

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

October 9, 2019 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

William Bruggeman  
Steven Andrews  
James Fargher  
Marc Feinberg  
Patrick Mitchell  
Allyn Schneider

#### Absent

James Clark

#### Beaufort County Staff

Daniel Rybak  
Melissa Allen

### Ex-Officio Members

#### Present

Neil Desai  
Scott Liggett  
Kim Jones  
Van Willis

#### Absent

#### Visitors

Alan Warren, USCB  
Bill Hodgins, Center for Watershed Protection

#### 1. Meeting called to order – William Bruggeman

- A. Agenda – Approved.
- B. August 14, 2019 Minutes – Approved.

#### 2. Introductions – Completed.

#### 3. Public Comment(s) – None.

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

<https://www.beaufortcountysc.gov/stormwater-management-utility-board/agendas/2019/100919.pdf>

#### A. Utility Update – Daniel Rybak

In reference to item #1, the timeline of work for Regional Stormwater Design Standard and Model Ordinance was reviewed and it has been recommended to extend to date of the original contract to March 31, 2020. The recommendation has been supported and approved. Center for Watershed Protection is in the process of consolidating and organizing comments from the participating partners and a meeting will be held in October to review and discuss. The final documents will be presented for public comment. Ms. Kim Jones confirmed that the meeting with the partners is scheduled for October 16<sup>th</sup>. Mr. Bill Hodgins will be doing a presentation on this today [New Business].

2019 Tax run was successfully completed. Some obstacles were short one staff due to military deployment, Town of Bluffton changed rate structure and the County increased their stormwater rate. Information was submitted by October 4<sup>th</sup>.

**B. Monitoring Update – Daniel Rybak**

Dr. Allen Warren commented that they were limited by drought conditions. Most of the work to be completed needs to be done in wet weather conditions.

**C. Stormwater Implementation Committee (SWIC) Report – Daniel Rybak**

Please reference the report, no additional updates.

**D. Stormwater Related Projects – Daniel Rybak**

In reference to the Flyover Bridge, the signed contract has been received and notice to proceed has been initiated. Factory Creek is on track, construction is ongoing and estimated to be at 60% and [phase 2] is at 80% complete.

In regards to the Lady’s Island Sea Level Rise and “no-fill” ordinance, the committee met on September 24<sup>th</sup> to discuss the draft ordinance and comments were presented.

**E. Professional Contracts Report – Daniel Rybak**

Salt Creek and Shanklin, design work is on track and will have a design review meeting this month. In reference to Brewer Memorial Park, a joint ownership and operation agreement with Open Land Trust was reviewed and approved. Permits are being obtained for Evergreen project.

**F. Regional Coordination – Daniel Rybak**

Ms. Jones took information from the July meeting to the May River Watershed Action Plan Advisory Committee, they have recommended to Town Council to reconvene the joint councils meeting to discuss long term funding strategy for sanitary sewer extension.

In reference to Mossy Oaks, Mr. Neil Desai shared that the City is waiting from Army Corps for approval. The City is looking to do a brief to a local state legislative group to give a status of the project.

**G. Municipal Reports – Daniel Rybak**

Mr. Van Willis noted that DOT contractors recently did some resurfacing work and left accumulated millings adjacent to stormwater drains. He has reached out to them to try to have them swept up.

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

Mr. Rybak briefly went over the MS4 activity comparisons and rainfall charts. He mentioned that Lowcountry Stormwater Partners have been active in education and outreach and are working on the 5 year strategic plan. The Pond Conference is coming up in November.

In regards to the Able site, the most recent sampling event done by the County showed bacteria levels were lower than previous sampling. DHEC and Jasper County are currently implementing a monitoring plan associated with the site. In response to a question, Mr. Rybak explained that he doesn’t know the ultimate goal, but knows the EPA has extended their time onsite and will be transferring it over to Jasper County and DHEC. Comments were made about the huge difference that has been made with regards to the site cleanup.

Dr. Alan Warren mentioned that the lab looks at the Cypress Wetlands annually for the Town of Port Royal and monitor a dry and wet weather event in September. The analysis has been done.

**I. Maintenance Projects Report** – Daniel Rybak  
Please reference the report, no additional updates.

**5. Unfinished Business** – None.

**6. New Business** –

**A. Regional Stormwater Standards and Model Ordinance Update** – Mr. Bill Hodgins with Center for Watershed Protection (CWP) provided the board with an update as the project is getting close to the public comment period for the draft manual and ordinance. (See Attached)

Mr. Hodgins outlined what fuels stormwater management: ordinances and manuals, MS4 permits, public concerns and impaired waters. The project goal is to promote a consistent and effective approach stormwater management throughout the Lowcountry. Beaufort County, Jasper County, City of Beaufort, Town of Bluffton, Town of Port Royal and City of Hardeeville signed cooperative agreements for this project. The four major tasks are to develop a common stormwater ordinance (application through to maintenance of BMPs), develop a comprehensive stormwater design manual, facilitate stakeholder and public review and deliver and train on use of the manual and calculation tools. They are almost to the stakeholder and public review stage.

