ayers – USFW Coastal Program
- Chris Fernandez – USFW Coastal Program
- Craig Watson – Atlantic Joint Venture - USFW



Island #1

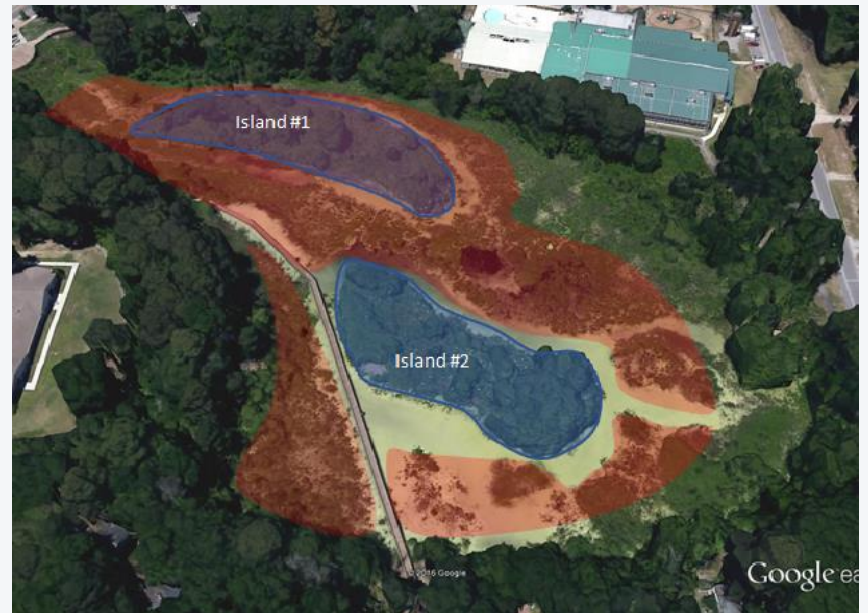
Island #2

Areas to be Disturbed

Cypress Wetlands Restoration

❖ Clearing Plan:

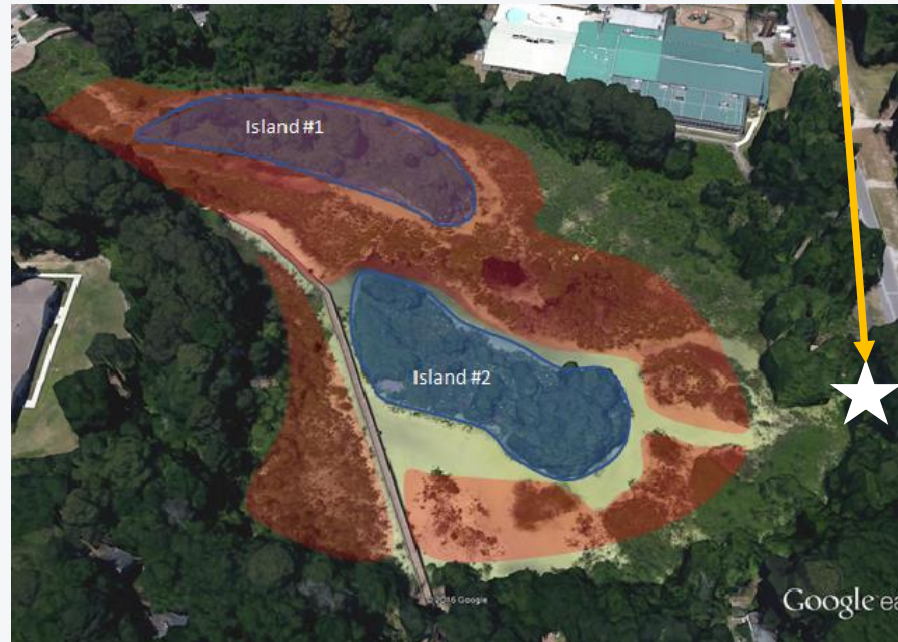
- ✓ Clear Island #1 of all Invasive Tree and Plant Species
- ✓ Clear western side of Island #2 of all Invasive Tree and Plant Species leaving Cypress Trees on east side as is
- ✓ Remove various shrubs and invasive species from areas indicated in Red on Plan



Cypress Wetlands Restoration

❖ Excavation Plan:

- ✓ Excavate to create open water areas shown in Red
- ✓ Excavate existing open water areas to remove accumulated silt and deepen
- ✓ Existing Richmond Ave. access to be used to remove debris and silt



Cypress Wetlands Restoration

❖ Disposal Site and Transport Plan:

- Distance of debris hauling and lease of disposal site are the largest single cost item if debris has to be hauled from downtown to a location well off site.
- Propose to use the open former dredge disposal site at 6th Ave. (Port Property) next to the existing dry stack
- Very short haul distance of 0.9 miles
- Area should be under Town ownership and control by year end
- Area is planned for an open park so disposal of organic sediment will not impact the site, will raise elevation slightly

Proposed Disposal Site

Existing Dry Stack

Disposal Site

6th Ave

Cypress Wetlands Restoration

❖ Disposal Site Activities Needed:

- ✓ All organic materials (trees, shrubs, floating vegetative mats, etc.)
 - Will be piled and allowed to dry for a number of weeks (depending on rainfall)
 - Once dried out, a mechanically ventilated burn pit will be constructed to burn all organic material.
- ✓ All sediment and excavated materials
 - Will be stock piled and allowed to dry
 - Materials will be mixed
 - Material will be spread on areas above the Critical Line to slightly raise the elevation of the park area
 - All areas will be seeded and silt fenced as needed

Cypress Wetlands Restoration

❖ Possible Creation of a Third Rookery Island:

- ✓ There is sufficient area on site to create a third rookery island
- ✓ Advantages of a third island:
 - Will provide an additional protected rookery
 - Will allow excavated sediment and soil to remain on site avoiding hauling, drying and spreading costs



Cypress Wetlands Restoration

❖ Replanting Plan:

- ✓ In areas of Islands #1 and #2 that are cleared of invasive species (mainly Tallow Trees) replant with native trees (e.g. Cypress)
- ✓ If Island #3 is constructed plant entire island with native trees
- ✓ Sufficient scrubs will remain that will continue to grow in undisturbed areas

Cypress Wetlands Restoration

❖ Maintenance Plan:

✓ Islands:

- Initially, hand spray invasive plants and tree seedlings with herbicide frequently (four times per year or more if needed)
- Reduce herbicide spraying as new native plants establish themselves

✓ Open Water Areas:

- Continue current program of algicide spraying to manage algae
- Continue current program of herbicide spraying to manage floating weeds (e.g. duck weed)

✓ Continue biological and water quality monitoring

Cypress Wetlands Restoration

❖ Preliminary Cost Estimate:

- ✓ Preliminary Project Feasibility Study \$12,000
- ✓ Design, permitting, plans and specifications for construction \$18,000
- ✓ Construction \$275,000
- ✓ Field engineering & coordination \$20,000
- ✓ Plantings \$25,000
- ✓ **Total Preliminary Cost: \$350,000**

Cypress Wetlands Restoration

❖ Funding Plan:

✓ Available SW Funds:	\$250,000
✓ USFW NAWCA* Grant	<u>\$100,000</u>
	\$350,000

*North American Wetlands Conservation Act

An aerial satellite-style photograph of a golf course. A large, irregularly shaped area in the center is highlighted in a light green color, possibly indicating a specific feature or area of interest. A narrow, reddish-brown path or road runs through the green area. In the upper right corner, there are several large buildings with green roofs, likely a clubhouse or maintenance facility. The surrounding area is filled with dense green trees and grass.

Questions & Answers



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

August 16, 2017

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Hurricane Irma – On September 10, 2017, Hurricane Irma required a full emergency response and recovery effort from Beaufort County. Most Stormwater staff were assigned to response and recovery duties during and following the event. As a result, there was little production on long range projects and programs during the latter half of the month since the last SWUB meeting.
2. Tax Run 2017 – The bills are scheduled to be released on October 31, 2017. Our deadline for data is 9/22/17. It is unclear if that date will extend due to Hurricane Irma. Staff managing bill preparation are not typically involved in disaster recovery, so this should not be an issue either way.
3. Annual Credit application compliance reports – annual review is complete.
4. Southern Regional Planning Committee – Elected officials and managers for southern Beaufort County and Jasper County made to renew and reassemble the Southern Regional Planning Committee, or Southern Lowcountry Committee (SoLoCo). As a point of interest, their very first agenda item was to discuss regional standardization of Stormwater standards among the various governmental partners. Beaufort County volunteered to take the lead on a meeting of staff to compare standards and make a recommendation to the committee on what standards all could use.
5. County Code of Ordinance Chapter 99 changes for transportation exemption – [See attached memo and draft ordinance](#) under New Business.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel) –
Beaufort County:
 - Completion of MS4 quarterly sampling and analyses for both wet and dry events for the first three quarters with data sent to BC. Waiting for 4th quarter to begin.
 - Scheduled meeting Sept. 18th about Battery Creek 319 Pond Project.
 - Attended August meeting about CIP Pond Projects with engineering groups.
 - Continuation of efforts for structural system at specific MS4 site for discharge monitoring.
 - Invoice/cost tracking for Beaufort County.
 - Data reduction/reporting.
 - Special data requests.

