

## TOWN COUNCIL

### STAFF REPORT

#### Projects and Watershed Resilience Department



<b>MEETING DATE:</b>	May 9, 2023
<b>SUBJECT:</b>	Projects and Watershed Resilience Department Monthly Report
<b>PROJECT MANAGER:</b>	Kimberly Washok-Jones, Director of Projects and Watershed Resilience

### **CAPITAL IMPROVEMENTS PROGRAM (CIP) AND SPECIAL PROJECTS UPDATE**

#### **PATHWAYS**

**1. Goethe-Shults Sidewalks Phase 2**

- Sidewalks are completed and SCDOT has closed out the project.
- **Next Steps**
  - Complete additional services to study the outfall along Shults Road.

**2. Buck Island-Simmons ville Neighborhood Sidewalks and Lighting**

- A contract for Phase 6B along Simmons ville Road from Sugaree Drive northward to the existing New Mustang Road was awarded to JS Construction Services, Inc.
- **Next Steps**
  - Prepare and obtain streetlight easements and begin condemnation process for remaining Phase 5 street lighting easements.
  - Complete Phase 6B construction and SCDOT closeout.
  - Construction of the remaining Simmons ville Road sidewalks and lighting is to be completed in FY 2023.

**3. New River Linear Trail**

- Conceptual Master Plan is complete.
- Submitted plans to Santee Cooper for cursory review and cost share for bridge replacements.
- Received \$26,000 PARD grant award.
- Easement donation from New Riverside Community Association, Inc. Approved at 3/14/23 Town Council.
- **Next Steps**
  - Continue engineering design for Phase 1 pathway (New River to Hwy 46).
  - PRT Grant for \$100,000 was denied for trailhead improvements.
  - Other grant opportunities being researched for the main trail improvements.

#### **SEWER & STORMWATER**

**1. Buck Island-Simmons ville Sewer (Phases 5A-D)**

- Received permits to construct from DHEC.

- Re-bids closed on 4/17/23 with one bid and two responses of “no bid” which complies with Department of Commerce requirements.
  - **Next Steps**
    - Enter into a construction contract after Council approval 5/9/23.
    - Start construction late summer 2023.
- 2. Historic District Sewer Extension Phases 2 & 3 - Bridge & Colcock Streets**
- Contract was awarded to Jordan Construction of Hilton Head, Inc. 3/14/2023.
  - **Next Steps**
    - Pre-construction and pre-clearing meetings.
    - Start house connections once construction is complete and Permit to Operate is issued by DHEC.
- 3. Historic District Sewer Extension Phases 4 through 6 – Lawrence, Green and Water Streets**
- Received initial design for Phases 4, 5, & 6 from the engineer.
  - **Next Step**
    - Incorporate any Phases 4, 5, & 6 design changes to drawings and submit to BJWSA for review and permitting.
    - Obtain Quit Claim Deeds from all the property owners along the ghost roads or initiate condemnation process in May 2023.
- 4. May River Watershed Action Plan Impervious Restoration Water Quality Projects**
- Initial site investigations are complete for 9 of the 11 participating project partners.
  - Palmetto Pointe Towns and Lowcountry Community Church declined to participate in the Program at this time.
  - Policy document for Impervious Restoration Program under formulation.
  - Geotechnical investigations at 6 school sites complete and field results under analysis for use in development of Preliminary Design.
  - **Next Steps**
    - Proceed with geotechnical evaluations at the 3 remaining site locations.
    - Begin preliminary site design.
    - Draft Policy Document for Impervious Restoration Program revisions underway based on staff feedback.
- 5. Buck Island Drainage Improvements**
- A contract was executed on 11/18/22.
  - 10” water main relocation/lowering performed on 2/15/23.
  - **Next Steps**
    - SCDOT final inspection approval, As-Built submittal review/approval, completion of punch list items, project close-out by mid-May.

## **HISTORIC DISTRICT IMPROVEMENTS**

### **1. Boundary Street Lighting**

- Phase 2 photometric plans, encroachment permits, and lighting agreements are

complete and approved.

- SCDOT and Dominion indicated poles must be installed on private property due to conflicts with sewer force main and communication utilities within the right of way.
- Easements must now be obtained to install Phase 2 lighting.
- **Next Steps**
  - Install streetlights on the west side of the street in FY 2023. Coordinate conduit and light installation for the east side of the street in conjunction with larger streetscape project.
  - Obtain easements as needed for Phase 2 street lighting.

## **2. Squire Pope Carriage House Preservation**

- The contract with Huss Inc. was executed and construction began on 1/16/23 with a groundbreaking ceremony held on 2/4/23.
- Structure was lifted. Excavation, footers, slab, blockwork, brick piers, block walls were sealed and insulated, perimeter sill beams and interior beams were installed, flooring at crawl space has been insulated and structure has been lowered.
- **Next Steps**
  - The next few weeks will focus on additional deconstruction of the exterior siding, structural wood framing of all walls and subflooring to prep for rough in mechanical, electrical, plumbing and fire suppression.

## **3. Bridge Street Streetscape**

- Issued Notice to Proceed for Phase 1 construction to start 12/5/22.
- Obtained survey proposal for Phase II streetscape project.
- Engaged Barrier Island for Phase II design.
- **Next Steps**
  - Drainage 100%, parking 100%, Sidewalks 100%, IT conduit and pull boxes 50%, lighting 5%, mill and overlay to be scheduled.
  - Obtain easement from Cunningham LLC for parking sign installation.
  - Continue coordination of irrigation tie-in with property owners.
  - Continue coordination with Bluffton Electric installation of additional power from Calhoun to Boundary.

## **4. Boundary Street Streetscape**

- Engineering Design is 70% complete and submitted to Watershed for stormwater for initial review.
- **Next Steps**
  - Continuing with Engineering Design and Permitting.
  - Obtain easement exhibits and begin appraisals in FY 2023.
  - Bid construction in FY 2024.

## **5. Calhoun Street Streetscape**

- Surveying is complete and preliminary engineering design is 40% complete.
- **Next Steps**
  - Continue engineering design into FY 2023.

- Prepare easement acquisition plats for Phase 1 in June 2023.
- Begin easement acquisition in FY 2024.
- Phased construction is planned to begin in FY 2025 pending budget approval.

#### **6. Pathway Pedestrian Safety Improvements**

- Completed Historic District crosswalk study identifying and prioritizing future intersection/crosswalk improvements to meet ADA compliance.
- Phase 1 ADA sidewalk improvements along Goethe Road were completed in January.
- Submitted US DOT RAISE grant application for planning and design of bike and pedestrian safety improvements in Historic District, Goethe/Shults and Buck Island/Simmons ville neighborhoods for implementation in a phased approach.
- **Next Steps**
  - Phase 2 design proposal under review.
  - Pending US DOT RAISE grant award in June 2023.

#### **7. Historic District Comprehensive Drainage Plan Improvements**

- Asset inventory and condition assessment complete.
- 2D H/H model development complete.
- Initial Tidal Gauge information gathering at Calhoun St Dock has been completed.
- Review of 2D H/H model development results and area of inundation/choke points complete.
- **Next Steps**
  - Establish maintenance and CIP project needs list and Master Planning report to reduce risk of flooding.

#### **8. Pritchard Street Drainage Improvements**

- Cranston Engineering is proceeding with 100% design development based on 70% review comments and meeting discussions.
- Project scope has increased to include streetscape elements, pedestrian connectivity, street lighting and traffic calming evaluation.
- **Next Steps**
  - Coordinate approval for proposed improvements with Beaufort County School District.
  - Complete 100% design submission, permitting submissions and bid document formulation.

### **PARK DEVELOPMENT**

#### **1. Oyster Factory Park**

- Executed contract with JS Construction for parking expansion which began in March 2023.
- Executed Task Authorization with Witmer, Jones, Keefer for design of the Event Area.
- **Next Steps**
  - Continue construction of the parking lot.
  - Refine design of area Event Area based on Council feedback at April Quarterly



Workshop and bring back for review.

**2. Oscar Frazier Park**

- Began design of FY 2023 improvements including hardscape near the Rotary Center, sport courts, and splash pad.
- Submitted conceptual plans at Quarterly Workshop and obtained Town Council input. Sent questionnaire for sport court alternatives to Bluffton Park HOA for review and selection of preferred option.
- Council directed staff to not proceed with sports court design at this time during the April Quarterly Workshop.
- **Next Steps**
  - Hardscape construction to begin in June.
  - Complete design of splash pad in FY 2023.

**3. New Riverside Barn/Park**

- Construction documents for the restroom building are complete.
- Architectural design services for the Barn additions are 95% complete.
- Design of the playground area is 50% complete.
- JS Construction started phase 1 site construction on 1/27/2023.
- Selected Nix Construction to provide Construction Manager at Risk Services for Phase 2 and 3.
- Contract has been issued to Nix Construction for execution.
- **Next Steps**
  - Complete the architectural design of barn addition.
  - Continue design of playground area in FY 2023.
  - Continuing construction of Phase 1 Site Development Infrastructure.
  - Execute a Construction Manager at Risk contract with Nix Construction.

**4. Miscellaneous Park Improvements**

- TC requested staff to explore alternative playground equipment.
- **Next Steps**
  - Procure and install additional DuBois Park playground improvements per Town Council direction at the April Workshop.

**TOWN FACILITIES AND MISCELLANEOUS PLANNING**

**1. Town of Bluffton Housing Projects**

- **Next Steps**
  - Provide financial assistance to joint venture partner for planning, design and permitting of Affordable/Workforce Housing at 1095 May River Road.

**2. Law Enforcement Center Facility Improvements**

- Clearing for the challenge course is complete.

- **Next Steps**

- Complete construction with The Greenery for the challenge course and expanded area for an impound lot and storage of Public Service maintenance equipment.

### 3. Sarah Riley Hooks Cottage

- Obtained conceptual master plan concepts from JK Tiller and reviewed with Executive Staff.
- Prepared questionnaire and obtained stakeholder input for use of the property and cottage.
- Selected Meadors Inc to provide a Structural Assessment Report to determine the feasibility of preservation or re-construction of the cottage.
- **Next Steps**
  - Town Council provided Conceptual Master Plan and Structural Assessment feedback to staff to revise construction and grounds plans.
  - Present revised plans to Council as completed.

### 4. Ghost Roads

- Surveying and easement exhibits are complete.
- Bridge Street Quit Claim Deeds are complete. Pritchard and Colcock Streets Quit Claim Deeds are 95% complete. Staff is currently working with Lawrence, Lawton, Green, Pope, Allen and Water Street property owners to obtain Quit Claim Deeds.
- Staff continue to meet with property owners to raise awareness of the acquisition efforts and communicate next steps and requested Council assistance.
- **Next Steps**
  - Obtain remaining Quit Claim Deeds for Historic District Sewer Phases 4-6 or initiate quiet title proceedings.

### 5. Document Management

- RFP contract was awarded in March 2022.
- Electronic Document Management system is live.
- Documents for 5 departments have been transitioned to DMS.
- **Next Steps:**
  - Historical documents for the remaining 9 departments will transition through FY 2026.

