

# TOWN COUNCIL



## STAFF REPORT Department of Engineering

<b>MEETING DATE:</b>	July 12, 2016
<b>PROJECT:</b>	May River Quarterly Update
<b>PROJECT MANAGER:</b>	Kim Jones, Watershed Management Division Manager

**BACKGROUND:** In response to the closure of shellfish harvesting beds in the headwaters of the May River, Town of Bluffton Town Council adopted by Resolution the May River Watershed Action Plan (Action Plan) as a supporting document to the Comprehensive Plan in November 2011. The intended use of the Action Plan is a work plan and guiding document to restore shellfish harvesting throughout the May River and to protect such uses into the future through a combination of projects, policies and programs.

**MAY RIVER WATERSHED ACTION PLAN UPDATE:** An overview of the implementation schedule and completion status of May River Watershed Action Plan currently recommended projects, policies and programs is Attachment 1. Highlighted below are several key items from each category:

### A. Projects (Attachment 2):

1. *319 Grant Phase 2: Pine Ridge Stormwater Pilot Project* – This stormwater volume-reduction project via stormwater re-use as sub-surface irrigation was awarded to Willow Tree Landscaping in January 2016 with construction beginning in February. Final construction completed in June 2016 with grant closeout to begin in August 2016. Pre- and post-construction flow data will measure project efficacy and calculate fecal coliform load reduction to the May River.
2. *Stoney Creek Wetlands Restoration* – Following receipt of the draft water budget including hydrology and hydraulics reports in April 2016, data collection was extended for an additional two (2) months due to above average rainfall over the winter. Collection continued into the “dry” season to measure the changes in the water table to include in the preliminary conceptual designs for property owner review/negotiations. Owners have not agreed to a final project yet. Staff received the Final Summary Memo, including conceptual design options, at end of June 2016, and it is currently under review. To date the following tasks have been completed - wetland delineation, property boundary survey, and draft water budget and hydrology/hydraulics reports.
3. Additional 319 Grant proposals submitted on May 6, 2016 with funding notification anticipated by July 31, 2016 for the following projects:
  - a. *May River Preserve Stormwater Pond Development*
    - The Action Plan identifies this area as a priority project located in the Stoney Creek sub-basin. The proposed project will provide stormwater treatment via a nine-acre, shallow pond adjacent to the May River

Preserve development. By installing a control structure, stormwater will accumulate behind an existing berm, thus allowing natural processes to remove pollutants as well as reduce the volume of stormwater runoff reaching the May River.

- \$231,350 grant request in support of estimated total project cost of \$390,345.
- b. *Buckwalter School Campus Pond Retrofit*
- The Action Plan identifies this area as a priority project. The project is similar in scope to the recently completed Pine Ridge project - stormwater re-use from onsite lagoons for irrigation of open space and possibly the sports fields within the Beaufort County School District's Buckwalter Campus with Stormwater. This will support reduced pollutant loading by stormwater runoff volume-reduction.
  - \$381,200 grant request in support of estimated total project cost of \$640,400.

## B. Policies:

1. *Mandatory Sewer Connection Ordinance* - Completed
2. *Sewer Connection Policy and Program* - This initiative is included in the adopted Strategic Plan FY 2017 - FY 2018. The goal of the Sewer Connection Policy and associated Program is to provide assistance with the construction costs for individuals to connect to sanitary sewer within 300 feet of the parcel in question. At a future workshop, Staff will discuss several funding scenarios to gather Town Council direction to create the policy.