Town of Bluffton:

- 3rd quarter MS4 samples completed.
- Waiting for update about continuation CIP project sample collection.
- Data reduction/reporting.
- Waiting on MOU between USCB and TOB to be fully executed.
- Invoice/cost tracking for Town of Bluffton.

Palmetto Bluff:

- Monthly sampling and analyses for wet and dry events.
- Data reduction/reporting.
- Invoicing.

GEL-HHI:

- Analysis for Hilton Head Island E.coli samples 4x/Qtr.
- Data reduction/reporting.
- Invoicing.

Leamington Community:

- Collection and analyses of Leamington's stormwater lagoon system (Qtrly)
- Data reduction/reporting.
- Monthly report.
- Consultation.
- Invoicing.

USCB Lab:

- Scheduled preventative maintenance for October for TOC and FS3100 instruments.
- Monthly (and as needed) calibration of equipment and instruments.
- Certification Upkeep-including review of QA/QC, logbooks, COC's.
- On-going efforts to obtain additional certification; no new certs obtained during this Qtr.
- Monthly sterility checks on Lab water for TOC, TRC, HPC, Conductivity, metals.
- Research on software for laboratory management systems.
- Account tracking for all accounts-expenditures, deposits, ledgers, PO's
- Logistics, planning, scheduling of all activities.
- Procurement of all required materials, supplies and equipment.

2. CIP FY 18 Grouping Stormwater Projects – with feedback from the SWUB members in August, the County staff recommended increasing the project budget limit to include monitoring for the projects. This work will be done by the consultants. The County Council approved the increased project budget.
3. Battery Creek Watershed Pond retrofit / EPA 319 grant project – A meeting is scheduled to discuss post construction monitoring data and O&M.

Stormwater Implementation Committee (SWIC) Report

1. The SWIC committee has not met in the last month.

Stormwater Related Projects

1. Okatie West / SC 170 Widening Retrofit (Design and Construction = \$915,000 Budget) – Nothing new to report.
2. Easements – Staff is working on numerous easement requests and meets monthly to review status.
3. Road / Parking lot sweeping BMP – The County had two separate street sweepers demonstrated this month. A sweeping program is part of our MCM6 program.

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – (\$475,000 Budget; \$239,542 County portion) – Nothing new to report. The project is still on schedule for a December 2017 completion.
2. CIP FY 18 Grouping Stormwater Projects – The project contracts were approved by the County Council in August.
3. Clemson Extension services to Beaufort County – A meeting with Clemson and the consultants is pending.

Regional Coordination

1. Factory Creek Watershed Regional Detention Basin “Phase II” (Design Cost = \$63,390, Tree Mitigation Cost is pending, Construction Cost by the Developer) – Nothing new to report.
2. Battery Creek Watershed Pond retrofit / EPA 319 grant project – A meeting is scheduled to discuss post construction monitoring data and O&M.
3. Polk Village / Riverbank Drive outfall pipe – Mr. Larson met with representatives with SCDOT’s local office and district office in Charleston. A cost sharing proposal was discussed and agreed upon in concept. County staff is awaiting a decision from DOT district office.
4. Wallace Road drainage – (Design Cost = pending; Construction cost = pending) The project has been designed and submitted to SCDOT for permitting.
5. Municipal “County” Infrastructure – Meetings between County staff and Town of Hilton Head Island and Town of Bluffton were held. The meetings were productive with good dialogue on both sides of this issue. The County will be sending a letter to them requesting “de-volution” of the infrastructure. The Towns agreed to respond likewise.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager and Brian Eber, MS4 Coordinator)
 - i. No information was available at the time of this report.
2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
 - i. [See attached report.](#)
3. City of Beaufort (From Neil Desai, Asst. Public Works Director)
 - i. No information was available at the time of this report.
4. Town of Port Royal (From Van Willis, Town Manager and Tony Maglione, consultant)
 - i. No information was available at the time of this report.

MS4 Report

1. Plan Review – There were 15 projects reviewed and 2 Tier II stormwater permits issued in August by Beaufort County Stormwater staff.

Project Name	Review Type	Date	Comments
Beaufort County Animal Services 170	08/02/17	Permit	Permit Issued
Sprenger Health Care Systems AMENDED 06/28/17	08/08/17	Final	Approved (add island)
Sprenger Health Care Systems AMENDED 06/28/17	08/16/17	Final	Approved w/conditions
Berkley Hall Lot 18 Bulkhead	08/16/17	Bulk Head	Deferred
Pleasant Point Lot T River Buffer	08/16/17	River Buffer Waiver	Approved w/ conditions
DESC Warehouse Solar Array	08/17/17	Permit	Permit Issued
Sustainability Management	08/23/17	Conceptual	Deferred
Callawassie Rivers Club	08/23/17	Conceptual	Approved with Conditions.
Sustainability Management	08/23/17	Conceptual	Deferred
Pleasant Point Lot 29 River Buffer Waiver	08/23/17	River Buffer Waiver	Approved w/ conditions
Parkers Oyster Bluff	08/28/17	8/28/17	Permit Issued
Parkers Oyster Bluff	08/30/17	Conceptual	Approved with Conditions.
Berkley Hall Lot 42 View Corridor Bulkhead	08/16/17	Conceptual	Deferred
Berkley Hall Lot 42 View Corridor Bulkhead	08/30/17	Conceptual	Approved with Conditions.
St Gregory the Great Parrish Life Center	08/30/17	Final	Approved

2. Stormwater Permits – There were 5 permits issued in August:
3. Monthly Inspection summary for August
 - a) Number of active permits = 54
 - b) Number of inspections performed = 65
 - c) Number of drainage related complaints investigated = 5
 - d) Number of IDDE issues received and investigated = 7
 - e) Number of Violations (verbal, written, fines, or stop work orders) = 5
 - f) Number of Development Permit certificates of completion = 2
4. Plan review tracking software – Nothing new to report.
5. Public Education – Lowcountry Stormwater Partners (LSP), via Carolina Clear, continues to work on several initiatives towards public education and outreach.
 - a) Tropical Storm Irma delayed some plans to schedule another Cultivating a Carolina Yards workshop series and a planning meeting to discuss creating a workshop for developers about the SC LID Manual.
 - b) Upcoming Events:
 - i. Registration for the 2017 Beaufort Area Stormwater Management Pond Conference/Workshop that will be held on October 19, 2017 is open. <http://www.clemson.edu/extension/carolinaclear/regional-consortiums/lsp/2017BeaufortAreaPondConference.html>
 - Event Time: 8AM-4PM
 - Location: USCB Gateway Campus - Campus Center (Multi-purpose Rm) & Library Rm 267/237
 - Expected number of participants: 100
 - Parking: Free
 - ii. The LSP will be speaking at the Sept. 21, 2017 meeting of the Indigo Run's Women's Garden Club meeting.
 - iii. LSP will partner with the Town of Bluffton should they decide to reschedule the Annual Beach Sweep.
 - iv. Ellen Comeau will be speaking at the 2017 SESWA conference in Louisville, KY on October 12th and plans to promote the LSP during her presentation.



BEAUFORT COUNTY STORMWATER UTILITY
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M E M O R A N D U M

TO: Beaufort County Council
Beaufort County Stormwater Utility Board
Gary Kubic, County Administrator

FROM: Eric W. Larson, PE, AICP, CPSWQ, CFM

DATE: September 21, 2017

SUBJECT: A proposed revision to Code of Ordinance Chapter 99 related to Stormwater service fee exemptions for transportation infrastructure, specifically County owned facilities

Traditionally, the County's Stormwater ordinance has had exemptions to the requirement to pay Stormwater utility fees, or service fees, for public roads. It also exempted private roads within defined rights-of-ways, condominium boat slips, and railroad tracks. (See Section 99-109). However, it should be noted that there are other public transportation infrastructure that function similarly to roads in that the population as a whole benefits from the construction and maintenance of said facilities. In particular, municipal airport facilities and public boat ramps and docks provide a transportation function interconnected with the vehicular roadway system, moving people and goods for business and leisure.

