

TOWN COUNCIL

STAFF REPORT

Projects and Watershed Resilience Department



MEETING DATE:	April 11, 2023
SUBJECT:	Projects and Watershed Resilience Department Monthly Report
PROJECT MANAGER:	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

- Phase 6A along Simmons ville Road from Grayco northward to Sugaree Drive is complete.
- 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.
- Executed PO with Barrier Island Engineering for Phase 1 Engineering Design.
- Submitted PRT application for a restroom facility, water source and lighting at the New River Trail Park. Submitted request to Bill Herbkersman to solicit support from the Beaufort County Delegation.
- Received easement donation from New Riverside Community Association, Inc.
- Submitted plans to Santee Cooper for cursory review and cost share for bridge replacements.
- Received \$26,000 PARD grant award.

- **Next Steps**
 - Continue engineering design for Phase 1 pathway (New River to Hwy 46).
 - Easement Donation from New Riverside Community Association, Inc. approved at 3/14/23 Town Council.
 - PRT Grant to be awarded in May 2023.

SEWER & STORMWATER

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

- Construction was halted on Phases 5A-D by BJWSA due to the contractor under-performing their job duties.
- Received permits to construct from DHEC.
- Posted a solicitation to construct and only received one response. The solicitation was reposted per Dept. of Commerce due to grant funding.
- **Next Steps**
 - Re-bid period ends 4/17/2023.
 - Start construction late summer 2023.

2. Historic District Sewer Extension Phases 2 & 3 - Bridge & Colcock Streets

- Received SCDHEC permit to construct for original scope.
- No contractors responded to the first construction solicitation.
- Received Quit Claim Deeds from all the property owners along the ghost road.
- Obtained road ownership from SCDOT.
- Contract was awarded to Jordan Construction of Hilton Head, Inc. 3/14/2023.
- **Next Steps**
 - 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 April 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. Geotechnical investigations for the 3 remaining sites are being coordinated.
- **Next Steps**
 - Proceed with geotechnical evaluations at the 3 remaining site locations. Begin preliminary site design.
 - Preliminary Design development utilizing geotechnical investigation information.
 - Policy Document DRAFT is being updated based on comments provided.

5. Buck Island Drainage Improvements

- A contract was executed on 11/18/22.
- Construction is substantially complete.
- 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 4/30/23.

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.
- Selective demolition and dismantling continue, removal of windows, structural framing and stabilization.
- **Next Steps**
 - Concrete foundation is complete and brick piers are under construction.

3. Bridge Street Streetscape

- Issued Notice to Proceed for Phase I construction to start 12/5/22.
- Obtained survey proposal for Phase II streetscape project.
- Engaged Barrier Island for Phase II design.
- Obtained easement from Cunningham LLC for sidewalk connections.
- Submitted plan revision to SCDOT for sidewalk from Boundary to Pritchard.
- **Next Steps**
 - Continue construction of Phase I and complete in Summer 2023.
 - Drainage 100%, parking 50%, Sidewalks 95%, IT conduit and pull boxes 50%, lighting 5%.
 - Obtain easement from Cunningham LLC for sidewalk connections.
 - Continue coordination of irrigation tie-in with property owners.
 - Meet with Bluffton Electric for plan to installation additional power from Calhoun to Boundary.

4. Boundary Street Streetscape

- Engineering Design is 70% complete and submitted to Watershed for stormwater for initial review.
- Town Council approved a contract amendment on 2/14/23 to complete engineering design and permitting.
- **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.
- Barrier Island Engineering completed a 3rd party evaluation of drainage claims and complaints associated with 40 Pritchard Street. The concept plan of potential on-site drainage improvements that can be performed by the homeowner to reduce the risk of flooding for his property has been delivered.
- **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.
- Executed Task Authorization with Witmer, Jones, Keefer for design of the event area.
- Construction of the parking area began in March 2023.
- Design of Phase 3 signage for Garvin/Garvey house completed.
- **Next Steps**
 - Continue construction of the parking lot.
 - Begin design of Oyster Factory Park cookout area in FY 2023.

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.
- **Next Steps**
 - Obtain TC approval of construction contract for the Rotary Center hardscape plans and execute contract in May 2023.
 - Hardscape construction to begin in June.

- Receive Town Council direction on sport courts at April Quarterly Workshop.
- Complete design of splash pad and sport courts in FY 2023.

3. New Riverside Barn/Park

- Construction documents for the restroom building are complete.
- Architectural design services for the Barn additions are 90% 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.
- **Next Steps**
 - Complete the architectural design of barn addition.
 - Continue design of playground area in FY 2023.
 - Continue construction of Phase 1 Site Development Infrastructure.
 - Execute a Construction Manager at Risk contract with Nix Construction.

4. Miscellaneous Park Improvements

- Presented proposed DuBois Park playground improvements at the October Workshop and TC requested staff to explore alternative playground equipment.
- **Next Steps**
 - Continue with the design of DuBois Park playground improvements and present at the April TC 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

- Initial scope of work of the parking/service yard, and covered sheds are complete.
- Clearing for the challenge course is complete.
- Reflection Plaza construction, signage and dedication ceremony are completed.
- **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**

- Present Conceptual Master Plan and Structural Assessment to TC for review at the April Workshop.
- Complete Conceptual Master Planning in FY 23.
- Obtain proposal for construction documents of the Cottage preservation or re-construction. Construction to be determined based on FY 24 budget approval.

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 condemnation 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. Anticipated in late April/early May 2023.
 - 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 has procured SonTek IQ telemetry stations and are coordinating installation of the equipment.
 - 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 completed a draft of 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**
 - The 03/23/23 May River Watershed Action Plan Advisory Committee (WAPAC) was cancelled. The next scheduled meeting is 04/27/23. ***Attachment 3***
 - Staff presented to River Ridge elementary students for Career Day on 3/10/23.
 - Staff continues to coordinate and secure partnerships for the May River Cleanup that will take place 5/06/23.
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 02/07/23 and 03/14/23. The human genetic marker was detected at three (3) SCDHEC Shellfish Harvesting Stations in the May River. Staff

notified all pertinent parties of these water quality sampling results via email.

March water quality sampling results are pending.

- 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 the South Carolina Association of Stormwater Managers (SCASM) quarterly meeting on 03/02/23.
 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 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		33.0	23.0	4.5		13.0	22.0	1.8		6.8	17.0	2.0		13.0	7.8	1.8		13.0	2.0	1.8	
March	170.0	33.0	33.0		49.0	11.0	23.0		130.0	17.0	2.0		49.0	13.0	4.5		70.0	2.0	2.0		33.0	2.0	2.0	
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	40.0	21.0	26.0	28.0	30.0	16.0	18.0	18.0	17.0	12.0	15.0	14.0	16.0	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	249.0	59.0	69.0	91.0	122.0	50.0	58.0	72.0	86.0	37.0	39.0	54.0	82.0	31.0	35.0	41.0	42.0	35.0	33.0	32.0	26.0

