

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

March 14, 2018 at 2:00 p.m. in Executive Conference Room, Administration Building, Beaufort County Government Robert Smalls Complex, 100 Ribaut Road, Beaufort, South Carolina

### Board Members

#### Present

Don Smith  
Marc Feinberg  
Allyn Schneider  
Larry Meisner  
William Bruggeman  
James Fargher

#### Absent

Patrick Mitchell

### Ex-Officio Members

#### Present

Van Willis  
Andy Kinghorn

#### Absent

Scott Liggett  
Kim Jones

### Beaufort County Staff

Eric Larson  
David Wilhelm  
Melissa Allen  
Patty Wilson  
Carolyn Wallace

### Visitors

Alan Warren, USCB Lab  
Alice Howard, County Council  
Ellen Comeau, Clemson Extension  
York Glover, County Council

### 1. Meeting called to order – Don Smith

Mr. Don Smith shared that Mr. Larry Meisner will be resigning from the Board, as he is leaving Beaufort. He thanked him for all he has done for the Board.

- A. Agenda – Approved.
- B. February 14, 2018 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:

<http://www.bcgov.net/departments/Administrative/beaufort-county-council/boards-and-commissions/council-appointed/board-list/stormwater-management-utility-board/agendas/2018/031418.pdf>

Mr. Eric Larson congratulated Mr. Meisner on his next journey and thanked Council Members, Mr. Glover and Ms. Howard for being present.

**A. Utility Update – Eric Larson**

In reference to item #1, the committee is meeting next week to finalize a proposal to the SoLoCo. They are recommending the use of a consultant to help rewrite the codes for the applicable region. The meeting will be March 27<sup>th</sup> at 10:00 a.m. at Hardeeville City Hall.

The technical subcommittee on a regional authority has slowed down, as they felt it was more important to see how the SoLoCo reacts to the proposal about the regional technical standards first.

In response to a question from Mr. Andy Kinghorn about the committees, Mr. Larson explained that the technical subcommittee was tasked to write a goal/mission statement for the exploratory committee to use as the concept of a regional authority moved forward. The exploratory committee will likely be appointed by the politicians. The technical subcommittee is made up of staff that does stormwater at the municipalities and has been focused on the technical standards only. Mr. Kinghorn asked if the Town of Port Royal and City of Beaufort are represented. Mr. Larson expressed that his recommendation to the SoLoCo is to invite them for the discussion and that the intent is to appoint a committee that represents all of Beaufort County and Jasper County.

**B. Monitoring Update – Eric Larson**

In reference to item #2, Okatie West, the preconstruction monitoring work is complete and construction will begin on March 15<sup>th</sup>. The County will do the same sampling one year from now.

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

The SWIC has not met since the last board meeting.

**D. Stormwater Related Projects – Eric Larson**

Mr. Larson provided an update on item #1 (Okatie West); the County is working on a minor modification to the design due to a research opportunity with a product made by the company Bold and Gold. The product is a bio-filter made of a granular mixture of chemically reactive material that will clean water of bacteria, nitrogen and phosphorous. The only cost associated with the modification would be to hire a contractor to do the installation (infiltration/trench). The bid for the project came in under budget, so there is room for a change order. The University associated with the project will pay for an extensive monitoring program post construction for its effectiveness and is looking to partner with the USCB lab.

Mr. Meisner asked if there is a maintenance cost associated. Mr. Larson indicated that it is part of their research; they will pay for the materials and monitoring. He commented that they were just looking for an opportunity. The shelf life of the product is 10 years, so the project would either end or they would replace it. The bio-filter would be the 3<sup>rd</sup> BMP in series for this project. This would not reduce the effectiveness of the pond as currently designed.

Mr. William Bruggeman asked how the University knew the County was doing this project. Mr. Larson explained it was a result of networking at a conference; he met the engineering firm that is partnered with the research University. They asked about the County's projects, looked at design and indicated they could make it work.