It should be noted that in the case of the County operated airports, each facility has a comprehensive stormwater management plan and are permitted with the South Carolina Department of Health and Environmental Control as an industrial facility. As such, each facility expends significant funds annually for compliance and does not rely on the respective municipal jurisdictions for Stormwater related services. In addition, the stormwater system at the Hilton Head Island Airport is undergoing a ~\$5,000,000 improvement project that is being funded by the Federal Aviation Administration, the South Carolina Aeronautics Commission, and the Airport itself. This system receives stormwater from an offsite light industrial/commercial area on the island, treats the stormwater, and releases it at the opposite end of the airport. The airport maintains this system expending its own funds.

Our County Stormwater Ordinance only exempts roadways and railroad tracks. The attached proposed amendment expands the exemptions allowed by ordinance to include airports, boat ramps and docks, all railroad related properties, and the associated facilities that support and maintain them.

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

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

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

- (1) Freshwater wetlands. All properties except those classified as detached single-family dwelling units may receive a credit against the stormwater service fee applicable to the property based on granting and dedicating a perpetual conservation easement on those portions of the property that are classified as freshwater wetlands and as detailed in the stormwater management utility service fee credit manual. The conservation easement shall remove that portion of the subject property from any future development.
- (2) Salt Water Marsh. All properties except those classified as detached single-family dwelling units may receive a credit against the stormwater service fee applicable to the property based on those portions of the property that are classified as salt water marsh and as detailed in the stormwater management utility service fee credit manual.
- (3) Submerged properties. All properties may receive a credit against the stormwater service fee applicable to the property based on those portions of the property that are classified as submerged and as detailed in the stormwater management utility service fee credit manual.
- (4) Those properties that apply for consideration of an adjustment shall satisfy the requirements established by the Beaufort County Stormwater Manager and approved reduced stormwater service fee.

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

- (1) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by the state department of transportation and are available for use in common for vehicular transportation by the general public.
- (2) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by Beaufort County and are available for use in common for vehicular transportation by the general public.
- (3) Improved private roadways that are shown as a separate parcel of land on the most current Beaufort County tax maps and are used by more than one property owner to access their property.
- (4) Railroad tracks, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall be exempt from stormwater service fees. ~~However, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall not be exempt from stormwater service fees.~~
- (5) Condominium boat slips shall be exempt from stormwater service fees.
- (6) Properties determined by the Assessor having 100% of the gross area of the property submerged, salt water marsh, or freshwater wetland will not receive an administrative charge, if applicable in the utility rate structure, AFTER the applicable credit defined in paragraph (a) above has been applied to the account.
- (7) Municipal airport runways, terminals, maintenance buildings, or other developed land used for airport purposes shall be exempt from stormwater service fees.
- (8) Public boat ramps, docks, parking areas, buildings, or other developed land used for public marina purposes shall be exempt from stormwater service fees.

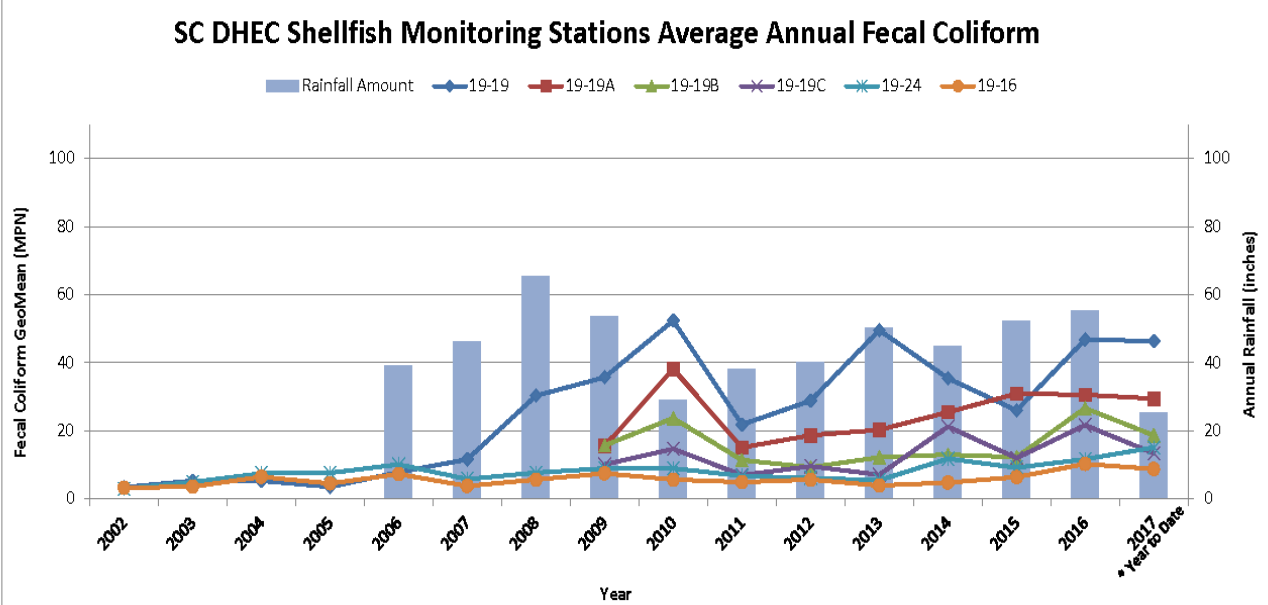
ACTIVITY - POLICY	STATUS
May River Watershed Action Plan Update (Grant award of \$55,000 in 2017)	To be completed with direction and input from staff, the public, Water Quality Technical Advisory Committee, May River Watershed Advisory Committee, and Town Council. Notified verbally on 4/7/17 that due to anticipated Federal Budget cuts to the EPA, SCDHEC rescinded the grant. Action Plan Update is not currently not budgeted for completion in FY18.
Sewer Connection Policy	WAPAC adopted Sewer Connection Policy framework 9/22/16. Staff presented information for consideration and recommendation to Town Council during 6/22/17 meeting. Town Council provided feedback at 7/18/17 Workshop to develop a Sewer Connection Policy. A draft Policy to direct a program was presented to WAPAC at 8/24/17 meeting and will be presented to Council at 9/12/17 meeting.
ACTIVITY - PROJECTS	STATUS
Sanitary Sewer Extension	Buck Island/Simmonsville Road (BIS) Phases I, II, III and IV are completed. Toy Fields is completed. Current project updates are included in Engineering Consent Agenda under "Sewer & Water."
May River 319 Grant Phase 1 - New Riverside Pond (Grant award of \$483,500 in 2009)	Completed in 2013. Weekly water quality testing on-going. A statistically significant reduction in fecal coliform bacteria concentration exists pre-pond versus post-pond. However, bacteria levels re-load to previous levels prior to discharging into the May River. This leads to management decisions with BMP placement as well as BMPs in-series to maintain bacteria reductions.
May River 319 Grant Phase 2 - Pine Ridge (Grant award of \$290,000 in 2011)	Completed. In post-construction monitoring phase to assess project efficacy.
May River 319 Grant Phase 3 - May River Preserve (Grant award of \$231,350 in 2016)	This project includes construction of a shallow pond known as a Green Tree Reservoir. Current project updates are included in Engineering Consent Agenda.
Stoney Creek Wetlands Restoration: Preliminary Design Phase	Wetlands restoration project with the goal to reduce stormwater volume reaching the May River. Current project updates are included in Engineering Consent Agenda.
May River Watershed Water Quality Model	Preliminary 2002 Palmetto Bluff Duck Pond Drainage area watershed model complete. Completed New Riverside BMP model for comparison to field observations. Rose Dhu Creek sub-watershed "Existing Conditions" portion of the Headwaters Water Quality Model is underway. Currently proposed for completion in FY19 following the Action Plan Update.
ACTIVITY - FINANCIAL	STATUS
Additional Funding Opportunities	No updates.