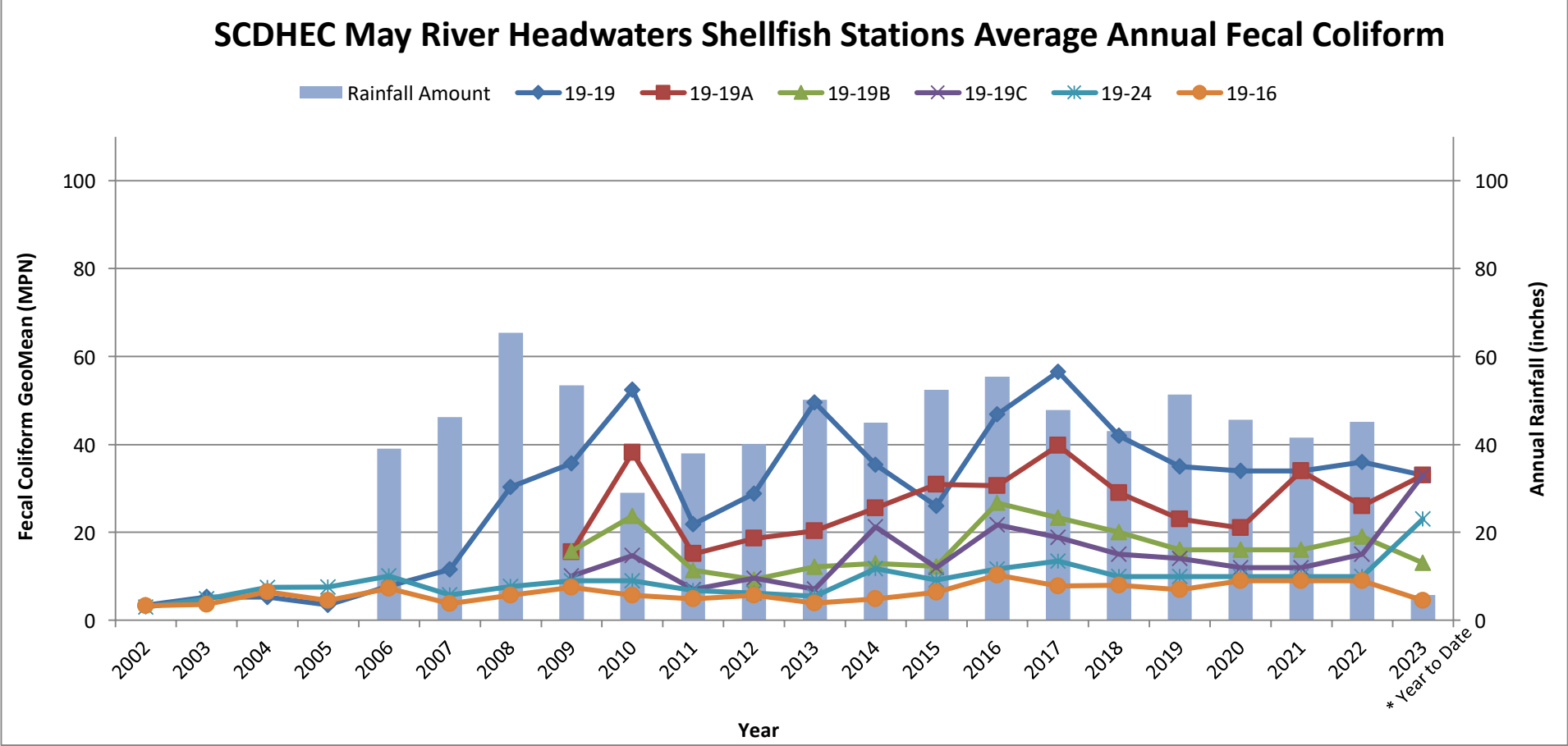
NS = No Sample

SCDHEC Regulatory Requirements:

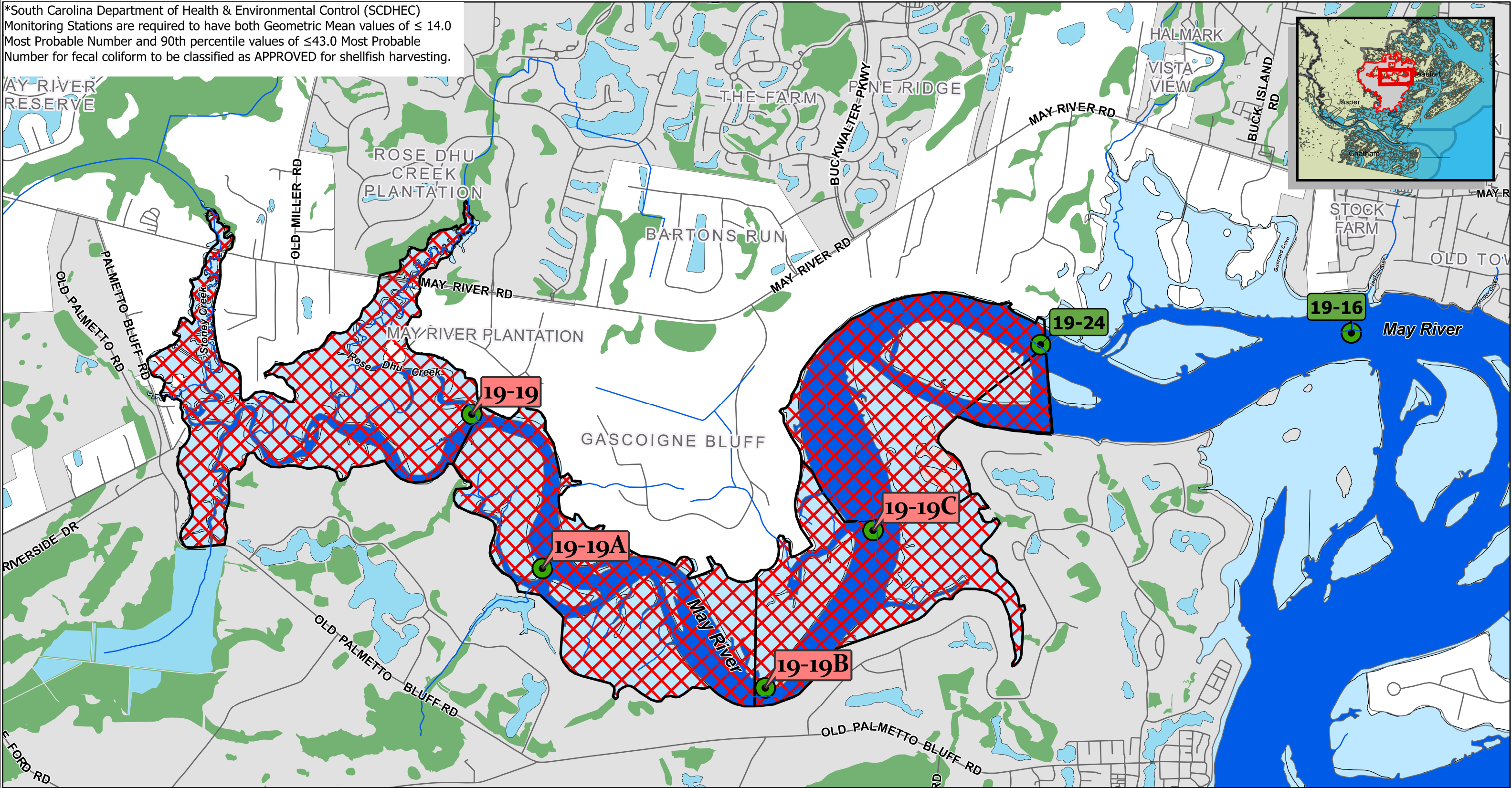
Geometric Mean ≤ 14

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 ≤ 14.0
Most Probable Number and 90th percentile values of ≤ 43.0 Most Probable
Number for fecal coliform to be classified as APPROVED for shellfish harvesting.

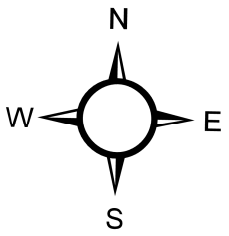
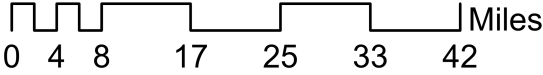


SCDHEC Shellfish Monitoring Stations

- 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 3.46×10^{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
 - 2.99×10^{14} FC reduction for the Full SWRv (entire sub-basin drainage area catchment).
 - 2.53×10^{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 held 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.



PUBLIC NOTICE

The May River Watershed Action Plan Advisory Committee
(WAPAC) meeting scheduled for

Thursday, March 23, 2023, at 3:00 P.M.