Mr. Smith asked if the County will have enough data [to measure effectiveness]. Mr. Larson indicated a large number of samples were taken for bacteria and flow to have enough data to compare.

Dr. Alan Warren commented that every Monday, Wednesday, and Friday the lab collected samples for E.coli, fecal coliform and in-situ parameters and the County measured flow at the same time. They County and USBC lab has one-month worth of data collected on 12 different occasions. This will provide a good idea of the pond and its impact on bacteria, as post pond and post 3<sup>rd</sup> BMP monitoring will be done.

Mr. Smith asked if the bacteria baseline is good or bad. Dr. Warren explained data from GEL is available in addition to their data and the counts were surprisingly low compared to what is seen throughout the County. He explained that with bacteria counts being low, that flow data would be important.

In reference to item #2, Mr. Larson mentioned that easement work is ongoing and Council Members (Mr. Glover and Mr. Dawson) are both engaged to help come to a solution with property owners in their districts.

#### **E. Professional Contracts Report – Eric Larson**

The final draft for the implementation plan has been received. The SWIC is meeting next week to review the draft and make comments. Mr. Larson will present it to the Stormwater Utility Board and ATM will present to the Natural Resources Committee in April. This is an update to the previous master plan and the big changes will be highlighted. Some of the draft results have already been inputted into the County's proposed FY19 budget.

In reference to item #2, CIP projects, the meetings are happening tomorrow and next week.

In reference to item #3, Mr. Larson participated in selecting three engineering teams to provide full service engineering and architecture services (roofs, HVAC, roads, MS4, surveying). The hourly rates and scope of services have already been established, so only task orders would need to be issued. The current master service agreement with ATM will be allowed to expire at the end of August. In reference to a questions about the contracts, Mr. Larson responded that the firms are allowed \$500,000 in design service fees. He indicated the County received ten proposals, interviewed five teams and selected three. He also explained the teams are not completely local, as some services the County needs are not provided locally.

#### **F. Regional Coordination – Eric Larson**

In reference to item #1, Academy Park, the project is going to construction soon, as it received final SRT approval.

In reference to item #5, The SESWA Conference will be held on Hilton Head in October. Town of Hilton Head staff is working to create a bus tour.

#### **G. Municipal Reports – Eric Larson**

In reference to the Mossy Oaks task force, Ms. Alice Howard shared that meeting scheduled next week is being rescheduled due to a scheduling conflict with Northern Regional Planning Committee. Mr. Larson mentioned that the County has made a committee

to help co-fund the project for preliminary design (Phase 1) and that the Town of Port Royal has committed as well.

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

Mr. Larson pointed out the increase in permit and inspection activity on the MS4 chart, which shows the need for the extra Stormwater Utility Inspector position that is listed in the FY19 proposed budget.

The annual report has been included in the packet and is also posted online. In reference to item #6, the statewide MS4 general permit expires at the end of the year. The County is starting their third year of the program, but the permit is at the end of its five-year cycle. By law, SC has to issue a new permit by that deadline. The County has to have a Notice of Intent submitted by June 30<sup>th</sup>, six months prior to the new permit. A NOI will have to be submitted prior to viewing a draft of the new permit. Mr. Larson commented that through experience this is when additions and changes are made.

In reference to a question about permitting, Mr. Larson said you can be covered by a general statewide permit, which is preferred, or you can have an individual permit that is customized and is usually harder than being covered by the general permit.

In reference to Mr. Meisner's question about a new MS4 Coordinator, Mr. Larson indicated that an offer has been made and accepted. He mentioned the County is advertising for a fourth inspector position. Mr. Bruggeman asked what the qualifications for an inspector are. Mr. Larson replied an associate's degree, bachelors preferred, in a related field and two years related experience.

#### **I. Maintenance Projects Report – David Wilhelm**

Mr. David Wilhelm shared that sweeper truck that was approved by County Council has been ordered. The logistics, such as staffing, an operating schedule, and where materials will be disposed of, still need to be worked out.

