

## TOWN COUNCIL

### STAFF REPORT

#### Projects and Watershed Resilience Department



<b>MEETING DATE:</b>	January 10, 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**

- Construction of sidewalks and as-built drawings are complete.
- **Next Steps**
  - Finalize SCDOT closeout. Complete additional services to clean up ditches and outfall along Shults Road.

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

- Phase 5 street lighting easement acquisition process is underway. Obtained Just Compensation approval at November Town Council meeting to begin condemnation.
- Phase 6A along Simmons ville Road from Grayco northward to Sugaree Drive is complete and waiting on DOT closeout.
- Phase 6B along Simmons ville Road from Sugaree Drive northward to the existing New Mustang Road: Engineering design and permitting for this final sidewalk phase is complete. Bid solicitation closed 10/18/22 with no bids received. Per procurement protocol, obtaining direct quotes from Gordian and additional contractors.
- **Next Steps**
  - Prepare and obtain streetlight easements and begin condemnation process for remaining Phase 5 street lighting easements.
  - Obtain SCDOT Permit Closeout for Phase 6A sidewalks.
  - Complete Phase 6B contractor procurement.
  - Construction of the remaining Simmons ville Road sidewalks and lighting 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.
- Prepared draft PARD application for a restroom facility at the New River Trail Park. Submitted request to Bill Herbkersman to solicit support from the Beaufort County Delegation.

- **Next Steps**
  - Continue engineering design for Phase 1 pathway (New River to Hwy 46).
  - Research grant opportunities to fund planning and construction of future trail improvements.
  - Submit plans to Santee Cooper for cursory review and cost share for bridge replacements.
  - Begin discussions with Heritage at New Riverside for easement required for encroachments near the Hwy 46 overpass.

## **SEWER & STORMWATER**

1. **Buck Island-Simmons ville Sewer (Phases 5A-D)**
  - Construction has been halted on Phases 5A-D by BJWSA due to the contractor under-performing their job duties. Engineer has started closeout phase for what has been installed to date.
  - The engineer has provided BJWSA construction documentation to complete the project.
  - **Next Steps**
    - Anticipate posting solicitation in January for approval by Council 2/14/2023.
2. **Historic District Sewer Extension Phase 2 - Bridge Street**
  - Received SCDHEC permit to construct for original scope.
  - No contractors responded to the first construction solicitation. Working on a redesign option to avoid extremely long bore.
  - Received Quit Claim Deeds from all the property owners along the ghost road.
  - Obtained road ownership from SCDOT.
  - **Next Steps**
    - Readvertise project for bid in conjunction with Historic District Sewer Extension Phase 3. Bids due 1/17/23.
3. **Historic District Sewer Extension Phases 3 through 6 – Colcock, Lawrence, Green and Water Streets**
  - Received initial design for Phases 4, 5, & 6 and reviewed with the engineer.
  - Submitted Phase 3 for permitting to be bid with Phase 2.
  - **Next Step**
    - Review Phases 4, 5, & 6 design changes to drawings.
    - Obtain Quit Claim Deeds from all the property owners along the ghost roads.
4. **May River Watershed Action Plan Impervious Restoration Water Quality Projects**
5. **Buck Island Drainage Improvements**
  - A contract was executed on 11/18/22.
  - **Next Steps**
    - Construction will be substantially complete between Christmas and New Year's.

**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**

- Initial \$215,000.00 ATAX funding was approved in March 2022. A second \$457,026.00 ATAX funding request was recommended for approval by the ATAX committee on 11/15/22.
- Stabilization has been completed.
- Contract with Huss Inc. has been executed.
- **Next Steps**
  - Schedule a kickoff meeting with Huss Inc. and begin construction on 1/9/23.
  - Construction groundbreaking is scheduled for 2/2/23.

**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.
- **Next Steps**
  - Continue construction of Phase I and complete in Summer 2023.
  - Obtain engineering proposal and begin Phase II design.

**4. Boundary Street Streetscape**

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

**5. Calhoun Street Streetscape**

- Surveying is complete and engineering design underway. Met with Engineers to obtain new project schedule to expedite progress
- Preliminary evaluation and recommendations for existing storm outfall pipes are complete.
- **Next Steps**
  - Continue engineering design into FY 2023.
  - Prepare easement acquisition plats for Phase 1 in March 2023.

- Phased construction is planned to begin in FY 2024-2025 pending budget approval.

**6. Pathway Pedestrian Safety Improvements**

- Completed Historic District crosswalk study identifying and prioritizing future intersection/crosswalk improvements to meet ADA compliance.
- **Next Steps**
  - Construction of Phase 1 ADA sidewalk improvements along Goethe Road are underway.

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

- Review of Phase 1 updated asset inventory and condition assessment information is complete.
- 2D H/H model development near completion.
- Tidal Gauge information at Calhoun St Dock being gathered through 2022.
- **Next Steps**
  - Review 2D H/H model development results and area of inundation, choke points and establish maintenance and project needs to reduce flooding.

**8. Pritchard Street Drainage Improvements**

- Cranston Engineering submitted 70% design submission.
- 319 Grant Award of \$124,577.00 received and pending execution.
- Barrier Island Engineering performing completed 3<sup>rd</sup> party evaluation of drainage claims and complaints associated with 40 Pritchard Street. Meeting held with Mr. Berlin and all stakeholders to discuss findings and next steps. Concept plan of potential on-site drainage improvements that can be performed by the homeowner to reduce the risk of flooding for his property being developed.
- Emergency procurement for construction of interim solution approved and construction completed. Project in Close out phase.
- **Next Steps**
  - Coordinate approval for proposed improvements with Beaufort County School District.
  - Complete 70% design submission review.
  - Internal discussions for Final project scope and potential Streetscape elements to be held and finalized.

**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.

- **Next Steps**

- Begin construction of parking area in January 2023.
- Design of Phase 3 signage for Garvin/Garvey house underway. Signage and exhibits to be complete in February 2023.
- Begin design of Oyster Factory Park cookout area in FY 2023.

## **2. Oscar Frazier Park**

- FY 2022 Improvements and maintenance complete.
- 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 sport court alternatives to Bluffton Park HOA for review and selection of preferred option.
- **Next Steps**
  - Complete conceptual designs of hardscape plans and bid in the Spring 2023.
  - Complete design of splash pad in FY 2023.

## **3. New Riverside Barn/Park**

- A \$500,000.00 grant was approved for partial funding of the initial phase of the project.
- Engineering design, permitting and bidding of phase 1 site development is complete.
- Construction documents for the restroom building are complete.
- Executed contract for architectural design services for the Barn additions.
- Executed phase 1 Site Development contract with JS Construction.
- Executed contract with Wood & Partners for playground design services.
- **Next Steps**
  - Continue architectural design of barn addition.
  - Begin design of playground area in FY 2023.
  - Begin construction of Phase 1 Site Development Infrastructure in January 2023.

## **4. May River Road Pocket Park**

- **Next Steps**
  - Project complete.

## **5. Miscellaneous Park Improvements**

- Began design and cost estimating of playground improvements at DuBois Park.
- **Next Steps**
  - Presented proposed DuBois Park playground improvements at the October Workshop and TC requested staff to explore additional playground equipment alternatives. Continue with the design of FY 2023 playground improvements.

**TOWN FACILITIES AND MISCELLANEOUS PLANNING****1. Rotary Community Center Facility Improvements**

- Completed floor replacement in August 2022.
- **Next Steps**
  - Request funding for floor/crawl space insulation replacement and interior trim work in FY 2024.

**2. 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.

**3. Law Enforcement Center Facility Improvements**

- Initial scope of work of the parking/service yard, and covered sheds are complete.
- Design for the challenge course and reflection plaza are complete.
- Reflection Plaza construction is complete.
- **Next Steps**
  - Reflection Plaza dedication ceremony on 1/12/23.
  - Set pre-construction meeting with The Greenery for the challenge course.

**4. Sarah Riley Hooks Cottage**

- Obtained proposal from JK Tiller for master planning services.
- Prepared questionnaire for stakeholder input and distributed at the Art and Seafood Festival. Post questionnaire on the TOB web site to obtain additional stakeholder input.
- Obtained Structural Assessment Report from Meadors Inc. to determine feasibility of the cottage.
- **Next Steps**
  - Complete Master Plan and continue obtaining public input for potential uses for the park.
  - Submit Structural Assessment Report to Town Council for review and further direction.

**5. 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 continues to meet with property owners to raise awareness of the acquisition efforts and communicate next steps.
- Obtained RFQu solicitation responses and selected Easement Acquisition Consultants to assist with Ghost Roads.

- **Next Steps**
  - Obtain remaining Quit Claim Deeds documentation from legal and continue meeting with property owners.
  - Execute MSAs with Easement Acquisition Consultants to begin work.
- 6. **Document Management**
  - RFP contract was awarded in March 2022.
  - Electronic Document Management system is live.
  - **Next Steps:**
    - Historical documents began being moved in July, 2022 and continue through FY 2024.
- 7. **Network Infrastructure**
  - Replaced core switches at Town Hall and the Law Enforcement Center.
  - Replaced two VMWare hosts for a more stable server environment.
  - **Next Steps:**
    - Replace phone system to a more modern system.
    - Replacing two more VMWare hosts.
    - Migrate Munis and Energov systems to a hosted environment.