has been

CANCELLED

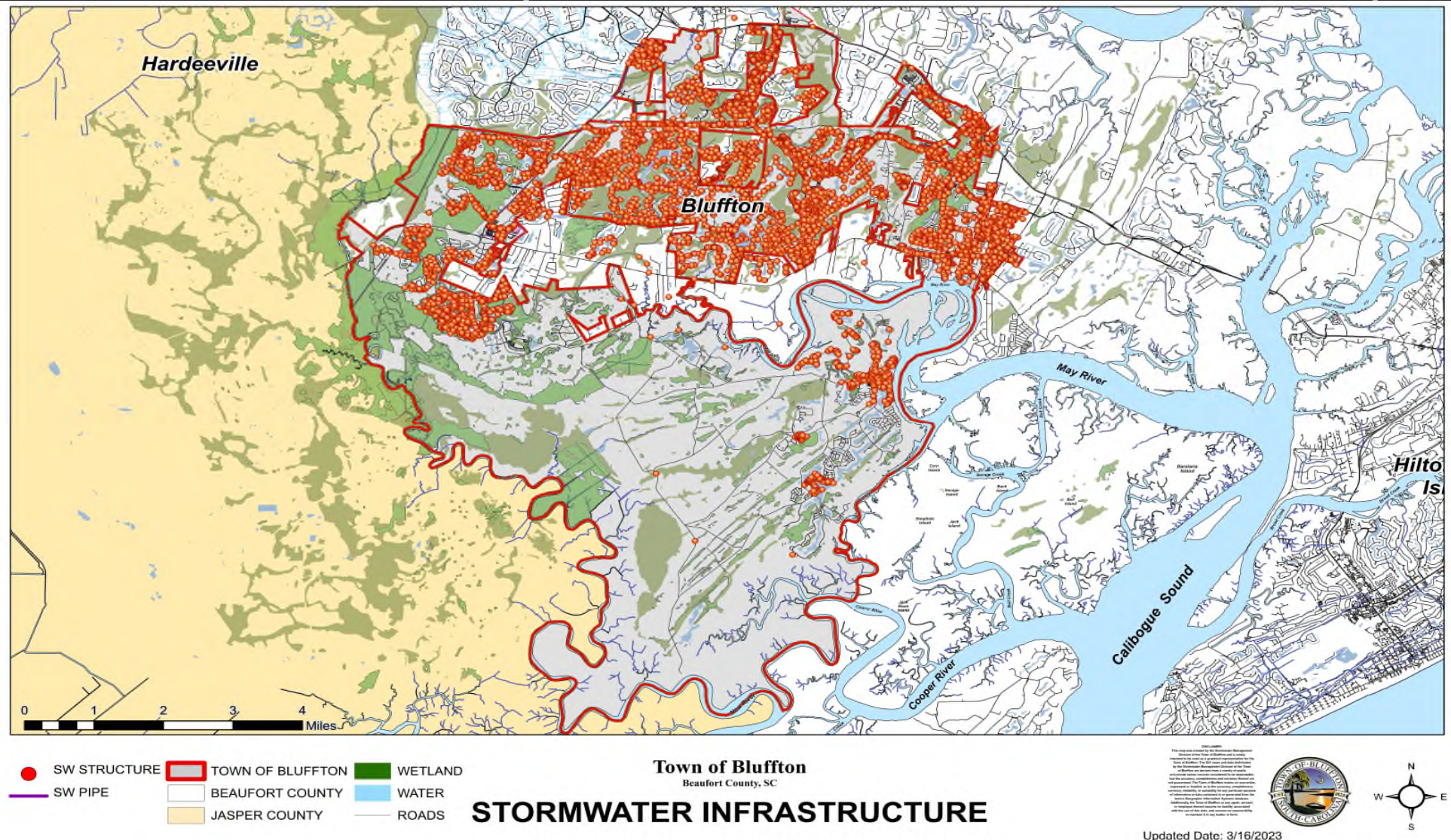
due to lack of quorum.

The next meeting is scheduled for

Thursday, April 27, 2023

If you have questions, please contact
the Watershed Management Division
at: 843-706-4559

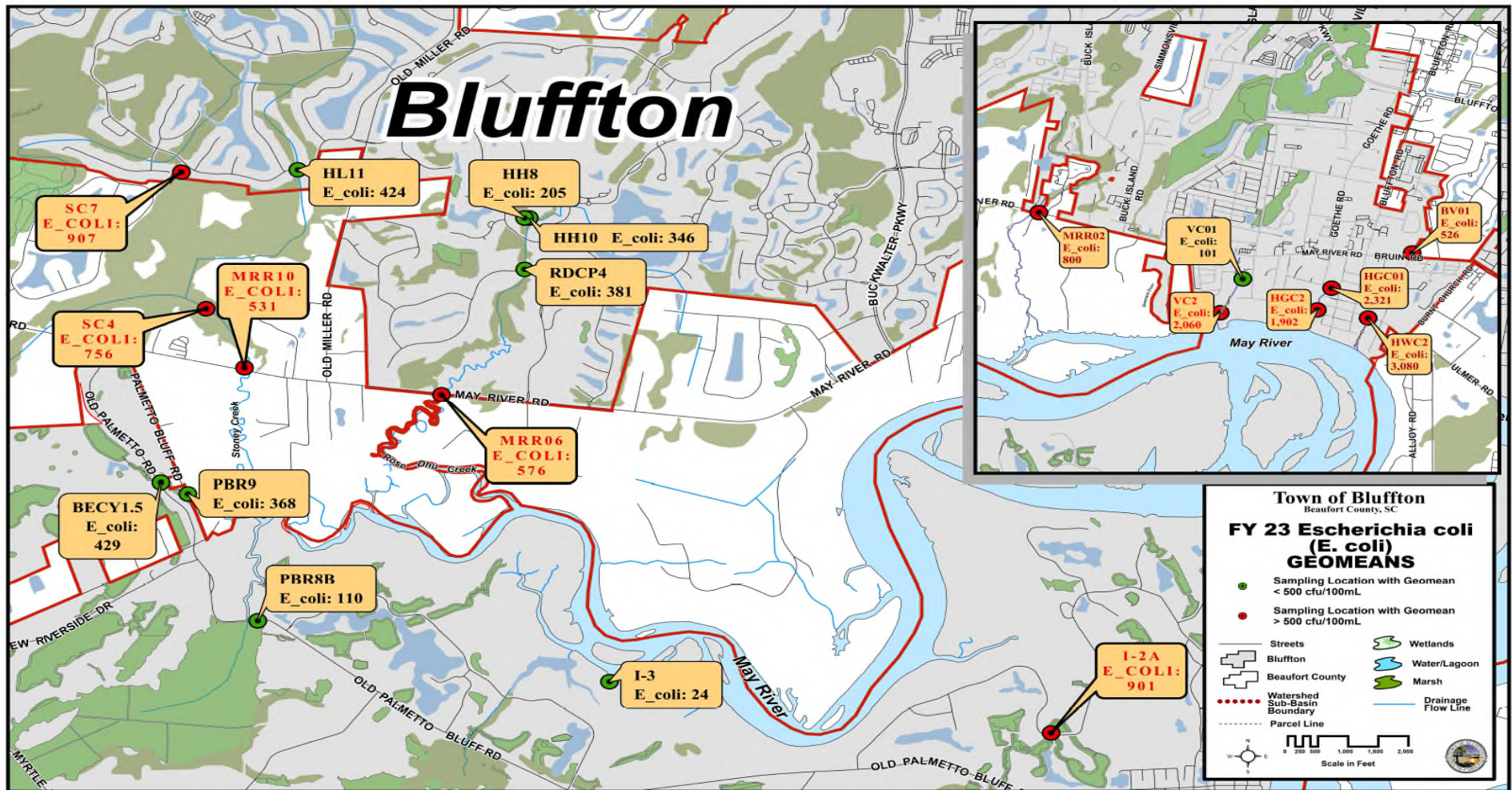
MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory



Stormwater Infrastructure Inventory Collection Status

Collection Totals	16,657
FY 2023 YTD Collection Totals	2,341
FY 2022 Collection Totals	2705