ACTIVITY - PROGRAMS	STATUS
<p>Public Outreach/Participation/Involvement (MS4 Minimum Control Measure #1 & 2)</p>	<p>Outreach and involvement efforts continue through county-wide partnership with Carolina Clear as Lowcountry Stormwater Partners - Neighbors for Clean Water and through local cleanups and civic engagements and the May River Watershed Action Plan Advisory Committee. Current updates are included in Engineering Consent Agenda and Attachment 9.</p>
<p>Water Quality Monitoring Program (MS4 Minimum Control Measure #3)</p>	<p>1. SCDHEC Shellfish monitoring results 2. Fecal coliform bacteria "hot spot" concentrations 3. Microbial Source Tracking of human sources of bacteria 4. Illicit Discharge investigation and monitoring 5. BMP efficacy monitoring 6. MS4 monitoring Current updates are included in Engineering Consent Agenda Attachments 2, 3b, 3c, and 3d.</p>
<p>Infrastructure Mapping/GIS (MS4 Minimum Control Measure #3)</p>	<p>Data points continue to be collected with new development to meet MS4 requirements & populate water quality model. Current updates are included in Engineering Consent Agenda Attachment 3a.</p>
<p>Sediment & Erosion Control Program (MS4 Minimum Control Measure #4)</p>	<p>Sediment and erosion control inspections with escalating enforcement response. Current updates are included in Engineering Consent Agenda Attachment 4.</p>
<p>Development Plan Review Program (MS4 Minimum Control Measure #5)</p>	<p>SCDHEC delegated plan review-related activities. Current updates are included in Engineering Consent Agenda Attachment 5.</p>
<p>Ditch Inspection/Maintenance Program (MS4 Minimum Control Measure #6)</p>	<p>Continued coordination with SCDOT, Beaufort County and Town Public Works to inspect and maintain ditches within the Town's jurisdiction. Town is initiating an easement acquisition program. Current updates are included in Engineering Consent Agenda Attachment 6 and under "Public Works."</p>
<p>Septic System Maintenance Program</p>	<p>FY18 funding is \$10,000. On-going assistance offered to Town residents regardless of financial status through Neighborhood Assistance Program. Current updates are included in Engineering Consent Agenda Attachment 7.</p>
<p>Sewer Connection Program</p>	<p>In FY18 Council allocated \$200,000 for a Sewer Connection Program as well as \$10,000 for assistance to connect income-qualified individuals to existing sanitary sewer as part of the Neighborhood Assistance Program. WAPAC recommended possible revisions to the existing sewer connection ordinance and policy for Town Council consideration at the Town Council Workshop 7/18/17. Based on Council feedback a draft Policy to direct a program will be presented to WAPAC at 8/24/17 meeting and Council at 9/12/17 meeting.</p>

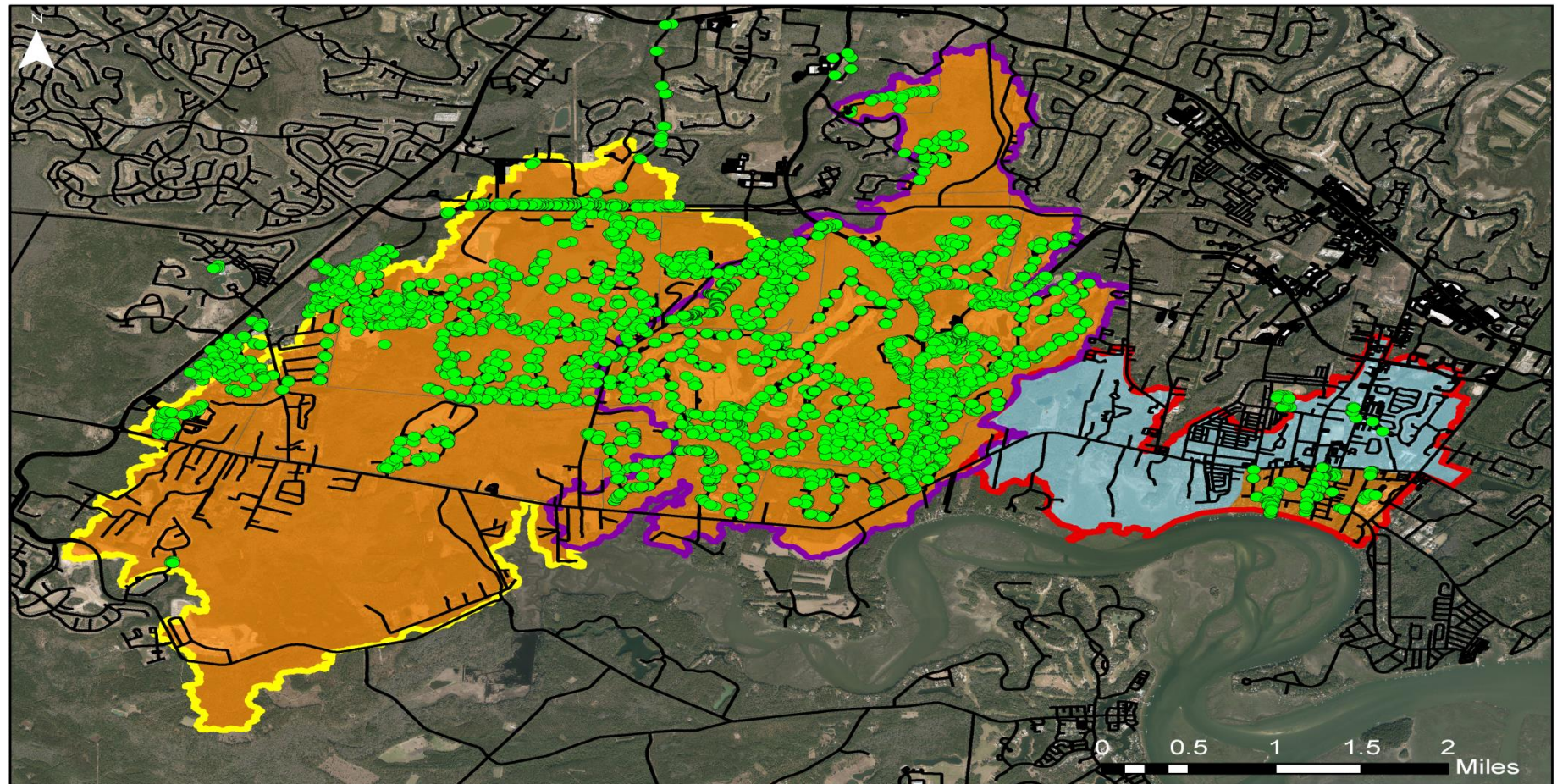
SCDHEC Shellfish Harvesting Monitoring Data

	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017	2014	2015	2016	2017
	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)
December	11.0	110.0	79.0		7.8	33.0	23.0		11.0	27.0	49.0		23.0	7.8	33.0		33.0	6.8	7.8		13.0	4.5	23.0	
November	49.0	NS	33.0		33.0	NS	13.0		17.0	NS	7.8		33.0	NS	14.0		31.0	NS	13.0		6.8	NS	33.0	
October	17.0	23.0	NS		7.8	49.0	NS		4.5	4.5	NS		6.8	23.0	NS		4.5	7.8	NS		2.0	4.5	NS	
September	27.0	46.0	23.0		17.0	17.0	110.0		2.0	9.3	23.0		4.5	17.0	13.0		4.5	23.0	4.5		2.0	4.5	7.8	
August	49.0	6.8	NS		49.0	17.0	NS		33.0	13.0	NS		70.0	13.0	NS		46.0	24.0	NS		17.0	4.0	NS	
July	17.0	17.0	79.0	350.0	7.8	7.8	17.0	110.0	1.8	6.8	22.0	130.0	1.8	11.0	17.0	49.0	2.0	2.0	49.0	49.0	1.8	4.5	13.0	22.0
June	NS	33.0	79.0	23.0	NS	46.0	130.0	49.0	NS	11.0	70.0	13.0	NS	14.0	110.0	17.0	NS	4.5	33.0	7.8	NS	11.0	23.0	4.5
May	33.0	NS	70.0	17.0	33.0	NS	23.0	23.0	9.2	NS	49.0	7.8	49.0	6.8	49.0	2.0	7.8	6.8	14.0	23.0	2.0	23.0	17.0	4.5
April	130.0	1.8	23.0	7.8	79.0	33.0	23.0	23.0	170.0	17.0	13.0	4.5	240.0	17.0	13.0	7.8	23.0	13.0	7.8	13.0	13.0	17.0	1.8	4.5
March	23.0	170.0	33.0	350.0	33.0	130.0	33.0	11.0	11.0	49.0	33.0	33.0	13.0	17.0	17.0	13.0	6.8	13.0	11.0	13.0	4.5	6.8	7.8	33.0
February	110.0	13.0	23.0	13.0	33.0	14.0	17.0	7.8	79.0	1.8	13.0	13.0	79.0	1.8	11.0	9.3	33.0	7.8	6.8	4.5	13.0	2.0	1.8	1.8
January	49.0	79.0	110.0	95.0	79.0	79.0	33.0	79.0	13.0	49.0	49.0	31.0	11.0	33.0	17.0	49.0	7.8	17.0	7.8	27.0	2.0	7.8	17.0	33.0
Additional Samples																								
Average Annual GeoMean	35.4	26.0	46.8	46.4	25.5	30.9	30.6	29.5	13.0	12.3	26.7	18.7	21.2	12.0	21.7	13.4	11.8	9.2	11.7	15.1	4.8	6.4	10.3	8.8
** Truncated GeoMetric Mean	31.0	37.0	37.0	40.0	17.0	21.0	30.0	32.0	10.0	11.0	16.0	19.0	7.0	11.0	16.0	14.0	6.0	7.0	9.0	9.0	4.0	4.0	6.0	8.0
** Truncated 90th Percentile	207.0	205.0	105.0	155.0	82.0	95.0	89.0	96.0	40.0	51.0	69.0	66.0	29.0	55.0	65.0	45.0	21.0	30.0	29.0	27.0	13.0	13.0	21.0	26.0

