

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

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

Board Members

Present

Don Smith
William Bruggeman
Marc Feinberg

Absent

Allyn Schneider
Larry Meisner
Patrick Mitchell
James Fargher

Ex-Officio Members

Present

Andy Kinghorn
Scott Liggett
Van Willis

Absent

Kim Jones

Beaufort County Staff

David Wilhelm
Rebecca Baker
Melissa Allen
Matthew Rausch

Visitors

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

1. Meeting called to order – Don Smith

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

2. Introductions – Completed.

3. Public Comment(s) – None.

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

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

A. Utility Update –

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

B. Monitoring Update –

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

C. Stormwater Implementation Committee (SWIC) Report –

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

D. Stormwater Related Projects –

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

E. Professional Contracts Report –

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

F. Regional Coordination –

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

G. Municipal Reports –

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

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

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

I. Maintenance Projects Report – David Wilhelm

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

5. Unfinished Business – None.

6. New Business

A. Special Presentation: Town of Port Royal – Cypress Wetlands Modification Project –

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7. Public Comment(s) – None.

8. Next Meeting Agenda –

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

9. Meeting Adjourned

Town of Port Royal Cypress Wetlands Habitat Restoration Plan



Amphitheater

Island #1

YMCA

Richmond Overlook

Island #2

Existing Site

© 2016 Google

16th Street

Google



Project Team & Advisers

Team:

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

Advisers:

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



Island #1

Island #2

Areas to be Disturbed

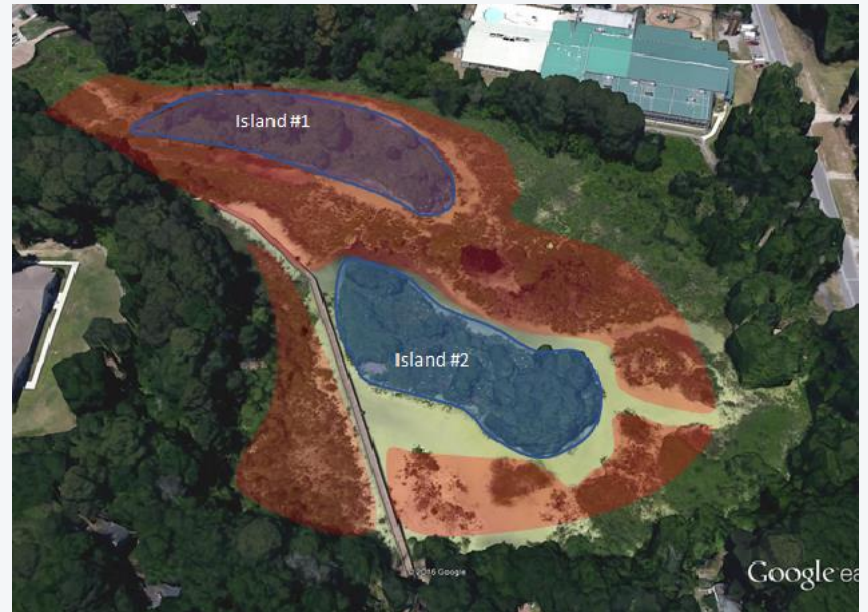
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Cypress Wetlands Restoration

❖ Clearing Plan:

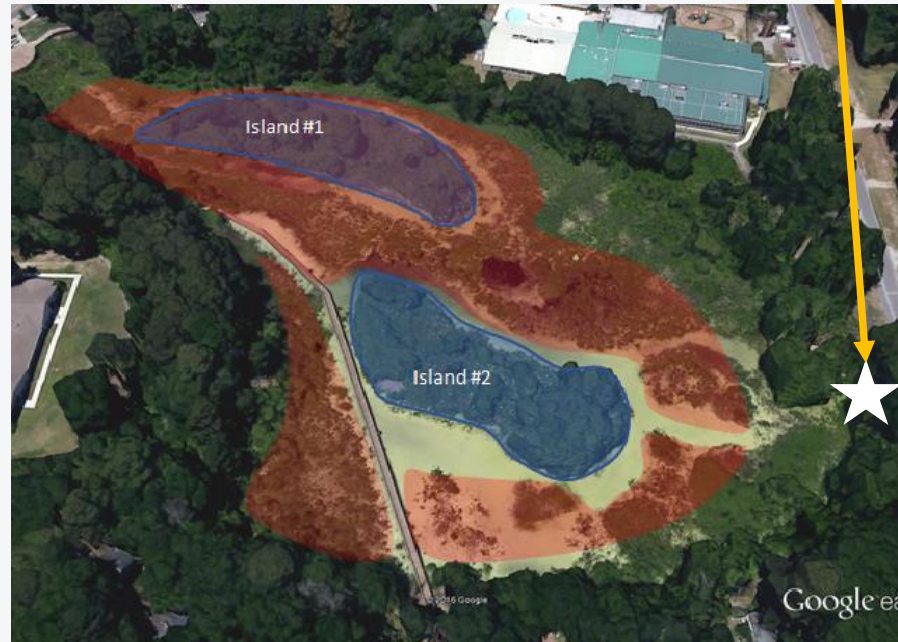
- ✓ Clear Island #1 of all Invasive Tree and Plant Species
- ✓ Clear western side of Island #2 of all Invasive Tree and Plant Species leaving Cypress Trees on east side as is
- ✓ Remove various shrubs and invasive species from areas indicated in Red on Plan



Cypress Wetlands Restoration

❖ Excavation Plan:

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



Cypress Wetlands Restoration

❖ Disposal Site and Transport Plan:

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

Proposed Disposal Site

Existing Dry Stack

Disposal Site

6th Ave

Cypress Wetlands Restoration

❖ Disposal Site Activities Needed:

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

Cypress Wetlands Restoration

❖ Possible Creation of a Third Rookery Island:

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



Cypress Wetlands Restoration

❖ Replanting Plan:

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

Cypress Wetlands Restoration

❖ Maintenance Plan:

✓ Islands:

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

✓ Open Water Areas:

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

✓ Continue biological and water quality monitoring

Cypress Wetlands Restoration

❖ Preliminary Cost Estimate:

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

Cypress Wetlands Restoration

❖ Funding Plan:

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

*North American Wetlands Conservation Act

An aerial satellite-style photograph of a golf course. A large, irregularly shaped area in the center-right is highlighted in a light green color. A narrow, reddish-brown path or fairway runs from the bottom center towards the top left, crossing the highlighted area. In the top right corner, there are several large buildings with green roofs, likely a clubhouse or maintenance facility. The surrounding area is filled with dense green trees and grass. The text "Questions & Answers" is overlaid in the center in a large, white, sans-serif font.

Questions & Answers