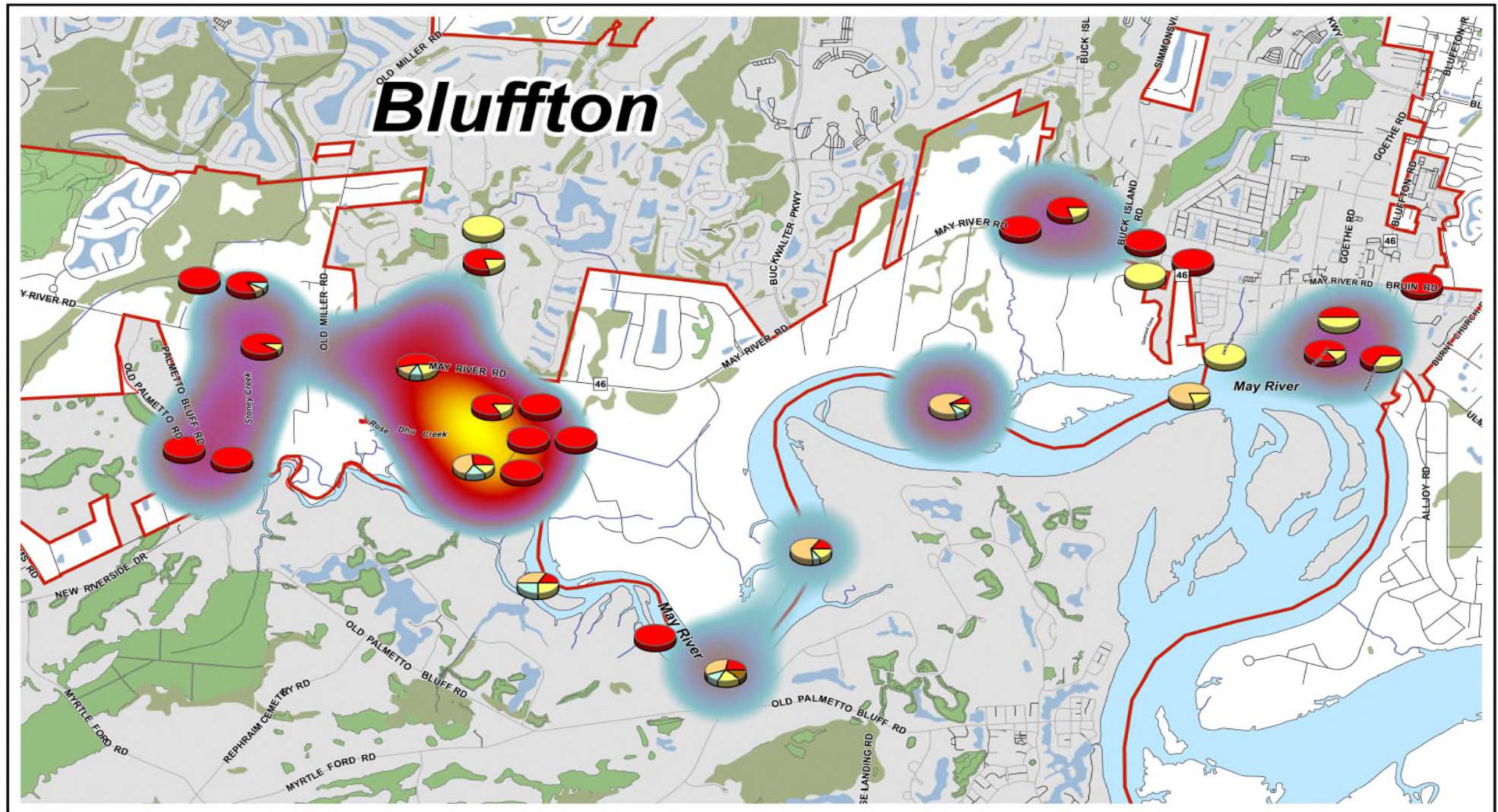
MS4 Minimum Control Measure #3 – IDDE: *E. coli* Concentrations Trend Map



	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2023 YTD Totals	430	78	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



MST Sampling Results



- Human
- Bird
- Deer
- Dog
- Horse

MST Sampling Sites

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

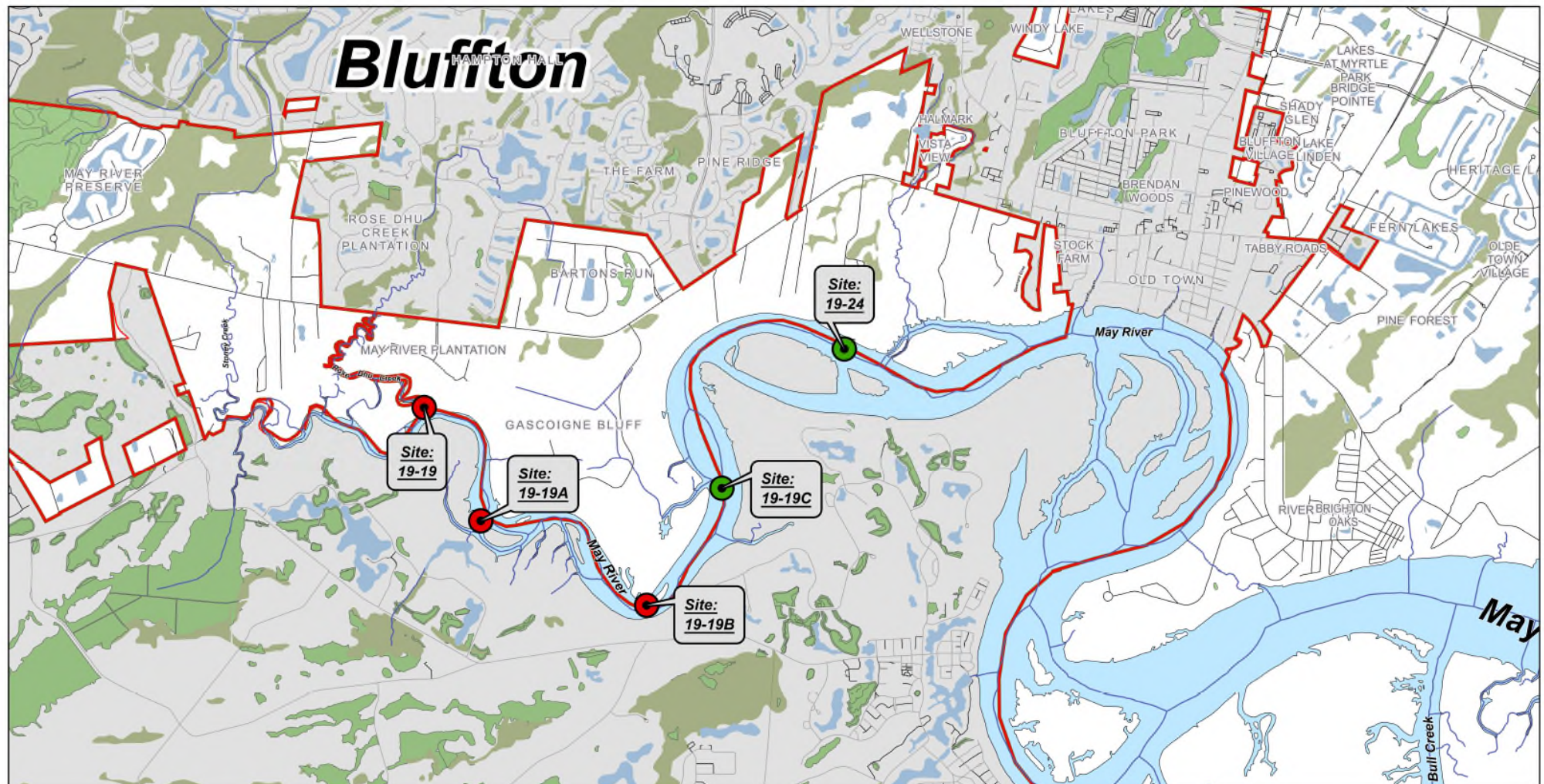
Town of Bluffton
Beaufort County, SC

- Town Jurisdiction
- Beaufort County
- Drainage Flow Lines



Updated Date: 3/16/2023

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

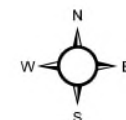


- MST Sampling Location Without Detection
- MST Sampling Location With Detection
- Flowline
- Street
- Town Jurisdiction
- County Jurisdiction