NS = No Sample
 AS = Additional Samples
 ** Town staff calculations utilizing DHEC statistics



MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory



Collection Status

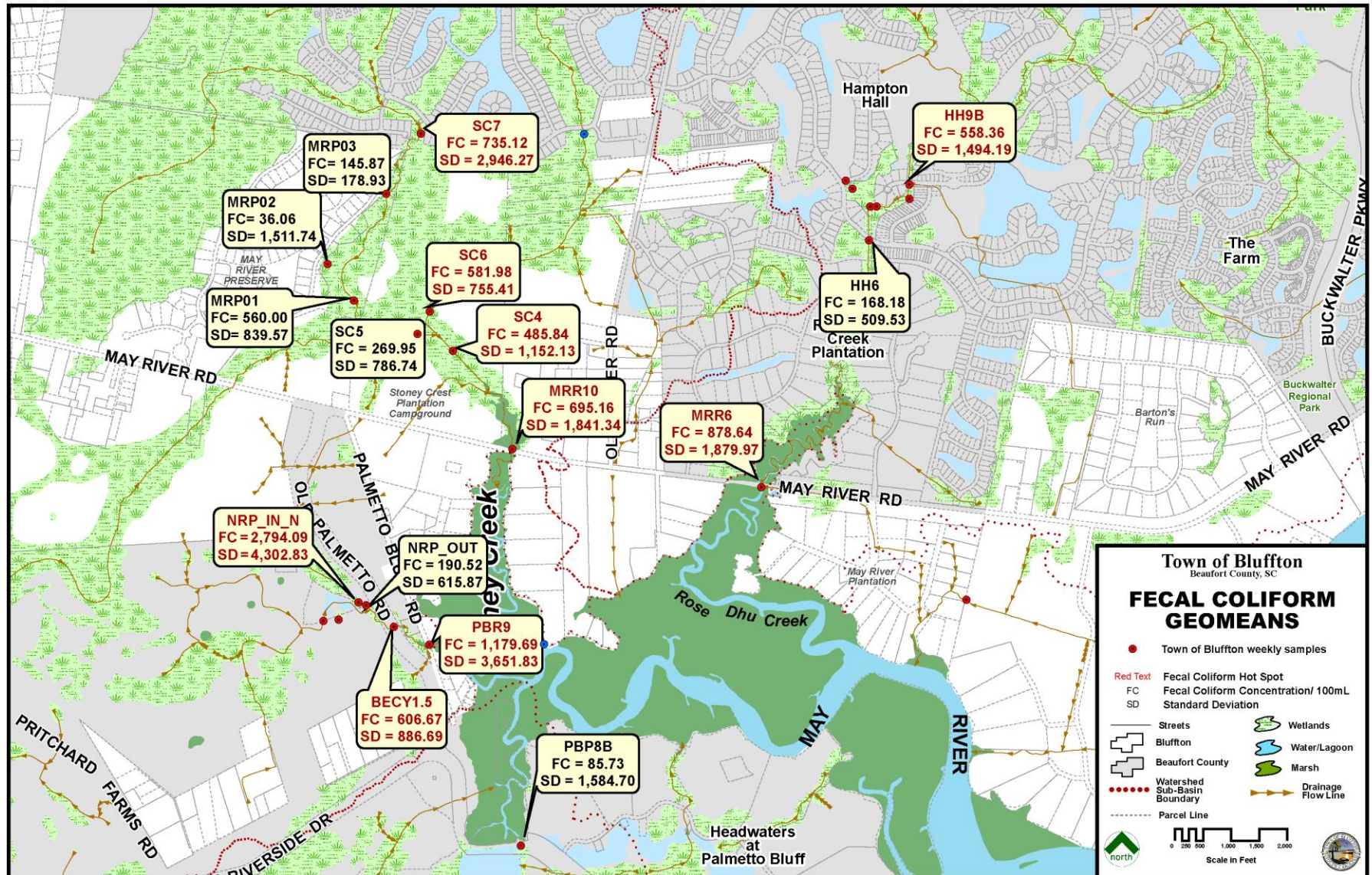
- Completed
- In Progress
- Inventoried SW Utilities
- Mid River/Old Town
- Rose Dhu Watershed
- Stoney Creek Watershed

DISCLAIMER: This map was created by the Town of Bluffton's Engineering Division and is solely intended to be used as a guide. All information for the Town of Bluffton. The GIS maps and data distributed by the Town of Bluffton's Engineering Division are derived from a variety of public and private sector sources considered to be dependable. But the accuracy, completeness and currency thereof are not guaranteed. The Town of Bluffton makes no warranties, expressed or implied, as to the accuracy, completeness, currency, reliability, or suitability for any particular purpose of any information or data contained in or generated from the Town's Geographic Information System database. Additionally, the Town of Bluffton or any agent, servant, or employee thereof assume no liability associated with the use of this data, and assume no responsibility to maintain it in any matter or form.

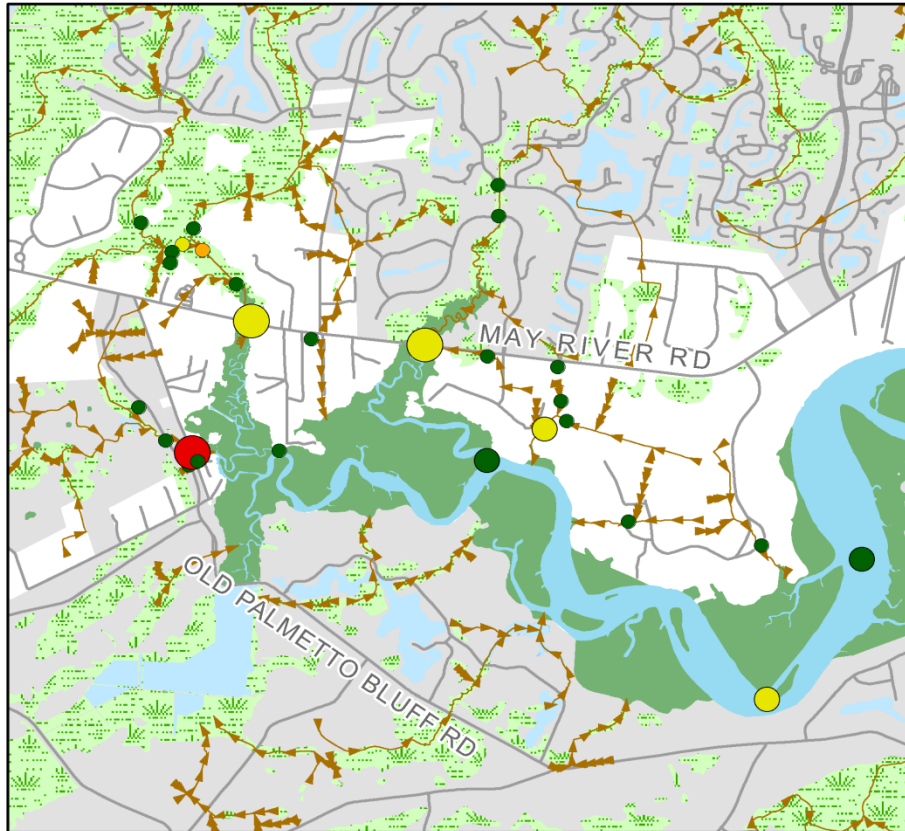
Stormwater Infrastructure Inventory Collection Status