### 6. Network Infrastructure

- Replaced core switches at Town Hall and the Law Enforcement Center.
- Replaced two VMWare hosts for a more stable server environment.
- Migration of Munis and Energov systems to a hosted environment completed.
- Replaced phone system to a more modern system.
- **Next Steps:**
  - Replacing two more VMWare hosts.
  - Implementation of Executime to replace Intime.

## **WATERSHED MANAGEMENT**

### **1. Stoney Creek/Palmetto Bluff Sewer Partnership**

- 2022 updated cost-estimate for the project from BJWSA is \$7.2 million + contingencies. BJWSA has agreed to be the Project Manager.
- Completed DRAFT RIA SCIPP application in support of Stoney Creek/Palmetto Bluff Sewer Extension with BJWSA and Beaufort County. Obtained letters from governmental agencies and stakeholders in support of the application.
- Met with partners to address BJWSA IGA concerns on 3/2/23. A draft 3-party Intergovernmental Agreement is being updated by Director of Procurement.
- **Next Steps**
  - Await notification of grant application. No announcement date has been provided.
  - BJWSA to procure design engineer through existing MSAs.

### **2. SC Department of Health and Environmental Control May River Shellfish Harvesting Monitoring Data Year-to-Date and May River Shellfish Harvesting Status Exhibit – *Attachments 1 and 1a***

### **3. May River Watershed Action Plan Implementation Summary - *Attachment 2***

- Staff procured SonTek IQ telemetry stations and installation occurred 4/24/23 & 4/25/23.
- Staff deployed a HOBO-U20 water level logger at the Calhoun Street dock to collect tidal elevation data and staff intends to continue data collection at this location.

### **4. Municipal Separate Storm Sewer System (MS4) Program Update**

- Staff have submitted the MS4 Annual Report as required by SCDHEC.

### **5. MS4 Minimum Control Measure (MCM) - #1 Public Education and Outreach, and MS4 MCM - #2 Public Participation and Involvement**

- Staff participated in Beaufort County's Earth Day Cleanup on 4/21/23.
- The May River Watershed Action Plan Advisory Committee (WAPAC) was held on 4/27/23. The next scheduled meeting is 5/25/23. ***Attachment 3***
- The Town Communications Department distributed the May River Cleanup press release and promoted the event via social media. Staff had a Town of Bluffton stormwater education table at the event.
- Staff developed a new Pet Grooming postcard aimed at educating business owners about illicit discharges. Postcards were sent via certified mail to all pet-related companies with a Town of Bluffton business license.

### **6. MS4 MCM – #3 Illicit Discharge Detection and Elimination**

- Stormwater Infrastructure Inventory Map - ***Attachment 4a***
- *E. coli* Concentrations Trend Map - ***Attachment 4b***
- Monthly, Microbial Source Tracking (MST) Maps - ***Attachments 4c and 4d***

- SC Department of Health and Environmental Control (SCDHEC) collects MST samples for the Town concurrently with their routine shellfish harvesting water quality sampling at stations 19-19, 19-19A, 19-19B, 19-19C, and 19-24. SCDHEC conducted sampling 4/03/23. The human genetic marker was not detected at any SCDHEC Shellfish Harvesting Stations in the May River however fecal coliform concentrations were elevated.
  - Illicit Discharge Investigations – **Attachment 4e**
7. **MS4 MCM – #4 Construction Site Stormwater Runoff Control – Attachment 5**
  8. **MS4 MCM – #5 Stormwater Plan Review and Related Activity – Attachment 6**
  9. **MS4 MCM – #6 Good Housekeeping (Staff Training/Education)**
    - Staff attended Southeast Stormwater Association Spring Seminar on Climate Change and Sustainability Measures for Stormwater Management on 4/21/23.
  10. **MS4 MCM – #6 Good Housekeeping (Ditch, Drainage and Roadside Maintenance)**
    - Public Services performed weekly street sweeping on Calhoun Street, Highway 46, Bruin Road, May River Road, Pin Oak Street, and curbs and medians on Simmonsville and Buck Island Roads.
    - Performed ditch inspections.
      - Arrow ditch (2,569 LF)
      - Red Cedar ditch (966 LF)
      - Buck Island roadside ditch (15,926 LF)
      - Simmonsville roadside ditch (13,792 LF)
    - Ongoing roadside mowing, litter clean-up and maintenance of Masters' Way, McCracken Circle, Hampton Parkway, Buck Island and Simmonsville Roads, Goethe Road, Shults Road, Jason and Able Streets, Whispering Pine Road, May River Road and Eagles Field.
  11. **Citizen Drainage, Maintenance, and Inspections Concerns Map – Attachment 7**
  12. **Citizen Request for Watershed Management Services & Activities – Attachment 8**

**Attachments**

1. SCDHEC Shellfish Harvesting Monitoring Data Year-to-Date
  - a. SCDHEC May River Shellfish Harvesting Status Exhibit
2. May River Watershed Action Plan Implementation Summary\*
3. MS4 Minimum Control Measures #1 and #2 – WAPAC Public Notice
4. MS4 Minimum Control Measure #3 – Illicit Discharge Detection and Elimination
  - a. Stormwater Infrastructure Inventory Map
  - b. *E. coli* Concentrations Trend Map
  - c. Microbial Source Tracking Trend Map – Human Source
  - d. Microbial Source Tracking Map – All Sources
  - e. Illicit Discharge Investigations
5. MS4 Minimum Control Measure #4 – Construction Site Stormwater Runoff Control
6. MS4 Minimum Control Measure #5 – Stormwater Plan Review and Related Activity
7. Citizen Drainage, Maintenance and Inspections Concerns Map
8. Citizen Request for Watershed Management Services and Activities Map
9. CIP Master Project Schedules

\* Attachment noted above includes the latest updates in red.

	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023
	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)	Fecal Coliform (MPN)
December	17.0	79.0	33.0		22.0	49.0	49.0		17.0	4.5	17.0		4.5	17.0	49.0		4.0	6.8	6.8		11.0	7.8	13.0	
November	70.0	33.0	33.0		31.0	33.0	13.0		17.0	7.8	7.8		13.0	4.0	4.5		13.0	4.5	6.1		4.5	2.0	13.0	
October	49.0	49.0	23.0		79.0	26.0	46.0		31.0	13.0	13.0		21.0	23.0	23.0		33.0	23.0	11.0		79.0	17.0	14.0	
September	110.0	33.0	540.0		49.0	11.0	350.0		49.0	17.0	350.0		33.0	13.0	170.0		33.0	2.0	79.0		33.0	11.0	33.0	
August	49.0	49.0	23.0		49.0	49.0	23.0		23.0	23.0	11.0		23.0	49.0	13.0		17.0	14.0	17.0		22.0	14.0	11.0	
July	33.0	350.0	920.0		13.0	64.0	49.0		23.0	79.0	95.0		7.8	33.0	130.0		7.8	33.0	23.0		17.0	13.0	46.0	
June	NS	49.0	13.0		NS	79.0	4.5		NS	13.0	11.0		NS	17.0	2.0		NS	22.0	1.8		NS	2.0	9.3	
May	70.0	2.0	4.5		49.0	49.0	4.5		23.0	23.0	4.0		22.0	23.0	1.8		6.8	23.0	1.8		4.5	7.8	2.0	
April	33.0	33.0	4.5	170.0	33.0	23.0	4.5	130.0	13.0	22.0	1.8	110.0	6.8	17.0	2.0	70.0	13.0	7.8	1.8	NS	13.0	2.0	1.8	7.8
March	170.0	33.0	33.0	23.0	49.0	11.0	23.0	49.0	130.0	17.0	2.0	17.0	49.0	13.0	4.5	17.0	70.0	2.0	2.0	17.0	33.0	2.0	2.0	17.0
February	17.0	79.0	23.0	540.0	7.8	70.0	31.0	350.0	21.0	79.0	17.0	240.0	4.5	23.0	22.0	240.0	4.5	7.8	2.0	33.0	6.8	6.8	11.0	33.0
January	95.0	17.0	49.0	33.0	33.0	17.0	22.0	33.0	33.0	13.0	33.0	13.0	17.0	23.0	7.8	33.0	17.0	17.0	7.8	7.8	17.0	7.8	7.8	4.5
** Truncated GeoMetric Mean	34.0	36.0	40.0	41.0	21.0	26.0	28.0	32.0	16.0	18.0	18.0	18.0	12.0	15.0	14.0	17.0	10.0	10.0	9.0	9.0	9.0	8.0	9.0	7.0
** Truncated 90th Percentile	106.0	139.0	192.0	250.0	59.0	69.0	91.0	130.0	50.0	58.0	72.0	92.0	37.0	39.0	54.0	84.0	31.0	35.0	41.0	42.0	35.0	33.0	32.0	26.0

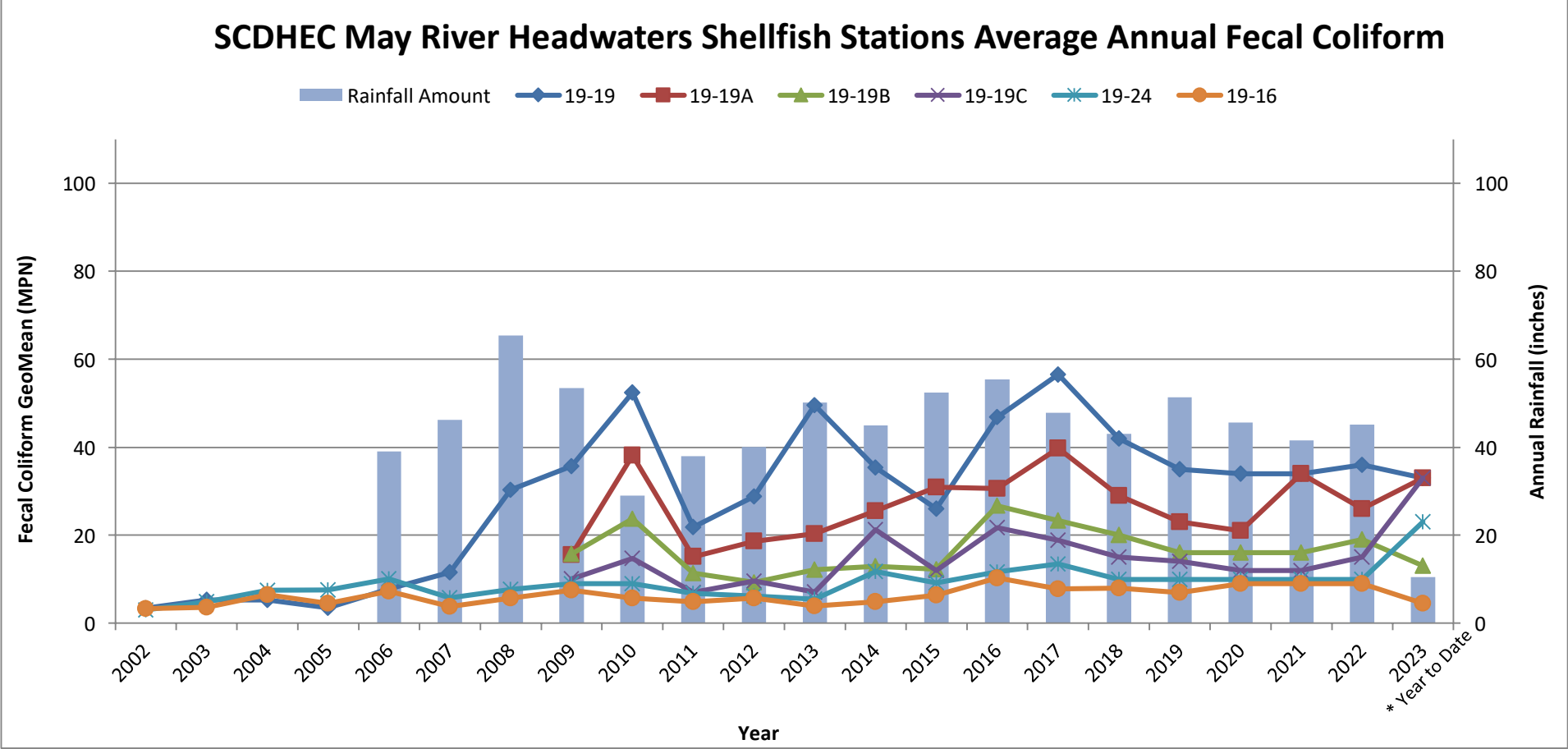
NS = No Sample

SCDHEC Regulatory Requirements:

Geometric Mean ≤ 14

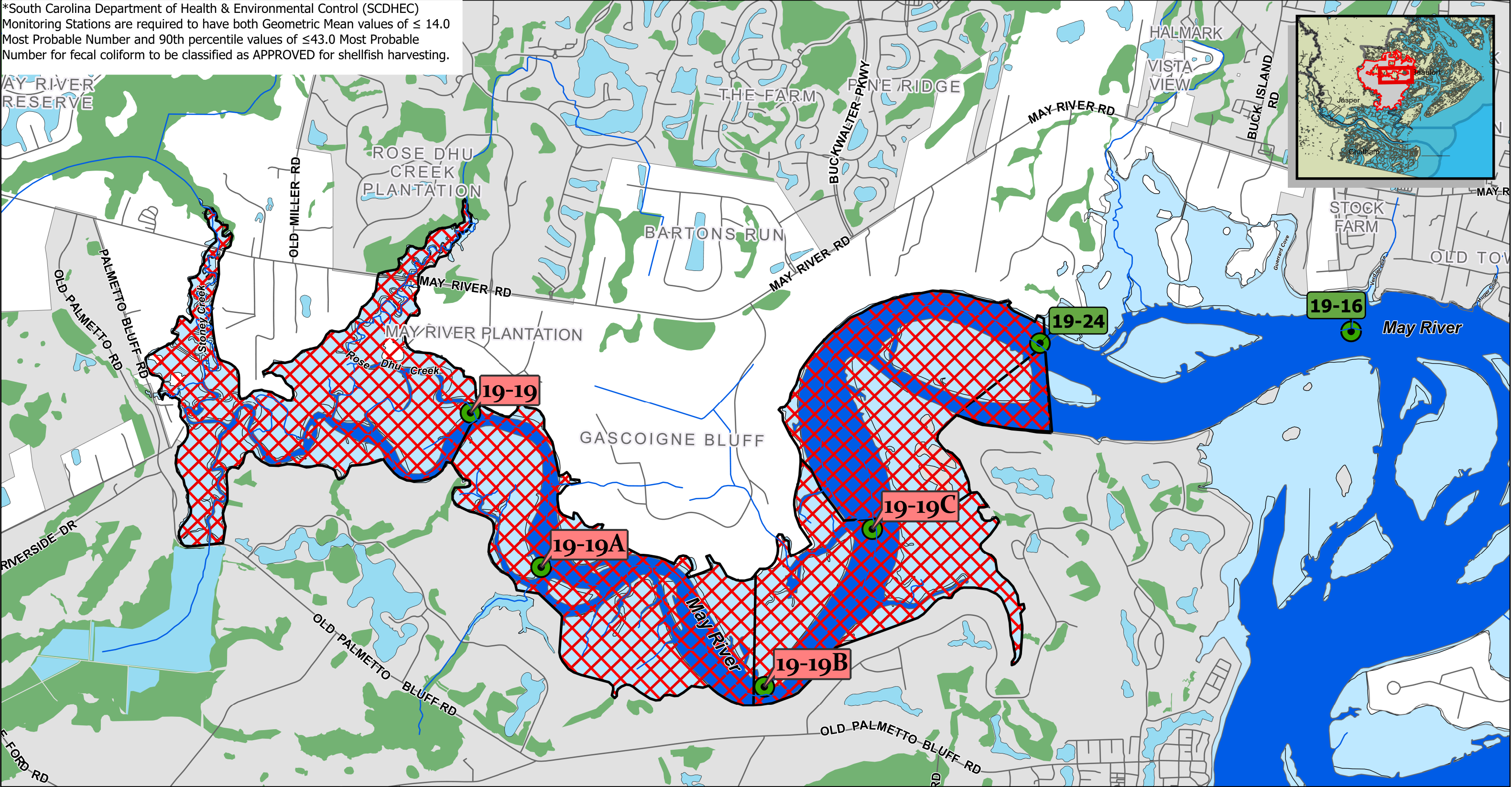
90th Percentile ≤ 43

\*\* Town staff calculations utilizing SCDHEC statistics





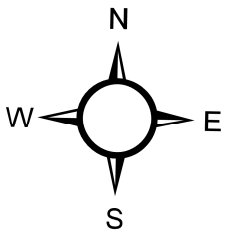
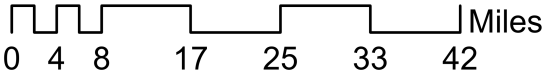
\*South Carolina Department of Health & Environmental Control (SCDHEC)  
Monitoring Stations are required to have both Geometric Mean values of  $\leq 14.0$   
Most Probable Number and 90th percentile values of  $\leq 43.0$  Most Probable  
Number for fecal coliform to be classified as APPROVED for shellfish harvesting.



- SCDHEC Shellfish Monitoring Stations
- Restricted 2022/2023 Shellfish Season
  - Open SCDHEC Shellfish Monitoring Stations
  - SCDHEC Shellfish Monitoring Station Classification Change
- Streets  
Drainage  
Town Jurisdiction  
County Jurisdiction  
Water  
Wetlands

Town of Bluffton  
Beaufort County, SC

# SCDHEC SHELLFISH HARVESTING STATUS



WAPAC Meeting Presentation  
May River Watershed Action Plan Update & Modeling Report  
Overview and Status  
August 25, 2022  
Updated February 23, 2023

**Overview**

- May River Watershed Action Plan Update & Modeling Report **completed** November 2020.
- Town Council Adoption of May River Watershed Action Plan Update as a Supporting Document to the Comprehensive Plan **completed** February 2021.
- May River Watershed Action Plan Update & Modeling Report Summary:
  - **Executive Summary** provides an overview of the project background, findings and interpretation, current state of knowledge concerning fecal coliform fate and transport, and an overview of proposed recommendations for the Town.
  - **1.0 Introduction** includes more detailed project background including the purpose of the document and the Project Team's tasks to 1) develop water quality models to compare current conditions (2018) to pre-shellfish impairment conditions (2002) to develop pollutant load reduction estimates, and 2) evaluate 2011 Action Plan BMPs for appropriateness under current conditions and provide up to eleven (11) alternative projects and preliminary cost estimates.
  - **2.0 Model Setup; 3.0 Model Calibration, and 4.0 Water Quality Model Results** details the methodology used by the Project Team to establish and calibrate the models and the model outputs. This highly technical information is necessary for future Water Quality (WQ) Model calibration and use for consistency.
  - **5.0 Recommendations** includes strategies to improve the Town's monitoring efforts to calibrate the WQ Model further (§5.1), strategies and BMPs for bacteria reduction (§5.2), an evaluation of 2011 Action Plan BMP projects (§5.3), and methodology used to develop 2020 Action Plan Update recommended projects (four septic to sewer conversion projects and eleven stormwater BMP retrofit projects) with cost-estimates and ranking/prioritization (§5.4).
  - **6.0 Conclusions** offers a summary of the WQ Model results in context of current state of knowledge.
  - **7.0 References** documents the prior research findings used to inform recommendations.
  - **Appendices** reference supporting materials:
    - Montie et al. (2019) "Technical Report: Historical Analysis of Water quality, Climate Change Endpoints, and Monitoring in Natural Resources in the May River,"
    - Technical Memo from Dr. Rachel Noble,
    - Watershed Treatment Model Spreadsheets, and
    - Detailed Project Cost Estimate Spreadsheets.



## **MRWAP 2020 Update Septic to Sewer Project Recommendations/Evaluations:**

- Four (4) septic to sewer conversion projects were evaluated in the Rose Dhu Creek and Stoney Creek subwatersheds:
  - Cahill
  - Gascoigne
  - Stoney Creek
  - Pritchardville
  - These projects overlap with 42 subcatchments in the Stoney Creek watershed and 11 in Rose Dhu Creek. Based on WQ Model outputs, these projects alone may potentially reduce FC loading by  $3.46 \times 10^{13}$  FC per year.
- The estimated septic to sewer conversion costs of these projects is \$5.5 million.

### **Work Performed and Current Status as of August 25, 2022 Meeting**

Discussions with the Town, Beaufort County and BJWSA have been held about future Septic to Sewer Program projects identified above. Stoney Creek Septic to Sewer Project has been identified as the next priority project to pursue under the Septic to Sewer Program.

1. The Town and Beaufort County are finalizing Funding and Cost share elements relative to the project and a letter to BJWSA will be developed and sent to BJWSA regarding project funding, capital outlay and schedule for implementation.

### **Update for WAPAC February 23, 2023 Meeting:**

The Town, Beaufort County and BJWSA continue to work on details to draft a proposed Inter-Governmental Agreement (IGA) to be presented to each respective approving authority for review, finalization, and approval. It is anticipated that this process is months away from final approval/adoption of the respective parties.

## **MRWAP Update Eleven Impervious Restoration (stormwater retrofit) Project Recommendations/Evaluations:**

- Eleven (11) project sites (incorporating various individual BMPs) were selected in consultation with the Town (prioritizing subcatchments with FC bacteria hotspot and/or large impervious areas). These sites were evaluated in terms of the potential benefits gained by retrofitting to meet the 95th percentile storm retention, to the maximum extent possible, under the proposed Impervious Area Restoration/Stormwater Retrofit Program.

