BEAUFORT COUNTY
STORMWATER MANAGEMENT UTILITY BOARD AGENDA
Wednesday, July 19, 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 – May 17, 2017 (backup)

2. INTRODUCTIONS

3. PUBLIC COMMENT

4. REPORTS
   B. Utility Update – Eric Larson, P.E. (backup)
   C. Monitoring Update – Eric Larson, P.E. (backup)
   D. Stormwater Implementation Committee Report – Eric Larson, P.E. (backup)
   E. Stormwater Related Projects – Eric Larson, P.E. (backup)
   G. Regional Coordination – Eric Larson, P.E. (backup)
   H. Municipal Reports – Eric Larson, P.E. (backup)
   I. MS4 Update – Eric Larson, P.E. (backup)
   J. Maintenance Projects Report – David Wilhelm (backup)

5. UNFINISHED BUSINESS

6. NEW BUSINESS
   A. Special Presentation: Town of HHI – EWP Efforts
   B. SC170 Drainage Issues

7. PUBLIC COMMENT

8. NEXT MEETING AGENDA
   A. August 16, 2017 (backup)

9. ADJOURNMENT
Beaufort County Stormwater Management Utility Board (SWMU Board) Meeting Minutes

May 17, 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 05/25/2017

<table>
<thead>
<tr>
<th>Board Members</th>
<th>Absent</th>
<th>Ex-Officio Members</th>
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<tr>
<td>Present</td>
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<td>Present</td>
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<tr>
<td>Don Smith</td>
<td>Larry Meisner</td>
<td>Andy Kinghorn</td>
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<td>William Bruggeman</td>
<td>Patrick Mitchell</td>
<td>Kim Jones</td>
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<td>Marc Feinberg</td>
<td>Allyn Schneider</td>
<td>Van Willis</td>
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<td>Allyn Schneider</td>
<td>James Fargher</td>
<td>Scott Liggett</td>
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| Visitors       | | |
|----------------|| Alice Howard, County Council District 4 |
|                || Alan Warren, USCB WQL |
|                || Neil Pugliese, City of Beaufort |
|                || Lamar Taylor, City of Beaufort |

Beaufort County Staff
Josh Gruber
Eric Larson
David Wilhelm
Rebecca Baker
Melissa Allen
Carolyn Wallace
Chad Stanley
Rob McFee

1. Meeting called to order – Don Smith
   A. Agenda – Approved with modification.
      • 6D – SC170 Drainage Issues to be rescheduled for June 21st meeting.
   B. April 19, 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:

   A. Utility Update – Eric Larson
      In reference to item #3, Mr. Eric Larson explained that there is a new process for reviewing and approving Enterprise Funds for FY18, which applies to the proposed Stormwater budget.
B. Monitoring Update – Eric Larson
Please reference the report which is included in the posted agenda. No additional updates.

C. Stormwater Implementation Committee (SWIC) Report – Eric Larson
Please reference the report which is included in the posted agenda. No additional updates.

D. Stormwater Related Projects – Eric Larson
In reference to item #2 Mr. Larson indicated that he met with Mr. York Glover, representative for District 3 St. Helena, and went over the status of different projects.

E. Professional Contracts Report – Eric Larson
Please reference the report which is included in the posted agenda. No additional updates.

F. Regional Coordination – Eric Larson
Mr. Larson explained that the chart and map mentioned in item #3 are for informational purposes. The chart provides a summary of design standards for various jurisdictions in Beaufort and Jasper Counties. In response to a question, Mr. Larson explained that the black outlined area on the map is the MS4 boundary and it will be discussed later during agenda item 6C.

Mr. Andy Kinghorn asked about Battery Creek Pond (item #2). Mr. Larson explained there appears to be a seepage problem in the weir and some type of impediment in the outflow structure. The County is doing a maintenance check to identify and correct any issues and is working on drafting an operations and maintenance manual for the project between the County and City of Beaufort.

G. Municipal Reports – Eric Larson
Mr. Van Willis mentioned that the Town of Port Royal is wrapping up four small projects related to the wetlands.

H. Municipal Separate Storm Sewer System (MS4 Update) – Eric Larson
Mr. Larson noted that items #3 and #7 will be discussed under item 6C MS4 Resolution by Permit.

I. Maintenance Projects Report – David Wilhelm
Mr. David Wilhelm noted that there were only four minor projects completed for May. He indicated that next month the County will be reporting on three major projects (HWY 278 ponds, Salem Dr. East, and Gamecock Way) that are close to completion.

J. Financial Report – Carolyn Wallace
Mrs. Carolyn Wallace provided a brief overview of the revenue and expenditures which are noted on the FY 2016 actuals provided. A question was asked about the capital improvement fund.

In response to questions from board members: Mrs. Wallace clarified that $104,000 is not the balance of the capital improvement fund, but the amount of the CIP fund reserve transferred to fund the CIP efforts. She explained that the County purchases aerial photography out of the general fund every other year; however, the utility needs to view
updated aerials yearly during the tax run so this expense is budgeted from the utility fund on the off years. Mrs. Wallace explained that the contingency fund doesn’t roll over to the next FY; it is kept in reserve utilization funds.

Mr. Larson reported that approximately $496K was the FY16 balance for capital improvements and the current balance is around $1,665,000, $500,000 of which is in reserve so the balance of the fund is $1.1 million. The numbers look deceiving as the utility will not receive any more revenue until December and Hurricane Matthew put us behind schedule on some projects.

5. Unfinished Business – None.

6. New Business

A. Special Presentation: Boundary Street Project – Mr. Neal Pugliese gave an overview of the Boundary Street project and the areas impacted by and involved in the reconstruction of Boundary Street. He explained the objectives, key players and challenges of the project. The new stormwater installation is 80% complete and the overall progress of the project is noted to be at 58% complete.

Mr. Andy Kinghorn asked about the stormwater enhancements specific to the Boundary Street project, to include a depressed median. Mr. Pugliese indicated that the depressed median is no longer part of the design and that he could have additional information prepared to be presented at a later date, if the Board is interested in the stormwater design details.

Mr. Don Smith addressed a question regarding the water quality issues that have been found in the upper end of the Battery Creek as a result of runoff from Boundary Street. He mentioned that stormceptor systems have been installed at the outfalls going into Battery Creek.

The Boundary Street Project presentation is attached to the minutes.

B. Discussion to Consider Reviewing Rate Structure Related to Agriculture and Silviculture – Discussion took place about the following:

- Why silviculture is different from crop agriculture in regard to how fees are assessed.
- Staff recommending the results of two reports (ATM & Raftelis) that were presented during the last board meeting.
- Nemours appeal failing due to lack of motion or recommendation by the board and Gary Kubic’s decision to uphold staff’s determination.
- Whether or not the financial impact of all silviculture and cropland has been viewed individually.
- Ways in which stormwater fees are assessed throughout the country and current fee trends found throughout the country and other communities within South Carolina.
- The use of assumed run off factors to calculate stormwater fees for silviculture and agriculture land.
- Silviculture grow back and maturity timeline to determine an average assumed runoff factor.
- Agriculture land being protected from future rate increases by the 2009 law.
- Why there is not a weighted average or separation in disturbed and undisturbed on a parcel and why it is classified as one or the other.
- When a property can be reclassified as undisturbed.
- What prompts staff to review parcels.
• Property owners ability to request a review of their parcel.

As a result of the discussion, no additional actions were taken.

C. MS4 Resolution by Permit – Mr. Larson explained that the 2015 Resolution to apply for an MS4 permit would be amended to become Countywide rather than the MS4 area only, referenced by the black line on the map provided in the packet. The advantage would be an expedited process for the development community when dealing with DHEC and the County in the permitting process.

The board voted unanimously (5:0) to accept the amendment to the Resolution proposed for the MS4 Permit by Rule.

D. SC170 Drainage Issues

This agenda item was removed from the agenda and rescheduled for the June 21, 2017 Stormwater Utility Board meeting.

E. Stormwater MOA for Monitoring and IDDE – Mr. Larson explained that the County and Town of Bluffton both have an obligation to monitor outfalls and it was discovered that both parties were sampling at the same time in four locations. The County and Town of Bluffton have agreed to divide testing in these identified locations and share the results. The MS4 permit requires a written agreement to delegate authority; therefore, the MOA will cover this requirement and allow one party to test in the identified shared areas on behalf of the other.

The board voted unanimously (5:0) to approve the MOA between Beaufort County and the Town of Bluffton.

F. Voting for Stormwater Management Utility Board Chairman and Vice Chairman

The board voted unanimously (5:0) to retain Mr. Don Smith as Chairman and Allyn Schneider as Vice Chairman.

7. Public Comment(s) – None.

8. Executive Session

A motion was made to go into Execution Session. The Board unanimously (5:0) approved to go into Executive Session.