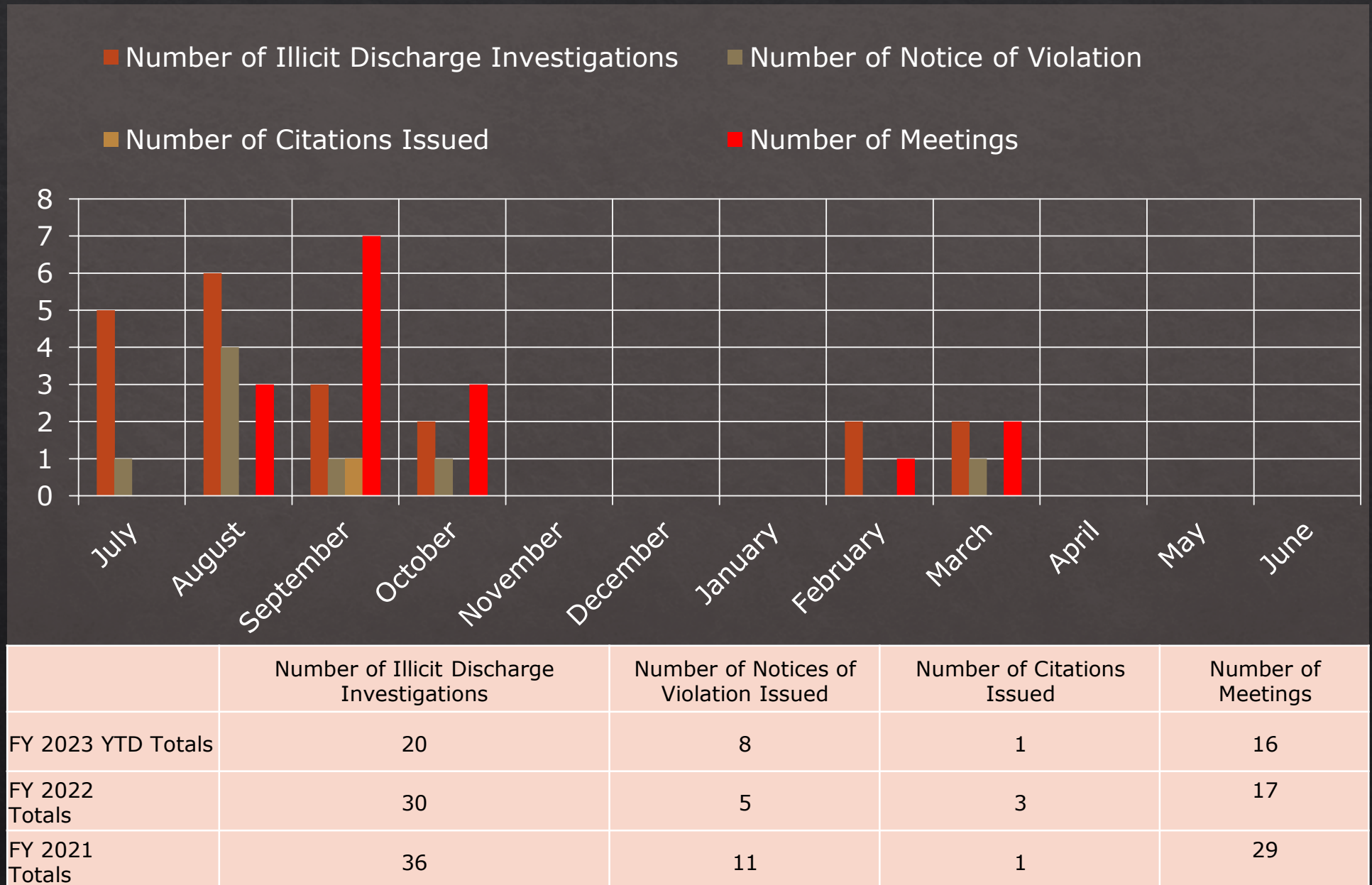
MICROBIAL SOURCE TRACKING LOCATIONS

Sampling Results February 2023

Town of Bluffton
Beaufort County, SC



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

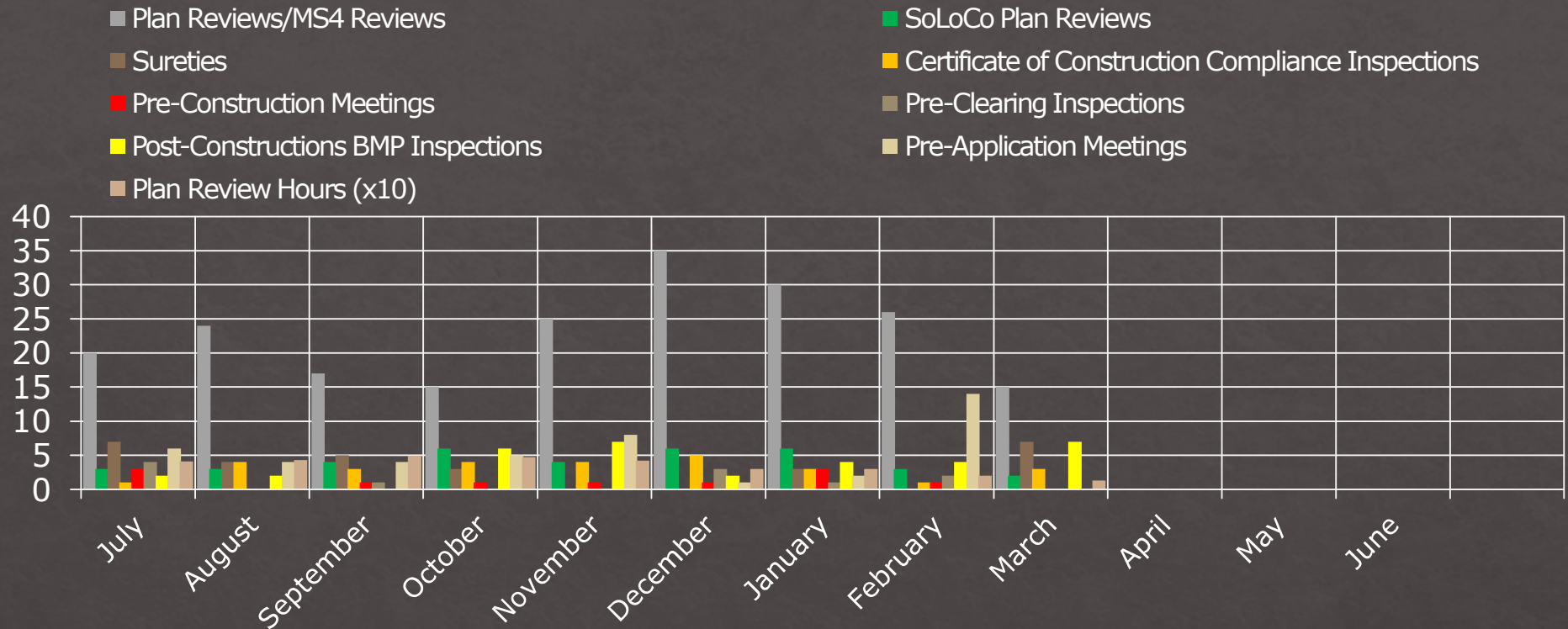


MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control



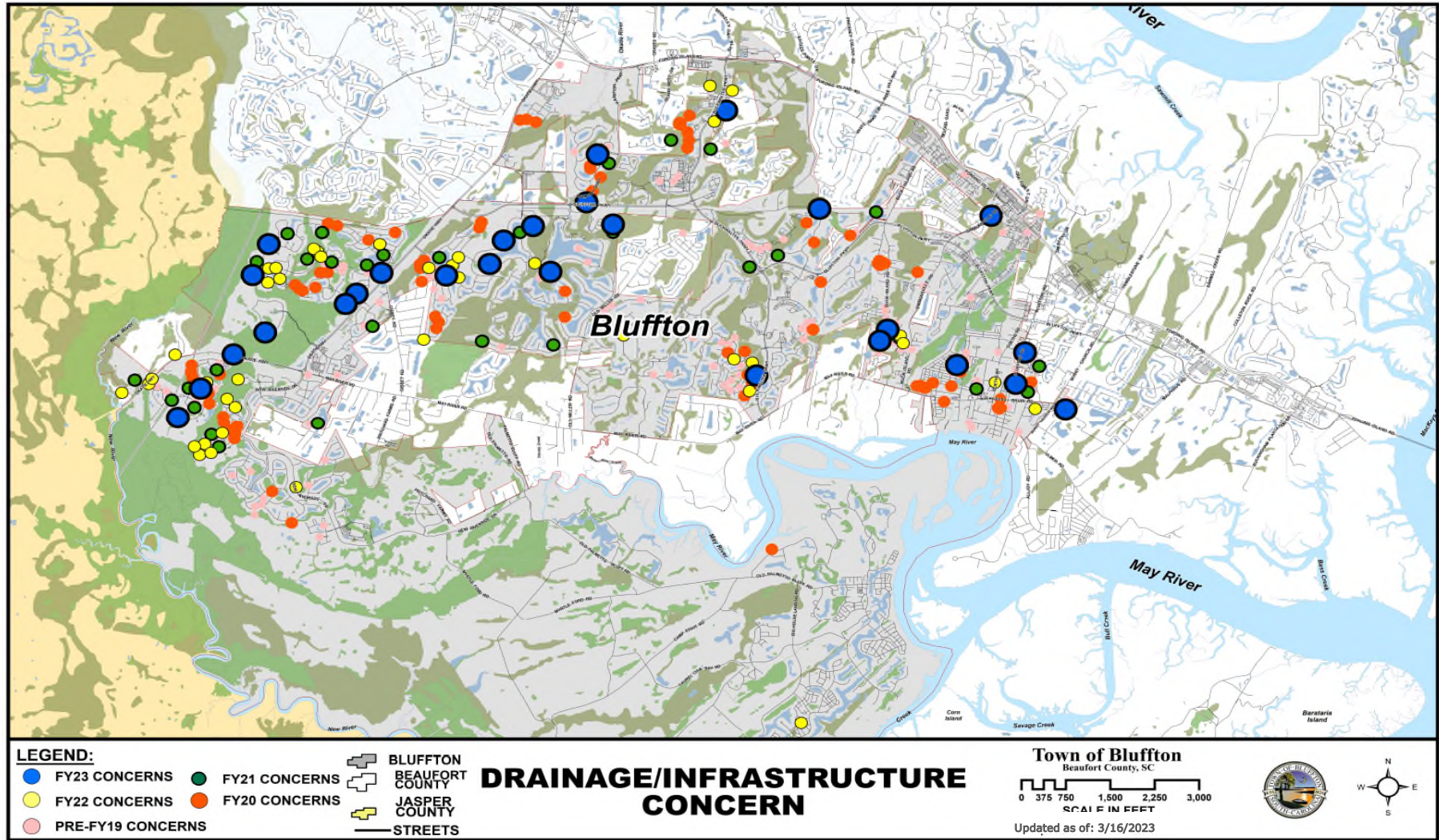
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NOV's Issued	Number of SWO Issued	Number of Citations Issued	Number of E&SC Meetings
FY 23 YTD Totals	1810	1557	229	24	0	491
FY 2022 Totals	3127	2701	392	49	0	673
FY 2021 Totals	1,805	1,527	267	32	4	413