## **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.
  - **Next Steps**
    - Await notification of grant application. Anticipated in January/February of 2023.
    - Procurement staff is developing a 3-party partnership to execute the project.
    - 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 collected fifty-two (52) water quality samples from the Action Plan Update and Model Report study area and the Bluffton Historic District on 12/05/22 and 12/06/22.
  - The Town received a quote from SonTek that includes telemetry equipment, benchmarking, and SonTek installation services. The Town is moving forward with

procurement of goods and services and installation is anticipated in January-February 2023.

- Staff deployed a HOBO-U20 water level logger at the Calhoun Street to collect tidal elevation data through the remainder of 2022. The next King Tide is predicted to occur 12/23/22-12/25/22.
4. **Municipal Separate Storm Sewer System (MS4) Program Update**
    - The Town is drafting its 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 May River Watershed Action Plan Advisory Committee meeting is scheduled for 01/23/22. **Attachment 3**
  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 11/30/22. The human genetic marker was not detected in any sample collected.
    - 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 an Advanced Drainage Systems (ADS) seminar on 12/6/22.
  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 **bold** and *italic* font.

	19-19				19-19A				19-19B				19-19C				19-24				19-16			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
	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	170.0	17.0	79.0		33.0	22.0	49.0		140.0	17.0	4.5		33.0	4.5	17.0		13.0	4.0	6.8		110.0	11.0	7.8	
November	17.0	70.0	33.0	33.0	6.8	31.0	33.0	13.0	7.8	17.0	7.8	7.8	11.0	13.0	4.0	4.5	4.5	13.0	4.5	6.1	2.0	4.5	2.0	13.0
October	7.8	49.0	49.0	23.0	4.5	79.0	26.0	46.0	2.0	31.0	13.0	13.0	4.5	21.0	23.0	23.0	1.8	33.0	23.0	11.0	2.0	79.0	17.0	14.0
September	79.0	110.0	33.0	540.0	33.0	49.0	11.0	350.0	6.8	49.0	17.0	350.0	17.0	33.0	13.0	170.0	4.5	33.0	2.0	79.0	1.8	33.0	11.0	33.0
August	70.0	49.0	49.0	23.0	49.0	49.0	49.0	23.0	33.0	23.0	23.0	11.0	22.0	23.0	49.0	13.0	7.8	17.0	14.0	17.0	17.0	22.0	14.0	11.0
July	4.5	33.0	350.0	920.0	13.0	13.0	64.0	49.0	7.8	23.0	79.0	95.0	17.0	7.8	33.0	130.0	22.0	7.8	33.0	23.0	13.0	17.0	13.0	46.0
June	33.0	NS	49.0	13.0	49.0	NS	79.0	4.5	49.0	NS	13.0	11.0	46.0	NS	17.0	2.0	13.0	NS	22.0	1.8	4.5	NS	2.0	9.3
May	7.8	70.0	2.0	4.5	9.2	49.0	49.0	4.5	7.8	23.0	23.0	4.0	2.0	22.0	23.0	1.8	6.8	6.8	23.0	1.8	4.5	4.5	7.8	2.0
April	23.0	33.0	33.0	4.5	13.0	33.0	23.0	4.5	7.8	13.0	22.0	1.8	6.8	6.8	17.0	2.0	23.0	13.0	7.8	1.8	6.8	13.0	2.0	1.8
March	23.0	170.0	33.0	33.0	23.0	49.0	11.0	23.0	6.8	130.0	17.0	2.0	13.0	49.0	13.0	4.5	7.8	70.0	2.0	2.0	4.5	33.0	2.0	2.0
February	64.0	17.0	79.0	23.0	33.0	7.8	70.0	31.0	23.0	21.0	79.0	17.0	31.0	4.5	23.0	22.0	6.8	4.5	7.8	2.0	13.0	6.8	6.8	11.0
January	23.0	95.0	17.0	49.0	23.0	33.0	17.0	22.0	13.0	33.0	13.0	33.0	33.0	17.0	23.0	7.8	7.8	17.0	17.0	7.8	23.0	17.0	7.8	7.8
** Truncated GeoMetric Mean	35.0	34.0	36.0	40.0	23.0	21.0	26.0	28.0	16.0	16.0	18.0	18.0	14.0	12.0	15.0	13.0	10.0	10.0	10.0	9.0	7.0	9.0	8.0	9.0
** Truncated 90th Percentile	168.0	106.0	139.0	197.0	89.0	59.0	69.0	91.0	63.0	50.0	58.0	74.0	52.0	37.0	39.0	52.0	38.0	31.0	35.0	42.0	32.0	35.0	33.0	32.0

NS = No Sample

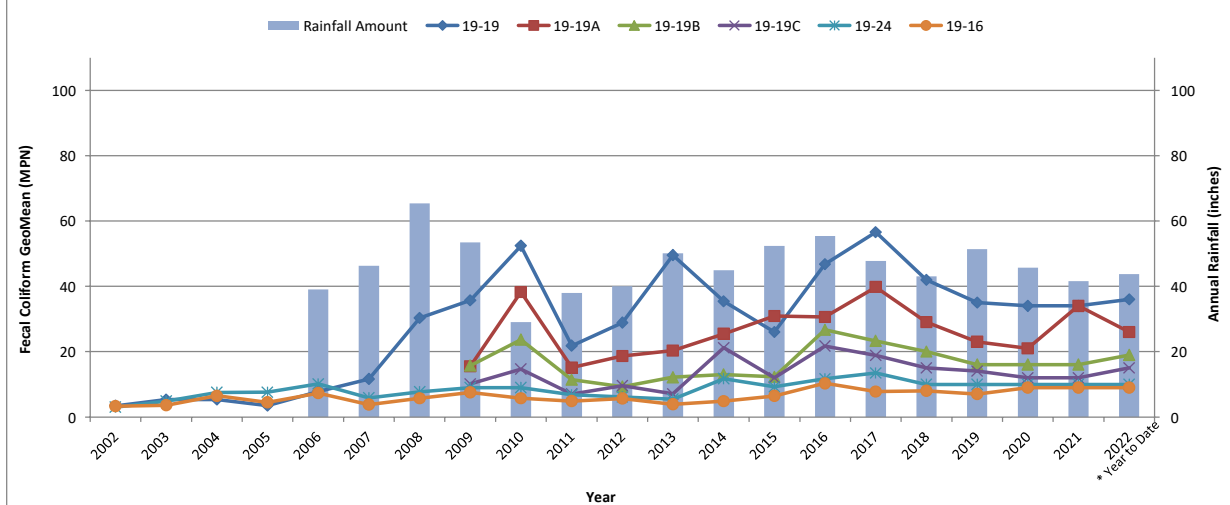
**SCDHEC Regulatory Requirements:**

Geometric Mean ≤ 14

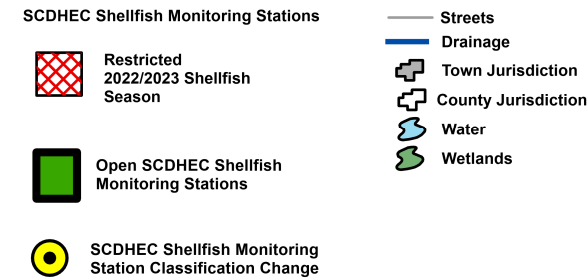
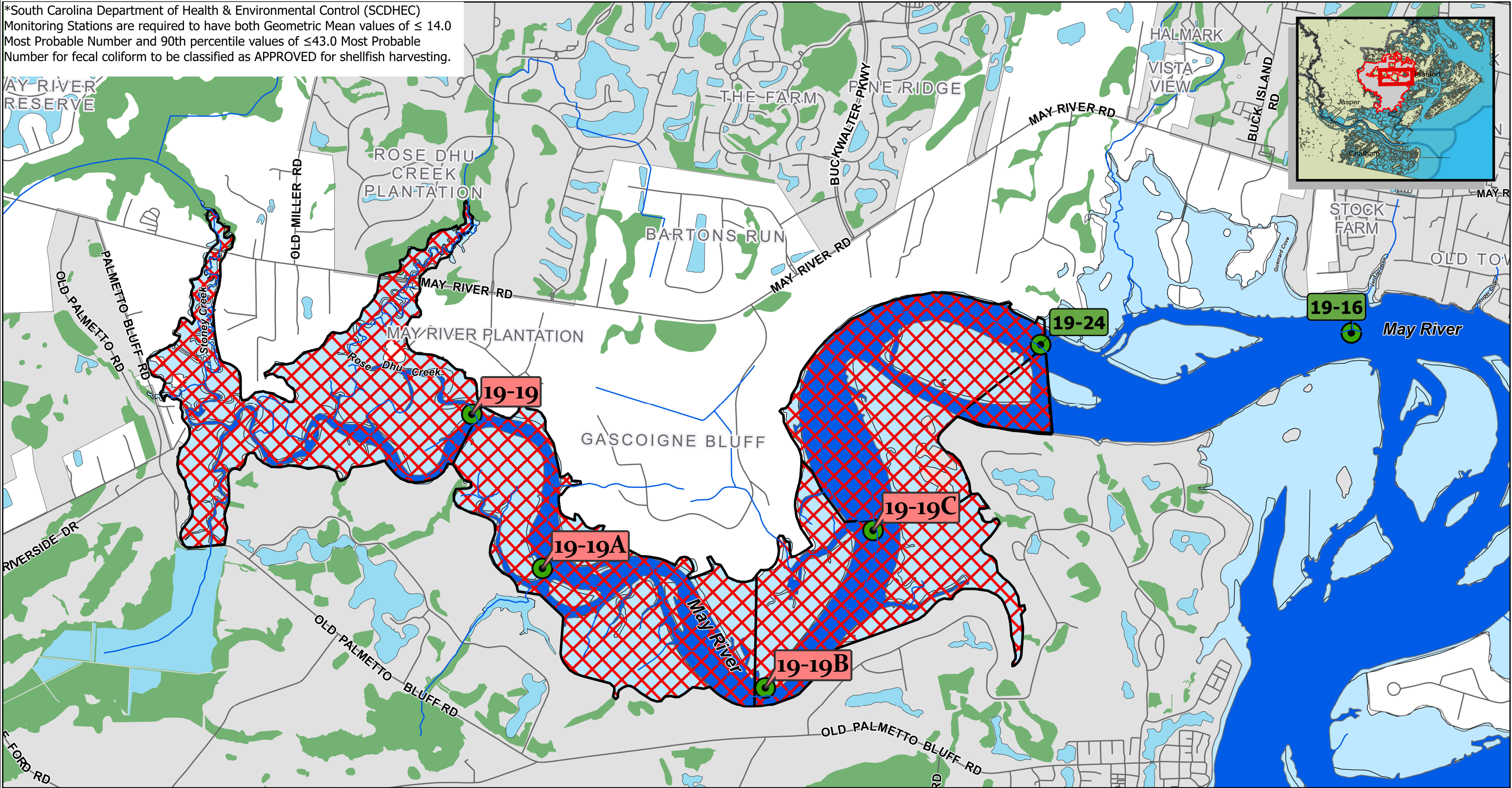
90th Percentile ≤ 43