FY 2018 YTD Collection Totals	226
FY 2017 Collection Totals	3,874

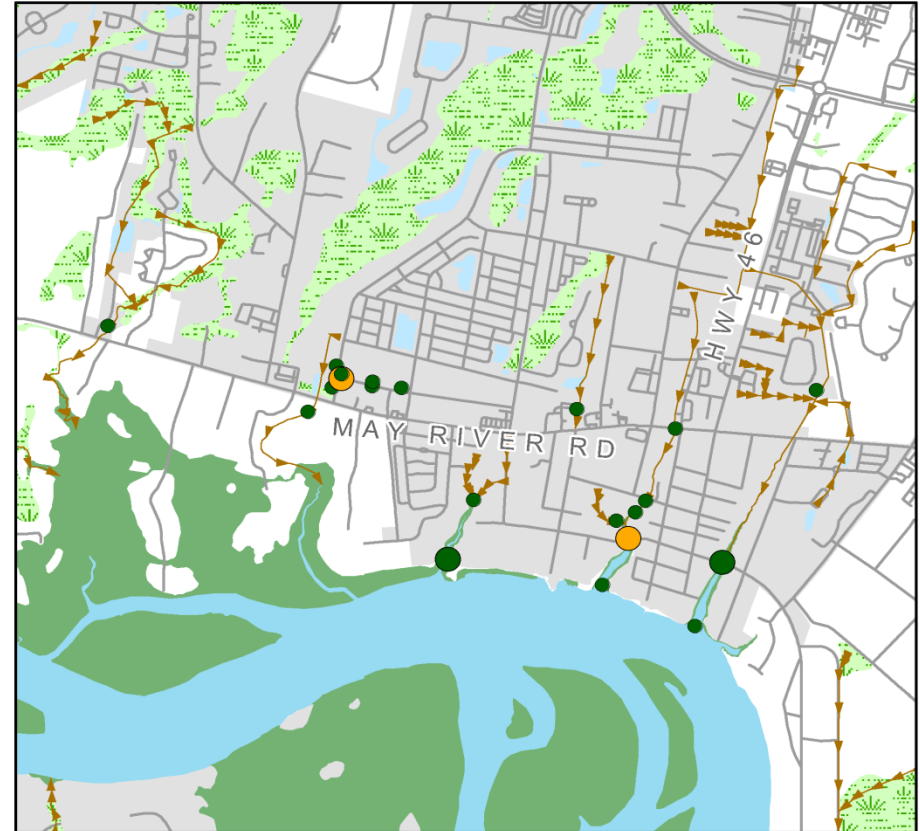
MS4 Minimum Control Measure #3 – IDDE: Fecal Coliform Concentrations Trend Map



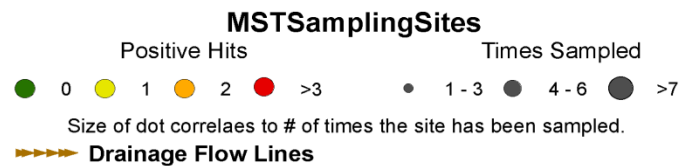
MS4 Minimum Control Measure #3 – IDDE: Microbial Source Tracking (MST) Trend Map



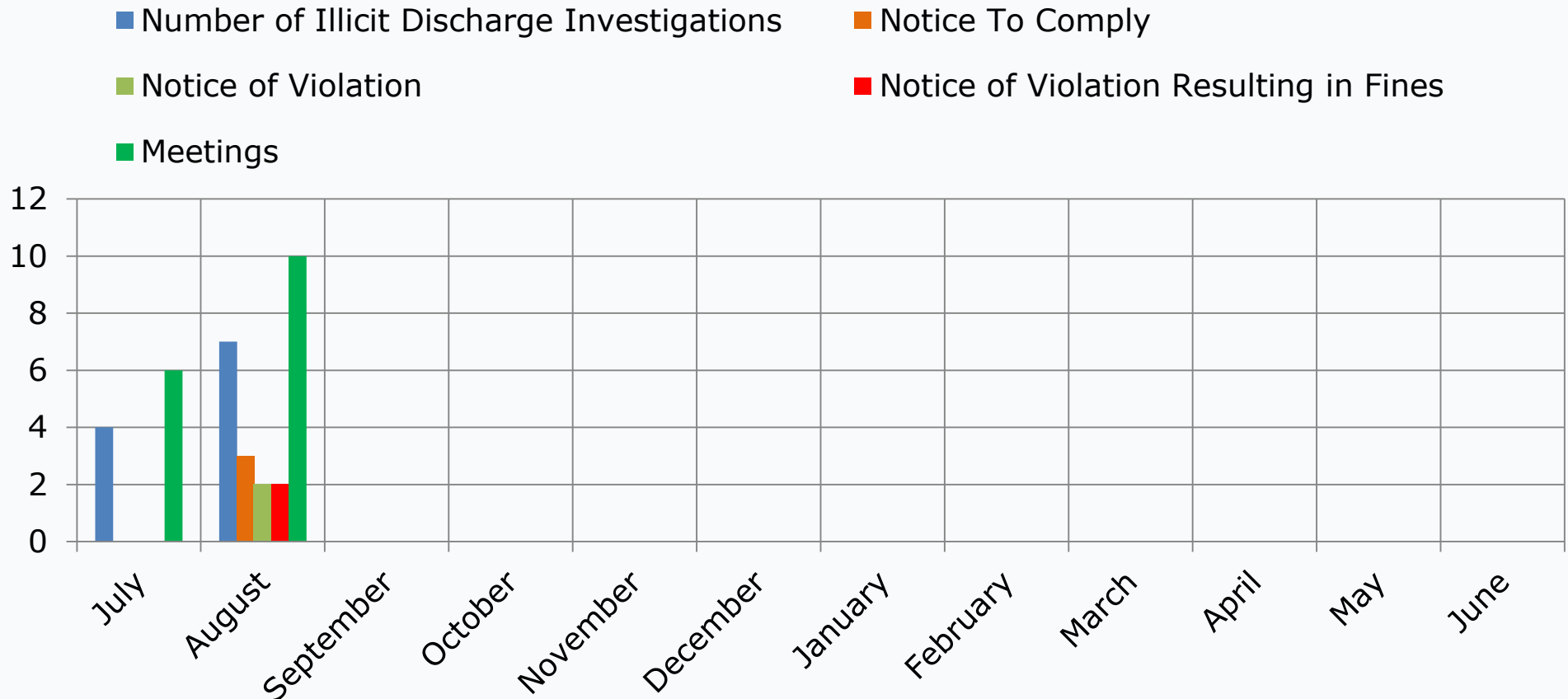
Microbial Source Tracking Trend Map
Headwaters May River



Microbial Source Tracking Trend Map
Old Town May River



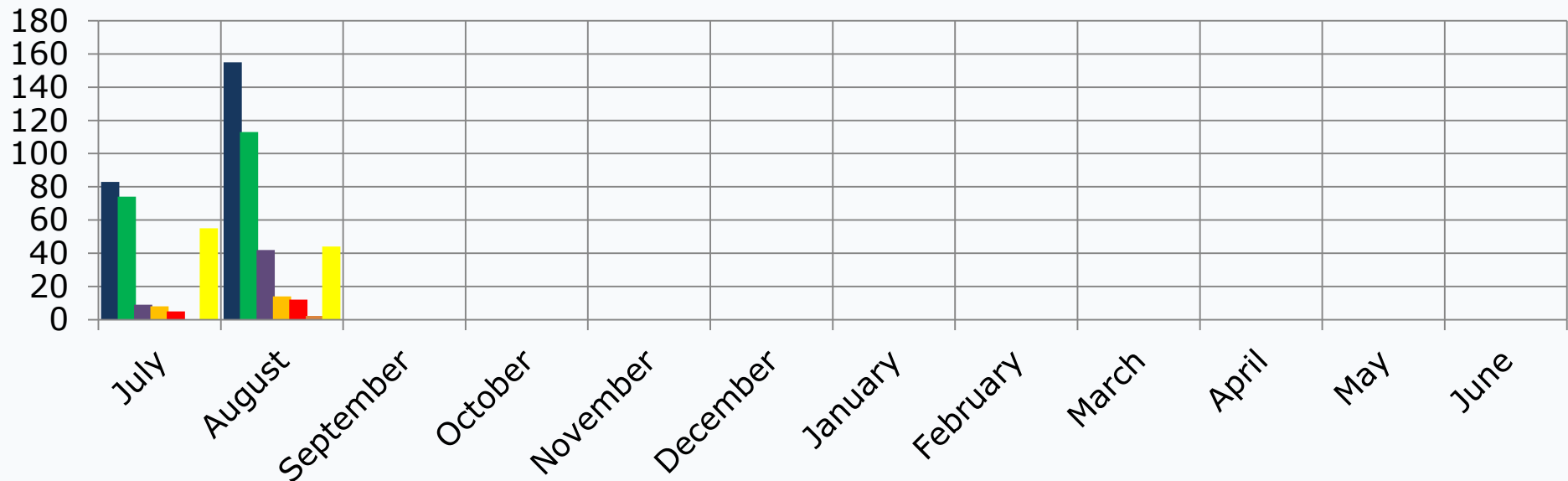
MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	Number of Illicit Discharge Investigations	Number of Notices To Comply Issued	Number of Notices of Violation Issued	Number of NOV Enforcement Actions	Number of Meetings
FY 2018 YTD Totals	11	3	2	2	16
FY 2017 Totals	50	19	8	13	67