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



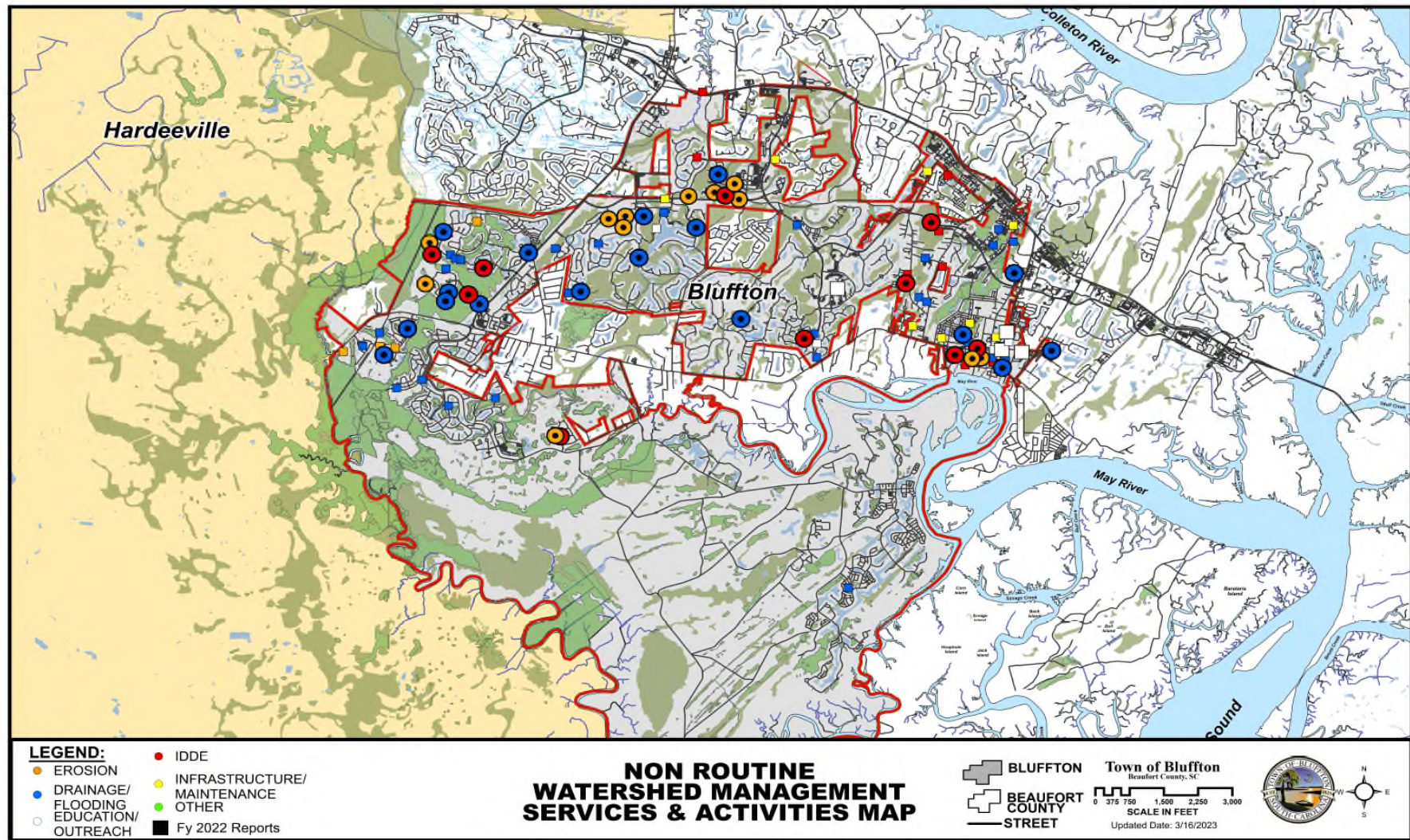
	Plan Reviews MS4 Reviews	SoLoCo Plan Reviews	Sureties	CCC Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2023 YTD	207	37	29	28	11	11	34	44	315 Hrs.
FY 2022 Totals	231	13	42	26	30	23	44	26	454 Hrs.
FY 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	52	44
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



BOUNDARY STREET STREETSCAPE PROPOSED SCHEDULE	
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ID	Task Name	Duration	Start	Predecessors	Finish	Quarter																											
						Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	BOUNDARY STREET STREETSCAPE	689 days	Mon 9/7/20		Thu 4/27/23																												
2	Planning and Conceptual Design	379 days	Mon 9/7/20		Thu 2/17/22																												
14	Final Planning and Construction Documents	260 days	Fri 2/18/22		Thu 2/16/23																												
20	Permitting Phase	150 days	Fri 10/28/22		Thu 5/25/23																												
25	Easements and Land Acquisition	268 days	Fri 10/28/22		Tue 11/7/23																												

Project: 00094 Date: Tue 2/21/23	Baseline Milestone		Task		Permitting		Baseline	
	Baseline Summary		Project Duration		Bidding and Contract			
	Milestone		Planning and Conceptual Design		Easements and Land Acquisitions			
	Critical Task		Final Design and Construction Documents		Construction			

BRIDGE STREET STREETScape PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	September 9/4	October 9/18	October 10/2	October 10/16	November 10/30	November 11/13	November 11/27	December 12/11	December 12/25	January 1/8	January 1/22	February 2/5	February 2/19	March 3/5	March 3/19	April 4/2	April 4/16	May 4/30	May 5/14	June 5/28	June 6/11	July 6/25	July 7/9	July 7/23	August 8/6	August 8/20	September 9/3	September 9/17	October 10/1	October 10/15	October 10/29			
1	Bridge Street Streetscape	287 days	Tue 9/20/22	Wed 10/25/23																																		
2	Construction	287 days	Tue 9/20/22	Wed 10/25/23																																		

Project: 00082 Date: Tue 2/21/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Easements and Land Acquisition	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		





BUCK ISLAND-SIMMONSVILLE NEIGHBORHOOD SIDEWALKS PROPOSED SCHEDULE												
ID	Task Name	Duration	Start	Finish	Predecessors	2018	2019	2020	2021	2022	2023	
1	SIDEWALKS AND LIGHTING	1440 days	Thu 2/1/18	Wed 8/9/23		J	F	M	A	M	J	J
2	Sidewalk from Jennifer Ct to Simmonsville Rd	405 days	Thu 2/1/18	Wed 8/21/19		J	F	M	A	M	J	J
26												
27	Sidewalk from Kitty Road to 301 Buck Island Rd	709 days	Thu 2/1/18	Tue 10/20/20		J	F	M	A	M	J	J
53												
54	Sidewalk from Grayco to Sugaree (Simmonsville Rd)	923 days	Mon 10/1/18	Wed 4/13/22								
80												
81	Sidewalk from Sugaree to Windy Lake (Simmonsville Rd)	553 days	Thu 7/1/21	Mon 8/14/23								
105												
106	Lighting - Kitty Road to 301 Buck Island Rd	419 days?	Thu 5/13/21	Tue 12/20/22								
114												
115	Lighting - Grayco to Windy Lakes	150 days	Thu 1/12/23	Wed 8/9/23								
116												
117												
Project: 00054 Date: Thu 1/26/23		Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆			
		Critical Task	★	Planning and Conceptual Design	◆————◆	Bidding and Contract	◆————◆					
		Task	■	Final Design and Construction Documents	◆————◆	Easements and Land Acquisitions	◆————◆					