\*\* Town staff calculations utilizing SCDHEC statistics

**SCDHEC May River Headwaters Shellfish Stations Average Annual Fecal Coliform**

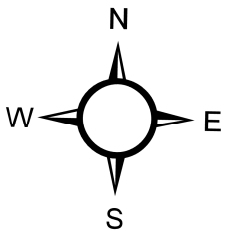
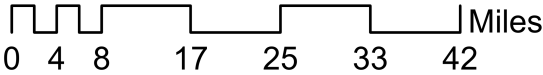


\*South Carolina Department of Health & Environmental Control (SCDHEC)  
Monitoring Stations are required to have both Geometric Mean values of  $\leq 14.0$   
Most Probable Number and 90th percentile values of  $\leq 43.0$  Most Probable  
Number for fecal coliform to be classified as APPROVED for shellfish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



**Town of Bluffton**  
Beaufort County, SC

# SCDHEC SHELLFISH HARVESTING STATUS



## WAPAC Meeting Presentation 2020 May River Watershed Action Plan Update & Modeling Report Overview and Status

### Overview

- May River Watershed Action Plan Update (MRWAP) & Modeling Report **completed** November 2020.
- Bluffton Town Council Adoption of May River Watershed Action Plan Update & Modeling Report 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 the 2011 May River Watershed Action Plan (henceforth 2011 Action Plan) Best Management Practices (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 model and the model outputs. This highly technical information is necessary for future Water Quality Model (henceforth WQ Model) calibration and use for consistency.
  - **5.0 Recommendations** includes strategies to improve the Town's
    - Water quality monitoring efforts in order to calibrate the WQ Model further (§5.1),
    - Develop strategies and BMPs for fecal coliform bacteria reduction (§5.2),
    - Conduct an evaluation of 2011 Action Plan BMP projects (§5.3),
    - Methodology used to develop 2020 MRWAP 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.

## **2020 MRWAP 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 subwatershed and 11 in Rose Dhu Creek subwatershed. Based on WQ Model outputs, these projects alone may potentially reduce the fecal coliform (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**

Discussions with the Town of Bluffton, Beaufort County and Beaufort Jasper Water Sewer Authority (BJWSA) have been held about future Septic to Sewer Program projects identified above. The Stoney Creek subwatershed 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.

## **2020 MRWAP Update Eleven Impervious Restoration (stormwater retrofit) Project Recommendations/Evaluations and Other Work:**

- 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 95<sup>th</sup> percentile storm retention, to the maximum extent possible, under the proposed Impervious Area Restoration/Stormwater Retrofit Program.

Eleven (11) proposed project sites were identified in the Rose Dhu Creek (6 projects) and Stoney Creek (5 projects) subwatersheds:

- 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 Stormwater Retention Volume (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 to be Performed

- 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 2020 MRWAP Update recommendations for implementation:

### **Task 1:** 2020 MRWAP Update eleven (11) site locations

- Evaluate eleven (11) sites and proposed BMPs.
- Update concept plans for the eleven (11) sites based on site evaluations, recommendations, and discussions.
- Perform geotechnical evaluations (augers and borings to evaluate existing soil type, infiltration rates and groundwater table elevation) at each site at locations related to BMP locations and develop updated concept plans for each site.
- Refine updated concept plans and use for presentations to Property Owner to discuss Impervious Restoration Program goals, objectives and gain support for Program and their participation.
  - Develop 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/Water Quality (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 Impervious Restoration Program details (maintenance responsibilities, easements, incentives, etc.) developed as part of the Impervious Restoration 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 fifteen (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 South Carolina Department of Transportation (SCDOT) Right of Way (RoW).

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

**Task 3:** Section 5.4.4. Stormwater BMP Retrofit Projects of the 2020 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 the 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 Completed and Current Status**

- The Expression of Interest was submitted to three (3) consultant firms under existing Master Service Agreements (MSAs) with the Town for review and a request for response.
- All three (3) Firms responded, and their respective responses were evaluated, scored and discussed.
- 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 FY22 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.
- Phase I work completed by Consultant and Town:
  1. Review of recommendations of the 2020 MRWAP Update.
  2. On-site evaluations at each proposed site.
  3. Meetings with Beaufort County School District.
    - Six (6) of the eleven (11) sites are located on Beaufort County School District (henceforth School District) property. The School District is deemed an important project partner and as such several meetings have been held to discuss the Impervious Restoration Program and need for project BMPs to improve water quality. The School District has granted permission for the Town of Bluffton to perform initial site investigations, provided the Town with site specific plans, future

development plans for each site, and expressed a willingness to participate in the Program.

- Drafted a Letter to Non-School Property Owners describing the Impervious Restoration Program and requesting meetings to discuss and gain support.
- 4. Policy Document Formulation has been initiated and includes research of similar Impervious Restoration Programs Nationwide.

## **Other, Related 2020 MRWAP Update Recommendations**

- Adopt proposed regional Southern Lowcountry Post-Construction Stormwater Ordinance and Design Manual - **completed** September 2021.
- The Town should incorporate volume reduction BMPs (those that encourage infiltration) within existing and future Capital Improvement Projects (CIP) to the maximum extent practical (MEP), especially for project locations with well-drained soils (HSG A or B) – **in progress**, see below.
  - **Work Performed and Current Status**
    - 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 the South Carolina Department of Health and Environmental Control (SCDHEC) to cost-share on construction of proposed BMPs.
    - 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 and ultimately the May River.
      - Submitted Section 319 Grant proposal to SCDHEC to cost-share cost of construction of proposed BMPs. Pre-proposal was accepted, and Full Proposal was requested by SCDHEC. Under Review.
- 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.
  - Staff is working with the USCB-MST Laboratory to assess the utility of fecal markers in regional watersheds, including the May River watershed as recommended in the 2020 May River Watershed Action Plan Update and Model Report.
- 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 MRWAP Update.
- Staff is collecting intermittent flow data in conjunction with grab samples at monitoring sites in the May River Headwaters as recommended in the 2020 MRWAP Update.
- Staff working with consultant to identify recommended strategies to gain required intermittent flow data.
- Future (new) Water Flow Monitoring Locations.
  - **Work Performed and Current Status**
    - The 2020 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.
      - The Town of Bluffton established Sontek IQ Plus continuous flow measuring instruments in Stoney Creek, Rose Dhu Creek, and Heyward Cove subwatersheds. In addition, the Town collected intermittent flow data at the time of water quality grab sampling and established a weather station in the May River Watershed. The Town hired a consultant to review all the Town’s continuous, intermittent, and precipitation data and to determine:
        - Useful data had been 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 has been completed.
          - Duck Pond was deemed inconsequential, not needed due to drainage area size and proximity/outfall to tidal waters.
        - If data review resulted in insufficient data, develop a monitoring program that would produce the data needed.
          - Rose Dhu Creek continuous flow data review resulted in data that was insufficient to calibrate Model.
          - Final report identifying recommended strategies to gain required data is in process.
          - In process of purchasing telemetry stations to equip continuous flow monitoring stations with real-time data access for the Rose Dhu and Palmetto Bluff subwatersheds.