9. Matters Arising Out of Executive Session – None.

10. Next Meeting Agenda – Approved with additions.

Addition for June 21st
• 6B – SC170 Drainage Issues

11. Meeting Adjourned
Boundary Street Project

Boardwalk

Demolition

Boardwalk

Boundary Street Improvements - Total Concept
Objectives

• Improve Safety & Traffic Flow
• Re-locate utility network below ground
• Create a gateway entrance (Improved scenery)
• Promote business redevelopment
• Balance vehicles & pedestrian traffic (4 Boardwalks)
Key Players (14)

- US Government (FHWA)
- SCDOT
- Beaufort County
- City of Beaufort
- Preferred Materials Incorporated (Prime Contractor)
- Infrastructure Consulting Engineering (Engineering)
- Alpha Marine (Boardwalk)
- Barnett (Ducting & Storm Drainage)
- Southern Concrete (Concrete)
- Roebuck (Signal & Lighting)
- SCE&G – Electric & Gas
- Hargray Communications
- CenturyLink Communications
- BJWSA
Fun Facts

• 2.0 (+) mile long project
  • Includes Pickpocket, Polk Street, SC 170, Hwy 21 (Boundary)
• 2.7 miles of duct bank with 40 miles of conduit to house underground utilities
• 6.1 miles of curbing
• 2.75 miles cabling on the boardwalk
• Directly affects 100 parcels within the corridor
• 20,850 tons of asphalt
• 7 signals

Funding Sources:
  • Federal Tiger Grant 12,635,000
  • County Sales Tax 11,346,115
  • COB TIF II 8,223,000
  • Beaufort County Road Impact fees 1,369,243
  • Total 33,573,358
Progress to date

• South side duct bank completed & utilities converted underground
• North side duct bank about half way completed
• New storm water installation 80% complete
• All new mast arms have been installed
• Polk Street substantially completed (Final asphalt to be applied)
• 58 % total project complete
• Project substantially on budget
• Engineering will commence on Pickpocket shortly
Projected Progress

• North side duct bank completed in Summer 17’
• All traffic signals energized in Summer 17’
• SC 170 connector completed Summer 17’
• Polk Street connector (Chick-fil-A) completed Summer 17’
• Center median construction Fall 17’
• Substantial project completion Winter 18’
Challenges

• Duct bank completion & business disruptions
  • Business viability during construction
• Conversion of overhead utilities into the duct bank & aerial pole removal
• Connecting utility service to businesses from the duct bank
• Center median construction
• Demolition of Huddle House, Old Fire Station & Sea Eagle
• Completion of the Boardwalk
• Socializing drivers to the traffic pattern (limited U turns)
• Availability of a qualified workforce
Summary

• The Boundary Street Project is an incredibly complex undertaking involving 14 key players & not including many subcontractors.

• Given the size, scope & impact probably the most ambitious undertaking by this small municipality has ever committed.

• Projections indicate business development will be kickstarted once construction is substantially completed
  • The COB comprises, principally, a working class population that will benefit long term from this project.
Stormwater Manager’s Report for the Stormwater Utility Board Meeting

Utility Update

1. FY 18 SWU Management fee
   a) Town of Hilton Head Island - The Staff recommendation to change the rate structure to “Option E” passed first reading by Town Council on June 13. The Town Council will consider second and final reading at the June 20, 2017 meeting. Option E is a combination of three fee components. Admin. charge of $24, IA charge of $105, and GA charge of $21. For the typical single family resident, the “equivalent” fee, or ERU, as compared to last year’s fee of $108.70, would increase to $150 meet increased funding needs.
   b) Town of Port Royal – The Town is expecting a slight increase in fees for TY 17.
   c) All municipalities are required to submit their approved fee amounts to the Utility Staff by June 30, 2017.

2. FY 18 Budget – The proposed County Stormwater Department FY 17-18 budget received second reading on June 12. A public hearing and third and final reading will occur at the County Council meeting on June 26.

3. Tax Run 2017 – Stormwater Staff submitted a time line to the Auditor’s office that completes the billing work by the end of September to aid a October 15 billing deadline set by County Council during the TY 16 tax run process. Staff has already begun data review.

4. Right-of-Way Manager and Stormwater Easements – Due to a trending shift in workload for the County’s work on road ROW and Stormwater easement acquisition, Manager Patricia Wilson has been transferred to Public Works and is now supervised by Eric Larson, Stormwater Utility Manager.

5. Stormwater staff attended the quarterly SCASM meeting in Columbia June 8. The training topic was on regulatory enforcement at the state and local levels.

Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel) – No update was available at the time of this report.

2. MOA with the Town of Bluffton to share monitoring and to address coordinated IDDE work – The Town’s approved the MOA at the June 13, 2017 meeting.
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) – USACE permitting for wetland mitigation was submitted this month. DHEC has informed the County that funding for the grant has been programmed to end early. Fortunately, the project is ahead of schedule and staff has agreed to modify the work plan to meet the new schedule. The project is now scheduled for completion by July 31, 2018.
2. Easements – Staff is working on numerous easement requests and meets monthly to review status. Easements for Project PP may be discussed in Executive Session.
3. SC 170 Widening and ongoing project issues – County staff in stormwater and engineering met with County Councilmen Stu Rodman and Mike Covert to brief them on the history of issues related to the widening project and current action items. No additional action items resulted from the meeting.

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – ($475,000 Budget; $239,542 County portion) – Staff received a project update from project manager Joe Mina. He is close to preparing a recommendation on changes to the CIP list. In general, he is finding that the 2006 projects that have yet to be completed are not supported by the modeling. It appears that the projects recommended were based on criteria other than water quality modeling and/or hydraulic modeling. Other factors, such as complaints and DHEC designated use restriction, are being considered when making recommendations for the existing CIP list and new projects identified in the 2016 update.
2. FY 17 CIP projects – Staff is in the process of preparing a RFP for the FY 17 and FY 18 CIP projects. An advertisement should be issued in July or August. These include the Brewer Memorial Park retrofit and demonstrate project, the Salt Creek South M1 project, and the Shanklin Road M2 project from the 2014 CIP list.
3. Clemson Extension services to Beaufort County – A proposal to partner with Clemson Extension on the Brewer Memorial Park project 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) – Staff is reviewing the design plans for 3 stages (or phases) of the project. Permitting applications for the 2nd and 3rd stage are underway.
2. Battery Creek Watershed Pond retrofit / EPA 319 grant project – O&M manual is still
in development. The City staff is leading this effort.

3. Polk Village / Riverbank Drive outfall pipe – The County staff met with City of Beaufort staff to review a needed project to slip-line an existing pipe that serves both County and City areas as well as SCDOT roads. County and City staff have resolved to send a letter to DOT requesting they perform this work since the pipe is DOT owned and within an existing DOT easement.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager and Brian Eber, MS4 Coordinator)
   i. A Special presentation on Stormwater infrastructure cleanup from Hurricane Matthew will be presented during today’s SWUB meeting. This is a brief summary of that work.
      • The exigency work was completed with assistance via an NRCS EWP Exigency Grant on February 19.
      • The Town is currently working to clean the rest of the drainageways via NRCS EWP Standard Grant Assistance engaging Crowder Gulf to perform the work. This effort began on May 15 and is roughly 33% complete.
      • The Town is also coordinating with FEMA to provide additional assistance once the EWP funds are exhausted.
      • The Town anticipates that work will continue on this effort for 2-3 months.
      • The Town has applied to FEMA requesting disaster recovery assistance to correct electrical system deficiencies at the Jarvis Creek stormwater pump station via immediate Category F eligibility.
      • The Town is also applying to FEMA for assistance to make long-term improvements to our stormwater pump station infrastructure at Jarvis Creek, Wexford and Sea Pines via the Hazard Mitigation Grant Program (HMGP). These improvements would involve installation of debris screens and debris removal systems at key locations.

2. Town of Bluffton (From Kim Jones, Watershed Management Division Director)
   i. See attached report.
   ii. The monthly May River Watershed Action Plan Advisory Committee (WAPAC) was canceled.
   iii. SESWA Photo contest – Congratulations to the Town of Bluffton Stormwater staff for being selected as a winner in the annual photo contest by the Southeast Stormwater Association. Their floating wetland project will be featured on the website and association publications for the next year. Photo contest winners attached.

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. Cypress Wetland – The Town continues to work on a plan to modify the Cypress Wetland system.
   ii. No other information was available at the time of this report.