184 BLUFFTON ROAD PARKING IMPROVEMENTS PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Predecessors	Finish																		
0	00098 Buckwalter Place Parking Improvements	363 days	Sun 8/1/21		Wed 12/21/22																		
1	Planning & Conceptual Design	81 days	Sun 8/1/21		Mon 11/22/21																		
5	Final Design & Construction Documents	90 days	Tue 10/5/21		Mon 2/7/22																		
8	Permitting	120 days	Tue 10/5/21		Mon 3/21/22																		
11	Easements & Land Acquisition	21 days	Tue 10/5/21		Tue 11/2/21																		
13	Bidding & Contracts	32 days	Mon 8/1/22		Tue 9/13/22																		
18	Construction	71 days	Wed 9/14/22		Wed 12/21/22																		

Project: 00064 Date: Thu 7/7/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Easements and Land Acquisition	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

CALHOUN STREET STREETScape PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish																																												
					5/29	July 1	7/10	8/21	October 1	10/2	11/13	12/25	January 1	2/5	3/19	April 1	4/30	6/11	July 1	7/23	9/3	October 1	10/15	11/26	January 1	1/7	2/18	April 1	3/31	5/12	July 1	6/23	8/4	October 1	9/15	10/27	December 1	12/8	January 1	1/19	3/2	April 1	4/13	5/25	July 1	7/6	8/17	9/28
1	CALHOUN STREET STREETSCAPE	830 days	Mon 7/11/22	Fri 9/12/25																																												
2	Final Planning and Construction Documents	275 days	Mon 7/11/22	Fri 7/28/23																																												
19	Permitting Phase	115 days	Tue 2/14/23	Mon 7/24/23																																												
27	Easements and Land Acquisition	254 days	Wed 7/5/23	Mon 6/24/24																																												
36	Bidding - Phase 1	90 days	Mon 5/27/24	Fri 9/27/24																																												
38	Construction Phase 1	250 days	Mon 9/30/24	Fri 9/12/25																																												

Project: 00042 Date: Wed 2/15/23	Milestone		Project Duration		Permitting		Construction	
	Critical Task	★	Planning and Conceptual Design		Bidding and Contract			
	Task		Final Design and Construction Documents		Easements and Land Acquisitions			

[illegible]

GARVIN-GARVEY HOUSE INTERPRETIVE SIGNAGE
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	2022																																															
					Mar '22				Apr '22				May '22				Jun '22				Jul '22				Aug '22				Sep '22				Oct '22				Nov '22				Dec '22											
1	GARVIN-GARVEY HOUSE INTERPRETIVE SIGNAG	179 days	Tue 3/1/22	Fri 11/4/22																																																
2	Planning and Conceptual Design	125 days	Mon 3/7/22	Fri 8/26/22																																																
13	Final Design and Construction Documents	50 days	Mon 8/29/22	Fri 11/4/22																																																
15	Onsite Installation	23 days	Mon 10/31/22	Wed 11/30/22																																																
16																																																				

Project: 00081 Date: Mon 9/19/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Easements and Land Acquisition	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

GHOST ROADS PROPOSED SCHEDULE	
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ID	Task Name	Duration	Start	Finish	2020												2021												2022																							
					Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep											
1	GHOST ROADS	765 days	Thu 9/12/19	Wed 8/17/22																																																
2	Planning and Conceptual Design	765 days	Thu 9/12/19	Wed 8/17/22																																																
3	Preparation of Exhibit	113 days	Thu 9/12/19	Mon 2/17/20																																																
4	Owner Meetings	453 days	Mon 10/7/19	Wed 6/30/21																																																
5	Quit Claim Deed Execution	708 days	Mon 10/7/19	Wed 6/22/22																																																
6	All deeds	40 days	Thu 6/23/22	Wed 8/17/22																																																

Project: 00093 Date: Wed 11/23/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Easements and Land Acquisition	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

GOETHE-SHULTS NEIGHBORHOOD IMPROVEMENTS PHASE 2
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	Timeline																													
					1, 2018 Mar	May	Jul	Sep	Nov	Half 2, 2018 Jan	Mar	May	Half 1, 2019 Jul	Sep	Nov	Half 2, 2019 Jan	Mar	May	Half 1, 2020 Jul	Sep	Nov	Half 2, 2020 Jan	Mar	May	Half 1, 2021 Jul	Sep	Nov	Half 2, 2021 Jan	Mar	May	Half 1, 2022 Jul	Sep	Nov	Half 2, 2022 Jan
1	GOETHE/SHULTS NEIGHBORHOOD IMPROVEMENTS PHASE 2	970 days	Mon 4/30/18	Fri 1/14/22																														
2	PLANNING AND CONCEPTUAL DESIGN	326 days	Mon 4/30/18	Mon 7/29/19																														
12	FINAL DESIGN AND CONSTRUCTION DOCUMENTS	209 days	Tue 7/30/19	Fri 5/15/20																														
21	PERMITTING	128 days	Mon 5/18/20	Wed 11/11/20																														
25	EASEMENTS AND LAND ACQUISITION	187 days	Mon 4/6/20	Tue 12/22/20																														
32	BIDDING AND CONTRACTS	101 days	Tue 12/1/20	Tue 4/20/21																														
37	CONSTRUCTION	468 days	Wed 4/21/21	Fri 2/3/23																														

Project: 00055 Date: Mon 9/19/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Easements and Land Acquisition	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

<p>HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 2 PROPOSED SCHEDULE</p>	
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ID	Task Name	Duration	Start	Finish	Predecessors
1	PHASE 2	1300 days	Mon 7/2/18	Fri 6/23/23	
2	Planning and Conceptual Design	185 days	Mon 7/2/18	Fri 3/15/19	
10	Final Design and Construction Documents	20 days	Mon 3/18/19	Fri 4/12/19	
12	Permitting	55 days	Mon 4/15/19	Fri 6/28/19	
15	Easements and Land Acquisition	550 days	Mon 7/1/19	Fri 8/6/21	
17	Redesign and Construction Documents	185 days	Mon 2/28/22	Fri 11/11/22	
22	Bidding and Contracts	87 days	Mon 11/14/22	Tue 3/14/23	
27	Construction	73 days	Wed 3/15/23	Fri 6/23/23	

Project: 00071 Date: Mon 2/20/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planing and Conceptual Design	◆————◆	Easements and Land Acquisitions	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

<p>HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 3 PROPOSED SCHEDULE</p>	
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ID	Task Name	Duration	Start	Finish	2021												2022												2023																							
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul														
1	PHASE 3	694 days	Mon 11/2/20	Thu 6/29/23																																																
2	Planning and Conceptual Design	236 days	Mon 11/2/20	Mon 9/27/21																																																
9	Final Design and Construction Documents	260 days	Tue 9/28/21	Mon 9/26/22																																																
11	Permitting	30 days	Tue 9/27/22	Mon 11/7/22																																																
14	Easements and Land Acquisition	105 days	Tue 9/21/21	Mon 2/14/22																																																
17	Bidding and Contracts	91 days	Tue 11/8/22	Tue 3/14/23																																																
22	Construction	77 days	Wed 3/15/23	Thu 6/29/23																																																

Project: 00072 Date: Mon 2/20/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planing and Conceptual Design	◆————◆	Easements and Land Acquisitions	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 4 PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	2021												2022												2023																							
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov										
1	PHASE 4	779 days	Mon 11/2/20	Thu 10/26/23																																																
2	Planning and Conceptual Design	236 days	Mon 11/2/20	Mon 9/27/21																																																
9	Final Design and Construction Documents	160 days	Tue 9/28/21	Mon 5/9/22																																																
11	Permitting	40 days	Tue 5/10/22	Mon 7/4/22																																																
14	Easements and Land Acquisition	410 days	Tue 9/21/21	Mon 4/17/23																																																
17	Bidding and Contracts	46 days	Tue 4/18/23	Tue 6/20/23																																																
22	Construction	92 days	Wed 6/21/23	Thu 10/26/23																																																