# **PUBLIC NOTICE**

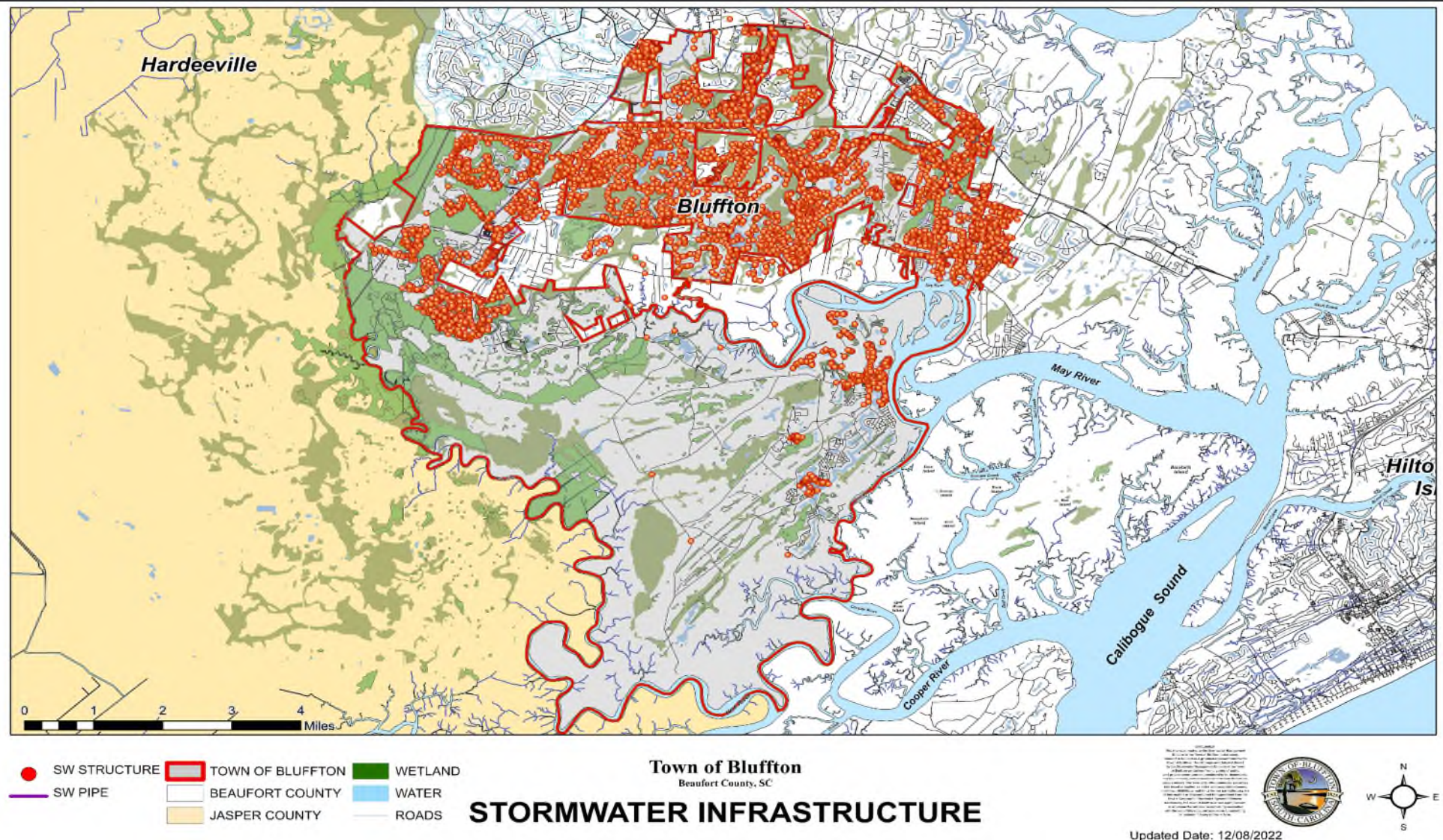
May River Watershed Action Plan Advisory Committee  
meeting on:

**Thursday, January 26, 2023 at 9:00 AM**

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

If you have questions, please contact  
Christina Hurd with the Watershed  
Management Division at:  
843-540-5591

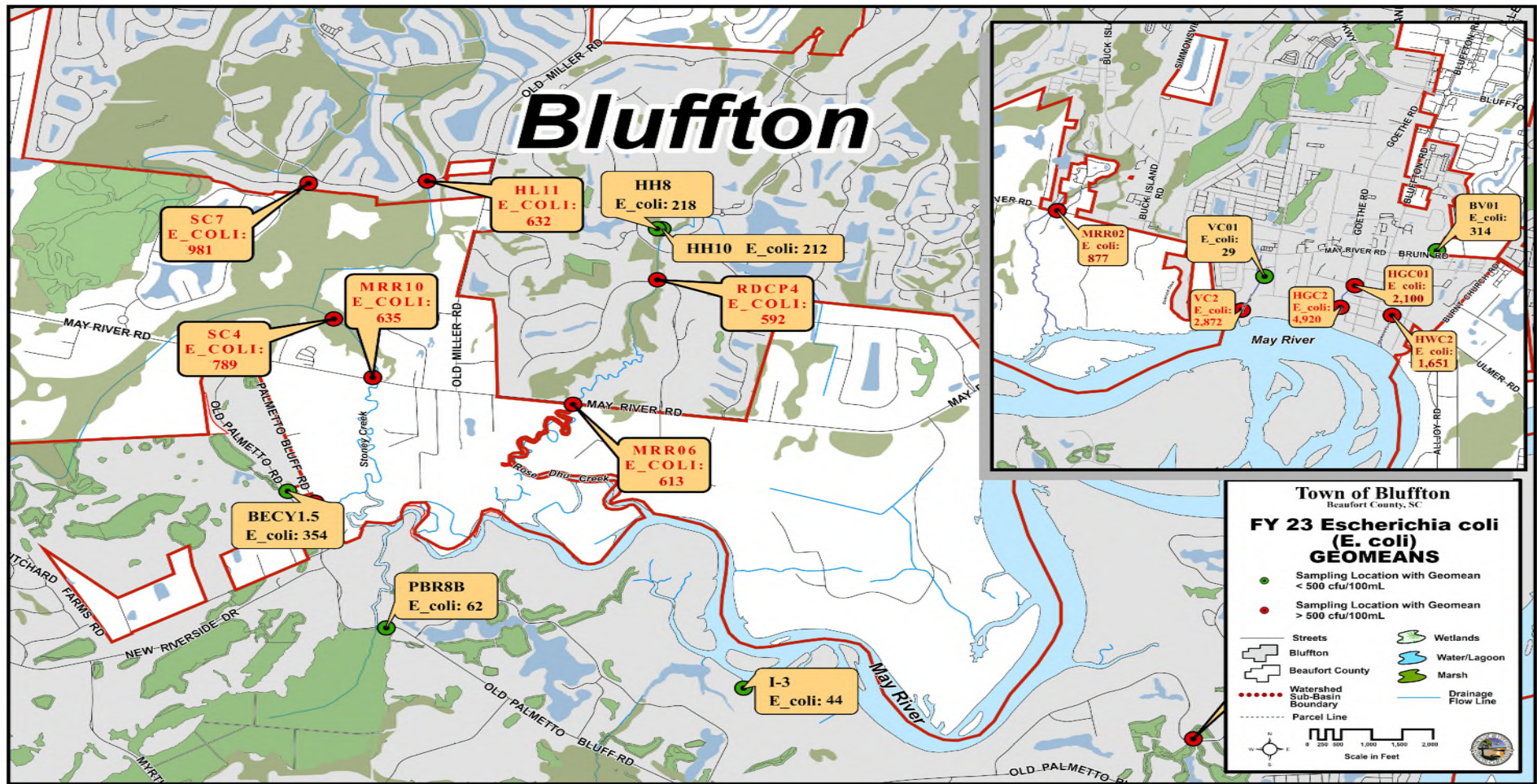
# MS4 Minimum Control Measure #3 – IDDE (Illicit Discharge Detection & Elimination): Stormwater Infrastructure Inventory