Task 1 was the model ordinance and a draft has been provided. It was worked on it through March and sat while work was being done on the design manual. The ordinance is the fuel that drives stormwater management. This ordinance allows for special water protection areas, insures future inspections and requires performance bonds to insure successful project completion.

Task 2 was the design manual. What has been developed includes work based on the State of Virginia and Washington DC. Regional standard stormwater design, incorporate green infrastructure and low impact development standards, seeking environmentally sensitive design, and standards at least as stringent as SCHEC MS4 permit. Ms. Jones commented that there may be questions about these, but there is a current RFP for source water protection elements that are addressing future impacts from climate change. She expressed that it is really insightful that CWP and McCormick Taylor to be ahead of this, to recognize where future funding for retrofit and water quality projects with grants and 319 projects will be.

The design manual is taking a watershed based approach. There are over 30 HUC 12 designations (local drainage) watersheds in the two counties. Water impairments are the distinctions between the watersheds which are primarily bacteria, but some sediment and metals. Also shows shellfish designated waters. The Savannah River watershed: Georgia has different standards and there are port activities. The Shellfish and impaired (green) Savannah River watershed (yellow) and general watershed (rose).

Each watershed will have design standards, include runoff reduction criteria and credits and hydrology and hydraulics criteria that are not much different than current standards. It will promote better site design, establish BMP design criteria and establish construction, inspection and maintenance requirements.

CWP will provide tools that reviewers can use to verify they are meeting requirements. Design tools, compliance calculator, and BMP design sheets (14 BMPS).

Task 3 will be the public comment period. There is a meeting next week to discuss jurisdiction comments. The document is about 400 pages.

Task 4 will be to deliver the final ordinance and design manual after January 1, 2020. The next step would then be for the jurisdictions to adopt them.

Mr. Rybak clarified that the information from Virginia and DC has standards and processes that are directly related in helping to get this document and that are applicable to the goals. The

goal is to develop a manual and ordinance that is adopted by the jurisdictions and can be administered consistently. He provided a quick overview of the goals and processes provided in the presentation.

Discussion and comments took place regarding this project.

Mr. Bruggeman asked about the overall objective and commented that the utility has spent years developing the current one, expressing concerns about it being less strict. Mr. Hodgins shared that the Clean Water Act has a term called anti-degradation, no sliding backward, so the standard doesn't look the same but the result is to be better. Mr. Rybak explained there is more information that will make BMP performance better and can be incorporated into the design of them. Overall as you increase impervious surface, you introduce impairments in water quality.

Mr. Marc Feinberg commented that he hopes that the model ordinance is adopted and asked if the long term goal is to regionalize. Mr. Rybak explained that this is the first step toward the process and that regionalization discussions can occur once this initial step is complete.

Mr. Patrick Mitchell asked what the public comment process going to be to get into the hands of civil engineers and developers. Mr. Hodgins replied he is looking for representatives of the committee to reach out to their engineers and distribute via email (i.e. Dropbox). Mr. Rybak shared that the public comment period will involve public meetings and will be open for a minimum of six weeks.

In response to a question by Mr. Bruggeman, Mr. Hodgins explained that CWP did benchmarking ahead of the proposed ordinance. They borrowed language from Beaufort County and Jasper County design manuals. Mr. Rybak indicated this is a refinement of information, technology and practices that are being updated in the manual. Similar principals are being refined into a watershed approach.

Mr. Scott Liggett commented that he presumes the foundation of the new regulations are heavily invested into volumetric control measure. Mr. Hodgins explained there is currently a 1.95" inch requirement and it is not changing and is highest standards that you will find around the country. Asked if it was volumetric based vs peak runoff or hydrograph based.

Mr. Liggett commented that one of the beauties of the utility is to be able to respond to the needs within the jurisdictions and watersheds to the best they can. He asked if the extent of service would include operation and maintenance in any of the PUDs. Mr. Hodgins said that has not come forward, but there was some back and forth early on about maintenance of private systems.

Mr. Bruggeman asked if it was for new construction. It was clarified that it is for redevelopment as well, if the change is greater than 5,000 square feet.

**B. Proposed 2020 Meeting Schedule** – A motion was made to accept the proposed draft for 2020. The motion was approved (6/0).

**7. Public Comment(s)** – None.

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

**9. Meeting Adjourned**

# Lowcountry Regional Stormwater Ordinance and Design Manual

October 2019

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PROTECTION

Leading the nation with clean water solutions...