MS4 Report

1. Plan Review – A summary of monthly activity was not available at the time of this report.
2. Monthly Inspection summary - A summary of monthly activity was not available at the time of this report.
3. MS4 permit by rule – The Natural Resources Committee considered this resolution amendment at the June 19, 2017 meeting. It will be considered by the County Council at the June 26 meeting.
4. MS4 Program Inspections – Staff has working on or completed inspections of County facilities to evaluate stormwater best management practices on each site. This is part of Minimum Control Measure 6 on the MS4 permit.
5. Public Education – Lowcountry Stormwater Partners, via Carolina Clear, continues to work on several initiatives towards public education and outreach. Members of the SWIC are meeting monthly with Clemson Extension staff to review progress.
   i. Upcoming Events:
      a) Beaufort County Pond Conference is scheduled to be held in October.
6. DHEC NPDES permitting transition – A third coordination meeting was held on June 13, 2017. Numerous DHEC staff from the local office, Charleston District Office, and Columbia’s Central office attended along with Staff from the County, Town of Bluffton, and Town of Hilton Head Island. The transition will occur on July 1, 2017. The County Staff plan on preparing a direct email to the development community and a press release. During the meeting, we discussed the DHEC and OCRM review process changes.
7. County permitting and inspection procedures – on May 23, staff from Stormwater and Planning/Zoning met to review a proposed flow chart and inspection checklist to further define and clarify the plan review and inspection process for both development and stormwater permitting.
8. Community Development Department (formerly Planning & Zoning) and Stormwater Department staff met with a product vendor and are considering a new permitting and plan review tracking software for FY 18.
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<thead>
<tr>
<th>ACTIVITY - PROJECTS</th>
<th>STATUS</th>
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<tbody>
<tr>
<td>Septic Conversion to Sanitary Sewer</td>
<td>Buck Island/Simmonsville Road (BIS) Phases I, II, and III are completed. Toy Fields is completed. Current project updates are included in Engineering Consent Agenda under &quot;Sewer &amp; Water.&quot;</td>
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<tr>
<td>May River 319 Grant Phase 1 - New Riverside Pond (Grant award of $483,500 in 2009)</td>
<td>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. An amendment to 319 Grant Phase 2 allows a portion of remaining funds to be reallocated to purchase and install Filtrexx bacteria removal media filter socks in the ditch downstream from the pond outfall to prevent bacteria re-load prior to discharging to the May River. Current project updates are included in Engineering Consent Agenda.</td>
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<td>May River 319 Grant Phase 2 - Pine Ridge (Grant award of $290,000 in 2011)</td>
<td>Project completed and post-installation data collection ongoing.</td>
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<tr>
<td>May River 319 Grant Phase 3 - May River Preserve (Grant award of $231,350 in 2015)</td>
<td>This project includes construction of a shallow pond known as a Green Tree Reservoir. Current project updates are included in Engineering Consent Agenda.</td>
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<td>Stoney Creek Wetlands Restoration: Preliminary Design Phase</td>
<td>Wetlands restoration project with the goal to reduce stormwater volume reaching the May River. Current project updates are included in Engineering Consent Agenda.</td>
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<td>May River Watershed Water Quality Model</td>
<td>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 &quot;Existing Conditions&quot; portion of the Headwaters Water Quality Model is underway. Currently proposed for completion in FY19 following the</td>
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<th>ACTIVITY - POLICY</th>
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<td>May River Watershed Action Plan Update (Grant award of $55,000 in 2017)</td>
<td>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 currently not budgeted for</td>
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<tr>
<td>Additional Funding Opportunities</td>
<td>No updates.</td>
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<td>ACTIVITY - PROGRAMS</td>
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<td>Sewer Connection Program</td>
<td>In FY17 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. The May River Watershed Action Plan Advisory Committee (WAPAC) adopted the Sewer Connection policy on September 22, 2016. Staff is gathering information on components of the policy to bring forward to Council for consideration. Completed to date include meetings with Hilton Head Island PSD #1, BJWSA and Community Foundation of the Lowcountry. Staff released a Request for Information (RFI) to local banks who might be willing to offer low interest construction loans to owners wishing to connect to sanitary sewer. A similar RFI was released to plumbers holding a Town business license in January. An overview of the findings was given to Council during Strategic Plan Update. <strong>Draft findings memo is under review and revision by Town attorney. Attorney is compiling legal</strong></td>
</tr>
<tr>
<td>Septic System Maintenance Program</td>
<td>FY17 funding is $10,000. On-going assistance offered to Town residents regardless of financial status through Neighborhood Assistance Program. <strong>Current updates are included in Engineering Consent Agenda Attachment 8.</strong></td>
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| Water Quality Monitoring Program        | 1. Bacterial "hot spot" monitoring  
2. BMP efficacy monitoring  
3. SCDHEC Shellfish monitoring results  
4. Proposed MS4 monitoring program under review by SCDHEC  
5. Illicit Discharge investigation and monitoring  
6. Bacterial source tracking monitoring efforts to identify potential locations of human sources of bacteria received TAC and WAPAC input.  
**Current updates are included in Engineering Consent Agenda.**                                                                                                                                 |
| Sediment & Erosion Control Program      | Sediment and erosion control inspections with escalating enforcement response continue. **Current updates are included in Engineering Consent Agenda Attachment 5.**                                                                 |
| Ditch Inspection/Maintenance Program    | 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 7 and under "Public Works."**                                                                                             |
| Infrastructure Mapping/GIS             | Data points continue to be collected as new development occurs to populate water quality model and meet MS4 requirements. **Current updates are included in Engineering Consent Agenda Attachment 10.**                                                                 |
| Public Outreach/Participation/Involvement| 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 school classes.                                                                 |
| Development Plan Review Program         | Staff supports development plan review process to ensure current BMPs for water quality and quantity are incorporated into new developments. **Current updates are included in Engineering Consent Agenda Attachment 4.**                                                                 |


2017 SESWA Photo Contest Winners

Congratulations! Here is more information about the current projects in the Stormwater field from your photo contest winners:

City of Atlanta Department of Watershed - Green Roof
Sam Nunn Atlanta Federal Center serves as the home of several federal agencies, including the GSA and EPA Region 4, and is one of Atlanta’s most environmentally friendly facilities. For example, the high-rise building of the Samuel Nunn Atlanta Federal Center houses a forested courtyard with a stand of approximately 50 maple trees, flowering cherry trees, and various other deciduous species, as well as native drought-resistant vegetation and paths of semi-pervious concrete pavers. Utilizing American Recovery and Reinvestment Act funds, the $2.6 million project renovation’s goals, consistent with the General Services Administration’s (GSA) roofing program, were to provide thermal and moisture protection; conserve energy and the environment; reduce utility costs; and help attain energy security by meeting Energy Independence and Security Act requirements; the project meets Sustainability Executive Order 13514.

Oldcastle Precast - Solar Powered Stormwater Harvesting System
An overhead view of the completed solar powered stormwater harvesting system for the new Ultra-Green Inner-City Development know as Encore Tampa in Florida.
Town of Bluffton - Floating Wetlands

Using EPA Section 319 Grant funds the Town of Bluffton's Watershed Management Division retrofitted an existing drainage system in a fecal coliform hotspot in the May River headwaters and added a stormwater wet detention pond. The goal of the project was to mitigate the levels of fecal coliform bacteria reaching the May River, which is currently listed on the South Carolina Department of Health & Environmental Control's 303d list due to a fecal coliform impairment. The pond, which was completed in 2013 has had several observed algae blooms and nutrients from the pond's influent have been of concern. Utilizing the remaining grant funds the Town of Bluffton purchased and installed 15 floating wetlands from Biohaven and native plants from Baker Environmental. The goal of this component of the project is to use the native wetland plants, which grow through the floating wetland matrix, and have their roots suspended in the water to absorb excess nutrients that could otherwise lead to aquatic weed growth, harmful algae blooms, and ultimately fish kills.
MEMORANDUM

Date: June 21, 2017

To: Stormwater Management Utility Board

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

Re: Maintenance Project Report

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

Major Projects – Storm Drainage System Improvements:

- **278 Retrofit Pond – Bluffton (SWUD 9):** This approximately one acre pond off Berkeley Hall Road in Bluffton was the fourth and final pond constructed to control stormwater from Highway 278. The scope of work included constructing 260 feet of channel, installing a sediment pad, 40 feet of channel pipe and hydroseeded. The total cost project was $169,254.90.

- **Folly Road – St. Helena Island (SWUD 8):** This project improved 390 feet of drainage system. The project scope included clearing 390 feet of workshelf, cleaning out 390 feet of channel, installing access and bleeder pipes, rip rap and hydroseeding. The total cost was $38,246.32.

- **Warsaw Island Road/Gardner Drive – St. Helena Island (SWUD 8):** This project improved 3,574 feet of drainage system. The project scope included cleaning out 3,566 feet of roadside ditch, extending one driveway pipe. Jet cleaning six access pipes, five crossline pipes, twenty-nine driveway pipes and rip rap. The total cost was $35,034.18.

- **Dean Hall Road – Sheldon (SWUD 5):** This project improved 120 feet of drainage system. The project scope included installing two catch basins, one crossline pipe and eighty-eight feet of roadside pipe. The total cost was $19,536.42.

- **Trask Parkway Channel 2 – Sheldon (SWUD 5):** The project scope included removing blockages, replacing three access pipes and rip rap. The total cost was project was $19,536.42.

Minor or Routine Projects:

- **Royal Pines Boulevard – Lady’s Island (SWUD 7):** This project improved 2,944 feet of drainage system. The project scope included cleaning 2,944 feet of channel. The total cost was $14,709.94.