## 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



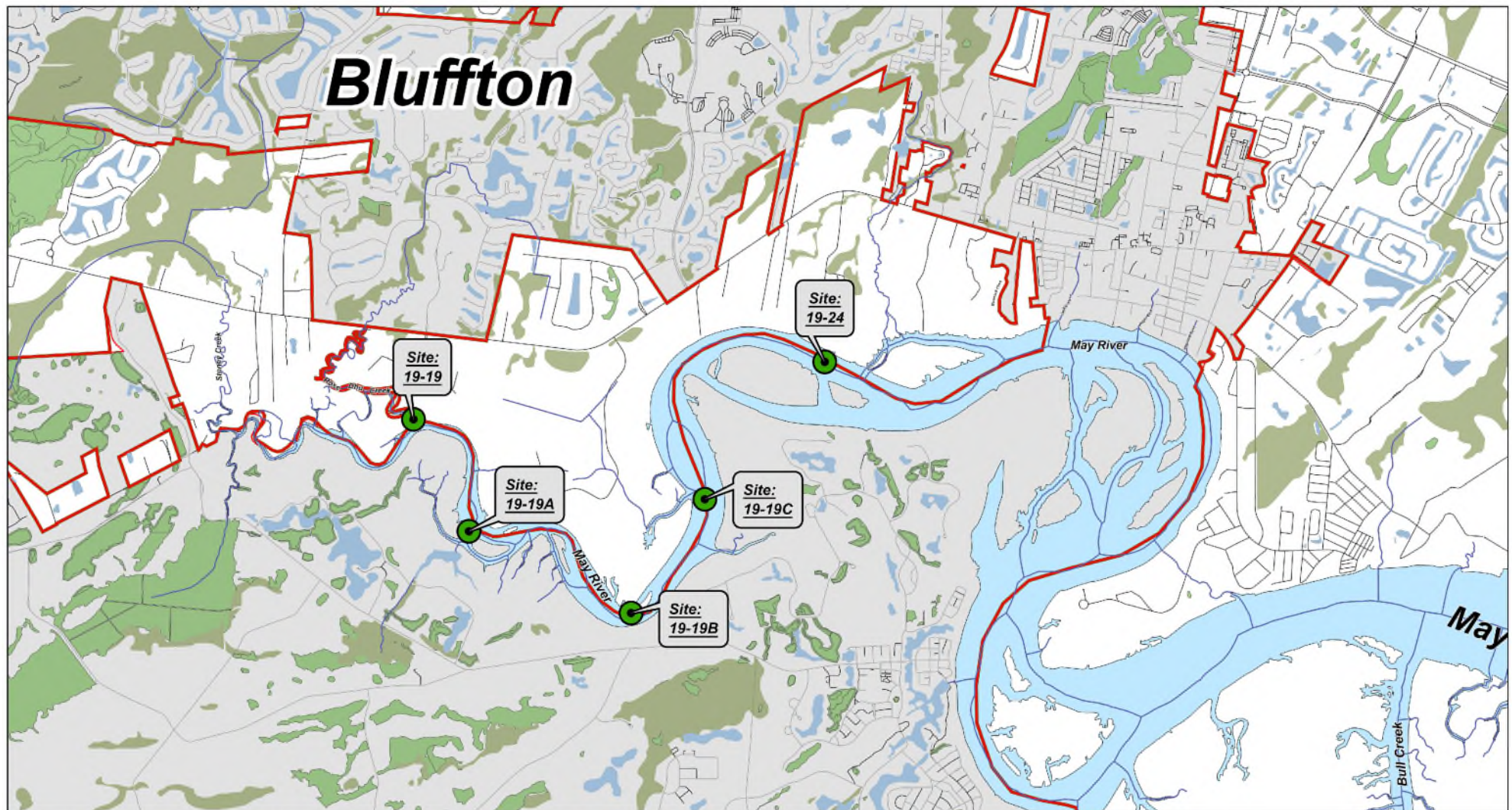
E coliform geomeans updated as of: 12/08/22

	USCB Water Quality Samples	Microbial Source Tracking Samples	MS4 Quarterly Samples Collected
FY 2023 YTD Totals	304	54	36
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) Map – Human Sources