Eleven (11) proposed project sites Rose Dhu Creek (6 projects) and Stoney Creek (5 projects):

- Bluffton Early Learning Center (BELC)
- Boys and Girls Club of Bluffton (BGC)
- Benton House (BH)
- Bluffton High School (BHS)
- Buckwalter Recreation Center (BRC)

- Lowcountry Community Church (LCC)
- McCracken Middle School/Bluffton Elementary School (MMSBES)
- May River High School
- One Hampton Lake Apartments (OHLA)
- Pritchardville Elementary School (PES)
- Palmetto Pointe Townes (PPT)
- Based on WQ Model outputs, these projects alone may potentially reduce FC loading by
  - $2.99 \times 10^{14}$  FC reduction for the Full SWRv (entire sub-basin drainage area catchment).
  - $2.53 \times 10^{14}$  FC reduction for the Reduced SWRv projects (impervious area drainage area of sub-basin catchment).
- The estimated of Full SWRv projects costs is \$32.7 million and the estimated cost of Reduced SWRv projects is \$22.6 million.
- Currently the Towns' Impervious Restoration Program is targeting Reduced SWRv for future projects.

**Example** of Impervious Restoration Project evaluation from May River Watershed Action Plan Update & Modeling Report:

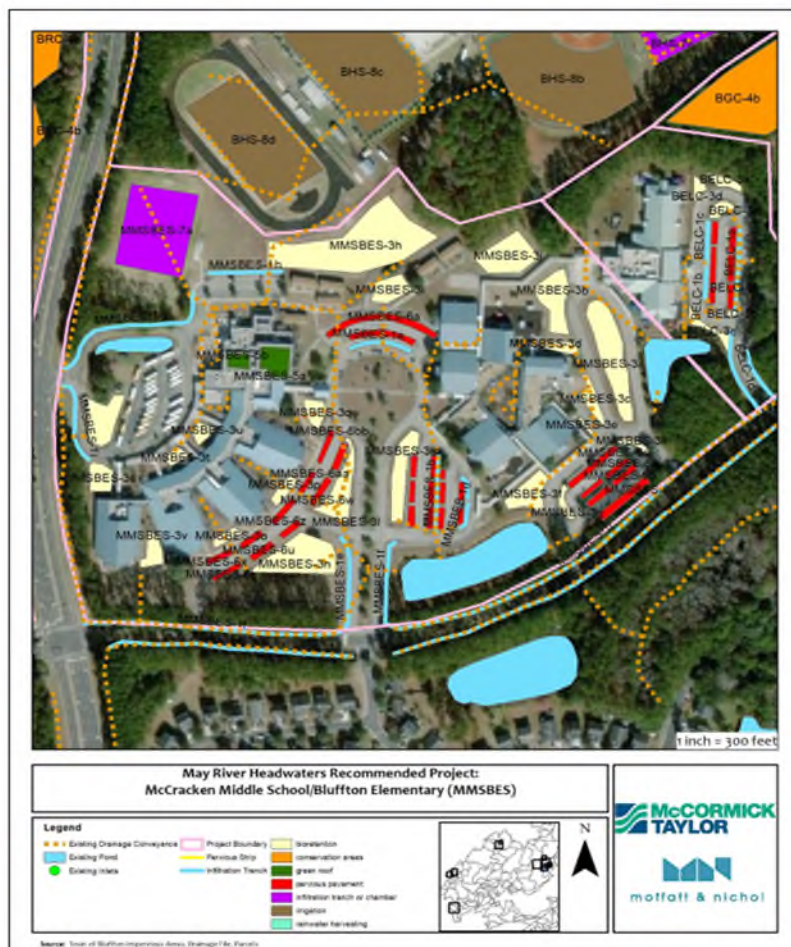


Figure 52. McCracken Middle School/Bluffton Elementary School Proposed Stormwater BMP Retrofits

## Work Performed and Current Status as of August 25, 2022 Meeting

### Update for WAPAC February 23, 2023 Meeting:

- Drafted a detailed scope of work for Engineering Consultant Firm review and cost proposal (Expression of Interest) regarding performance of the following work elements related to MRWAP Update recommendations for implementation:

#### **Task 1 : MRWAP Update 11 site locations**

Eleven (11) proposed project sites Rose Dhu Creek (6 projects) and Stoney Creek (5 projects):

**Yellow** highlight indicates geotechnical evaluations complete.

- **Bluffton Early Learning Center (BELC). Participating in preliminary design development phase.**
- **Boys and Girls Club of Bluffton (BGC). Participating in preliminary design development phase.**
- **Benton House (BH). Participating in preliminary design development phase.**
- **Bluffton High School (BHS). Participating in preliminary design development phase.**
- **Buckwalter Recreation Center (BRC). Participating in preliminary design development phase.**
- **Lowcountry Community Church (LCC). Declined to Participate.**
- **McCracken Middle School/Bluffton Elementary School (MMSBES). Participating in preliminary design development phase.**
- **May River High School. Participating in preliminary design development phase.**
- **One Hampton Lake Apartments (OHLA). Participating in preliminary design development phase.**
- **Pritchardville Elementary School (PES). Participating in preliminary design development phase.**
- **Palmetto Pointe Townes (PPT). Declined to Participate.**
- Evaluate 11 sites and proposed BMPs. **Complete.**
- Update concept plans for 11 sites based on site evaluations, recommendations and discussions. **Complete.**
- Perform geotechnical evaluations at each site at locations related to BMP locations of updated concept plans. **Completed for the 5 school sites.** Geotechnical evaluations for the remaining 4 participating partner sites are being schedule based on recent property owner participation status being known/confirmed.
- Refine updated concepts and use for presentations to Property Owner to discuss Impervious Restoration Program goals, objectives and gain support for Program and their participation.
  - Developpe list of “incentives” to secure Property Owner participation (see Policy Document Formulation below).

- Based on geotechnical information and Property Owner feedback further refine concept plans to Preliminary Design:
  - Determine BMP types and location to maximize SWRv/WQ treatment in cost effective approach.
  - Determine estimated pollutant load reductions.
  - Develop site specific BMP details.
  - Develop preliminary BMP maintenance schedule and cost for each site.
- Preliminary Design development plans will be presented to the Property Owner for review and discussion. Other Restoration Program details (maintenance responsibilities, easements, incentives, etc.) developed as part of the Program (see Policy Document Formulation below) will also be discussed in hopes of establishing a commitment from the Property Owner to participate in the Program. Once a “commitment” is secured from the Property Owner, the project site will be moved to Final design, permitting, and ultimately construction.

**Task 2:** Identify 15 new project sites for Town of Bluffton Impervious Restoration/BMP Retrofit Projects.

- The Town wishes to identify an additional 15 project sites located within the municipal limits of Bluffton for the Impervious Restoration/BMP Retrofit Program. However, the criteria for site selection will be considered to be more “low hanging fruit” based on the following:
  - Within Town of Bluffton Municipal limits.
  - Soils – sandy soils with high infiltration rates offer the biggest bang for the buck for water quality treatment/improvement. Utilizing soil survey and other information target sites where infiltration can be maximized on-site.
  - Public or governmental agency land/property owner (not SCDOT RoW).

**Update for WAPAC February 23, 2023 Meeting:**

Desktop analysis and field work performed to develop a list of 45 sites that potentially meet the criteria above. This list of potential sites is under review/evaluation.

## **Town of Bluffton Impervious Restoration/BMP Retrofit Policy Documents.**

**Task 3:** Section 5.4.4. Stormwater BMP Retrofit Projects of the May River Watershed Action Plan Update and Model Report identifies potential Impervious Restoration/BMP Retrofit projects located on Public and Private Land. As mentioned earlier, one of the primary site selection criteria, at time of report development, was to identify sites with large impervious areas so that pollutant load reductions could be estimated and the benefits of such projects on stormwater quality quantified/estimated, if implemented into construction. Generally, Public Funds are not expended to improve private property nor is Town of Bluffton funding generally expended on Public Land owned by another government entity. In order for such projects identified in Section 5.4.4. to move forward in the interest of improved water quality and for the overall

benefit and welfare of the constituents of the Town of Bluffton, Policy Documents need to be formulated that establishes the parameters of such a Program to be initiated and implemented.

#### **Work Performed and Current Status as of August 25, 2022 Meeting**

- The Expression of Interest was submitted to 3 consultant firms under existing Master Service Agreements with the Town for review and a request for response.
- All 3 Firms responded and their respective responses were evaluated, scored and discussed internally.
- A recommendation for Award was made and the Consulting Firm of Goodwyn, Mills and Cawood selected.
  1. Phase I of this work is in process under existing FY 22 funding from Watershed Management Division.
  2. Phase II of this work will be presented for Town Council review and approval in the August Town Council Meeting and FY23 funding.

#### **Update for WAPAC February 23, 2023 Meeting:**

Phase II work was approved by Town Council and work has been initiated and reported herein.

- Phase I work completed by Consultant and Town:
  1. Review of recommendations of the MRWAP Update.
  2. On-site evaluations at each proposed site.
  3. Meetings with Beaufort County School District.
    - 6 of the 11 sites are located on School property. The School District is deemed an important project partner and as such several meeting have been help to discuss the program and need for project BMPs to improve water quality. The School District has granted permission for us to perform initial site investigations, provided site specific plan information, future development plans on each site and expressed a willingness to participate in the Program.
    - Drafted a Letter to Non-School Property Owners describing the Impervious Restoration Program goals and objectives and requesting a meeting to discuss and gain support.
  4. Policy Document Formulation has been initiated and includes research of similar Programs Nationwide.

#### **Update for WAPAC February 23, 2023 Meeting:**

2 DRAFT Policy Documents have been submitted for review and comment. Comments are being evaluated and addressed by consultant and an update DRAFT Policy Document is expected by April 2023.

#### **Other, Related MRWAP Update Recommendations**

- Adopt proposed regional Southern Lowcountry Post Construction Stormwater Ordinance and Design Manual - complete September 2021.
- The Town should incorporate volume reduction BMPs (those that encourage infiltration) within existing and future CIP projects to the maximum extent practical, especially for project locations with well-drained soils (HSG A or B) – in progress, see below.

- **Work Performed and Current Status as of August 25, 2022 Meeting**
  - Bridge Street Streetscape Project
    - Project design/permitting is complete, and Construction Contract has been awarded.
    - Incorporated Infiltration BMPs within the project to capture and treat 1.95" of rainfall over impervious surfaces within the project area, prior to discharge into the May River.
    - Received Section 319 Grant from DHEC to cost-share cost of construction of proposed BMPs.

**Update for WAPAC February 23, 2023 Meeting**  
 Construction was initiated by JS Construction in early December 2022. Construction considered 65% complete.
  - Pritchard Street Drainage Improvement Project
    - Project in Design Phase and considered 30% complete.
    - Incorporated Infiltration BMPs within the project to capture and treat 1.95" of rainfall over impervious surfaces within the project area, prior to discharge into Heyward Cove.
    - Submitted Section 319 Grant proposal to DHEC to cost-share cost of construction of proposed BMPs. Pre-proposal was accepted, and Full Proposal was requested by DHEC. Under Review.