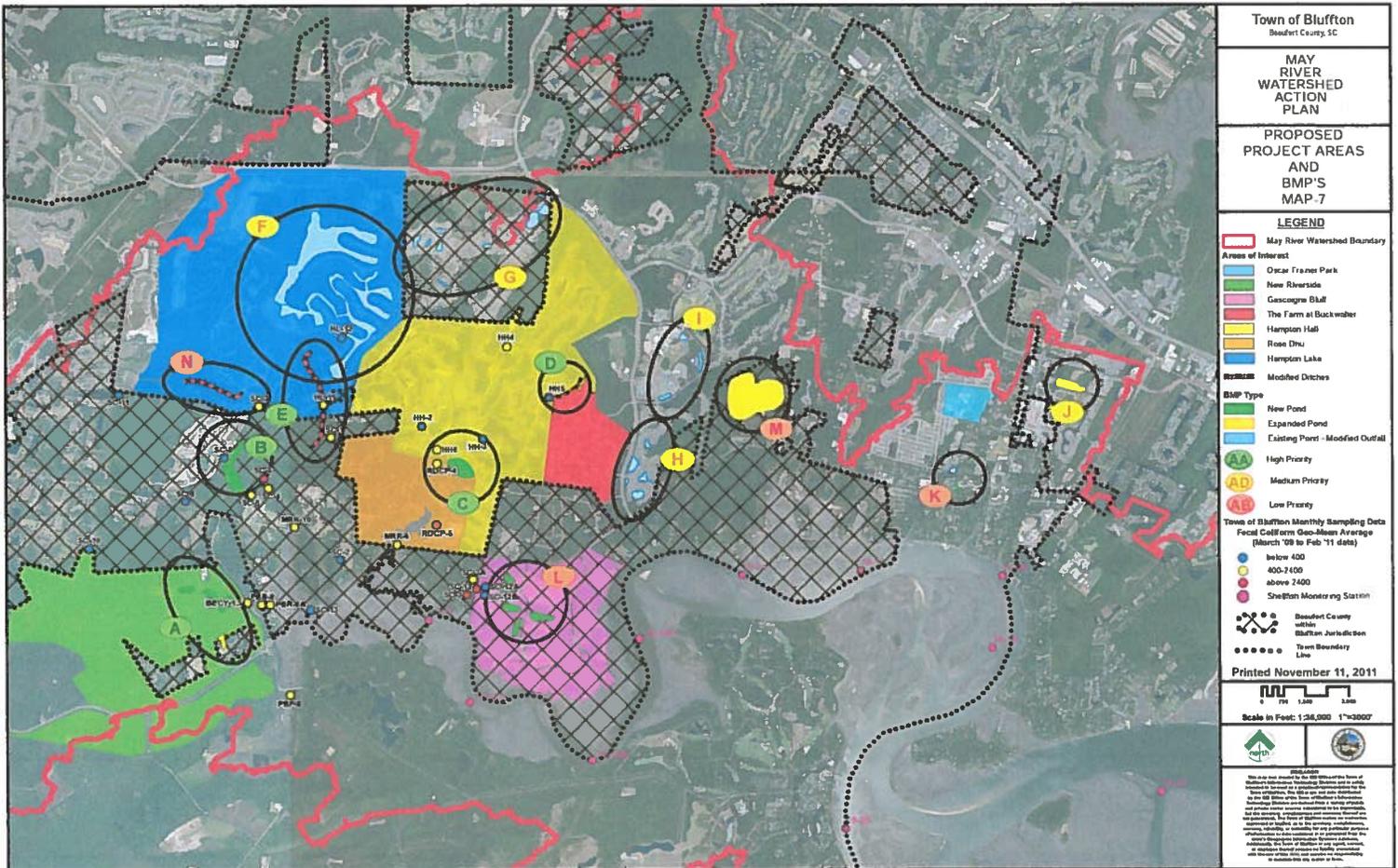
## C. Programs:

1. *Neighbors for Clean Water* -
  - a. The scope of this stormwater public outreach and involvement initiative was expanded to include all four (4) municipalities (Town of Bluffton, Town of Hilton Head, Town of Port Royal and City of Beaufort) and unincorporated Beaufort County via an Intergovernmental Agreement to cost-share mutual expenses. The expanded scope allows for consistent branding, messaging, and cost-effectiveness by pooling resources. Clemson Extension's Carolina Clear will be the contractor to provide these services countywide.
  - b. Most recent activity in Bluffton was in support of the 16th Annual May River Cleanup, marking approximately 175 storm drains with "no dumping, drains to river" placards, and constructing and installing a floating wetland at MC Riley Elementary School.
2. *Water Quality Monitoring* -
  - a. Weekly water quality monitoring is ongoing via a Memorandum of Understanding with the University of South Carolina Beaufort (USCB) for the water quality laboratory. Weekly sampling includes approximately two dozen sites in key drainages of the May River headwaters, in coordination with Beaufort County, for bacterial indicators and *in situ* parameters. The results of these tests identify water quality-improvement project locations and determine project efficiency and impact.
  - b. Recent results show the New Riverside Pond Pilot Project to be effective at removing bacteria (approximately 90% reduction), however downstream

bacteria concentration levels are not significantly impacted. Next steps are to determine potential source of downstream loading of bacteria.