- **Joe Allen Drive/Patterson Road – Port Royal Island (SWUD 6):** This project improved 3,163 feet of drainage system. The project scope included cleaning out 3,163 feet of roadside ditch, jetting ten driveway pipes, three crossline pipes and hand seeding. The total cost was $14,241.28.
Project Summary: Highway 278 Retrofit Pond 38

Activity: Water Quality

Duration: 1/15/15 - 2/23/17

Narrative Description of Project:
 Constructed a retrofit pond and 260 L.F. of channel. Installed sediment pad, 40 L.F. of channel pipe, sediment logs, rip rap and hydroseeded for erosion control.

2014-338 / Hwy 278 Retrofit Pond 38

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<th>Labor</th>
<th>Labor</th>
<th>Equipment</th>
<th>Material</th>
<th>Contractor</th>
<th>Indirect</th>
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2014-338 / Hwy 278 Retrofit Pond 38

| Sub Total | $68,324.89 | $19,937.60 | $21,033.66 | $16,855.67 | $43,103.07 | $169,254.90 |

Before

During

After
Project: Hwy 278 Retrofit Pond 38

Activity: Water Quality

Project #: 2014-338

Township/SW Dist: Bluffton/9

Completed: December 2016

Drainage Type
- Access Pipe
- Bleeder Pipe
- Channel Pipe
- Channel
- Creek/Stream
- Crossline Pipe
- Driveway Pipe
- Lateral
- Lateral Pipe
- River
- Road Pipe
- Roadside
- Roadside Pipe

Prepared By: BC Stormwater Management Utility
Date: Print 06/13/2017
File: C:\Project Summary Maps\2014-200\Hwy 278 Retrofit Pond 38

- Installed 40 LF of channel pipe.
- Constructed 100 LF of channel.
- Installed sediment logs, rip rap and hydroseeded for erosion control.
- Constructed 160 LF of channel.
**Project Summary:** Folly Road Channel  
**Activity:** Routine/Preventive Maintenance

**Narrative Description of Project:**

**Duration:** 2/29/16 - 12/7/16

**Cost Breakdown:**

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<th>Description</th>
<th>Labor Hours</th>
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<th>Labor Indirect</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
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**Grand Total**

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<th>Material Cost</th>
<th>Labor Cost</th>
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**Before**

![Before Image]

**During**

![During Image]

**After**

![After Image]
Installed (1) access pipe.

Legend

Drainage Type
- Access Pipe
- Bleeder Pipe
- Channel Pipe
- Channel
- Stream
- Crosline Pipe
- Driveway Pipe
- Lateral
- Lateral Pipe
- River
- Road Pipe
- Roadside
- Roadside Pipe

Project: Folly Road Channel Map #1
Activity: Routine/Preventive Maintenance
Project #: 2015-001
Township/SW Dist: St. Helena Island/8
Completed: December 2016

Prepared By: BC Stormwater Management Utility
Date Print: 6/13/17
File: C:\project summaries map/Folly Road Channel Map #1_2015-001
Grubbed and cleared 390 LF of workshelf. Cleaned out 390 LF of channel. Installed (1) access pipe, (2) bleeder pipes, rip rap and hydroy seeded for erosion control. Jetted (1) driveway pipe.
Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Warsaw Island Road and Gardner Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

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<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
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Sub Total

Grand Total

Before

During

After
Cleaned out 1,389 LF of roadside ditch.

Cleaned out 357 LF of roadside ditch.

Cleaned out 1,820 Lf of roadside ditch.

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

Jetted (29) driveway pipes.

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

Legend

Drainage Type

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

Project: Warsaw Island Road & Gardner Drive Map #2
Activity: Routine/Preventive Maintenance
Project #: 2017-512
Township/SW Dist: St. Helena Island/8
Completed: October 2016

Prepared By: BC Stormwater Management Utility
Date Print: 06/05/17
File: C:\project summaries map\Warsaw Island Road & Gardner Drive Map 2_2017-512
Extended (1) driveway pipe. Jetted (1) access pipe.

Jetted (2) access pipes and (1) crossline pipe.
Jetted (1) crossline pipe.
Project Summary: Dean Hall Road

Narrative Description of Project:
Project improved 120 L.F. of drainage system. Installed (2) catch basins, (1) crossline pipe and 88 L.F. of roadside pipe.

Activity: Routine/Preventive Maintenance

Duration: 12/20/17 - 2/1817

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<th>Contractor Cost</th>
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<td>$2,120.15</td>
<td>$512.65</td>
<td>$1,084.82</td>
<td>$0.00</td>
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<td>WSDR / Workshelf - Dressed</td>
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<td>$80.40</td>
<td>$103.58</td>
<td>$0.00</td>
<td>$344.75</td>
<td>$1,119.68</td>
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### Total Costs

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<td>2017-515 / Dean Hall Road</td>
<td>468.0</td>
<td>$10,722.05</td>
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<td>$788.64</td>
<td>$6,587.11</td>
<td>$23,867.02</td>
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Grand Total

<p>| | | | | | | | |</p>
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<td>468.0</td>
<td>$10,722.05</td>
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<td>$3,714.28</td>
<td>$788.64</td>
<td>$6,587.11</td>
<td>$23,867.02</td>
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</tbody>
</table>

Before | During | After
Removed blockage from flowline. Installed 85 LF of roadside pipe.

Installed (2) catch basins and (1) crossline pipe.
Project Summary: Trask Parkway Channel #2

Activity: Routine/Preventive Maintenance

Narrative Description of Project:
Removed blockages from flowline. Replaced (3) access pipes. Repaired washouts. Installed rip rap for erosion control.

Duration: 7/19/16 - 1/23/17

<table>
<thead>
<tr>
<th>2017-500 / Trask Parkway Channel #2</th>
<th>Labor</th>
<th>Equipment</th>
<th>Material</th>
<th>Contractor</th>
<th>Indirect</th>
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<tr>
<td>Haul / Hauling</td>
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<td>$1,864.65</td>
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<td>RPWO / Repaired Washout</td>
<td>70.0</td>
<td>$1,602.05</td>
<td>$364.32</td>
<td>$116.64</td>
<td>$0.00</td>
<td>$3,072.76</td>
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<tr>
<td>RRI / Rip Rap - Installed</td>
<td>40.0</td>
<td>$903.40</td>
<td>$192.97</td>
<td>$65.26</td>
<td>$0.00</td>
<td>$1,724.91</td>
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<td>Haul / Hauling</td>
<td>14.0</td>
<td>$323.33</td>
<td>$82.46</td>
<td>$30.56</td>
<td>$0.00</td>
<td>$651.39</td>
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<td>APRPL / Access pipe - replaced</td>
<td>88.0</td>
<td>$1,955.88</td>
<td>$373.08</td>
<td>$2,474.06</td>
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<td>$6,020.38</td>
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<td>$11.75</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$18.36</td>
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<tr>
<td>APREM / Access pipe - removed</td>
<td></td>
<td></td>
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Sub Total

<table>
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<th>2017-500 / Trask Parkway Channel #2</th>
<th>Labor</th>
<th>Equipment</th>
<th>Material</th>
<th>Contractor</th>
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<th>Total Cost</th>
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<td>Grand Total</td>
<td>347.5</td>
<td>$7,802.27</td>
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<td>$4,847.40</td>
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<td>$19,536.42</td>
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</tbody>
</table>

Before | During | After
Replaced twin access pipes and installed rip rap for erosion control.

Replaced (1) access pipe and installed rip rap for erosion control.

Repaired washouts.

Project: Trask Parkway Channel #2
Map #1

Activity: Routine/Preventive Maintenance
Project #: 2017-500
Township/SW Dist: Sheldon/5
Completed: January 2017

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

Prepared By: BC Stormwater Management Utility
Date Print: 04/04/17
File: C:\project summaries map/Trask Parkway Channel #2 Map#1_2017-500

1 inch = 420 feet
Project: Trask Parkway Channel #2
Map #2

Activity: Routine/Preventive Maintenance

Project #: 2017-500

Township/SW Dist: Sheldon/5

Completed: January 2017

Legend

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

Removed blockages from flowline.

Prepared By: BC Stormwater Management Utility
Date Print: 04/04/17
File:C:\project summaries map/Trask Parkway Channel #2 Map#2_2017-500
Project Summary: Royal Pines Boulevard Channel

Activity: Routine/Preventive Maintenance

Duration: 1/25/17 - 2/8/17

Narrative Description of Project:
Project improved 2,944 L.F. of drainage system. Cleaned out 2,944 L.F. of channel.