In reference to the Salem Drive East project, Mr. Wilhelm explained that the system was not well maintained which was causing major flooding on properties that are on septic systems. The biggest challenges were the depth, up to 15' deep in areas and there were a lot of structures on/near property lines so the crew had to work carefully. Drop inlets were installed at each property and riprap was placed at the outfall at each end of the system.

Mr. Wilhelm noted that the Port Royal bush hog project covered six months of work and came in on budget at 48¢ a foot, as the goal for this type of project is 50¢ a foot.

Upcoming major projects are planned to start soon for Wallace Road on Lady's Island, Horse Island on Saint Helena Island, and Oyster Street and Drayson Circle in Bluffton.

Ms. Alice Howard asked about the Community Bible sink hole. Mr. Wilhelm replied it was because the County installed the system (so the County was responsible for fixing).

### **5. Unfinished Business**

Mr. Smith asked if Mr. Larson had a chance to look into the Super Fund Sites. Mr. Larson replied that he had not started on that project yet.

### **6. New Business –**

**A. Proposed Budget for FY19** – Mr. Larson presented the unaudited FY17 actuals. He noted that the fees were down around \$500,000 from the projected amount [unpaid fees]. The

permit fees (other income) will be reinvested into maintenance of the permitting software. The \$5 million bond was received late and applied in FY18. In reference to Capital Improvement Fund, most of the differences were due to shifting priorities from Matthew and Irma. A lot of the capital projects didn't get started, but have started in FY18. In response to a question, Mr. Larson noted that since Stormwater is an enterprise fund, the money rolls over as a cash balance. Under capital assets new purchases, he explained that everything that was needed was purchased, but the department was able to obtain good deals through bidding processes and state contracts (approx. \$200k savings).

Mr. Larson presented the proposed budget for FY19. The projected fees are based on the rate model, which adjusts for collection rate and projects growth. The collection rate is the total number of accounts paid. The \$777K figure is the admin budget plus the cost shares. The administration (management fees) is lower due to efficiencies with how rates and billings are done. The Okatie West project will be complete, but there will be a carry over to account for Ward Edwards' final bill (i.e. grant paperwork). The CIP increases are the new phases being added in. Mr. Larson shared that the capital assets have a useful life and replacement plan.

Mr. Van Willis asked if the funds collected are rolled into this budget. Mr. Larson explained they show up in the Unincorp/CWI SWU Fees and tracked by the treasurer's office by parcel ID. He indicated there are not different expense codes for municipalities versus unincorporated; it becomes part of the operational program.

Mr. Larson pointed out that FY19 is the last of four years for the reserve fund (\$250k); the reserve balance will be at \$1 million or more.

Mr. Smith asked why radios cost so much. Mrs. Carolyn Wallace explained these are radios that are capable of being used with Emergency Management and are handheld with a built in charging system in the vehicle. She noted they have expensive software.

Mr. Feinberg asked about the wash facility noted on the budget. Mr. Larson explained that this is a current deficiency with MS4 compliance, so this will be a wash facility for all County vehicles and will be tied to sanitary or septic.

Mr. Smith asked about the land acquisition line item. Mr. Larson explained that is money set aside for condemnation and easement acquisition.

A motion was made to recommend approval to the Natural Resources Committee. Discussion took place on the SWIC reports.

Mr. Larson gave a brief overview of the reports that went to the SWIC. One report shows collection rates and actual fees paid versus projected. The City of Beaufort and Town of Port Royal each have a handful of accounts that have a large amount of IA that are not paying.

The second report is the proposed management fees. Collection rates, growth rates and distributions are used to calculate the fees. The three cost shares for FY19 are for public education, water quality monitoring (PR, City, County), and regional stormwater standards development. The committee proposed three methods (land mass, population, and even split) for the regional standards development cost share; the committee will be recommending to split by population.