**Update for WAPAC February 23, 2023 Meeting**

    - 70% design plan submitted, reviewed and comments presented to consultant.
    - 319 Grant was awarded by DHEC to the Town.
- In-House Microbial Source Tracking – in progress, see below
  - The Town entered a Memorandum of Understanding (MOU) with the University of South Carolina Beaufort (USCB) in July 2021 to establish and fund a regional Microbial Source Tracking (MST) laboratory capable of accepting environmental water quality samples.
  - Analytical services are provided by the USCB-MST laboratory for all environmental samples collected by the Town.
  - **Update for WAPAC February 23, 2023 Meeting** Staff has collected additional fecal samples needed for dog, bird, and deer. The USCB-MST Laboratory is conducting the assessment on additional fecal samples and Dr. Pettay will provide a final report to the Town once all fecal markers in regional watersheds have been analyzed.
- Future (new) Bacteria Monitoring Locations - in progress, see below
  - Staff increased sampling frequency and implemented additional monitoring sites and parameters in the May River headwaters based upon recommendations in the 2020 May River Watershed Action Plan Update and Model Report.
  - **Update for WAPAC February 23, 2023 Meeting** Staff is collecting intermittent flow data at SonTek IQ sites in conjunction with grab FIB samples.
  - **Update for WAPAC February 23, 2023 Meeting** Staff is working with the consultant to identify recommended strategies for intermittent flow data collection and a review of the Town's FIB grab sample schedule.



- Future (new) Water Flow Monitoring Locations.
  - **Work Performed and Current Status as of August 25, 2022 Meeting**
    - The MRWAP Update included recommendations for the Town to perform certain rainfall and flow data measurements in May River Headwater Watersheds in order to “calibrate” and make more accurate Model predictions. These recommendations were evaluated and a game plan to address recommendations to calibrate model developed.
      - Utilizing existing flow and rainfall data collected over past years with rain gauges, IQ Plus and Sontek measuring instruments in Stoney Creek, Rose Dhu Creek, Palmetto Bluff, Duck Pond and Heyward Cove, the Town hired a consultant to review the data and determine:
        - Useful data obtained to gain the required information to calibrate model.
          - The data obtained from Stoney Creek and Heyward Cove was deemed sufficient for Model calibration and Final report for this work is in process.
          - Duck Pond was deemed inconsequential, not needed due to drainage area size and proximity/outfall to tidal waters.

**Update for WAPAC February 23, 2023 Meeting**

- Consultant Final Report delivered, and Model Calibration Data for Stoney Creek and Heyward Cove identified.
- If data review resulted in insufficient data, develop a monitoring program that would produce the data needed.
  - Rose Dhu Creek and Palmetto Bluff flow data review resulted in data that was insufficient to calibrate Model.
  - Final report identifying recommended strategies to gain required data is in process.
  - Potential purchase of telemetry stations to equip continuous flow monitoring stations with real-time data access.

**Update for WAPAC February 23, 2023 Meeting**

- Final Report delivered. Based on recommendations of data and process needed, staff has procured needed telemetry station equipment and has hired a consultant to assist in getting the intermittent and continuous flow data and producing a Final Report. The field work installation of equipment is being scheduled. Once installed and operational, data collection will last 6 months.



## May River Watershed Action Plan Advisory Committee Meeting

Thursday, April 27, 2023 at 3:00 PM

Theodore D. Washington Municipal Building, 20 Bridge Street, Henry "Emmett" McCracken Jr.  
Council Chambers

### AGENDA

- I. **CALL TO ORDER**
- II. **ROLL CALL AND CONFIRMATION OF QUORUM**
- III. **ADOPTION OF THE AGENDA**
- IV. **ADOPTION OF MINUTES**
- V. **PUBLIC COMMENTS**
- VI. **OLD BUSINESS**
  - 1. Letter of Support to Update the 2004 Baseline Assessment of Environmental and Biological Conditions in the May River [Town's Fiscal Year 2024 (FY24) Budget]
  - 2. Water Quality Monitoring Program (Standing Item) - Beth Lewis, Water Quality Program Administrator
    - a. Microbial Source Tracking (MST) Update
    - b. SCDHEC Shellfish Data Update
- VII. **NEW BUSINESS**
  - No New Business
- VIII. **DISCUSSION**
  - 1. WAPAC Strategic Plan Priority #4 Town Council Report
  - 2. WAPAC Strategic Plan Priority #3
- IX. **ADJOURNMENT**

**NEXT MEETING DATE: May 25, 2023 - 3:00 P.M.**

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*"FOIA Compliance – Public notification of this meeting has been published and posted in compliance with the Freedom of Information Act and the Town of Bluffton policies."*

*In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 ("ADA"), the Town of Bluffton will not discriminate against qualified individuals with disabilities on the basis of*

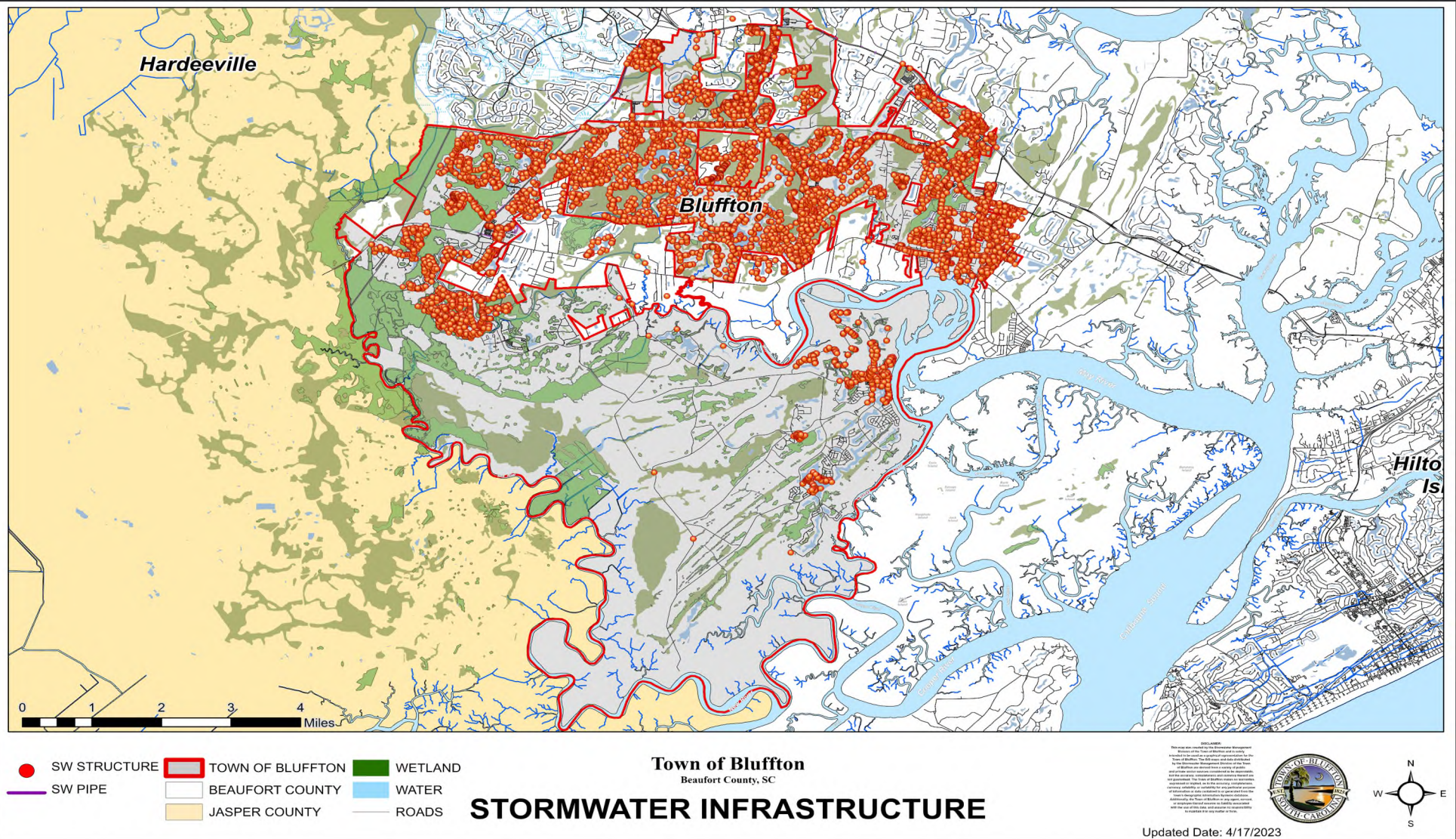


*disability in its services, programs, or activities. The Town of Bluffton Council Chambers are ADA compatible. Any person requiring further accommodation should contact the Town of Bluffton ADA Coordinator at 843.706.4500 or [adacoordinator@townofbluffton.com](mailto:adacoordinator@townofbluffton.com) as soon as possible but no later than 48 hours before the scheduled event.*

*\*Please note that each member of the public may speak at one public comment session and a form must be filled out and given to the Town Clerk. Public comment must not exceed three (3) minutes.*



# MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory

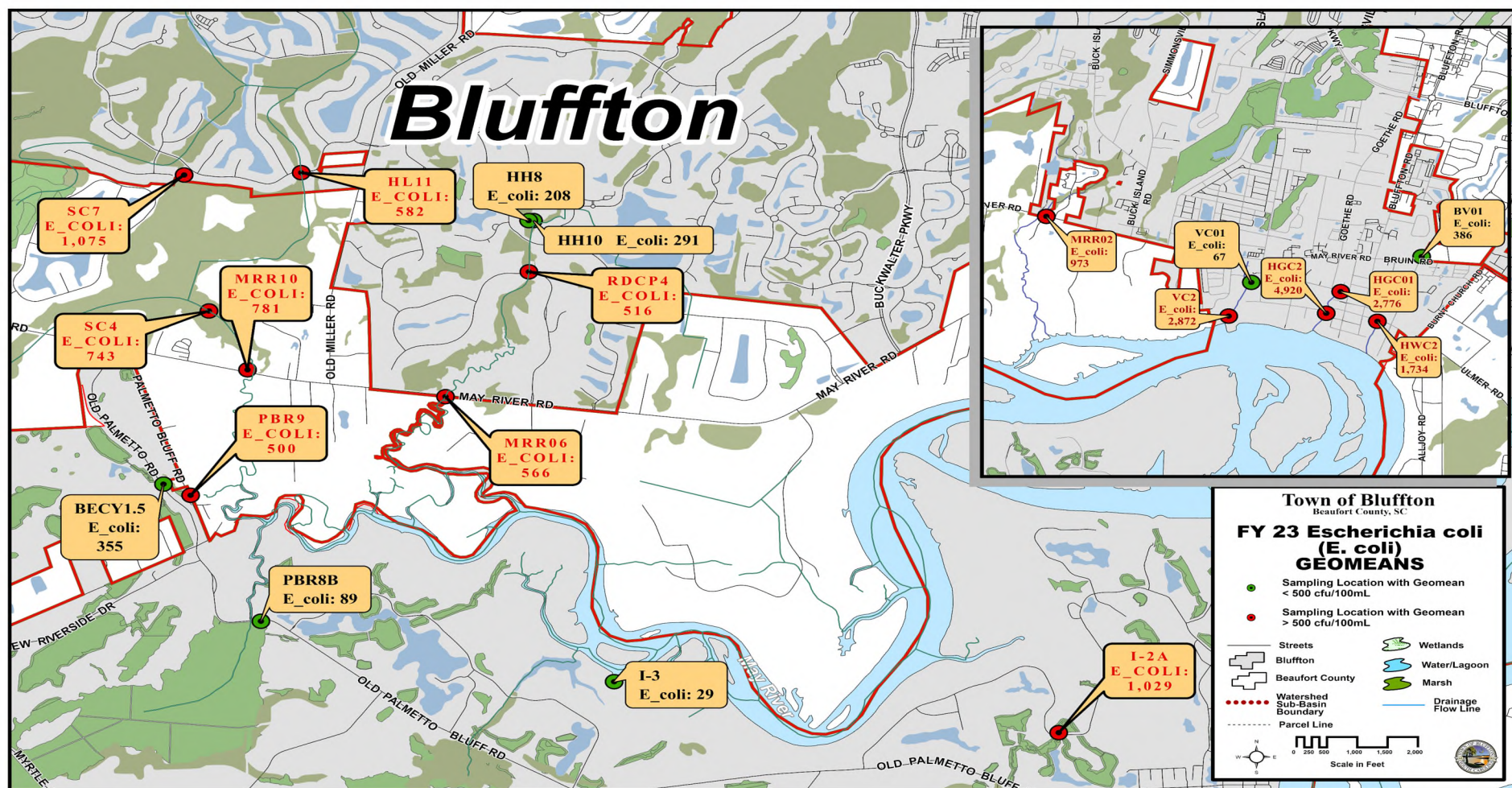


## Stormwater Infrastructure Inventory Collection Status

Collection Totals	16,657
FY 2023 YTD Collection Totals	2,341
FY 2022 Collection Totals	2,705



# MS4 Minimum Control Measure #3 – IDDE: *E. coli* Concentrations Trend Map



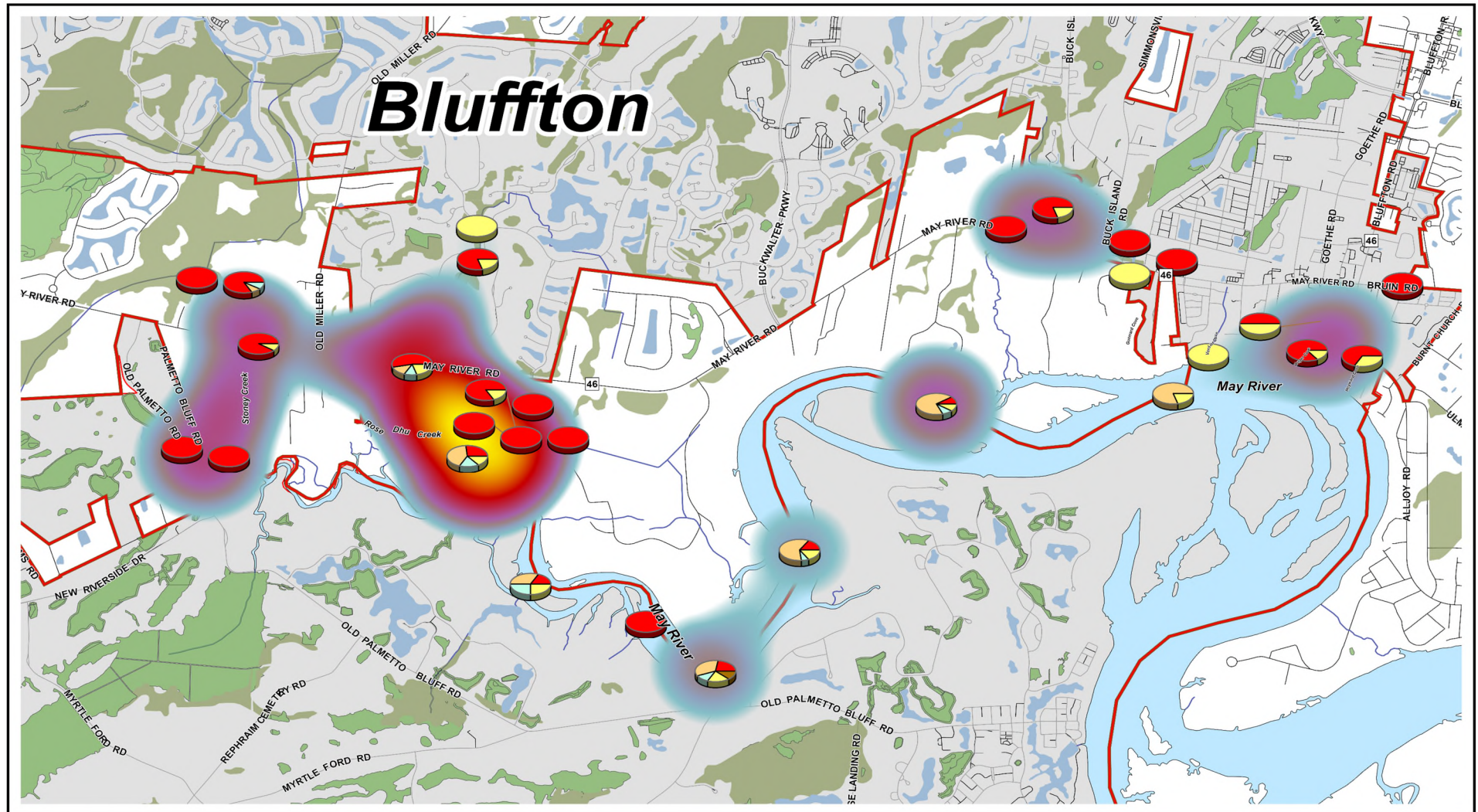
E coliform geomeans updated as of: 4/17/2023

	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2023 YTD Totals	502	83	72
FY 2022 Totals	447	78	119
FY 2021 Totals	380	115	179

Totals include only samples submitted for laboratory analysis, and not *in situ* parameters.



# MS4 Minimum Control Measure #3 – IDDE: Microbial Source Tracking (MST) Trend Map



MSTSamplingResults

MST Sampling Sites



- Human
- Bird
- Deer
- Dog
- Horse

Intensity of samples

- Representative of Low Sampling Distribution
- Representative of High Sampling Distribution

## MICROBIAL SOURCE TRACKING (MST) LOCATIONS

Samples at Sites With Positive Detection  
and the Intensity of Positive Hits

Town of Bluffton  
Beaufort County, SC

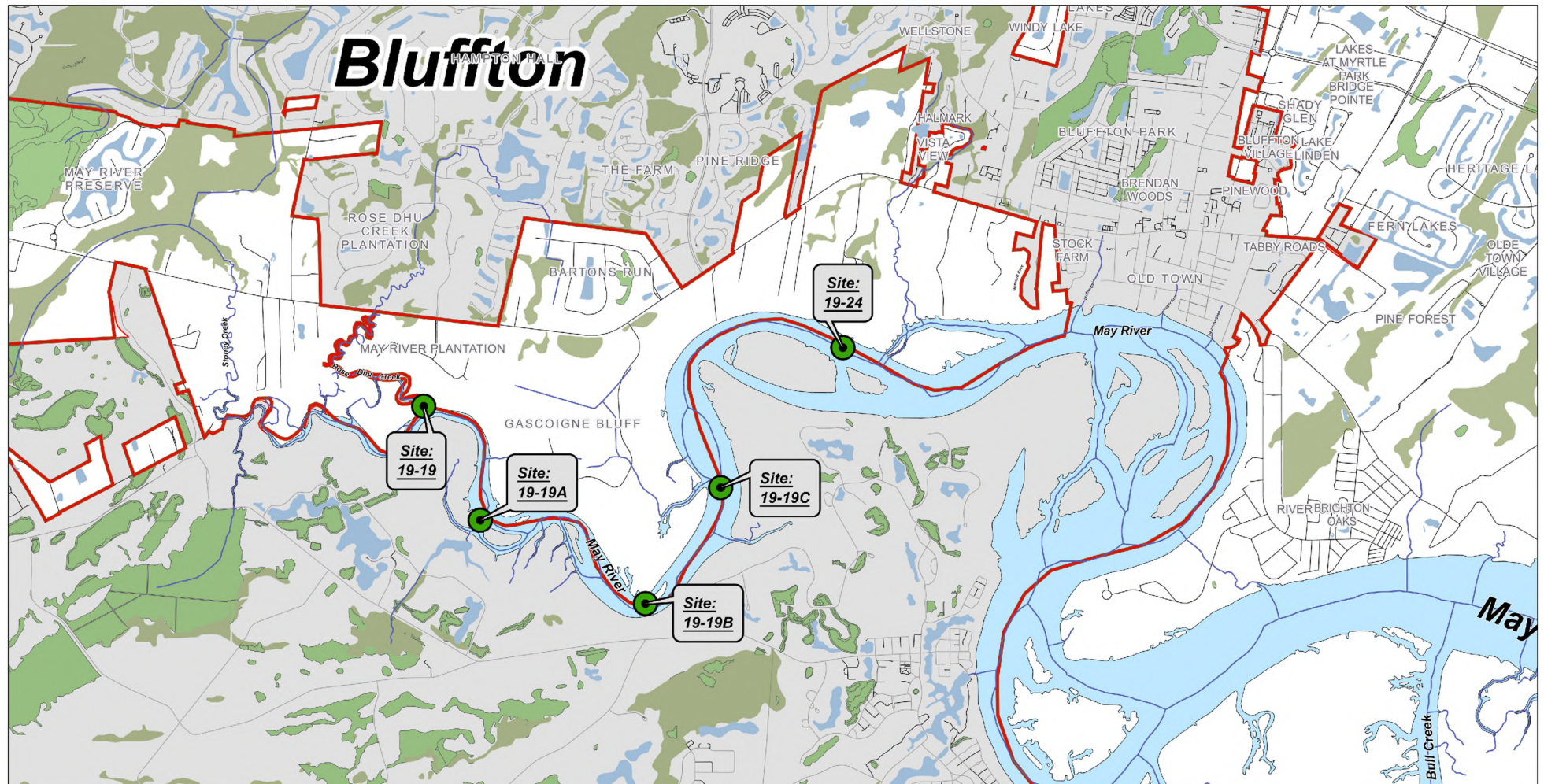
- Town Jurisdiction
- Beaufort County
- Drainage Flow Lines



Updated Date: 4/17/2023



# MS4 Minimum Control Measure #3 – IDDE: Microbial Source Tracking (MST) Map – Human Sources

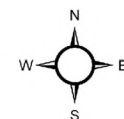


- MST Sampling Location Without Detection
- MST Sampling Location With Detection
- Flowline
- Street
- Town Jurisdiction
- County Jurisdiction