<table>
<thead>
<tr>
<th>2017-532 / Royal Pines Boulevard Channel</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Labor</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIT / Audit Project</td>
<td>0.5</td>
<td>$11.75</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$6.62</td>
<td>$18.36</td>
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<tr>
<td>CCO / Channel - cleaned out</td>
<td>216.0</td>
<td>$4,769.58</td>
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<td>SD / Soft Digging</td>
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<td>2017-532 / Royal Pines Boulevard Channel</td>
<td>356.5</td>
<td>$7,875.67</td>
<td>$1,997.32</td>
<td>$770.68</td>
<td>$0.00</td>
<td>$4,066.27</td>
<td>$14,709.94</td>
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</tbody>
</table>

Grand Total                              | 356.5       | $7,875.67  | $1,997.32      | $770.68       | $0.00          | $4,066.27     | $14,709.94 |
Cleaned out 612 LF of roadside ditch.

Cleaned out 635 LF of channel.

Cleaned out 1,697 LF of channel.
### Project Summary: Joe Allen Drive & Patterson Road

**Activity:** Routine/Preventive Maintenance

#### Narrative Description of Project:

#### Duration: 2/14/17 - 3/7/17

<table>
<thead>
<tr>
<th>2017-533 / Joe Allen Dr &amp; Patterson Rd</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Cost</th>
<th>Total Cost</th>
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<tr>
<td>AUDIT / Audit Project</td>
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<td>$11.75</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$6.62</td>
<td>$18.36</td>
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<tr>
<td>CLPJT / Crossline Pipe - Jetted</td>
<td>20.0</td>
<td>$445.60</td>
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<td>HAUL / Hauling</td>
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<td>$394.40</td>
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<td>PL / Project Layout</td>
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<td>RSDCL / Roadside Ditch - Cleanout</td>
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<td>$1,236.98</td>
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<td>$0.00</td>
<td>$3,093.69</td>
<td>$9,455.34</td>
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<td>UTLLOC / Utility locates</td>
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<td>$4.02</td>
<td>$3.54</td>
<td>$0.00</td>
<td>$26.46</td>
<td>$83.42</td>
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</table>

**2017-533 / Joe Allen Dr & Patterson Rd**

| Sub Total                              | 335.0       | $7,392.28  | $1,988.85     | $427.86      | $0.00          | $4,432.29     | $14,241.28 |

**Grand Total**

| 335.0 | $7,392.28 | $1,988.85 | $427.86 | $0.00 | $4,432.29 | $14,241.28 |

(Pictures Not Available)
Project: Joe Allen Drive & Patterson Road
Map #1

Activity: Routine/Preventive Maintenance

Project #: 2017-533

Township/SW Dist: Port Royal Island/6

Completed: March 2017

Map #1

Drainage Type

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

Legend

Prepared By: BC Stormwater Management Utility
Date Print: 05/03/17
File: C:\project summaries map/Joe Allen Drive & Patterson Road Map #1_2017-533

Cleaned out 1,070 LF of roadside ditch.

Cleaned out 288 LF of roadside ditch.

Cleaned out 25 LF of roadside ditch.

Cleaned out 140 LF of roadside ditch. Jetted (1) crossline pipe.

Jetted (10) driveway pipes.
Cleaned out 1,490 LF of roadside ditch. Jetted (1) crossline pipe. Handseeded for erosion control.
Cleaned out 200 LF of roadside ditch.

Cleaned out 200 LF of roadside ditch.

Cleaned out 200 LF of roadside ditch.
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 – June 21, 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)
   D. Stormwater Related Projects – 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
   A. Special Presentation: Town of Port Royal Cypress Wetlands Modification Project - Tony Maglione, Consultant

7. PUBLIC COMMENT

8. NEXT MEETING AGENDA
   A. August 16, 2017 (backup)

9. ADJOURNMENT
July 19, 2017

Stormwater Manager’s Report for the Stormwater Utility Board Meeting

** The June 2017 report is included in this report and attached to the Board Packet **

Utility Update

1. Passing of Jimmie Stanley
   The June meeting of the SWUB was canceled to pay respects to a fallen colleague. On June 15, 2017, Jimmie Stanley passed away at his home. He was the Superintendent of Roads and Drainage South, but had ties to the Stormwater Department. When Jimmie joined Public Works in 2002 as a member of the Stormwater section, he progressed rapidly. He was an expert operator of heavy equipment; he understood the technical skill and safety considerations required to install drainage systems that we refer to as horizontal construction. Whether it was on the job or on the water, Jimmie shared his experience and knowledge with everyone that was willing to learn. He was promoted in 2005 to Foreman in the Stormwater section. Jimmie continued to serve the citizens of Beaufort County leading his staff by example. In 2013, he was promoted to the Superintendent’s position over Roads and Drainage South. He and his crew performed in an exemplary fashion. Jimmie was scheduled to transfer back to Stormwater as the Superintendent in late June. He was a sincere, earnest and valued member of the Public Works team. We will carry our memories of him with us forever. Many know his brother Jerry and nephew Chad also work with us in Public Works. Our thoughts continue for the family as they heal.

2. FY 18 SWU Management fee
   a) Town of Hilton Head Island - The Town Council approved a rate structure change to Option E for TY 17.
      i) Town of Hilton Head Island – $24 Admin., $105 / IA, $24 / GA
      ii) Town of Bluffton – $98 / SFU
      iii) City of Beaufort – $5 Admin., $80 / IA, $20 / GA
      iv) Town of Port Royal – $5.07 Admin., $43.50 / IA, $11.43 / GA
      v) Beaufort County – $12 Admin., $65 / IA, $10 / GA
   b) All municipalities submitted their fee amounts for TY 17.
      i) Town of Hilton Head Island – $24 Admin., $105 / IA, $24 / GA
      ii) Town of Bluffton – $98 / SFU
      iii) City of Beaufort – $5 Admin., $80 / IA, $20 / GA
      iv) Town of Port Royal – $5.07 Admin., $43.50 / IA, $11.43 / GA
      v) Beaufort County – $12 Admin., $65 / IA, $10 / GA

3. FY 18 Budget – The County Stormwater Department FY 17-18 budget was approved on June 26.

4. Tax Run 2017 – Work began July 1. We are working towards an October 15 completion date.
Monitoring Update

1. Lab Update (From Dr. Alan Warren and Lab Manager Danielle Mickel) –
   a. Beaufort County:
      i. Completion of MS4 quarterly sampling and analyses for both wet and dry events for the first two quarters.
      ii. Sampled and analyzed for a suspect illicit at 3008 Palmetto Ridge Rd.
      iii. Continual weekly sampling for Battery Creek 319 Pond Project. Results need to be analyzed to determine trends and effectiveness.
      iv. Continual efforts for structural system to complete discharge task at specific MS4 site.
      v. Data reduction/reporting.
      vi. Special data requests.
   b. Town of Bluffton:
      i. Continual analysis of weekly, bi-weekly, and quarterly samples.
      ii. Data reduction/reporting.
      iii. Review/revision of MOU between USCB and TOB.
   c. Palmetto Bluff:
      i. Monthly sampling and analyses for wet and dry events.
      ii. Data reduction/reporting.
   d. GEL-HHI:
      i. Analysis for Hilton Head Island E.coli samples 4x/Qtr.
      ii. Data reduction/reporting.
   e. Leamington Community:
      i. Collection and analyses of Leamington’s stormwater lagoon system (Qtrly)
      ii. Data reduction/reporting.
      iii. Monthly report.
      iv. Consultation.
   f. USCB Lab:
      i. Monthly (and as needed) calibration of equipment and instruments.
      ii. Certification Upkeep-including review of QA/QC, logbooks, COC’s.
      iii. On-going efforts to obtain additional certification; no new certs obtained during this Qtr.
      iv. Monthly sterility checks on Lab water for TOC, TRC, HPC, Conductivity, metals.
      v. Assessments and consultations.

2. Staff from multiple jurisdictions and USCB lab met with a vendor that focuses on forecast based Stormwater controls. We are exploring whether or not this technology would be beneficial in our area.

3. Staff is developing a monitoring schedule for the CIP FY 18 Grouping Stormwater Projects. See Professional Contracts. The goal is to establish need for the BMP and a baseline to measure post construction effectiveness.

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.
   a) The request for easement from Mr. Greg Bennett in the Pleasant Point area has been resolved. A contract has been entered into between Mr. Bennett and the County in which he agrees to own and maintain the outfall ditch and pipe under Bennett Drive. Per the agreement, failure to maintain the ditch resulting to negative impacts to adjacent properties or the County is the liability of Mr. Bennett. Staff is working to acquire the additional easements needed for the project.
3. SC 170 Widening and ongoing project issues – Mr. Tom Zinn has requested to address the SWUB concerning the project. This item will be discussed further in New Business

Professional Contracts Report

1. Stormwater Management Plan (Master Plan) Update – ($475,000 Budget; $239,542 County portion) – Nothing new to report.
2. CIP FY 18 Grouping Stormwater Projects – Four projects from the 2006 Stormwater Management Plan, further defined by the 2011 Retrofit Study were advertised for Engineering Design Services in June. Proposals were due on July 19th. Staff will be evaluating proposals and making a recommendation to the SWUB at the August meeting. The four projects are:
   a) Brewer Memorial Park Demonstration Wet Pond Project - $79,500 total budget
   b) Sawmill Creek Overtopping / Forby land - $300,000 total budget
   c) Salt Creek South M1 - $4,090,000 total budget
   d) Shanklin Road M2 - $6,680,000 total budget
3. Clemson Extension services to Beaufort County – A proposal to partner with Clemson Extension on the Brewer Memorial Park project is pending. Given the CIP FY 18 grouping project scope, Clemson’s involvement will likely be a phase II to expand upon the work done by the CIP.