McCORMICK  
TAYLOR

# What Fuels Stormwater Management?

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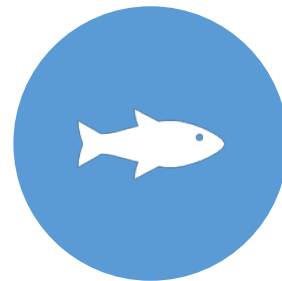
Ordinance Revision and Adoption



MS4 Permits



Public Concern



Impaired Waters

# Project Goal

The goal of these Standards is to refine and promote a consistent and effective approach of stormwater management throughout the Lowcountry.



# Cooperative Agreements

- Beaufort County – lead and contract administrator
- Jasper County
- City of Beaufort
- Town of Bluffton – project manager
- City of Hardeeville
- Town of Port Royal



# Four Major Tasks

Develop

Develop a common Stormwater Ordinance

Develop

Develop a Comprehensive Stormwater Design Manual

Facilitate

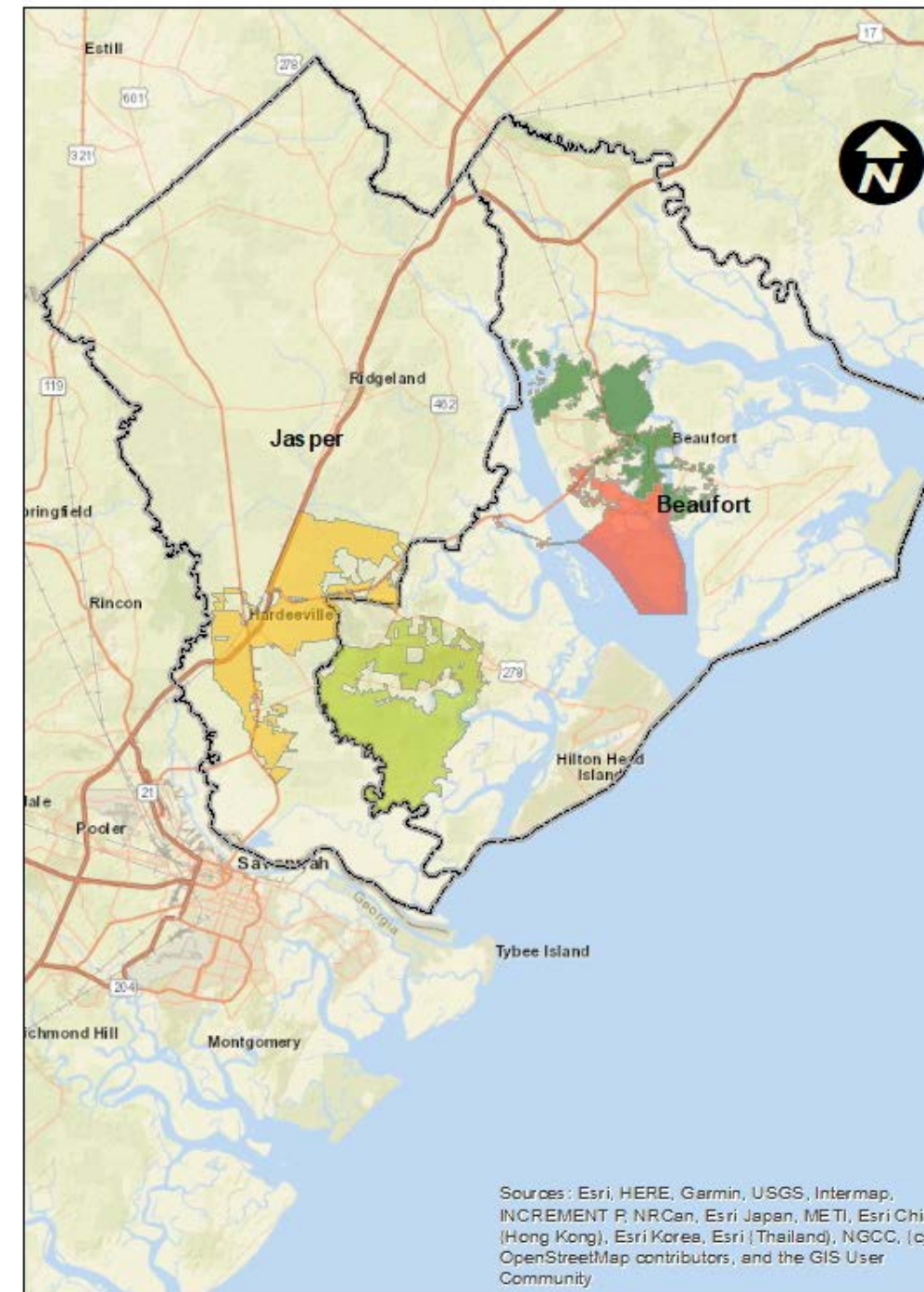
Facilitate stakeholder and public review