**ATTACHMENTS:**

1. May River Watershed Action Plan Work Plan
2. May River Watershed Action Plan Project Area Map



**MAY RIVER WATERSHED ACTION PLAN  
WORK PLAN**

	Implementation Schedule*	Completed	Current	On-going	Programmed	NOTES:
<b>CIP Projects</b>						
Develop a weight value for each project prioritization criteria	Phase I - II			x		
Septic Conversion to Sanitary Sewer	Phase I - II	BIS Ph 1 & 2	BIS Ph 3 & 4 Jason/Able			BIS Ph 5 Designed
<b>High Priority Projects</b>						
Project A – 319 grant Phase 1 – New Riverside Pond	Phase I - II	x				
Project B – 319 grant Phase 3 – May River Preserve Stormwater Pond Development	Phase I - II				FY17	
Project C – Rose Dhu Creek Sub-basin Pond	Phase I - II				FY20	
Project D – Hampton Hall Ditch Retrofit/Wetland Restoration	Phase I - II				FY18	
Project E – Stoney Creek Wetlands Restoration	Phase I - II		FY14			
<b>Medium Priority Projects</b>						
Project F – Hampton Lake Outfall Retrofit					FY20	
Project G – Lake Point Drive Region Outfall Retrofits					FY18	
Project H – 319 grant Phase 2 – Pine Ridge Retrofit			FY13			
Project I – Buckwalter School Campus Pond Retrofit					FY17	
Project J – Bluffton Village Pond Expansion						not in current 5-yr CIP Forecast
<b>Low Priority Projects -</b>						
Project K – Bluffton Park Pond Retrofit & Expansion						not in current 5-yr CIP Forecast
Project L – Gascoigne Bluff Pond Retrofit & Expansion						
Project M – Vista View and Cahill Market Area Pond Expansion						
Project N – Hampton Lake Ditch Retrofit						
<b>Policies</b>						
Reivew and update of May River Watershed Action Plan with current data/ information	Phase I					
Continue addressing goals of the Town Comprehensive Plan	Phase I			x		
Enforce requirements of UDO and Town Stormwater Design Manual	Phase I			x		
Develop a formal land acquisition strategy	Phase I					Growth Framework Map
Develop more aggressive Transfer of Development Rights strategy	Phase I			x		Growth Framework Map
Perform a formal, detailed review of the existing ordinances/stormwater plan using the CWP Tools.	Phase I					
Develop a septic system ordinance addressing long-term maintenance	Phase II					
Required temporal disturbance to regulate the amount of time a site can sit after clearing before meeting construction milestones	Phase II					
Require septic design/maintenance standards to address water quality standards	Phase II					
Utilize EMC loading rates in the County Manual for Stormwater BMPs	Phase II					
Create a policy to implement a tracking system of on-site LID practices	Phase II					
Incorporate significant incentives into ordinances (reduced fees or expedited reviews)	Phase II					
Consider adding the Aquatic Protection standard as described in the GA Coastal Stormwater Supplement	Phase II					
Discuss sewer policies for current septic systems	Phase III				FY17	Sewer Connection Program
Town Projects incorporate pervious surfaces for sidewalks, pavement, roads, driveways, etc.	Phase I - II			x		
Town projects implement runoff reduction techniques such as recreational areas	Phase I - II			x		
Town Projects incorporate runoff reduction techniques, such as landscaped medians, on roadway/streetscape projects	Phase I - II			x		
Increased volume control regulations	Phase III - V	x				

**MAY RIVER WATERSHED ACTION PLAN  
WORK PLAN**

	Implementation Schedule*	Completed	Current	On-going	Programmed	NOTES:
Expanded forested buffers to filter runoff	Phase III					
Development Agreements/Incentives - volume and WQ controls; Smart Growth	Phase III			x		
Property Owner Association Covenants, Codes, Restrictions - WQ, volume control & promote water conservation practices	Phase III					
Mandatory Sewer Connection Ordinance		x				
Rainwater and stormwater harvesting	Phase IV - V					
Land Condemnation Policy						
Create Wildlife Corridors				x		Growth Framework Map
Pet Waste Disposal Ordinance		x				
Wildlife Management Policy						

**MAY RIVER WATERSHED ACTION PLAN  
WORK PLAN**

ATTACHMENT 1

	Implementation Schedule*	Completed	Current	On-going	Programmed	NOTES:
Expand types of innovative LID BMPs in Stormwater Manual						Coastal SC LID Manual complete

**Programs/Studies**

<b>319 grant Phase 1 projects/programs</b>						
Rain Barrel/Rain Garden	Phase I	x				
Pet Waste Stations	Phase I	x				
RV/Campground Waste Management Plan	Phase I	x				
Social Marketing Campaign	Phase I - V			x		
Bird Roosting Deterrent	Phase I	x				
Unified Development Ordinance Overhaul - watershed based	Phase I	x				
Septic System Inspection/Maintenance/Repair Program	Phase I	x				
Manure Management Plan	Phase I	x				
Create Impervious Surface map	Phase I	x				
Delineate May River Watershed & sub-basin	Phase I	x				
Construction Site Inspection Program	Phase I			x		
Ditch Enhancement/Erosion Prevention	Phase I			x		
Transfer of Development Rights Program	Phase I			x		
Develop Water Quality Model - simple wash off & long-term dynamic modeling	Phase I - III			x		
Septic System Assistance Program	Phase I - II			x		
Survey & analysis to understand contribution of septic systems	Phase II	x				
Water Quality Monitoring Program - quality and volume; DNR-recommendations; determine cost for more detailed monitoring (rainfall & flow)	Phase I - V			x		
Outreach/Education Program - projects, septic, wildlife mngt., water	Phase I - V			x		
Sensitive Areas Determination	Phase II					
Investigate value of wildlife surveys & if warranted managemetn plan(s)	Phase II - V					
Implement a tracking system to track effectiveness of implementation and maintenance of on-site LID practices as part of the annual BMP inspections	Phase III - V					

**Financial Analysis/Partnerships**

Identify Action Plan elements to be implemented in other Town actions	Phase I			x		
Continue to pursue grants and other funding	Phase I			x		
Explore partnering and in-kind service agreements	Phase I			x		
Prioritize funding mechanisms as high, medium, and low priority	Phase I			x		
Annual Budgets should be developed to include one to two Town projects per year	Phase I - V			x		5- Year SWU & Grant funded CIP projects

- \* Phase I short-term 1 - 3 years
- Phase II medium-term 3 - 5 years
- Phase III long-term 5+ years
- Phase IV long-term 8+ years
- Phase V long-term monitoring & evaluation