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 – Nothing new to report.
3. Polk Village / Riverbank Drive outfall pipe – No progress has been made on this project within the past month. The County staff has action items to complete.
4. Municipal “County” Infrastructure – In June, the County Council authorized the County Administrator Gary Kubic to discuss the recent South Carolina Attorney General’s opinion on County roads within incorporated areas with the Town and City Managers
within the County. While the initial issue was roads, the focus has expanded to other infrastructure such as Stormwater ditches and pipes. It is the desire of the County to seek some resolution on the operational responsibility of historic County maintained systems. As discussed in previous SWUB meetings and reports, the County’s SWU fee billing structure is set up to reflect the equity of asking citizens receiving the benefit of the infrastructure to pay fees for it. While this may have been a temporary solution, staff would prefer a delegation of duties so that maintenance responsibilities are not intermingled among other jurisdictional areas. This would eliminate the need for the Countywide Infrastructure (CWI) fee with the understanding the municipalities may have to adjust SWU rates to assume the increased workload. Staff from the County, Towns, and City continues to discuss this issue in hopes to properly advice their respective leadership. We will report on this topic more in future meetings.

Municipal Reports

1. Town of Hilton Head Island (From Jeff Netzinger, Stormwater Manager and Brian Eber, MS4 Coordinator)
   i. A special presentation on Stormwater infrastructure cleanup from Hurricane Matthew will be presented during today’s SWUB meeting. This is a brief summary of that work.
      • The exigency work was completed with assistance via an NRCS EWP Exigency Grant on February 19.
      • The Town is currently working to clean the rest of the drainage ways via NRCS EWP Standard Grant Assistance engaging Crowder Gulf to perform the work. This effort began on May 15 and is roughly 33% complete.
      • The Town is also coordinating with FEMA to provide additional assistance once the EWP funds are exhausted.
      • The Town anticipates that work will continue on this effort for 2-3 months.
      • The Town has applied to FEMA requesting disaster recovery assistance to correct electrical system deficiencies at the Jarvis Creek stormwater pump station via immediate Category F eligibility.
      • The Town is also applying to FEMA for assistance to make long-term improvements to our stormwater pump station infrastructure at Jarvis Creek, Wexford and Sea Pines via the Hazard Mitigation Grant Program (HMGP). These improvements would involve installation of debris screens and debris removal systems at key locations

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 29 projects reviewed in May and June to Beaufort County Stormwater staff.

<table>
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<th>Projects Name</th>
<th>SRT Review Date</th>
<th>Review Type</th>
<th>Comments</th>
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</thead>
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<tr>
<td>Bluffton Dollar General/St James Pritchardville</td>
<td>5/3/2017</td>
<td>Final</td>
<td>Approved</td>
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<tr>
<td>Lot 5 Lost Island River Buffer</td>
<td>5/3/2017</td>
<td>River Buffer Waiver</td>
<td>Approved</td>
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<tr>
<td>Colleton River Bluffton Fire Station #36</td>
<td>5/3/2017</td>
<td>Final</td>
<td>Approved</td>
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<tr>
<td>Kitties Crossing Lot 4</td>
<td>5/3/2017</td>
<td>Final</td>
<td>Approved</td>
</tr>
<tr>
<td>Dataw Island Lot 52 Bulk Head</td>
<td>5/24/2017</td>
<td>Bulkhead</td>
<td>Deferred</td>
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<tr>
<td>Dataw Island Lot 53 Bulk Head</td>
<td>5/24/2017</td>
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<td>Deferred</td>
</tr>
<tr>
<td>Dataw Island Lot 52 Bulk Head</td>
<td>5/24/2017</td>
<td>Bulkhead</td>
<td>Deferred</td>
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<td>Dataw Island Lot 53 Bulk Head</td>
<td>5/24/2017</td>
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<td>Deferred</td>
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<tr>
<td>Beaufort County Animal Services 170</td>
<td>5/24/2017</td>
<td>Final</td>
<td>Approved w/conditions - Access needs additional review to provide a northside connection.</td>
</tr>
<tr>
<td>Belfair Plantation East Gate</td>
<td>5/31/2017</td>
<td>Discussion</td>
<td>Approved</td>
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<tr>
<td>Myrtle Park Bridge Pointe Condos Phase 3</td>
<td>5/31/2017</td>
<td>Discussion</td>
<td>Buffer wetland, hardship</td>
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<td>Okatie Center PUD-Sprenger Healthcare East Gate</td>
<td>5/31/2017</td>
<td>Discussion</td>
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<tr>
<td>Ferguson Forest Products</td>
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<td>Apply for setback buffer</td>
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<tr>
<td>Okatie Center PUD-Sprenger Healthcare East Gate</td>
<td>5/31/2017</td>
<td>Discussion</td>
<td>Approved</td>
</tr>
<tr>
<td>Ferguson Forest Products</td>
<td>5/31/2017</td>
<td>Discussion</td>
<td>Apply for setback buffer</td>
</tr>
<tr>
<td>BJWSA Solar Array</td>
<td>6/7/2017</td>
<td>Discussion</td>
<td>Approved</td>
</tr>
<tr>
<td>Salt Creek Development Short Term Rentals</td>
<td>6/7/2017</td>
<td>Discussion</td>
<td>Needs commercial Lodging use</td>
</tr>
<tr>
<td>Windmill Harbor Lot 15</td>
<td>6/7/2017</td>
<td>River Buffer</td>
<td>Approved</td>
</tr>
<tr>
<td>Greene Acres</td>
<td>6/7/2017</td>
<td>Special Use</td>
<td>Denied. Needs mining permit</td>
</tr>
<tr>
<td>DESC Warehouse Solar Array</td>
<td>6/7/2017</td>
<td>Conceptual</td>
<td>Approved with Conditions</td>
</tr>
<tr>
<td>Moss Creek Gate Access</td>
<td>6/28/2017</td>
<td>Discussion</td>
<td>Requires Permitting</td>
</tr>
<tr>
<td>St. Gregory Parish Life Center</td>
<td>6/28/2017</td>
<td>Conceptual</td>
<td>Approved</td>
</tr>
<tr>
<td>Grayco</td>
<td>6/28/2017</td>
<td>Amendment</td>
<td>Approved with Conditions</td>
</tr>
<tr>
<td>Dataw Island Lot 52 Bulk Head</td>
<td>6/28/2017</td>
<td>Bulkhead</td>
<td>Approved with Conditions</td>
</tr>
</tbody>
</table>
2. Stormwater Permits – There were 7 permits issued in May and June:

<table>
<thead>
<tr>
<th>Stormwater Permits Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. James Pritchardville Residential</td>
</tr>
<tr>
<td>Dollar General St. James Pritchardville</td>
</tr>
<tr>
<td>Colleton River Bluffton Fire Station #36</td>
</tr>
<tr>
<td>Fripp Island Lot 120 Spy Glass</td>
</tr>
<tr>
<td>Moss Creek Plantation</td>
</tr>
<tr>
<td>Lot 17 Browns Island Bulkhead</td>
</tr>
<tr>
<td>Village at Oyster Bluff- Pond Change</td>
</tr>
</tbody>
</table>

3. Monthly Inspection summary
   a) Number of active permits = 45
   b) Number of inspections performed = 134
   c) Number of drainage related complaints investigated = 4
   d) Number of IDDE issues received and investigated = 3
   e) Number of Violations (verbal, written, fines, or stop work orders) = 5
   f) Number of Development Permit certificates of completion = 1

4. MS4 permit by rule – The County Council approved the resolution to amend the MS4 permit to “permit by rule” at the June 26 meeting. A letter requested the change was submitted to DHEC.

5. MS4 Program Inspections – Staff continues inspections of County facilities to evaluate stormwater best management practices on each site. This is part of Minimum Control Measure 6 on the MS4 permit.