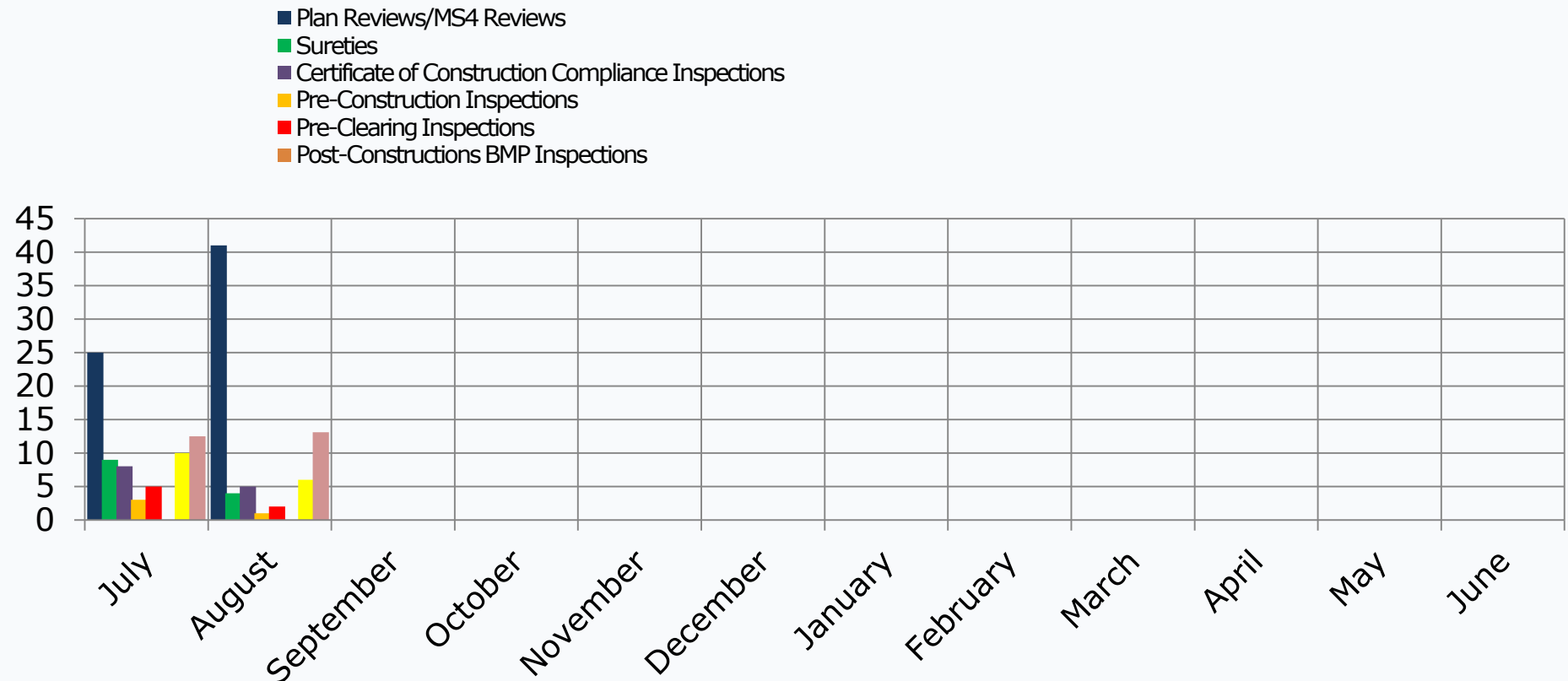
MS4 Minimum Control Measure #4 - Erosion and Sediment Control Inspections

- Erosion & Sediment Control Inspections (E&SC)
- Number of Inspections Passed
- Number of 1st Notice To Comply (NTC)
- Number of 2nd Notice To Comply
- Number of Notice of Violation (NOV)
- Number of Fines for Notice of Violation
- Number of Erosion & Sediment Control Meetings



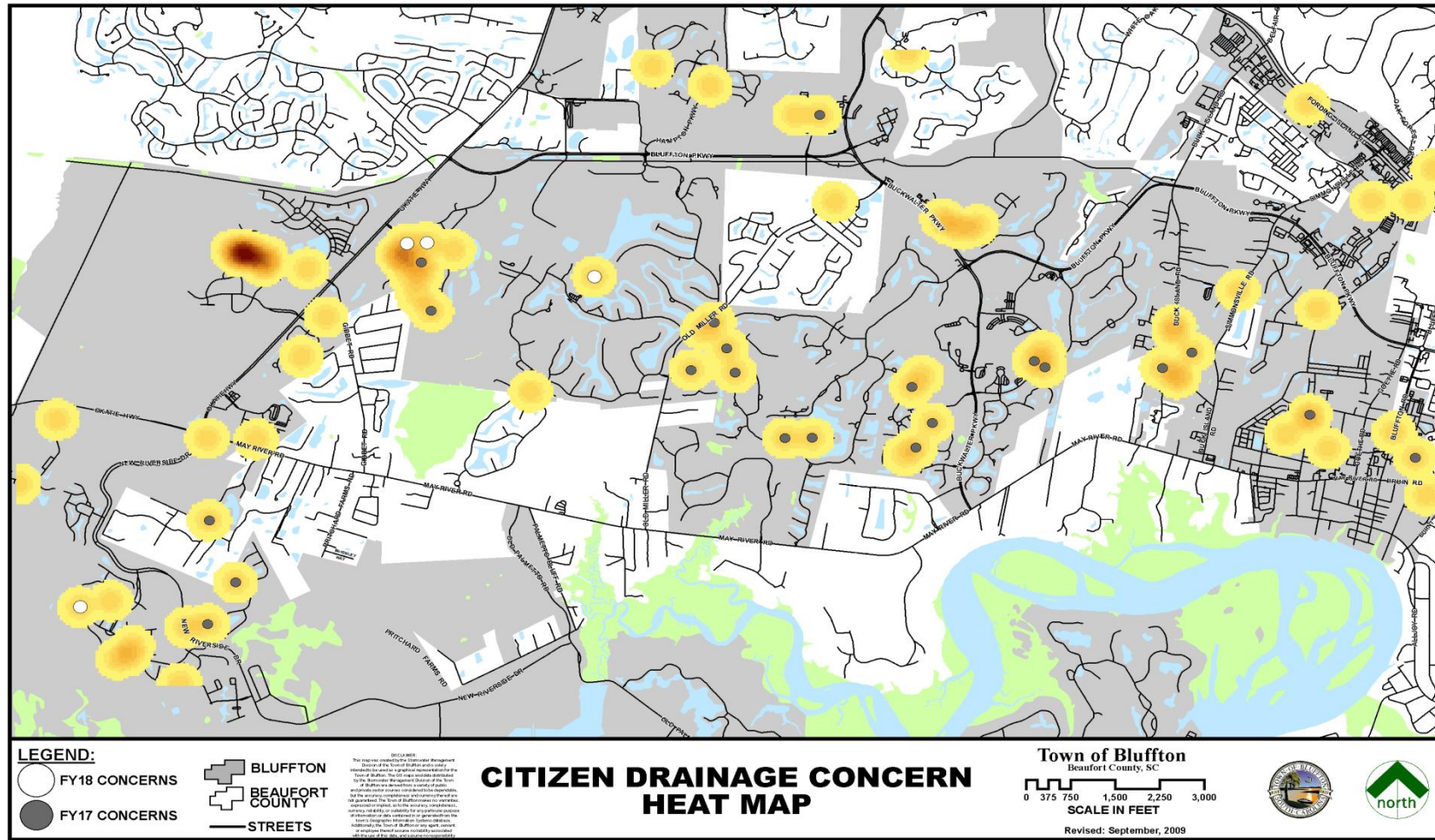
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of 1st NTC Issued	Number of 2nd NTC Issued	Number of NOV Issued	Number of NOV Enforcement Actions	Number of E&SC Meetings
FY 2018 YTD Totals	238	187	51	22	17	2	130
FY 2017 Totals	1,219	862	233	100	58	10	237