Mr. Willis asked if land mass distribution would be by County. Mr. Larson said it would be square miles by jurisdiction. Mr. Willis commented that would be interesting for Town of Port Royal and City of Beaufort because two of the biggest non-payers are large land masses, so they are being charged for the land but don't receive the revenue.

Mr. Larson pointed out that the rate per account or SFU is shown with and without the regional standard cost share for easy comparison.

The motion to recommend approval of the budget to NRC was approved (6/0).

Mr. Smith asked if Mr. Larson has looked into the law that he shared with him [federal facilities paying fee]. Mr. Larson indicated that he has opened discussions with County attorneys. Brief discussion took place about the loss of revenue from the federal facilities not paying their fees.

**B. *Special Presentation – Lowcountry Stormwater Partners*** – Ms. Ellen Comeau with Clemson Extension shared Lowcountry Stormwater Partners (LSP) accomplishments and highlights of their program from 2017 and their plans for 2018. LSP’s mission is to strive for fishable, swimmable, lowcountry waterways. They are made up of 31 partners to include Clemson Extension, local MS4s, municipalities, state agencies (i.e. DNR), and local organizations (i.e. Port Royal Sound Foundation).

LSP had 829,124 impacts for MCM1 Public Education in 2017, a 400% increase from the previous year and 134,124 impacts for MCM2 Public Involvement, a 30% increase from the prior year. These impacts are a total from all of the partners. In response to a question, Ms. Comeau explained that impacts are participants that sign in. She used the example of the Pond Conference having 98 participants, so that would equate to 98 impacts. They use impacts instead of individuals because someone could attend multiple events. LSP grew by four new partners over the past year, adding Together for Beaufort Water Quality Council, Beaufort County Human Services Alliance, McCormick Taylor, and Oldfield.

Highlights from 2017 included:

- 2017 Beaufort Area Stormwater Pond Conference – Presented two tracks: one for pond owners/property managers and one for pond management professionals and landscapers.
- 12<sup>th</sup> Annual SESWA Conference – A success from the conference, Mr. Larson and Dr. Scaroni (Clemson) have been invited to present the LSP concept at the Kentucky Stormwater Association Conference in June 2018.
- Spring Master Pond Manager – This focused on both stormwater and recreation ponds. There were 32 participants in the online course. There were also two field days in Beaufort County; the Stormwater Pond Field Day consisted of reading construction drawings and doing inspections and planting a 60-foot shoreline buffer and the Recreational Pond Field Day which was hosted on Spring Island, where participants discussed pond design and rookery management and practiced delineating wetlands.
- Cultivating a Carolina Yard Workshop – This taught homeowners how to create a low maintenance yard. The workshops were hosted at Daufuskie Island and Oldfield.
- Success with Stormwater Master Naturalist Training – Hands on workshop that was held at Crystal Lake. Ms. Comeau is scheduled to host this training again in April.
- Some plans for 2018 include increased BMP signage, starting a community grant program (i.e. - provide a BMP for HOA to install and maintain), septic system campaign (goal is to increase maintenance), and the “Silt Fence and Beyond Workshop” (target audience contractors and developers).

In response to a question about the high number of impacts, Ms. Comeau explained impacts are included from all of the partners, to include Clemson Extension which offers statewide efforts (billboards and commercials) and the courses they offer such as Master Pond and CEPSCI.

Mr. Smith commented that HOAs are a good venue, as many organizations can reach a lot of people and encouraged Ms. Comeau to keep contacting them. Ms. Comeau indicated when it comes to stormwater ponds, she prefers that the Board contacts her and invites her to present.

[The Lowcountry Stormwater Partners presentation is attached.](#)

**B. Litter Concerns** – Mr. Don Smith brought up the HWY278 litter issue that has drawn media attention, expressing it is also a stormwater concern. Mr. David Wilhelm shared that the County is aware of that and is working diligently to find a solution. They have approval to create a litter control team. The plan is to have a full time team of three people working eight hours a day, five days a week.