## MICROBIAL SOURCE TRACKING LOCATIONS

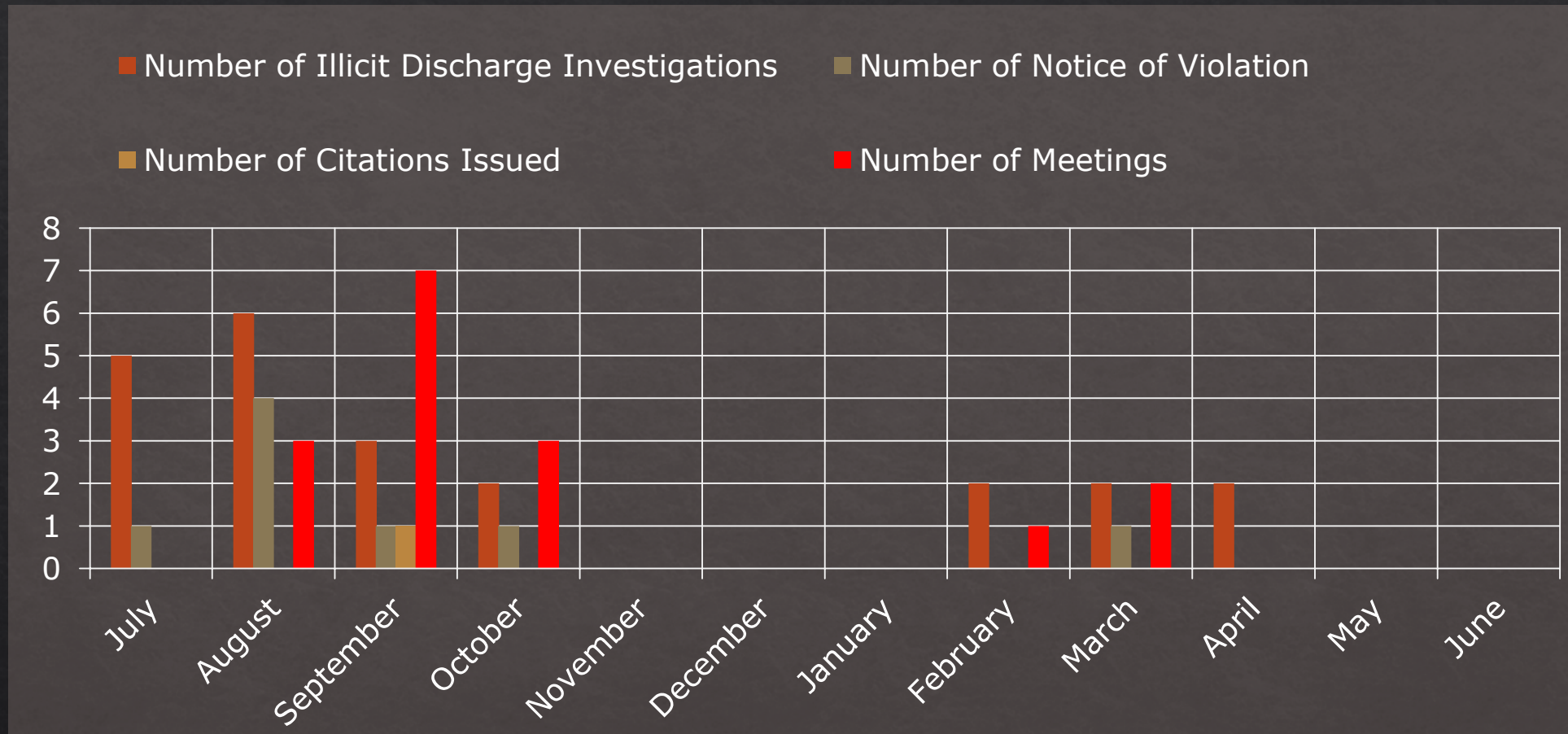
Sampling Results April 2023

Town of Bluffton  
Beaufort County, SC



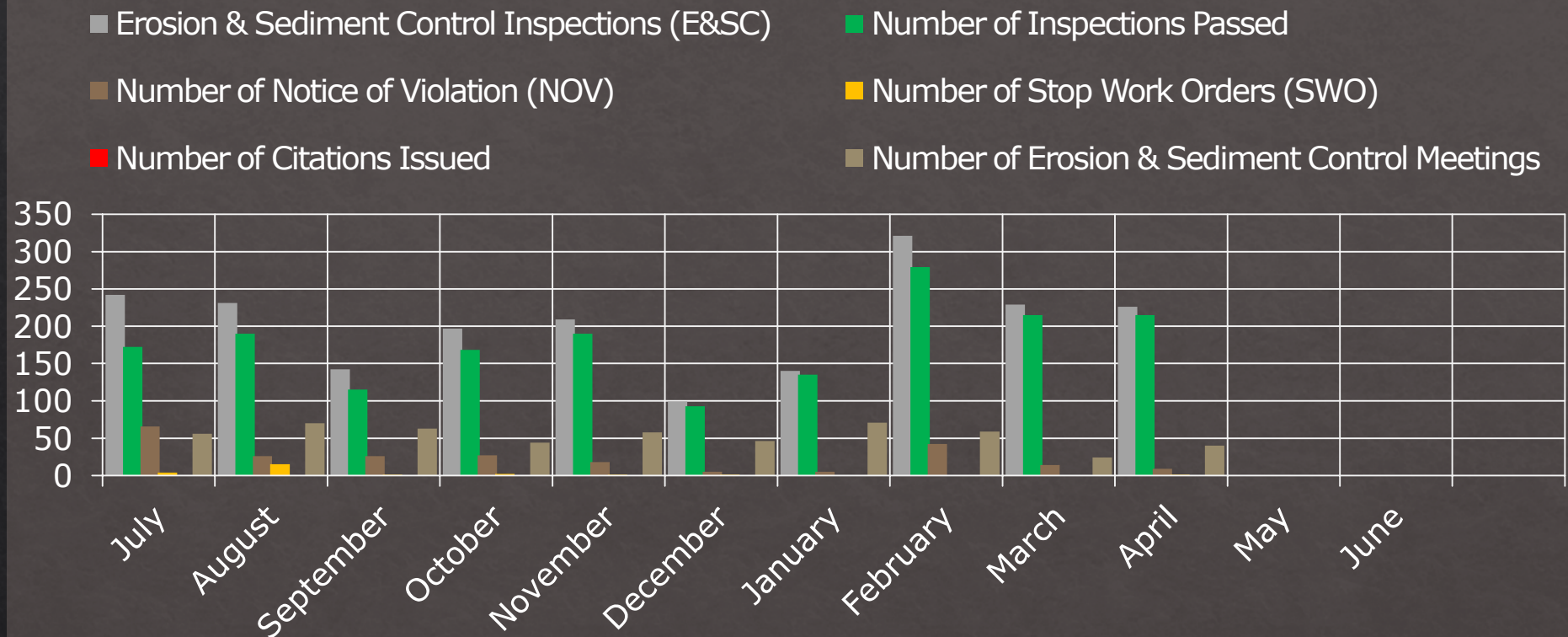


## MS4 Minimum Control Measure #3 – IDDE: Illicit Discharge Investigations



	Number of Illicit Discharge Investigations	Number of Notices of Violation Issued	Number of Citations Issued	Number of Meetings
FY 2023 YTD Totals	22	8	1	16
FY 2022 Totals	30	5	3	17
FY 2021 Totals	36	11	1	29

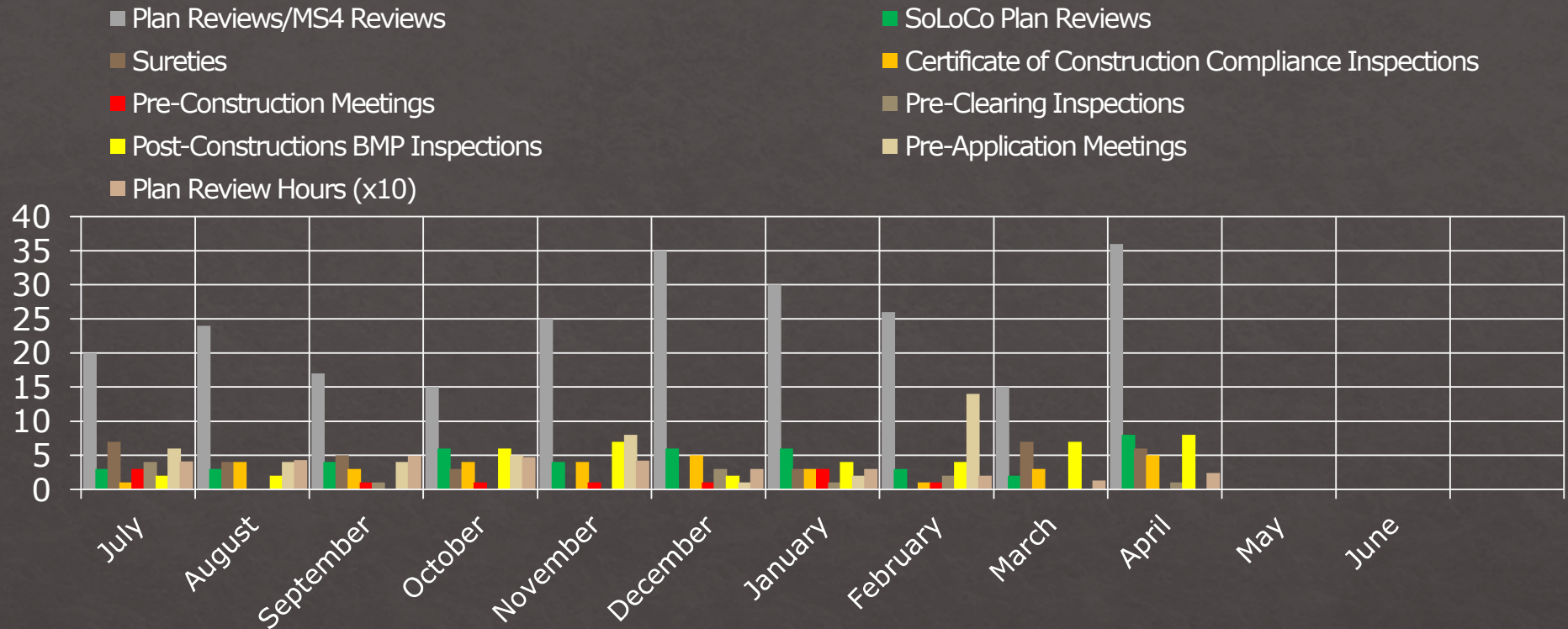
## MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control



	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NOV's Issued	Number of SWO Issued	Number of Citations Issued	Number of E&SC Meetings
FY 23 YTD Totals	2,036	1,772	238	25	0	531
FY 2022 Totals	3,127	2,701	392	49	0	673
FY 2021 Totals	1,805	1,527	267	32	4	413