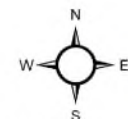


## MICROBIAL SOURCE TRACKING LOCATIONS

Sampling Results November 2022

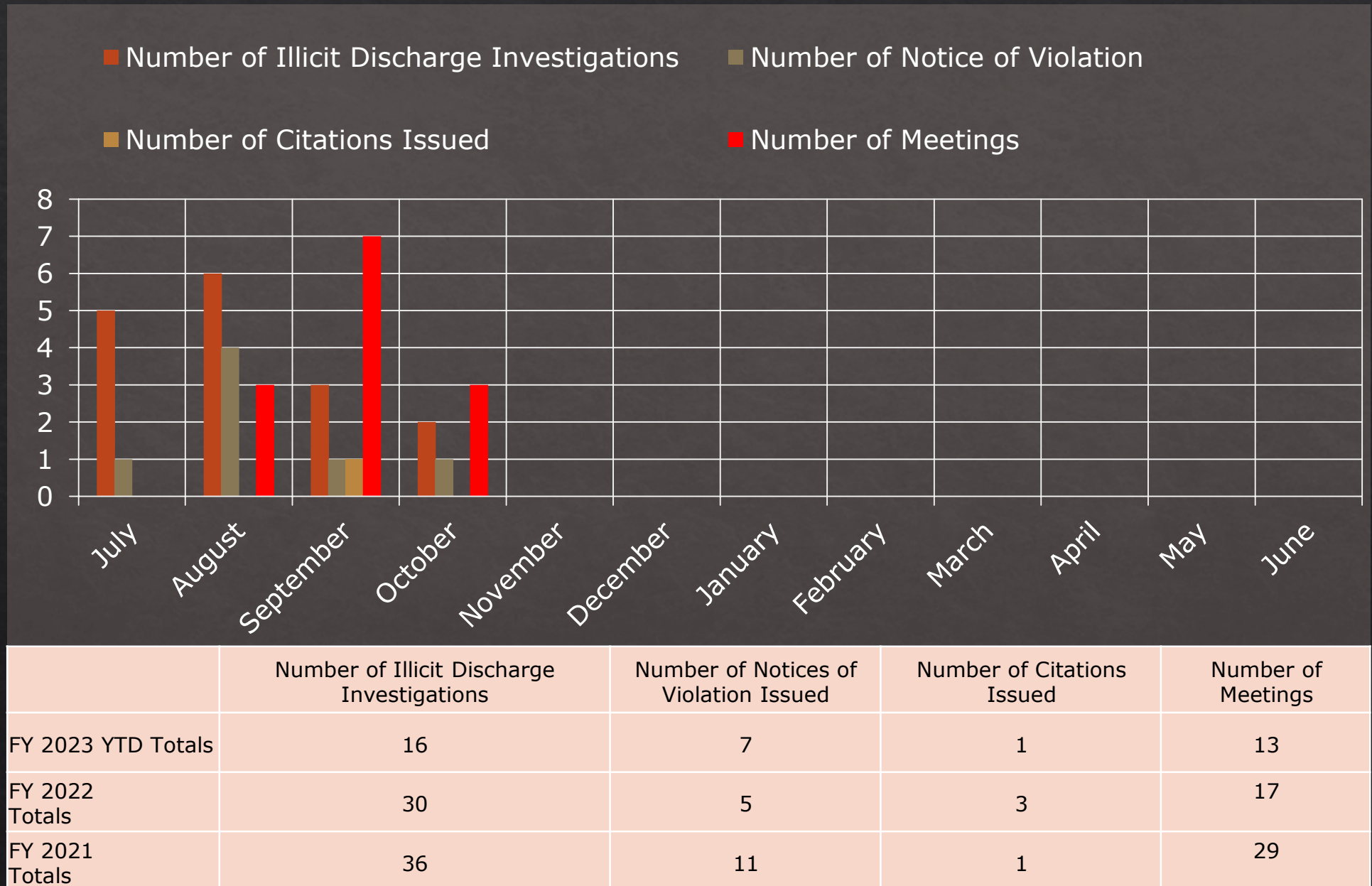
Town of Bluffton  
Beaufort County, SC

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

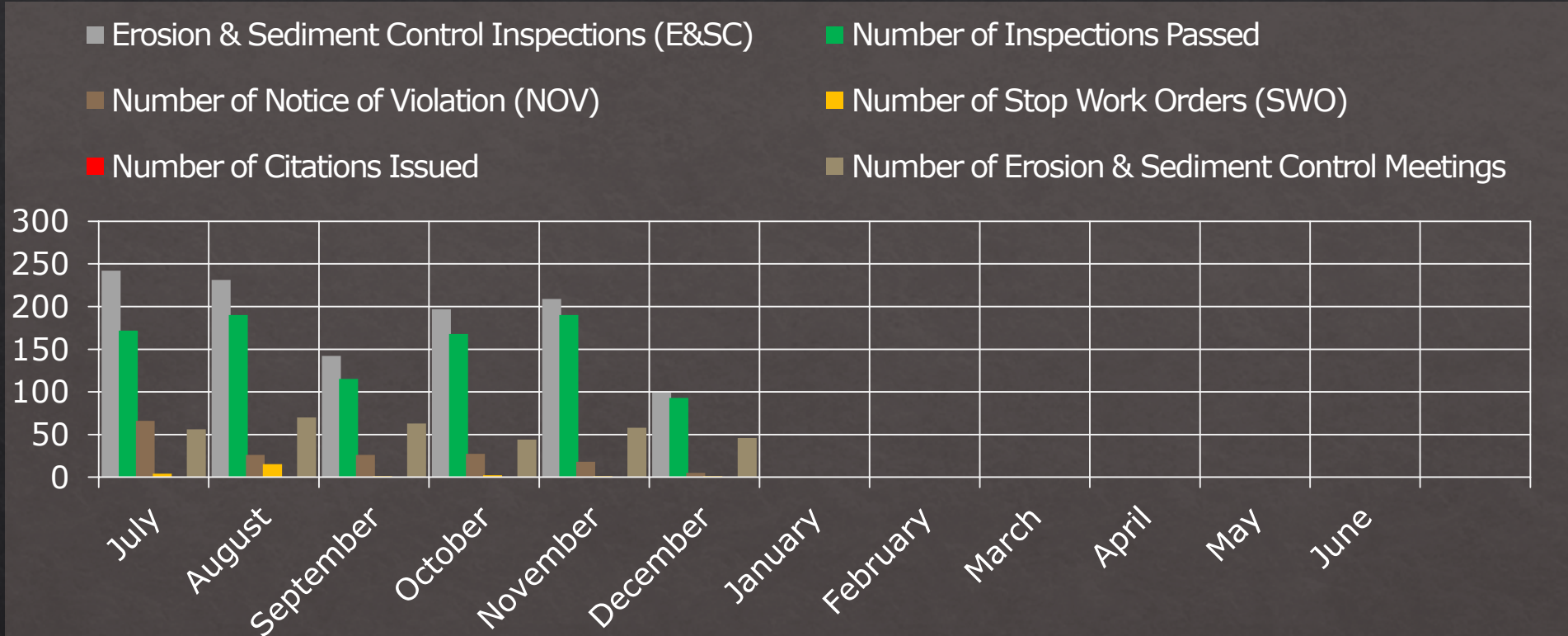


Updated Map: 12/08/2022

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

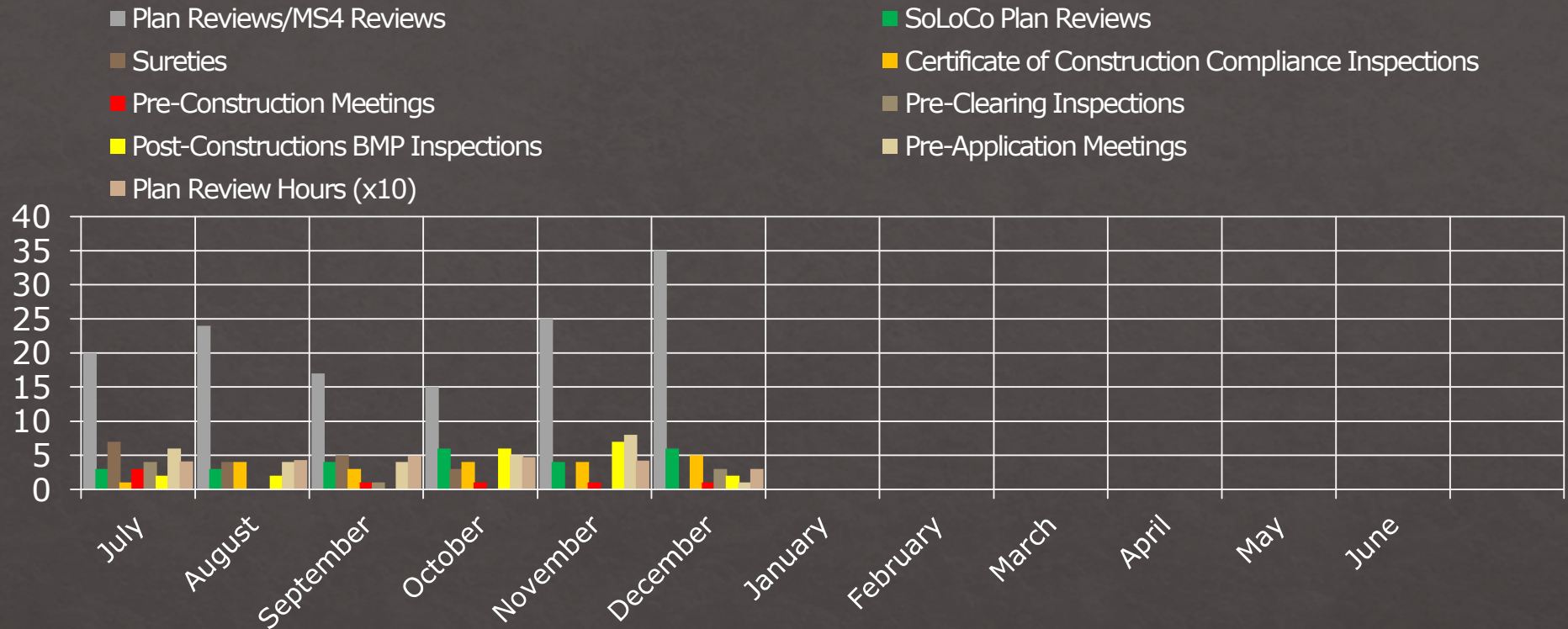


## MS4 Minimum Control Measure #4 - Construction Site Stormwater Runoff Control



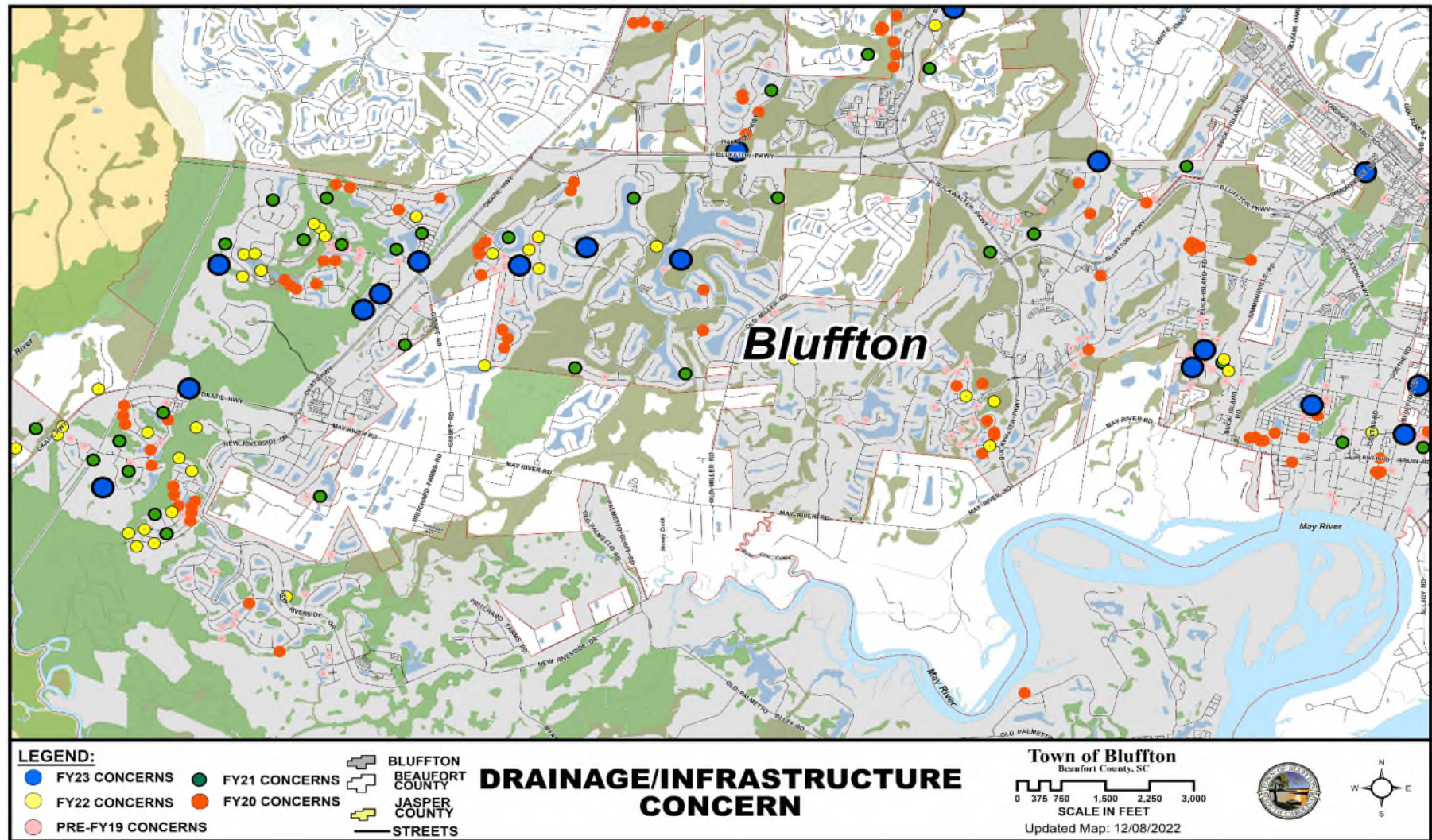
	Number of Sediment & Erosion Control Inspections	Number of Inspections Passed	Number of NOV's Issued	Number of SWO Issued	Number of Citations Issued	Number of E&SC Meetings
FY 23 YTD Totals	1120	928	168	24	0	337
FY 2022 Totals	3127	2701	392	49	0	673
FY 2021 Totals	1,805	1,527	267	32	4	413