Deliver

Deliver and train on use of the Manual and calculations tool

# Task 1 - Model Ordinance

- Provide common stormwater ordinance language for six jurisdictions
- Provide common minimum stormwater management provisions that control and minimize adverse impacts of land development and redevelopment
- Establishes the Southern Lowcountry Stormwater Design Manual for proper implementation of the Ordinance



# Model Ordinance

- Allows for “Special Watershed Protection Area” designations with specific requirements
- Insures future inspections and maintenance of stormwater systems
- Requires performance bonds to insure successful project completion, “As-built” plans, certification of completion and inspection/maintenance plans



# Task 2

## Stormwater Design Manual

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Develop a regional standard  
stormwater design manual



# Stormwater Design Manual

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- Regional standard stormwater design
- Incorporate green infrastructure/low impact development standards
- Seek environmentally sensitive design through Better Site Design
- Standards at least as stringent as SCDHEC MS4 Permit (for those under the permit)



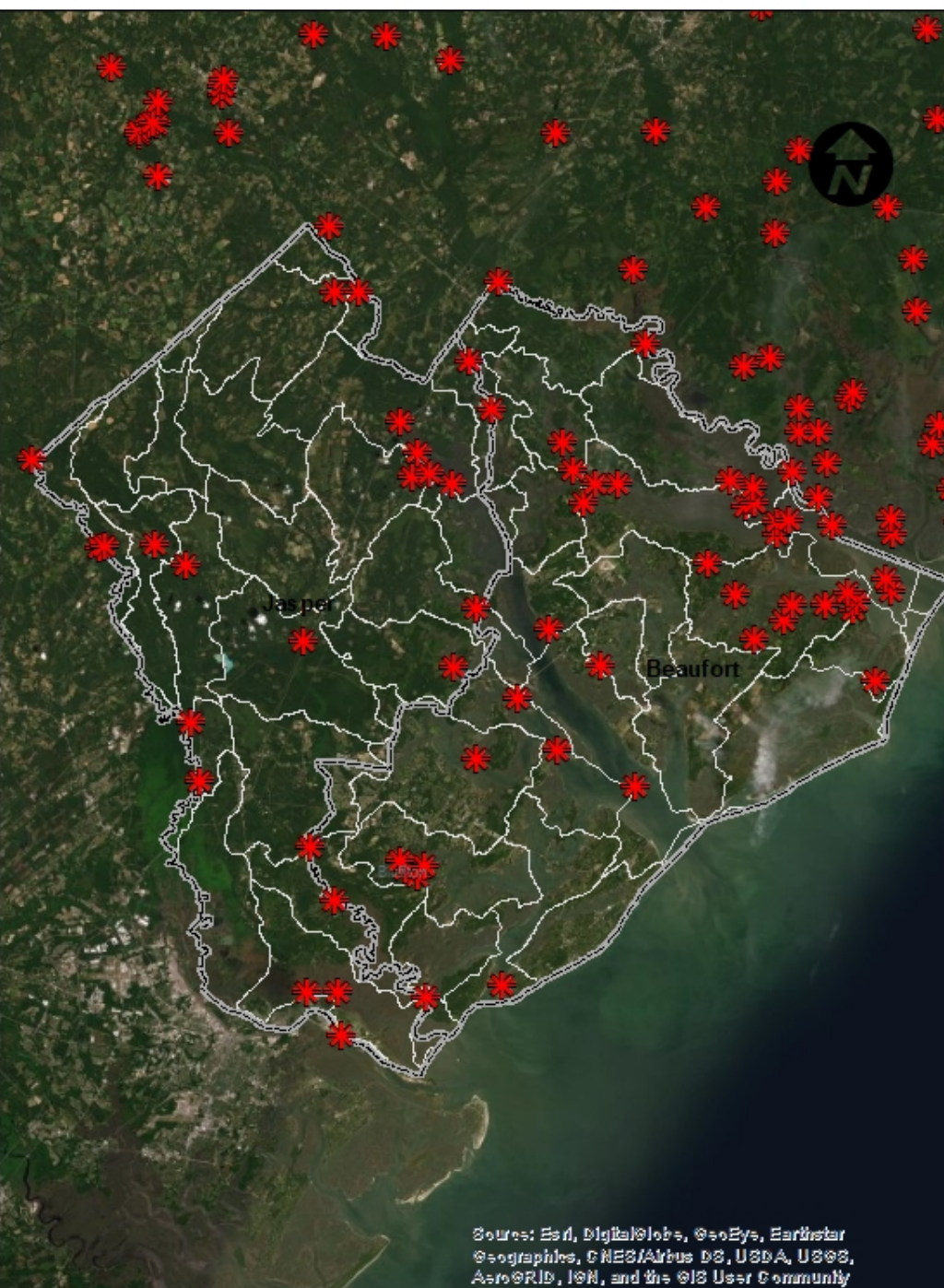


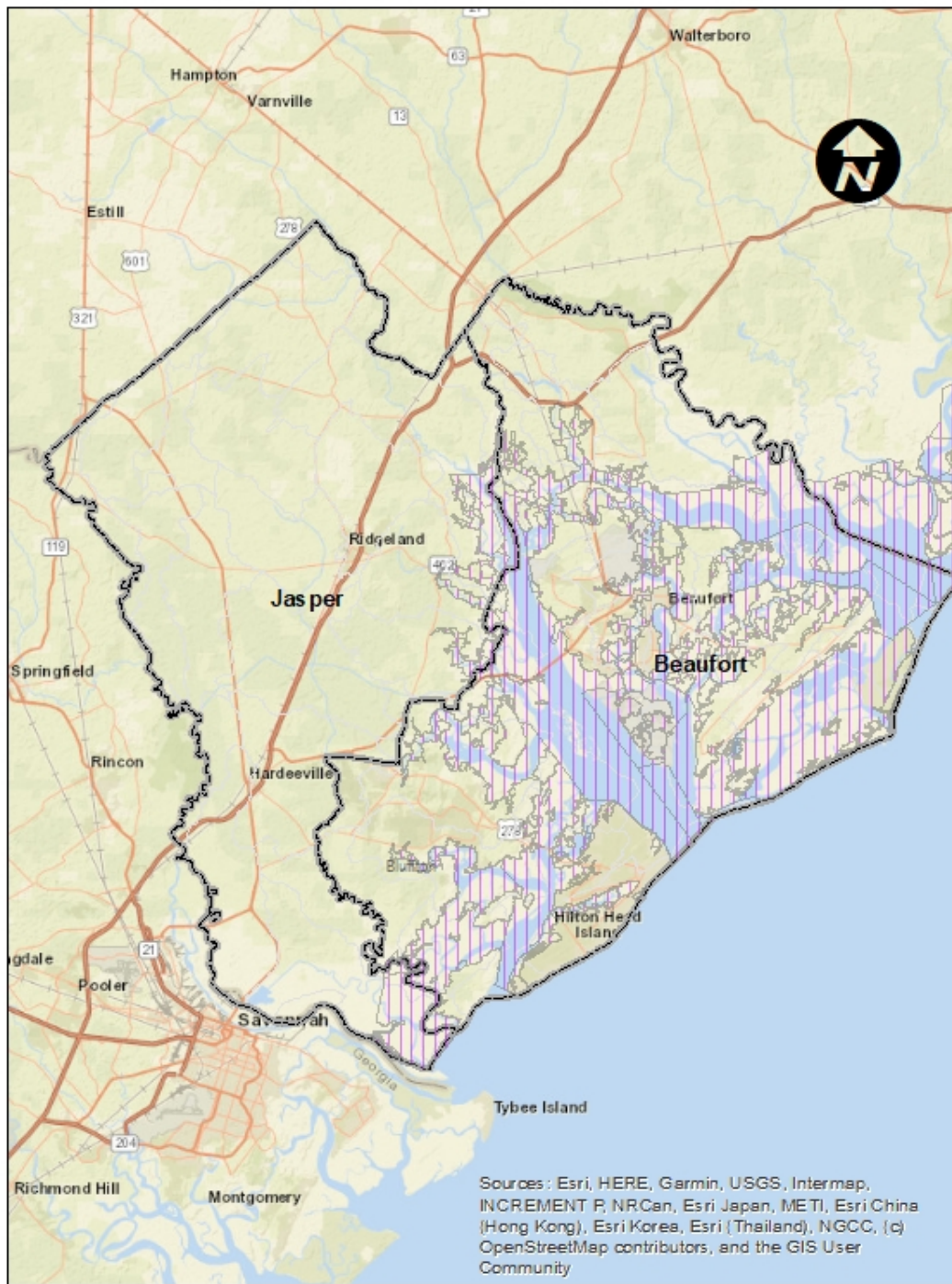
# Stormwater Design Manual

- Use a watershed-based approach
- USGS HUC 12 designations

# Use a watershed-based approach

- Waters with impairment





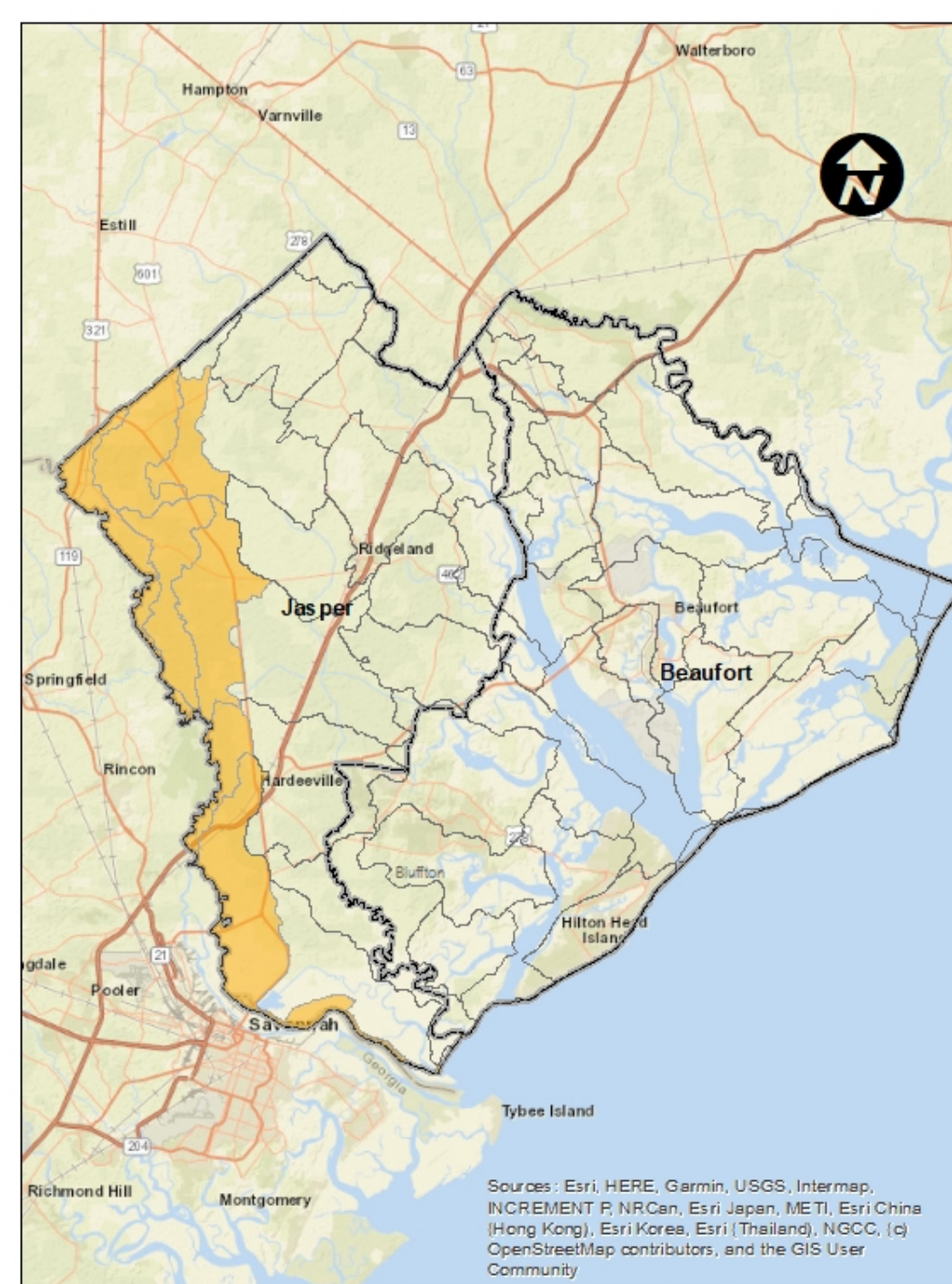
# Use a watershed-based approach

- Shellfish Designated Waters



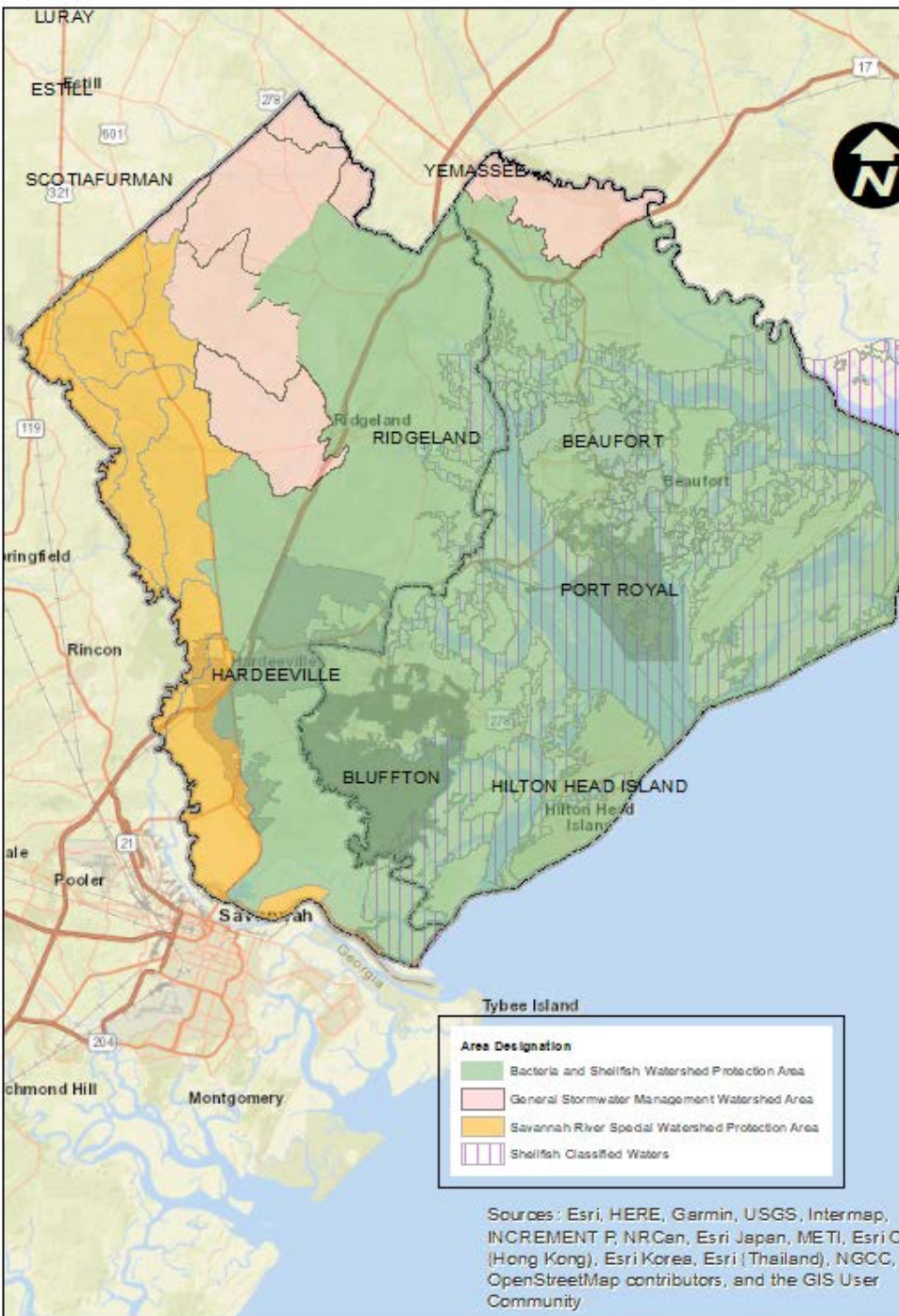
# Use a watershed-based approach

- Savannah River watershed



# Stormwater Design Manual

- Use a watershed-based approach
  - Shellfish and impaired waters
  - Savannah River watershed
  - General watershed





# Stormwater Design Manual

- Establish design standards to be protective of each watershed area
- Include runoff reduction criteria and credits
- Establish hydrology and hydraulics criteria consistent with current standards



# Stormwater Design Manual

- Promote Better Site Design
- Establish SW BMP design criteria consistent with current best practices
- Establish construction, inspection and maintenance requirements

Join conversation x SoLoCo Compliance Calculator.xl x +

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Apps Google News Imported From IE Google Journyx General Motors - E... Nitrogen Reduction... Synology DiskStatio... Georgia Procureme...