Project: 00073 Date: Tue 2/21/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planing and Conceptual Design	◆————◆	Easements and Land Acquisitions	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

<p>HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 5 PROPOSED SCHEDULE</p>	
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ID	Task Name	Duration	Start	Finish	2021																	2022
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
1	PHASE 5	779 days	Mon 11/2/20	Thu 10/26/23																		
2	Planning and Conceptual Design	236 days	Mon 11/2/20	Mon 9/27/21																		
9	Final Design and Construction Documents	120 days	Tue 9/28/21	Mon 3/14/22																		
11	Permitting	40 days	Tue 3/15/22	Mon 5/9/22																		
14	Easements and Land Acquisition	410 days	Tue 9/21/21	Mon 4/17/23																		
17	Bidding and Contracts	46 days	Tue 4/18/23	Tue 6/20/23																		
22	Construction	92 days	Wed 6/21/23	Thu 10/26/23																		

Project: 00074 Date: Tue 2/21/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planing and Conceptual Design	◆————◆	Easements and Land Acquisitions	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		

HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 6
PROPOSED SCHEDULE

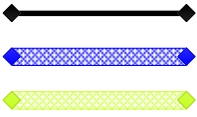
ID	Task Name	Duration	Start	Finish	Predecessors	Oct	Nov	Dec	2021 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2022 Jan
1	PHASE 6	779 days	Mon 11/2/20	Thu 10/26/23																	
2	Planning and Conceptual Design	236 days	Mon 11/2/20	Mon 9/27/21																	
9	Final Design and Construction Documents	120 days	Tue 9/28/21	Mon 3/14/22																	
11	Permitting	40 days	Tue 3/15/22	Mon 5/9/22																	
14	Easements and Land Acquisition	410 days	Tue 9/21/21	Mon 4/17/23																	
17	Bidding and Contracts	46 days	Tue 4/18/23	Tue 6/20/23																	
22	Construction	92 days	Wed 6/21/23	Thu 10/26/23																	

Project: 00075
Date: Tue 2/21/23

Milestone
Critical Task
Task



Project Duration
Planing and Conceptual Design
Final Design and Construction Documents



Permitting
Easements and Land Acquisitions
Bidding and Contracts



Construction



LAW ENFORCEMENT CENTER EXPANSION PROPOSED SCHEDULE																														
ID	Task Name	Duration	Start	Finish	1st Quarter Sep	2nd Quarter Nov	3rd Quarter Jan	4th Quarter Mar	1st Quarter May	2nd Quarter Jul	3rd Quarter Sep	4th Quarter Nov	1st Quarter Jan	2nd Quarter Mar	3rd Quarter May	4th Quarter Jul	1st Quarter Sep	2nd Quarter Nov	3rd Quarter Jan	4th Quarter Mar	1st Quarter May	2nd Quarter Jul	3rd Quarter Sep	4th Quarter Nov	1st Quarter Jan	2nd Quarter Mar	3rd Quarter May	4th Quarter Jul	1st Quarter Sep	2nd Quarter Nov
1	LEC Expansion	1050 days	Wed 11/18/20	Tue 11/26/24	<div></div>																									
2	Parking and Site Improvements	161 days	Wed 11/18/20	Wed 6/30/21	<div></div>																									
17	Reflection Plaza	219 days	Mon 3/14/22	Thu 1/12/23	<div></div>																									
26	Challenge Course	98 days	Wed 10/12/22	Fri 2/24/23	<div></div>																									
33	Facility Improvements	97 days	Sun 7/14/24	Tue 11/26/24	<div></div>																									

ID	Task Name	Duration	Start	Finish
1	MAY RIVER ROAD POCKET PARK	354 days	Thu 7/1/21	Tue 11/8/22
2	Planning and Conceptual Design	46 days	Thu 7/1/21	Thu 9/2/21
6	Final Planning and Construction Documents	140 days	Fri 9/3/21	Thu 3/17/22
13	Permitting	94 days	Mon 11/29/21	Thu 4/7/22
18	Bidding and Contract	48 days	Fri 3/18/22	Tue 5/24/22
24	Construction	106 days	Tue 6/14/22	Tue 11/8/22

Project: 00080
Date: Wed 11/23/22

MilestoneCritical Task

★

TaskProject Duration

■

Planning and Conceptual Design

◆

Permitting

◆

Easements and Land Acquisitions

◆

Construction

◆

Final Design and Construction Documents

◆

Bidding and Contract

◆

Page 1

MAY RIVER WATERSHED ACTION PLAN IMPERVIOUS WATER QUALITY PROJECTS PROPOSED SCHEDULE	
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ID	Task Name	Duration	Start	Finish																												
					Jun	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter					
						Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr					
1	MAY RIVER WATERSHED ACTION PLAN IMPERVIOUS RESTORATION WATER QUALITY PROJECTS	456 days	Fri 7/1/22	Fri 3/29/24																												
2	MRWAP CIP Projects Planning and Preliminary Design	456 days	Fri 7/1/22	Fri 3/29/24																												

Project: 00105 Date: Tue 2/21/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Bidding and Contract	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Easements and Land Acquisitions	◆————◆		



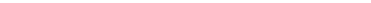





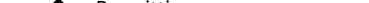
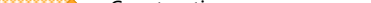
NEW RIVER LINEAR TRAIL PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish
1	NEW RIVER LINEAR TRAIL	617 days	Mon 7/5/21	Tue 11/14/23
2	Planning	121 days	Mon 7/5/21	Mon 12/20/21
14	Final Planning and Construction Documents	161 days	Fri 7/1/22	Fri 2/10/23
27	Permitting	121 days	Thu 2/2/23	Thu 7/20/23
33	Bidding and Contracts	55 days	Fri 7/21/23	Thu 10/5/23
39	Submit Contract for TC Approval	1 day	Tue 11/14/23	Tue 11/14/23
42				
43				
44				
45				
46				

Project 00092 Tue 2/21/23	Project Duration		Critical Task		Planning and Conceptual Design		Permitting		Bidding and Contracts	
	Task		Milestone		Final Design and Construction Documents		Easements and Land Acquisition		Construction	

NEW RIVERSIDE PARK - PLAYGROUND AREA
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish																																																					
					E	July	B	M	E	August	B	M	E	September	B	M	E	October	B	M	E	November	B	M	E	December	B	M	E	January	B	M	E	February	B	M	E	March	B	M	E	April	B	M	E	May	B	M	E	June	B	M	E	July	B	M	E
1	NEW RIVERSIDE PARK PLAYGROUND	261 days	Fri 7/1/22	Fri 6/30/23	◆																																																				
2	Planning Phase	61 days	Fri 7/1/22	Fri 9/23/22	◆																																																				
11	Design Phase	120 days	Mon 9/26/22	Fri 3/10/23	◆																																																				
25	Permitting Phase	59 days	Tue 1/3/23	Fri 3/24/23	◆																																																				
29	Bidding Phase	67 days	Mon 3/13/23	Tue 6/13/23	◆																																																				
36	Construction Start	1 day	Fri 6/30/23	Fri 6/30/23	Construction Start ★ 6/30																																																				

Project: 00085 Date: Tue 2/21/23	Milestone		Project Duration		Permitting		Construction	
	Critical Task		Planning and Conceptual Design		Easements and Land Acquisition			
	Task		Final Design and Construction Documents		Bidding and Contracts			

NEW RIVERSIDE BARN PARK - PHASE 1
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	
1	NEW RIVERSIDE BARN PARK - PHASE 1	296 days	Mon 8/1/22	Mon 9/18/23	
2	Bidding and Contracts	65 days	Mon 8/1/22	Fri 10/28/22	
10	Preconstruction Phase	10 days	Mon 10/31/22	Fri 11/11/22	
14	Construction Phase	221 days	Tue 1/24/23	Tue 11/28/23	

Project: 00085	Milestone	◆	Task	 Planning and Conceptual Design	 Permitting	 Bidding and Contracts	
Date: Tue 3/7/23	Critical Task	★	Project Duration	 Final Design and Construction Documents	 Easements and Land Acquisition	 Construction	





PRITCHARD STREET DRAINAGE IMPROVEMENTS
PROPOSED SCHEDULE

[illegible]

Project: 00106 Date: Tue 2/21/23	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Bidding and Contract	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Easements and Land Acquisitions	◆————◆		