In response to comments and concern, Mr. Wilhelm explained that there are three parts to the litter problem; education and outreach, enforcement and litter control team. As a result of a suggestion by the Keep Beaufort County Beautiful board, they will be reaching out to all haulers to encourage them to join Adopt-A-Highway groups. He indicated there are currently 91 active groups, almost 3,000 volunteers. Mr. Wilhelm mentioned that HWY 278 is a SCDOT road and a lot of sections are being cleaned up by communities/businesses, but it a high visible area that needs a little more attention. They have not found anyone to adopt those sections yet.

Mr. Willis indicated that the Town of Port Royal is formalizing their agreement with the County and they will partner with DOT on some areas also.

Mr. Wilhelm mentioned that the County received a grant to buy tarps to give them out and show citizens how to use them. DOT was going to be providing half of the cost of the litter control team; however, last week the County was notified that they were withdrawing their support.

**7. Public Comment(s)** – None.

**8. Next Meeting Agenda** – Approved.

Additions to April 11, 2018 Agenda

- Unfinished Business –
  - Stormwater Master Plan Update (Eric Larson)
- New Business -
  - Special Presentation – Superfund Sites (Eric Larson)

**9. Meeting Adjourned**



# **LOWCOUNTRY STORMWATER PARTNERS**

A Service of Clemson Extension

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## **2016 – 2017 ANNUAL REPORT HIGHLIGHTS**



# The Lowcountry Stormwater Partners

- Striving for fishable, swimmable, Lowcountry waterways
- 31 partners
  - Clemson Extension
  - MS4s
  - Municipalities
  - State agencies
  - Local organizations







# 2016-2017 Highlights

## MCM 1: Public Education

- 829, 124 impacts
- 400% increase from 2015-2016



## MCM 2: Public Involvement

- 134,124 impacts
- 30% increase from 2015-2016



## 2016-2017 Highlights

- **4 new partners**
  - Together for Beaufort Water Quality Council
  - Beaufort County Human Services Alliance
  - McCormick Taylor
  - Oldfield



# PROGRAM HIGHLIGHTS

# 2017 Beaufort Area Stormwater Pond Conference



# 12<sup>th</sup> Annual SESWA Conference





# Hosting Master Pond Manager



# “Cultivating a Carolina Yard” Workshop



# “Success with Stormwater” Training

SOUTH CAROLINA  
Master  
Naturalist  
LOWCOUNTRY MN PROGRAM



# PLANS FOR 2018

# Increased BMP Signage

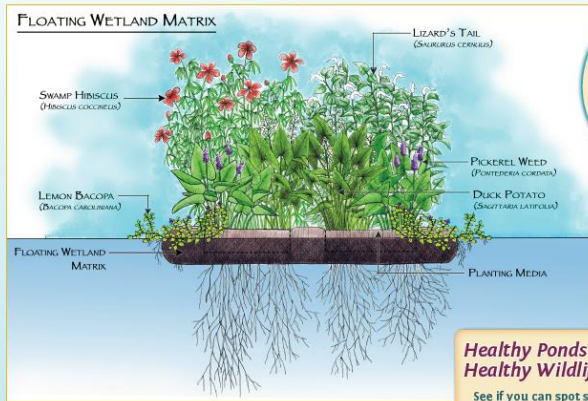
## Floating Wetlands

Green Solutions to Stormwater Pollution

*Floating wetlands* help to remove pollution and improve water quality. Floating wetlands use plants that thrive in flooded conditions; their roots extend into the water column and naturally trap and remove excess nutrients.

### Floating wetlands:

- Host a biofilm, or healthy bacterial community, that grows on the submerged roots and break down nutrients and other pollutants.
- Attract pollinators and provide habitat for fish, frogs, and birds.
- Can be anchored in any pond or slow moving waterway.