6. Public Education – Lowcountry Stormwater Partners, via Carolina Clear, continues to work on several initiatives towards public education and outreach.
   a) Members of the SWIC are meeting monthly with Clemson Extension staff to review progress.
   b) June 6th - Ellen Comeau from Carolina Clear spoke on the Making It Grow segment. Ellen covered what the consortium is, how stormwater affects our waterways, and the success of the recent Master Pond Manager course.
   c) June 9th, Amy Scaroni, Ellen, and others presented at the Environmental Educators Association of South Carolina summer conference. The presentation was a preview of a workshop training called BioDISCovery that was co-created by Carolina Clear and SC SeaGrant Consortium. The workshop was based upon a Maryland SeaGrant workshop where students explore biofilm communities. They previewed the workshop
to 17 secondary educators and 14 elementary educators. You can find picture from the workshop on the Lowcountry Stormwater Partners Facebook page. The post is currently pinned to the top of the page.

d) Upcoming Events:
   i. July 18th - LSP consortium meeting, 2:30pm-4:30pm at BJSWA conference room.
   ii. August 22nd - MS4 / Municipality Education and Involvement Update Meeting, 8:30-10:30am at BJSWA conference room.
   iii. October 19, 2017 Pond Management Conference/Workshop
       • Event Time: 8AM-4PM
       • Location: USCB Gateway Campus - Campus Center (Multi-purpose Rm) & Library Rm 267/237
       • Expected number of participants: 100
       • Parking: Free

7. DHEC NPDES permitting transition – The County began NPDES permitting as an MS4 and on behalf of DHEC on July 1, 2017.

8. Community Development Department continues to negotiate with Energov, a product vendor, for a new permitting and plan review tracking software for FY 18.
<table>
<thead>
<tr>
<th>ACTIVITY - PROJECTS</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Septic Conversion to Sanitary Sewer</td>
<td>Buck Island/Simmonsville Road (BIS) Phases I, II, and III are completed. Toy Fields is completed. <strong>Current project updates are included in Engineering Consent Agenda under &quot;Sewer &amp; Water.&quot;</strong></td>
</tr>
<tr>
<td>May River 319 Grant Phase 1 - New Riverside Pond (Grant award of $483,500 in 2009)</td>
<td>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. An amendment to 319 Grant Phase 2 allows a portion of remaining funds to be reallocated to purchase and install Filtrexx bacteria removal media filter socks in the ditch downstream from the pond outfall to prevent bacteria re-load prior to discharging to the May River. <strong>Current project updates are included in Engineering Consent Agenda under &quot;May River 319 Grant Phase 2.&quot;</strong></td>
</tr>
<tr>
<td>May River 319 Grant Phase 2 - Pine Ridge (Grant award of $290,000 in 2011)</td>
<td>Project completed and post-installation data collection ongoing. <strong>Current project updates are included in Engineering Consent Agenda.</strong></td>
</tr>
<tr>
<td>May River 319 Grant Phase 3 - May River Preserve (Grant award of $231,350 in 2015)</td>
<td>This project includes construction of a shallow pond known as a Green Tree Reservoir. <strong>Current project updates are included in Engineering Consent Agenda.</strong></td>
</tr>
<tr>
<td>Stoney Creek Wetlands Restoration: Preliminary Design Phase</td>
<td>Wetlands restoration project with the goal to reduce stormwater volume reaching the May River. <strong>Current project updates are included in Engineering Consent Agenda.</strong></td>
</tr>
<tr>
<td>May River Watershed Water Quality Model</td>
<td>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 &quot;Existing Conditions&quot; portion of the Headwaters Water Quality Model is underway. <strong>Currently proposed for completion in FY19 following the Action Plan Update.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIVITY - POLICY</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May River Watershed Action Plan Update (Grant award of $55,000 in 2017)</td>
<td>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 currently not budgeted for completion in FY18.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIVITY - FINANCIAL</th>
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</thead>
<tbody>
<tr>
<td>Additional Funding Opportunities</td>
<td>No updates.</td>
</tr>
<tr>
<td>ACTIVITY - PROGRAMS</td>
<td>STATUS</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>Sewer Connection Program</strong></td>
<td>In FY17 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. The May River Watershed Action Plan Advisory Committee (WAPAC) adopted the Sewer Connection policy on September 22, 2016. Staff is gathering information on components of the policy to bring forward to Council for consideration. Completed to date include meetings with Hilton Head Island PSD #1, Bjwsa and Community Foundation of the Lowcountry. Staff released a Request for Information (RFI) to local banks who might be willing to offer low interest construction loans to owners wishing to connect to sanitary sewer. A similar RFI was released to plumbers holding a Town business license in January. An overview of the findings was given to Council during Strategic Plan Update. <strong>WAPAC reviewed and recommended possible revisions to the existing sewer connection ordinance and policy for Town Council consideration at the Quarterly July Town Council Workshop.</strong></td>
</tr>
<tr>
<td><strong>Septic System Maintenance Program</strong></td>
<td>FY17 funding is $10,000. On-going assistance offered to Town residents regardless of financial status through Neighborhood Assistance Program. <strong>Current updates are included in Engineering Consent Agenda Attachment 8.</strong></td>
</tr>
<tr>
<td><strong>Water Quality Monitoring Program</strong></td>
<td>1. Bacterial &quot;hot spot&quot; monitoring 2. BMP efficacy monitoring 3. SCDHEC Shellfish monitoring results 4. Proposed MS4 monitoring program under review by SCDHEC 5. Illicit Discharge investigation and monitoring 6. Bacterial source tracking monitoring efforts to identify potential locations of human sources of bacteria received TAC and WAPAC input. <strong>Current updates are included in Engineering Consent Agenda Attachments 2, 3 and 6.</strong></td>
</tr>
<tr>
<td><strong>Sediment &amp; Erosion Control Program</strong></td>
<td>Sediment and erosion control inspections with escalating enforcement response continue. <strong>Current updates are included in Engineering Consent Agenda Attachment 5.</strong></td>
</tr>
<tr>
<td><strong>Ditch Inspection/Maintenance Program</strong></td>
<td>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. <strong>Current updates are included in Engineering Consent Agenda Attachment 7 and under &quot;Public Works.&quot;</strong></td>
</tr>
<tr>
<td>Infrastructure Mapping/GIS</td>
<td>Data points continue to be collected as new development occurs to populate water quality model and meet MS4 requirements. <strong>Current updates are included in Engineering Consent Agenda Attachment 10.</strong></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Public Outreach/Participation/Involvement</td>
<td>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 school classes.</td>
</tr>
<tr>
<td>Development Plan Review Program</td>
<td>Staff supports development plan review process to ensure current BMPs for water quality and quantity are incorporated into new developments. <strong>Current updates are included in Engineering Consent Agenda Attachment 4.</strong></td>
</tr>
</tbody>
</table>
MEMORANDUM

Date: July 19, 2017

To: Stormwater Management Utility Board

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

Re: Maintenance Project Report

This report will cover one major project and four minor projects. The Project Summary Reports are attached.

Major Projects – Storm Drainage System Improvements:

- **Mint Farm Subdivision Pond – Port Royal Island (SWUD 6):** This project improved 234 feet of drainage system. The scope of work included lowering the water elevation in the pond, installing three catch basins, 234 feet of channel pipe, sod and hydroseeding. The total cost project was **$39,958.62**

Minor or Routine Projects:

- **Gardner Drive – St. Helena Island (SWUD 8):** This project improved 1,294 feet of drainage system. The project scope included cleaning 1,294 feet of roadside ditch. The total cost was **$7,478.14**.
- **Red Cedar Street – Bluffton (SWUD 9):** The project scope included repairing a sinkhole. The total cost was **$5,312.39**.
- **Pleasant Point Pond – Lady’s Island (SWUD 7):** This project scope included lowering the water elevation in the pond. The total cost was **$4,640.74**.
- **Vineyard Point Road – St Helena Island (SWUD 8):** The project scope included installing one driveway pipe. The total cost was **$4,228.57**.
# Project Summary:

**Mint Farm Subdivision Pond**

**Activity:** Drainage Improvement

**Duration:** 1/24/17 - 2/21/17

**Narrative Description of Project:**
Project improved 234 L.F. of drainage system. Dewatered pond to safe elevation. Installed (3) catch basins, 234 L.F. of channel pipe, sod and hydroseeded for erosion control.