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



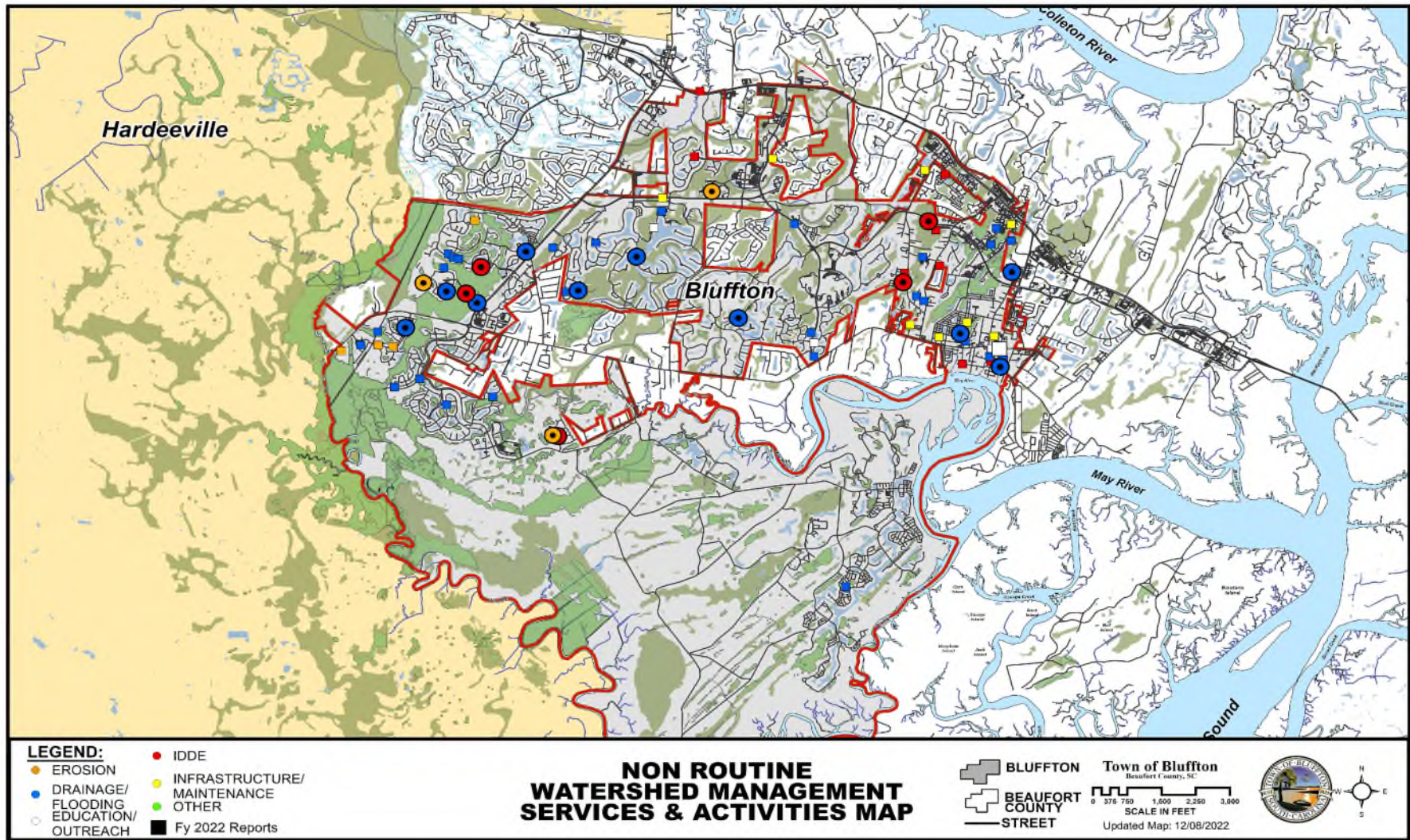
	Plan Reviews MS4 Reviews	SoLoCo Plan Reviews	Sureties	CCC Inspections	Pre-Construction Meetings	Pre-Clearing Inspections	Post Construction BMP Inspections	Pre-Application Meetings	Total Plan Review Hours
FY 2023 YTD	136	26	19	21	7	8	19	28	252 Hrs.
FY 2022 Totals	231	13	42	26	30	23	44	26	454 Hrs.
FY 2021 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	44	37
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	6	9
FY 2022 Totals	33	21
FY 2021 Totals	46	36

BUCK ISLAND-SIMMONSVILLE NEIGHBORHOOD SIDEWALKS  
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	Predecessors	2018												2019												2020												2021												2022												2023											
						J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	SIDEWALKS AND LIGHTING	1440 days	Thu 2/1/18	Wed 8/9/23																																																																									
2	Sidewalk from Jennifer Ct to Simmonsville Rd	405 days	Thu 2/1/18	Wed 8/21/19																																																																									
26	Sidewalk from Kitty Road to 301 Buck Island Rd	709 days	Thu 2/1/18	Tue 10/20/20																																																																									
52	Sidewalk from Grayco to Sugaree (Simmonsville Rd)	923 days	Mon 10/1/18	Wed 4/13/22																																																																									
78	Sidewalk from Sugaree to Windy Lake (Simmonsville Rd)	513 days	Thu 7/1/21	Mon 6/19/23																																																																									
102	Lighting - Kitty Road to 301 Buck Island Rd	419 days?	Thu 5/13/21	Tue 12/20/22																																																																									
110	Lighting - Grayco to Windy Lakes	150 days	Thu 1/12/23	Wed 8/9/23																																																																									
111																																																																													
112																																																																													

Project: 00054  
Date: Wed 11/23/22

Milestone  
Critical Task  
Task



Project Duration  
Planning and Conceptual Design  
Final Design and Construction Documents



Permitting  
Bidding and Contract  
Easements and Land Acquisitions
















Construction

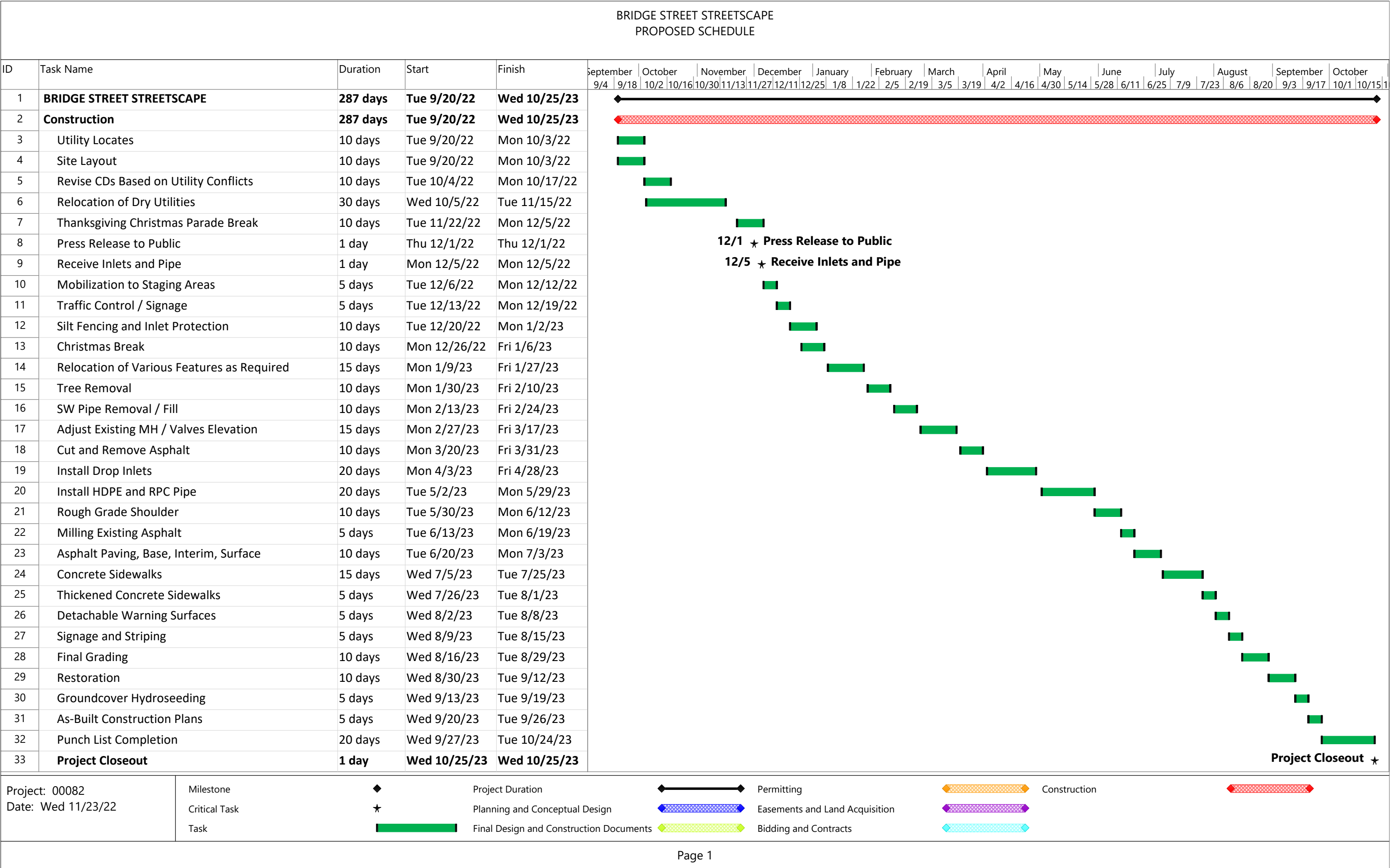




## BOUNDARY STREET STREETScape PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Predecessors	Finish	Timeline																												
						Quarter Aug	Sep	4th Quarter Oct	Nov	Dec	1st Quarter Jan	Feb	Mar	2nd Quarter Apr	May	Jun	3rd Quarter Jul	Aug	Sep	4th Quarter Oct	Nov	Dec	1st Quarter Jan	Feb	Mar	2nd Quarter Apr	May	Jun	3rd Quarter Jul	Aug	Sep	4th Quarter Oct	Nov	Dec
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	130 days	Fri 10/28/22		Thu 4/27/23																													
25	Easements and Land Acquisition	116 days	Fri 10/28/22		Fri 4/7/23																													

Project: 00094 Date: Wed 11/23/22	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			



ID	Task Name	Duration	Start	Finish	
1	00100 Buck Island Rd Drainage Improvements	658 days	Wed 7/1/20	Fri 1/6/23	
2	Buck Island Rd Design and Construction Documents	218 days	Mon 1/4/21	Wed 11/3/21	
4	Buck Island Bidding and Contracts	247 days	Thu 11/4/21	Fri 10/14/22	
10	Buck Island Construction	60 days	Mon 10/17/22	Fri 1/6/23	