**Plant recommendations:**  
[www.clemson.edu/cy/plants](http://www.clemson.edu/cy/plants) and  
[www.clemson.edu/hgic/water](http://www.clemson.edu/hgic/water)

### Remove Nutrients

Floating wetlands can remove both nitrogen and phosphorus from the water column.

### Trap Sediment

Plant roots slow water movement, trapping and settling sediment and associated pollutants, which improves water clarity.

### Keep it Cool

Plants provide shade which cools water temperatures and supports healthy oxygen levels in the pond.

### Healthy Ponds for Healthy Wildlife

See if you can spot some of these common residents!

- Egrets and Herons
- Yellow-billed Sliders
- Eastern Tiger Swallowtails
- Monarch butterflies
- Dragonflies



*Floating wetlands* provide an attractive option to improve water quality and maintain a healthy pond. These practices require little maintenance - the plants get all the nutrients they need directly from the pond! At the end of the growing season, plants should be pruned or replaced.



# Lowcountry Stormwater Partners Community Grants Program

## Rainwater Harvesting

Green Solutions for Stormwater Pollution

**STORMWATER** is rainwater that falls on hard surfaces and does not soak into the ground, but instead travels across the landscape as stormwater runoff. Stormwater picks up what is left behind such as trash, chemicals, sediment and more. These pollutants are carried into nearby waterways.

**RAINWATER HARVESTING** is the age-old practice of collecting rainwater from rooftops and storing it for later use. Rainwater harvesting has several benefits:

- **WATER & ENERGY CONSERVATION:** Reduces demand on municipal water supplies, conserves water and can save money.
  - **WATER QUALITY:** Reduces stormwater runoff, helping to protect water downstream.
  - **LANDSCAPE NEEDS:** Collected water can be used for non-potable activities such as irrigation, washing cars, bathing pets and filling bird baths.
- This water is not treated and should not be consumed by people.

### How does rainwater harvesting work?

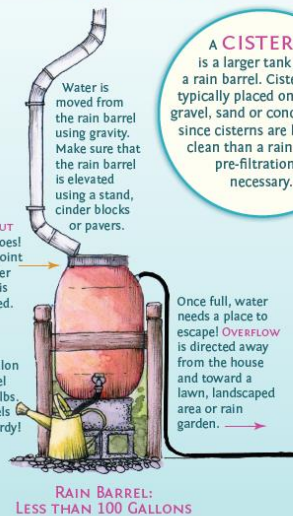
**Did You Know?** A 1000 square foot roof area can generate 600 gallons of water during a one-inch rain event!

Water is directed to a rain barrel using gutters, rain chains or sheet flow.

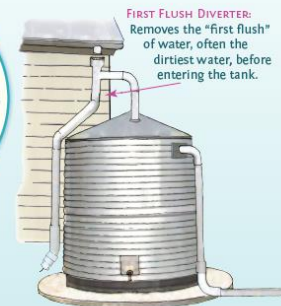


**KEEP OUT mosquitoes!** Ensure point of water entry is screened.

A full 50-gallon rain barrel weighs 417 lbs. Rain barrels must be sturdy!



**A CISTERN** is a larger tank than a rain barrel. Cisterns are typically placed on a bed of gravel, sand or concrete. Also, since cisterns are harder to clean than a rain barrel, pre-filtration is necessary.



**CISTERN:**  
GREATER THAN 100 GALLONS

More guidance is available in *Rainwater Harvesting Guide for Homeowners* available at [clemson.edu/carolinaclear](http://clemson.edu/carolinaclear)



# Septic System Campaign



# “Silt Fence and Beyond” Workshop





## Contact Info

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### **Lowcountry Stormwater Partners**

[www.facebook.com/LowcountryStormwaterPartners](http://www.facebook.com/LowcountryStormwaterPartners)

[www.clemson.edu/extension/carolinaclear/regional-consortiums/lsp/index.html](http://www.clemson.edu/extension/carolinaclear/regional-consortiums/lsp/index.html)