MS4 Minimum Control Measure #5 Stormwater Plan Review



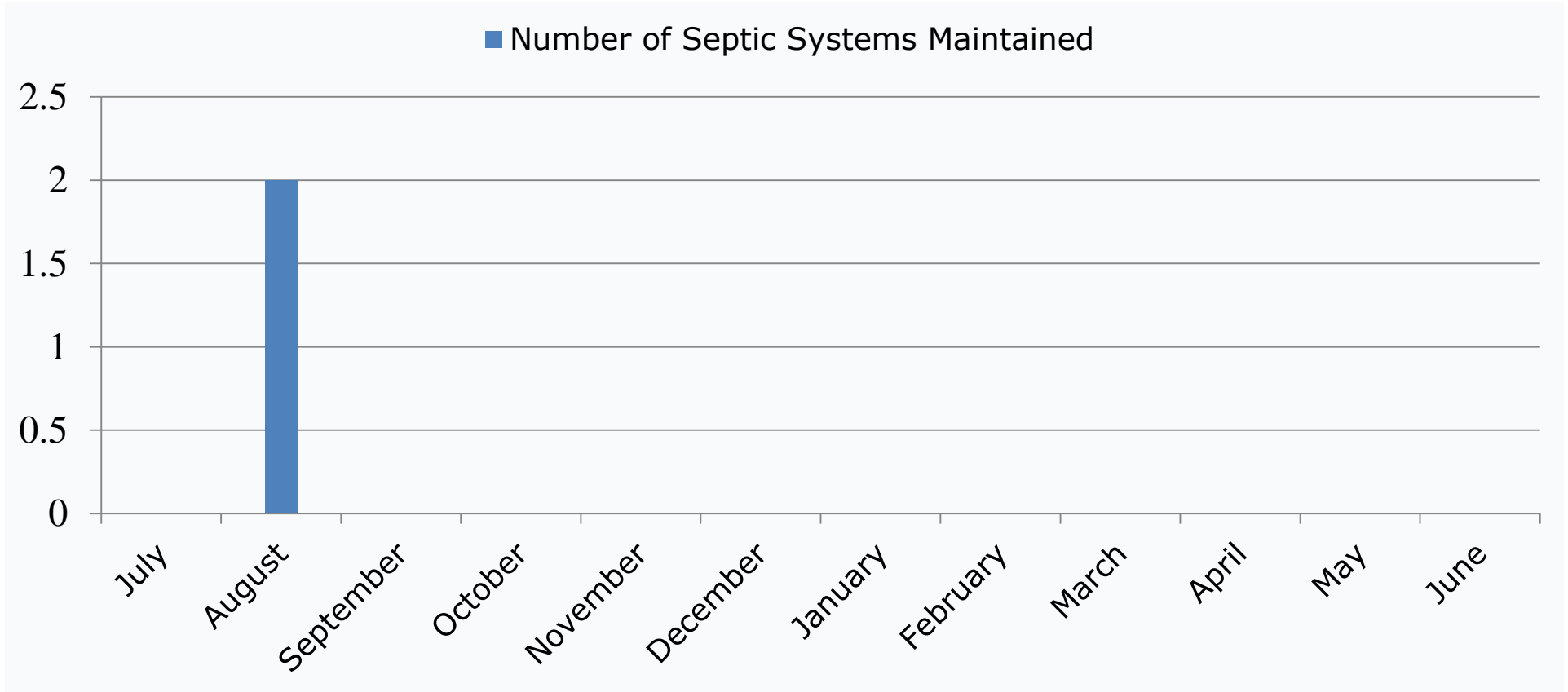
	Plan Reviews MS4 Reviews	Sureties	Certificate of Construction Compliance Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2018 YTD Totals	66	13	13	4	7	0	16	256 Hrs.
FY 2017 Totals	253	62	96	47	45	7	23	1,265 Hrs.

Citizen Drainage Concern Heat Map (Drainage, Maintenance and Inspections)



	Number of Drainage Concerns Investigated	Number of Meetings
FY 2018 YTD Totals	5	8
FY 2017 Totals	72	80

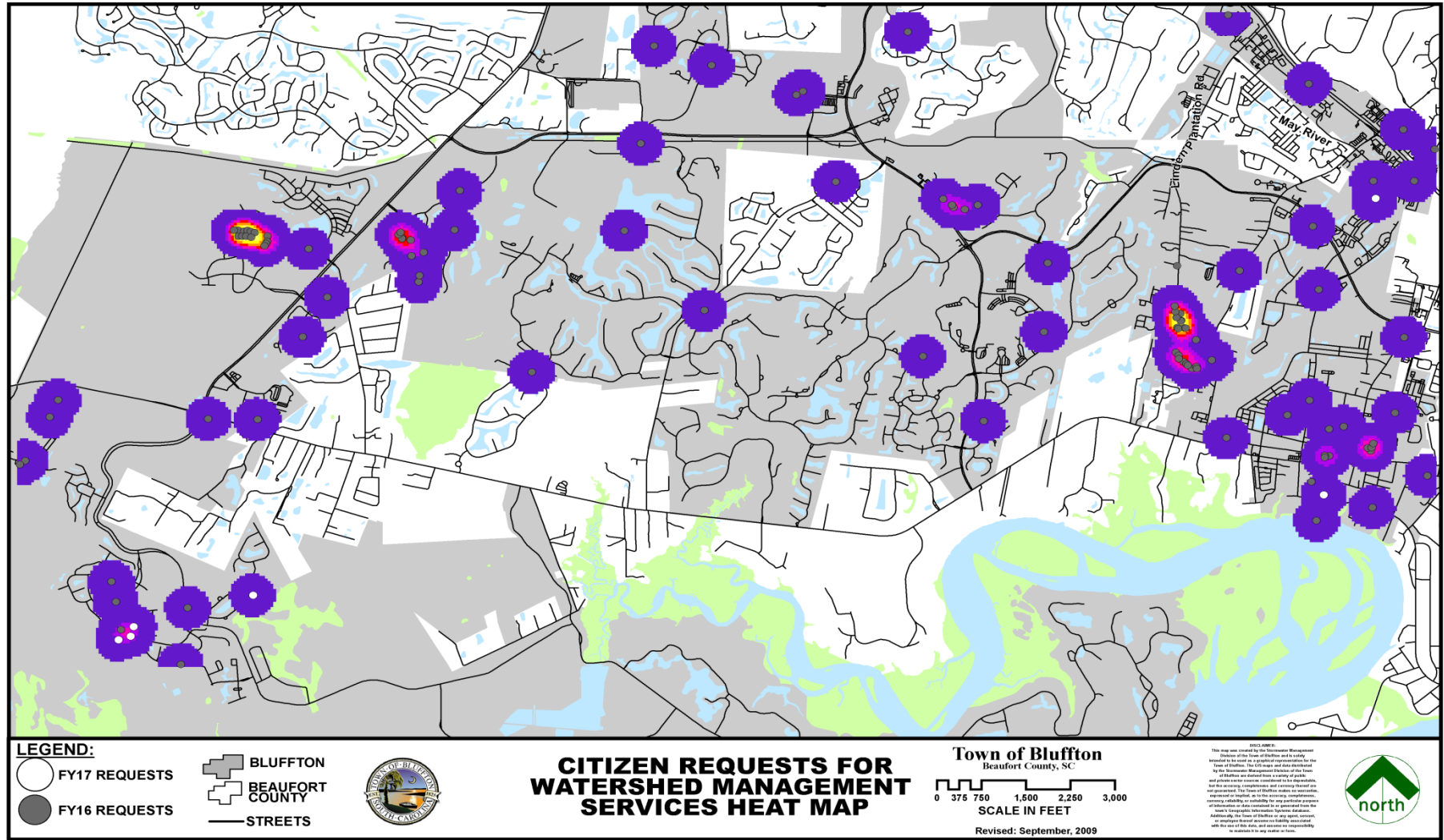
Septic System Maintenance Assistance



	Number of Septic Systems Maintained
FY 2018 YTD Totals	2
FY 2017 Totals	18

Requests for Septic System maintenance are down due to completed connections along Buck Island Road and Simmonsville Road as part of the Phase #3/4 BIS Sewer project.

Citizen Request for Stormwater Services Heat Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2018 YTD Totals	12	16
FY 2017 Totals	53	82



BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, October 18, 2017
2:00 p.m.
Executive Conference Room, Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, South Carolina
843.255.2805

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

1. CALL TO ORDER – 2:00 p.m.
 - A. Approval of Agenda
 - B. Approval of Minutes – September 20, 2017 ([backup](#))
2. INTRODUCTIONS
3. PUBLIC COMMENT
4. REPORTS
 - A. Utility Update – Eric Larson, P.E. ([backup](#))
 - B. Monitoring Update – Eric Larson, P.E. ([backup](#))
 - C. Stormwater Implementation Committee Report – Eric Larson, P.E. ([backup](#))
 - D. Stormwater Related Projects – Eric Larson, P.E. ([backup](#))
 - E. Upcoming Professional Contracts Report – Eric Larson, P.E. ([backup](#))
 - F. Regional Coordination – Eric Larson, P.E. ([backup](#))
 - G. Municipal Reports – Eric Larson, P.E. ([backup](#))
 - H. MS4 Update – Eric Larson, P.E. ([backup](#))
 - I. Maintenance Projects Report – David Wilhelm ([backup](#))
 - J. Financial Report – Chanel Lewis ([backup](#))
5. UNFINISHED BUSINESS
6. NEW BUSINESS
7. PUBLIC COMMENT
8. NEXT MEETING AGENDA
 - A. November 15, 2017 ([backup](#))
9. ADJOURNMENT