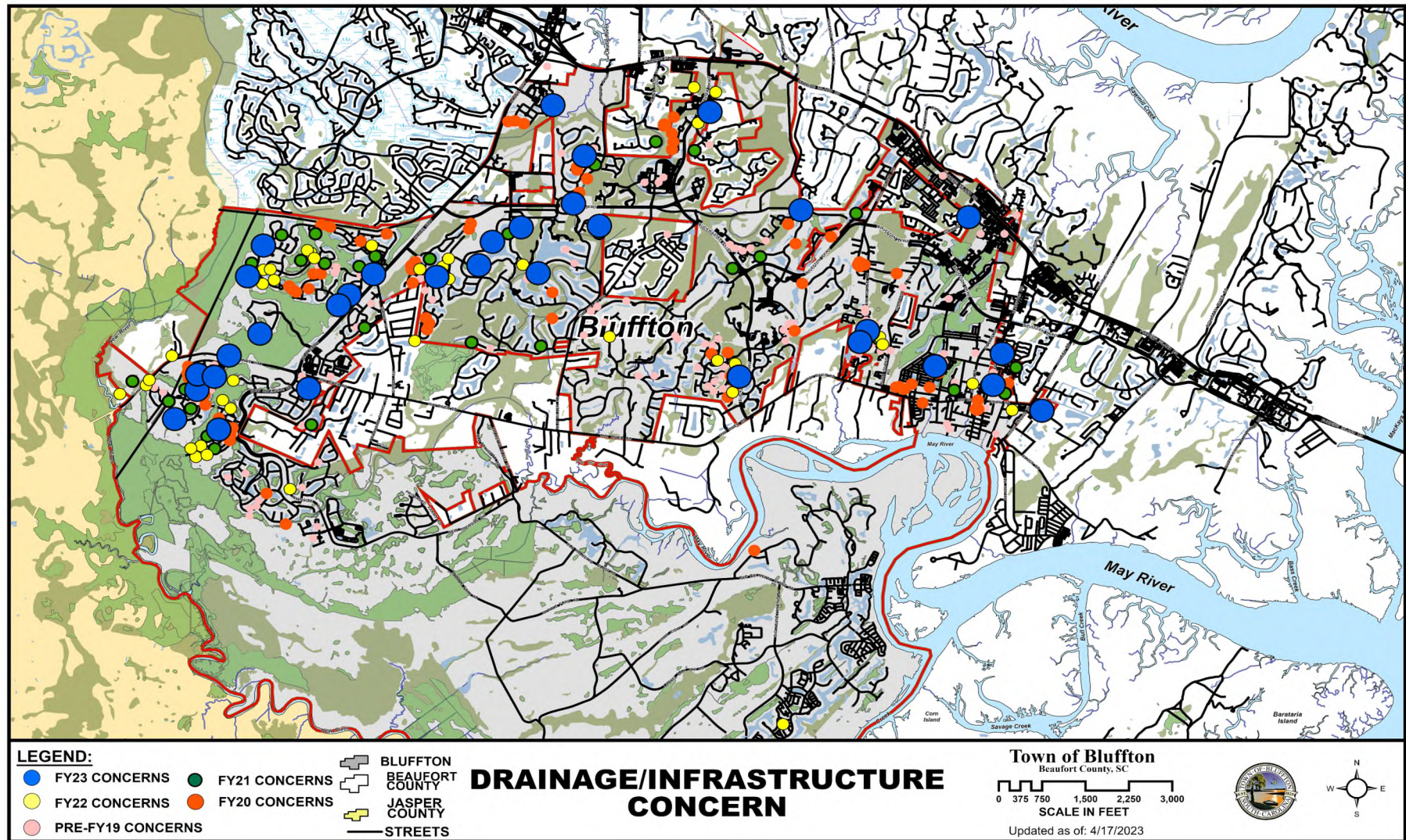
## MS4 Minimum Control Measure #5 Stormwater Plan Review & Related Activity



	Plan Reviews MS4 Reviews	SoLoCo Plan Reviews	Sureties	CCC Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2023 YTD	243	45	35	33	11	12	42	44	339 Hrs.
FY 2022 Totals	231	13	42	26	30	23	44	26	454 Hrs.
FY 2021 Totals	186	0	61	55	24	24	22	41	789 Hrs.



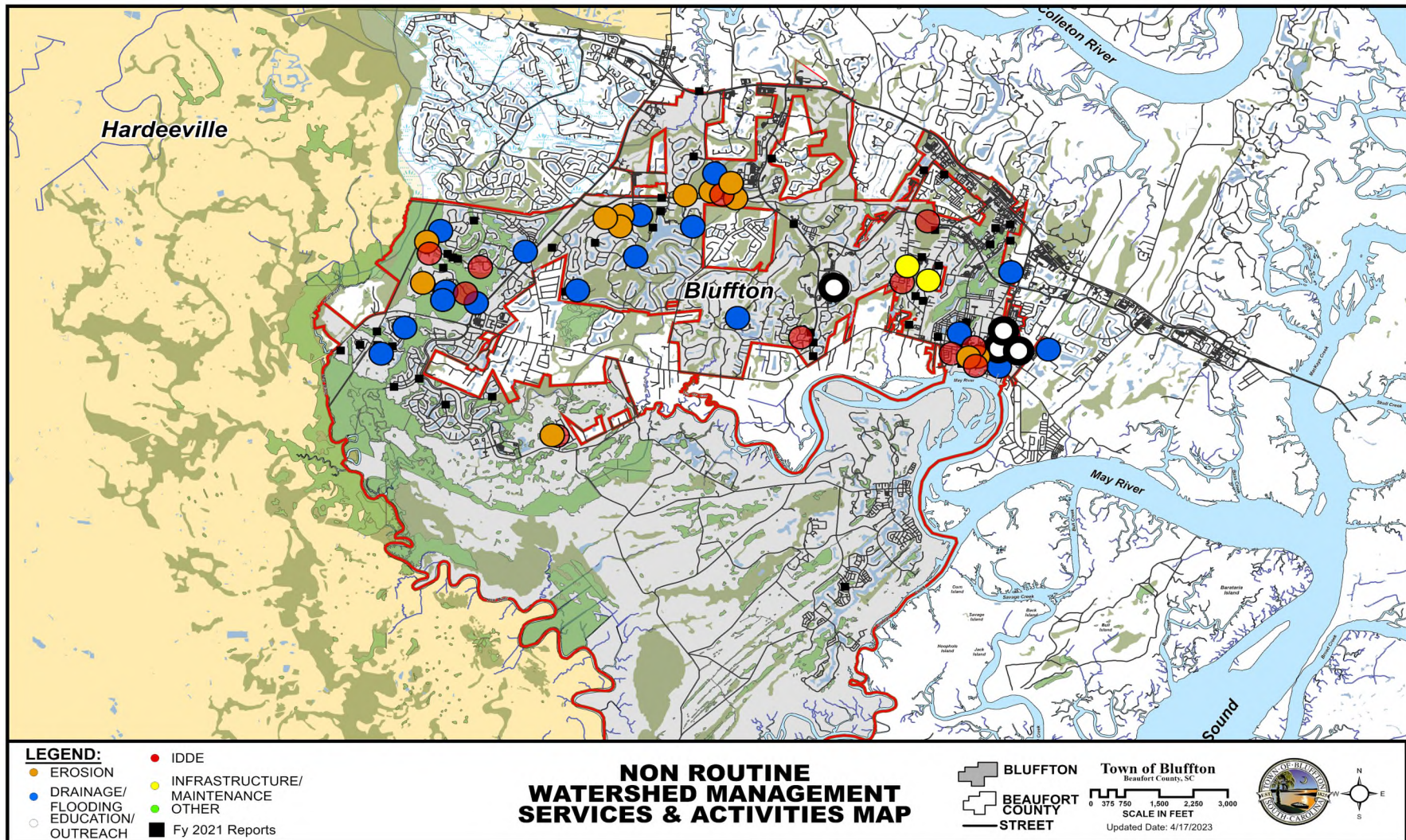
# Citizen Drainage, Maintenance and Inspections Concerns Map



	Number of Drainage Concerns Investigated	Number of Meetings
FY 2023 YTD Totals	58	49
FY 2022 Totals	38	34
FY 2021 Totals	45	39









# Citizen Request for Watershed Mngt. Services & Activities Map



	Number of Citizen Requests Investigated	Number of Meetings
FY 2023 YTD Totals	8	10
FY 2022 Totals	33	21
FY 2021 Totals	46	36

FY24 CIP Master Project Schedule

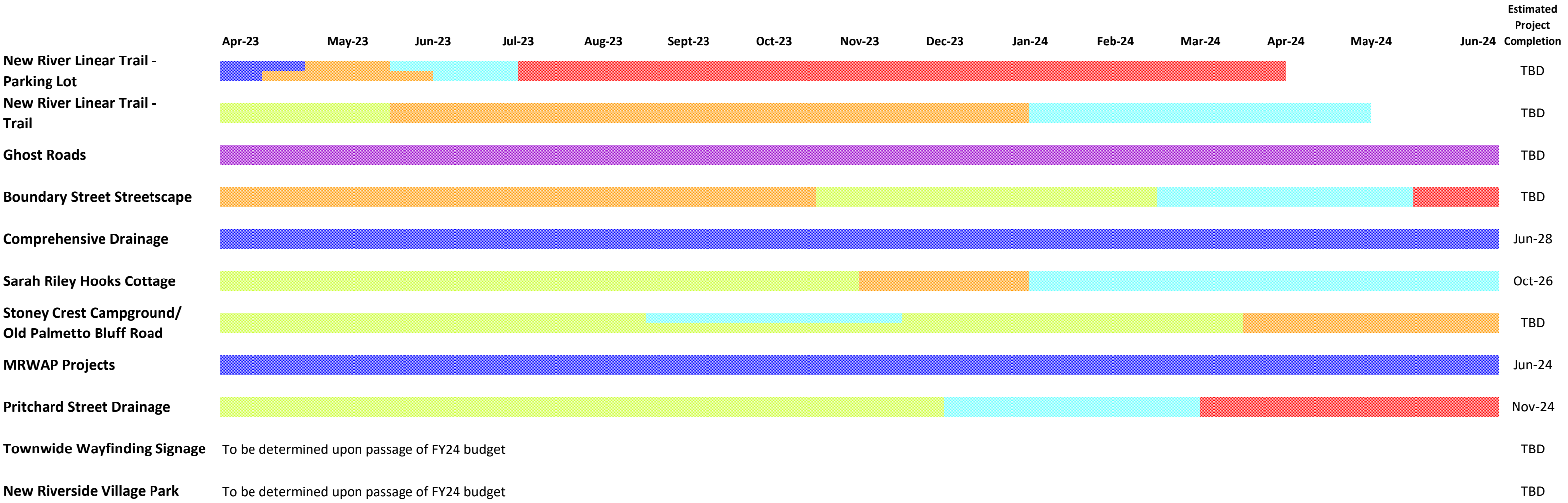


 Planning & Conceptual Design  Final Design & Construction Documents  Permitting  Easement & Land Acquisition  Bidding & Contracts  Construction

\*SUBJECT TO CHANGE\*



FY24 CIP Master Project Schedule



Planning & Conceptual Design    Final Design & Construction Documents    Permitting    Easement & Land Acquisition    Bidding & Contracts    Construction

\*SUBJECT TO CHANGE\*