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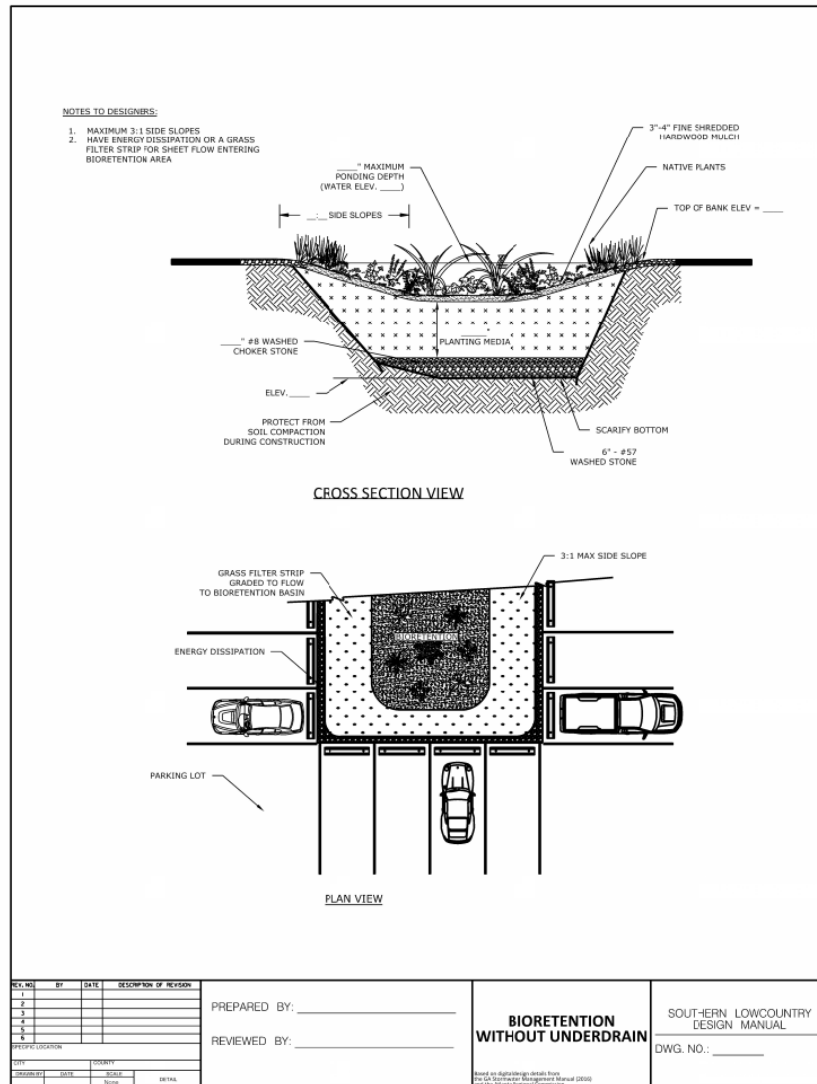
Projects > Task 2 SoLoCo Compliance Calculator

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
6														
7	<b>Site Data</b>													
8														
9	Site Name:	Trial												
10	Watershed Protection Area	General Stormwater Management Watershed Area												
11														
12	Design Storm (in.)	1.16												
13														
14		Runoff Coefficients												
15		Soil Type A	Soil Type B	Soil Type C	Soil Type D									
16	Forest/Open Space	0.02	0.03	0.04	0.05									
17	Managed Turf	0.15	0.20	0.22	0.25									
18	Impervious Cover	0.95	0.95	0.95	0.95									
19														
20														
21	<b>Indicate Pre-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area</b>													
22		Area (acres)												
23	Cover Type	Soil Type A	CN	Soil Type B	CN	Soil Type C	CN	Soil Type D	CN	Total	% Cover	Rv		
24	Forest Cover/Open Space		30		55		70		77	0.00	0%	0		
25	Turf Cover		39		61		74		80	0.00	0%	0		
26	Impervious Cover	1.00	98		98		98		98	1.00	100%	0.95		
27	Total	1.00		0.00		0.00		0.00		1.00	100%	0.95		
28														
29														
30	<b>Indicate Post-Development Land Cover and Runoff Curve Numbers in the Site's Disturbed Area</b>													
31		Area (acres)												
32	Cover Type	Soil Type A	CN	Soil Type B	CN	Soil Type C	CN	Soil Type D	CN	Total	% Cover	Rv		
33	Forest Cover/Open Space		30		55		70		77	0.00	0%	0		
34	Turf Cover		39		61		74		80	0.00	0%	0		
35	Impervious Cover	1.00	98		98		98		98	1.00	100%	0.95		
36	Total	1.00		0.00		0.00		0.00		1.00	100%	0.95		
37														
38														
39														
40	Stormwater Retention Volume (cf)	4,000												
41														
42														
43														

# Stormwater Design Manual

- Design tools
- Compliance Calculator (similar to the SC LID Manual)
- BMP Design Sheets

# Stormwater Design Manual



- Design details for BMPs
- Design Sheets for 14 BMPs

# Task 3 - Stakeholder Involvement

- Started with jurisdictions and interested parties' response to questions and recommendations
- Jurisdictions provided review of Ordinance and Manual
- Following the jurisdictions' review publish proposed Ordinance and Design Manual
- Provide 6 weeks for public comment
- Provide three public meetings between Beaufort Co. (north & south) and Jasper Co

## Task 4 – Final Ordinance and Design Manual

- Final Delivery of Ordinance and Design Manual after 1/1/2020
- To be adopted by the jurisdictions
- It will be important to train submitting engineers and developers and staff to insure complete reviews



Questions?

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