## 2017-322 / Mint Farm Subdivision Pond

<table>
<thead>
<tr>
<th></th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Cost</th>
<th>Total Cost</th>
</tr>
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<tbody>
<tr>
<td>AUDIT / Audit Project</td>
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<td>$0.00</td>
<td>$0.00</td>
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<tr>
<td>CBINS / Catch basin - installed</td>
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<td>$1,455.39</td>
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<tr>
<td>CBLI / Catch Basin Lid - Installed</td>
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<td>$586.95</td>
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<td>$107.37</td>
<td>$0.00</td>
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<tr>
<td>CPI / Channel Pipe - Installation</td>
<td>190.0</td>
<td>$4,371.50</td>
<td>$910.42</td>
<td>$3,891.39</td>
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<td>$2,497.10</td>
<td>$11,670.41</td>
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<tr>
<td>DWP / Dewatered Pond</td>
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<td>$1,912.00</td>
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<td>$1,123.50</td>
<td>$3,285.05</td>
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<td>EQRENT / Equipment Rental</td>
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<td>$0.00</td>
<td>$0.00</td>
<td>$293.28</td>
<td>$0.00</td>
<td>$293.28</td>
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<tr>
<td>HAUL / Hauling</td>
<td>82.0</td>
<td>$1,844.97</td>
<td>$719.87</td>
<td>$1,729.56</td>
<td>$0.00</td>
<td>$1,079.24</td>
<td>$5,373.64</td>
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<tr>
<td>HYDR / Hydroseeding</td>
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<td>$663.60</td>
<td>$90.84</td>
<td>$133.34</td>
<td>$0.00</td>
<td>$401.10</td>
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<tr>
<td>LP / Locate Pipe</td>
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<td>$934.40</td>
<td>$54.00</td>
<td>$185.94</td>
<td>$0.00</td>
<td>$564.75</td>
<td>$1,571.74</td>
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<tr>
<td>PL / Project Layout</td>
<td>22.0</td>
<td>$548.46</td>
<td>$19.80</td>
<td>$4.55</td>
<td>$0.00</td>
<td>$329.01</td>
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<tr>
<td>SC / Sediment Control</td>
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<td>$46.80</td>
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<td>$717.78</td>
<td>$2,113.34</td>
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<td>SI / Sod - Installation</td>
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<td>$184.10</td>
<td>$185.09</td>
<td>$0.00</td>
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<td>SPSWI / Special Project - SWI</td>
<td>4.0</td>
<td>$89.12</td>
<td>$17.36</td>
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<td>$0.00</td>
<td>$57.36</td>
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<tr>
<td>STAGING / Staging Materials/Equipment</td>
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<td>$1,058.04</td>
<td>$216.59</td>
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<td>$1,866.17</td>
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<td>TT / Travel Time</td>
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<td>$3.96</td>
<td>$0.00</td>
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<tr>
<td>UTLOC / Utility locates</td>
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<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$13.23</td>
<td>$37.93</td>
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**Total Cost**

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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>2017-322 / Mint Farm Subdivision Pond</strong></td>
<td><strong>728.5</strong></td>
<td><strong>$16,957.75</strong></td>
<td><strong>$3,143.24</strong></td>
<td><strong>$9,659.55</strong></td>
<td><strong>$293.28</strong></td>
<td><strong>$9,904.81</strong></td>
<td><strong>$39,958.62</strong></td>
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</table>

**Grand Total**

<p>| | | | | | | | |</p>
<table>
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<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>728.5</strong></td>
<td><strong>$16,957.75</strong></td>
<td><strong>$3,143.24</strong></td>
<td><strong>$9,659.55</strong></td>
<td><strong>$293.28</strong></td>
<td><strong>$9,904.81</strong></td>
<td><strong>$39,958.62</strong></td>
<td></td>
</tr>
</tbody>
</table>

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**Before**

[Image of Before phase]

**During**

[Image of During phase]

**After**

[Image of After phase]
Installed 234 LF of channel pipe.

Dewatered pond to safe elevation. Installed sod and hydroseeded for erosion control.

Installed (3) catch basins.
Project Summary: Gardner Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:
Project improved 1,294 L.F. of drainage system. Removed blockage from flowline. Cleaned out 1,294 L.F. of roadside ditch.

Duration: 1/11/17 - 2/16/17

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
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<th>Contractor Cost</th>
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<tbody>
<tr>
<td>AUDIT / Audit Project</td>
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<td>$11.75</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
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<td>$18.36</td>
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<tr>
<td>Haul / Hauling</td>
<td>58.0</td>
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<td>$499.26</td>
<td>$160.38</td>
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<tr>
<td>RSDCL / Roadside Ditch - Cleanout</td>
<td>122.0</td>
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<td>UTLOC / Utility locates</td>
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<td>$0.00</td>
<td>$0.00</td>
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</table>

2017-527 / Gardner Drive

Sub Total

<table>
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<tr>
<th>Hours</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>181.5</td>
<td>$7,484.14</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
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Grand Total

<table>
<thead>
<tr>
<th>Hours</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>181.5</td>
<td>$7,484.14</td>
</tr>
</tbody>
</table>

Before

During

After
**Project Summary:** Red Cedar Street

**Activity:** Routine/Preventive Maintenance

**Duration:** 3/1/17 - 3/6/17

**Narrative Description of Project:**
Repaired sinkhole.

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Labor</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>APREP / Asphalt Preparation</td>
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<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
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<tr>
<td>HAUL / Hauling</td>
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<td>PROFS / Professional Services</td>
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<tr>
<td>SD / Soft Digging</td>
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<tr>
<td>SR / Sinkhole repair</td>
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<tr>
<td><strong>2017-517 / Red Cedar Street</strong></td>
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<td><strong>$2,452.27</strong></td>
<td><strong>$354.78</strong></td>
<td><strong>$428.17</strong></td>
<td><strong>$498.20</strong></td>
<td><strong>$1,578.98</strong></td>
<td><strong>$5,312.39</strong></td>
</tr>
</tbody>
</table>

**Sub Total**

<table>
<thead>
<tr>
<th>Description</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Labor</th>
<th>Total Cost</th>
</tr>
</thead>
</table>

Grand Total

| Description               | 109.5       | **$2,452.27** | **$354.78** | **$428.17** | **$498.20** | **$1,578.98** | **$5,312.39** |

(Pictures Not Available)
Project: Red Cedar Street
Activity: Routine/Preventive Maintenance
Project #: 2017-517
Township/SW Dist: Bluffton/4
Completed: March 2017

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

Repaired sinkhole.
**Project Summary:** Pleasant Point Pond

**Activity:** Pond Maintenance

**Duration:** 1/24/17 - 1/30/17

**Narrative Description of Project:**
Dewatered pond to safe elevation.

<table>
<thead>
<tr>
<th>2017-323 / Pleasant Point Pond</th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Labor</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIT / Audit Project</td>
<td>0.5</td>
<td>$11.75</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$6.62</td>
<td></td>
<td>$18.36</td>
</tr>
<tr>
<td>DWP / Dewatered Pond</td>
<td>106.0</td>
<td>$2,407.56</td>
<td>$401.03</td>
<td>$255.89</td>
<td>$1,557.90</td>
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<td>$4,622.38</td>
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<tr>
<td><strong>2017-323 / Pleasant Point Pond Sub Total</strong></td>
<td><strong>106.5</strong></td>
<td><strong>$2,419.31</strong></td>
<td><strong>$401.03</strong></td>
<td><strong>$255.89</strong></td>
<td><strong>$1,564.52</strong></td>
<td></td>
<td><strong>$4,640.74</strong></td>
</tr>
</tbody>
</table>

**Grand Total**

<table>
<thead>
<tr>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
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<td><strong>$4,640.74</strong></td>
</tr>
</tbody>
</table>

(Pictures Not Available)
Dewatered pond to safe elevation.

Drainage Type
- Access Pipe
- Bleeder Pipe
- Channel Pipe
- Channel
- Creek/Stream
- Crossline Pipe
- Driveway Pipe
- Lateral
- Lateral Pipe
- River
- Road Pipe
- Roadside
- Roadside Pipe
**Project Summary:** Vineyard Point Road

**Activity:** Routine/Preventive Maintenance

**Duration:** 5/15/17 - 5/16/17

**Narrative Description of Project:** Installed (1) driveway pipe.

### 2017-551 / Vineyard Point Road

<table>
<thead>
<tr>
<th></th>
<th>Labor Hours</th>
<th>Labor Cost</th>
<th>Equipment Cost</th>
<th>Material Cost</th>
<th>Contractor Cost</th>
<th>Indirect Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>APREP / Asphalt Preparation</td>
<td>20.0</td>
<td>$433.45</td>
<td>$64.78</td>
<td>$85.44</td>
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<tr>
<td>AUDIT / Audit Project</td>
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<td>$11.75</td>
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<td>$0.00</td>
<td>$0.00</td>
<td>$6.62</td>
<td>$18.36</td>
</tr>
<tr>
<td>DPINS / Driveway Pipe - Installed</td>
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<td>HAUL / Hauling</td>
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</tbody>
</table>

### 2017-551 / Vineyard Point Road

<table>
<thead>
<tr>
<th>Sub Total</th>
<th>Labor Hours</th>
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<th>Equipment Cost</th>
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<th>Contractor Cost</th>
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<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
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<td>80.5</td>
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<td>$382.44</td>
<td>$1,020.87</td>
<td>$0.00</td>
<td>$1,026.91</td>
<td>$4,228.57</td>
</tr>
</tbody>
</table>

**Grand Total**

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</tr>
</tbody>
</table>

Before

![Before Image](image1.jpg)

During

![During Image](image2.jpg)

After

![After Image](image3.jpg)
Installed (1) driveway pipe.
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 (backup)

2. INTRODUCTIONS

3. PUBLIC COMMENT

4. REPORTS
   A. Utility Update – Eric Larson, P.E. (backup)
   B. Monitoring Update – Eric Larson, P.E. (backup)
   D. Stormwater Related Projects – 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
   A. Special Presentation: Town of Port Royal Cypress Wetlands Modification Project - Tony Maglione, Consultant

7. PUBLIC COMMENT

8. NEXT MEETING AGENDA
   A. September 20, 2017 (backup)

9. ADJOURNMENT