## 184 BLUFFTON ROAD PARKING IMPROVEMENTS PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Predecessors	Finish																		
0	<b>00098 Buckwalter Place Parking Improvements</b>	<b>363 days</b>	<b>Sun 8/1/21</b>		<b>Wed 12/21/22</b>																		
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	
1	CALHOUN STREET STREETScape	1285 days	Mon 9/7/20	Fri 8/8/25	
2	Final Planning and Construction Documents	545 days	Mon 9/7/20	Fri 10/7/22	
24	Permitting Phase (Phase 1)	101 days	Tue 8/9/22	Tue 12/27/22	
29	Easements and Land Acquisition (Phase 1)	266 days	Mon 7/25/22	Mon 7/31/23	
38	Bidding - Phase 1	90 days	Mon 7/3/23	Fri 11/3/23	
40	Construction Phase 1	250 days	Mon 12/4/23	Fri 11/15/24	

Project: 00042 Date: Mon 12/19/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Bidding and Contract	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Easements and Land Acquisitions	◆————◆		



GARVIN-GARVEY HOUSE INTERPRETIVE SIGNAGE  
PROPOSED SCHEDULE

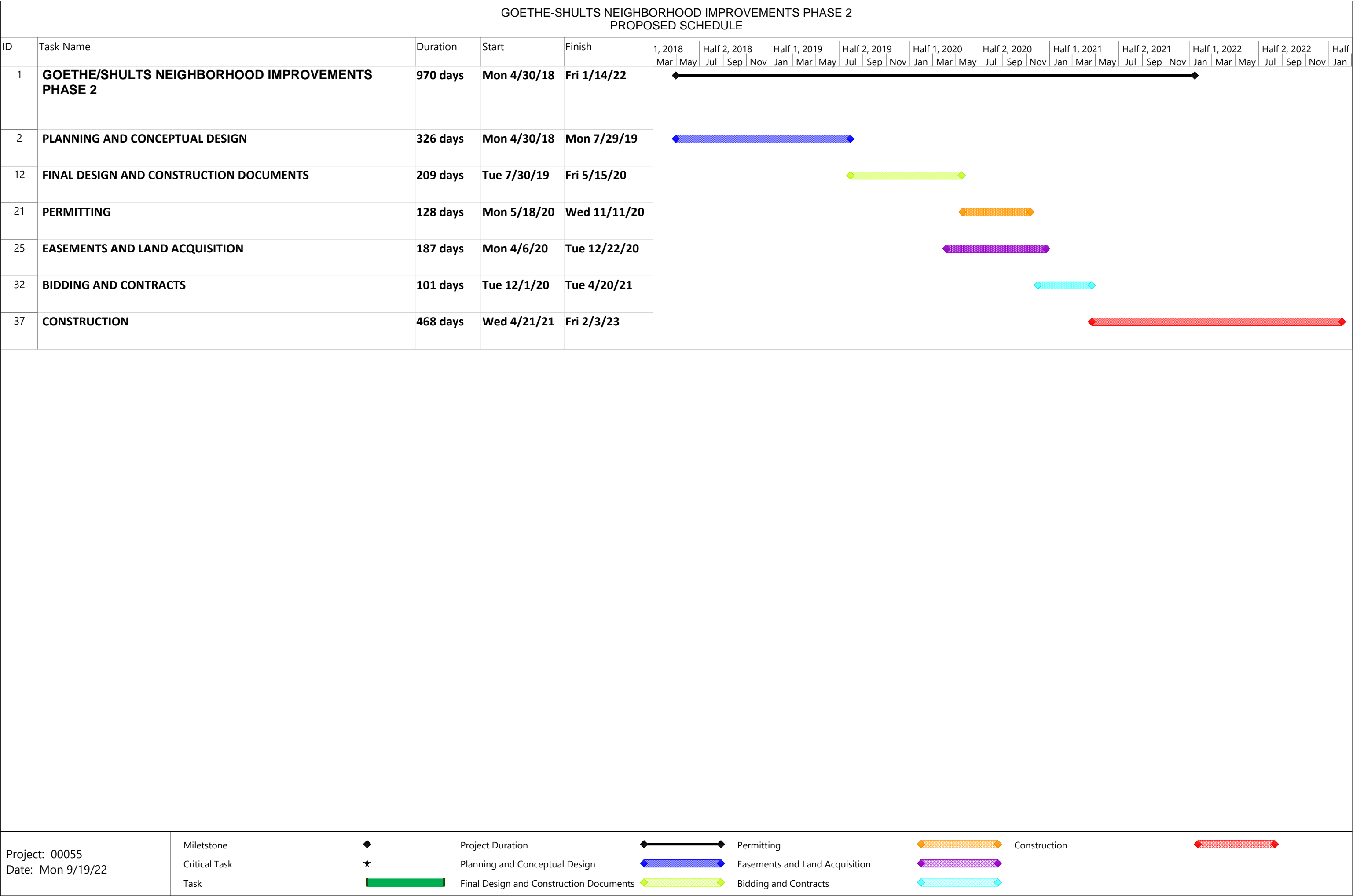
ID	Task Name	Duration	Start	Finish	2022																																															
					Mar '22				Apr '22				May '22				Jun '22				Jul '22				Aug '22				Sep '22				Oct '22				Nov '22				Dec '22											
1	GARVIN-GARVEY HOUSE INTERPRETIVE SIGNAGE	179 days	Tue 3/1/22	Fri 11/4/22																																																
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	◆————◆		



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						
1	PHASE 4	619 days	Mon 11/2/20	Thu 3/16/23																																				
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	260 days	Tue 9/21/21	Mon 9/19/22																																				
17	Bidding and Contracts	91 days	Tue 7/5/22	Tue 11/8/22																																				
22	Construction	92 days	Wed 11/9/22	Thu 3/16/23																																				

Project: 00073  
Date: Thu 7/7/22

Milestone

Critical Task

Task

◆

★

Project Duration

Planing and Conceptual Design

Final Design and Construction Documents

Permitting

Easements and Land Acquisitions

Bidding and Contracts

Construction

# HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 5 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															
1	PHASE 5	669 days	Mon 11/2/20	Thu 5/25/23																																																
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	310 days	Tue 9/21/21	Mon 11/28/22																																																
17	Bidding and Contracts	181 days	Tue 5/10/22	Tue 1/17/23																																																
22	Construction	92 days	Wed 1/18/23	Thu 5/25/23																																																

Project: 00074 Date: Wed 11/23/22	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	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					
1	PHASE 6	619 days	Mon 11/2/20	Thu 3/16/23																																					
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	260 days	Tue 9/21/21	Mon 9/19/22																																					
17	Bidding and Contracts	131 days	Tue 5/10/22	Tue 11/8/22																																					
22	Construction	92 days	Wed 11/9/22	Thu 3/16/23																																					

Project: 00075  
Date: Thu 7/7/22

- Milestone◆
- Critical Task★
- Task

- Project Duration
- Planing and Conceptual Design
- Final Design and Construction Documents

- Permitting
- Easements and Land Acquisitions
- Bidding and Contracts

- Construction

<p>HISTORIC DISTRICT SANITARY SEWER EXTENSION PHASE 2 PROPOSED SCHEDULE</p>	
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ID	Task Name	Duration	Start	Finish	Predecessors																																																
						Half 2, 2018				Half 1, 2019				Half 2, 2019				Half 1, 2020				Half 2, 2020				Half 1, 2021				Half 2, 2021				Half 1, 2022				Half 2, 2022				Half 1, 2023											
1	PHASE 2	1285 days	Mon 7/2/18	Fri 6/2/23																																																	
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	42 days	Mon 11/14/22	Tue 1/10/23																																																	
27	Construction	103 days	Wed 1/11/23	Fri 6/2/23																																																	

Project: 00071 Date: Thu 11/3/22	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															
1	PHASE 3	663 days	Mon 11/2/20	Wed 5/17/23																																																
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	46 days	Tue 11/8/22	Tue 1/10/23																																																
22	Construction	91 days	Wed 1/11/23	Wed 5/17/23																																																

Project: 00072 Date: Thu 11/3/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planing and Conceptual Design	◆————◆	Easements and Land Acquisitions	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Bidding and Contracts	◆————◆		



MAY RIVER ROAD POCKET PARK PROPOSED SCHEDULE	
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D	Task Name	Duration	Start	Finish	Timeline
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      Milestone       Task  Planning and Conceptual Design  Permitting  Easements and Land Acquisitions   
 Date: Wed 11/23/22      Critical Task       Project Duration  Final Design and Construction Documents  Bidding and Contract  Construction 

MAY RIVER WATERSHED ACTION PLAN IMPERVIOUS WATER QUALITY PROJECTS  
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish
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
3	Data and Development Plan Research	30 days	Fri 7/1/22	Thu 8/11/22
4	Initial Property Owner Outreach/Entry Approval	280 days	Mon 8/15/22	Fri 9/8/23
5	Initial Site evaluations	307 days	Fri 8/26/22	Mon 10/30/23
6	Update Site Specific Concept Plans	323 days	Wed 9/21/22	Fri 12/15/23
7	Geotechnical Evaluations	25 days	Mon 12/18/23	Fri 1/19/24
8	Finalize Site Specific Preliminary Design and WQ Benefit	20 days	Mon 2/5/24	Fri 3/1/24
9	Obtain Final Agreement w Property Owner to proceed to Final Design and Construction	21 days	Fri 3/1/24	Fri 3/29/24

Project: 00105  
Date: Fri 9/23/22

Milestone Critical Task

◆★

Task Project Duration

Planning and Conceptual Design

◆✖✖✖✖✖✖◆

Permitting

Easements and Land Acquisitions

Construction




Final Design and Construction Documents

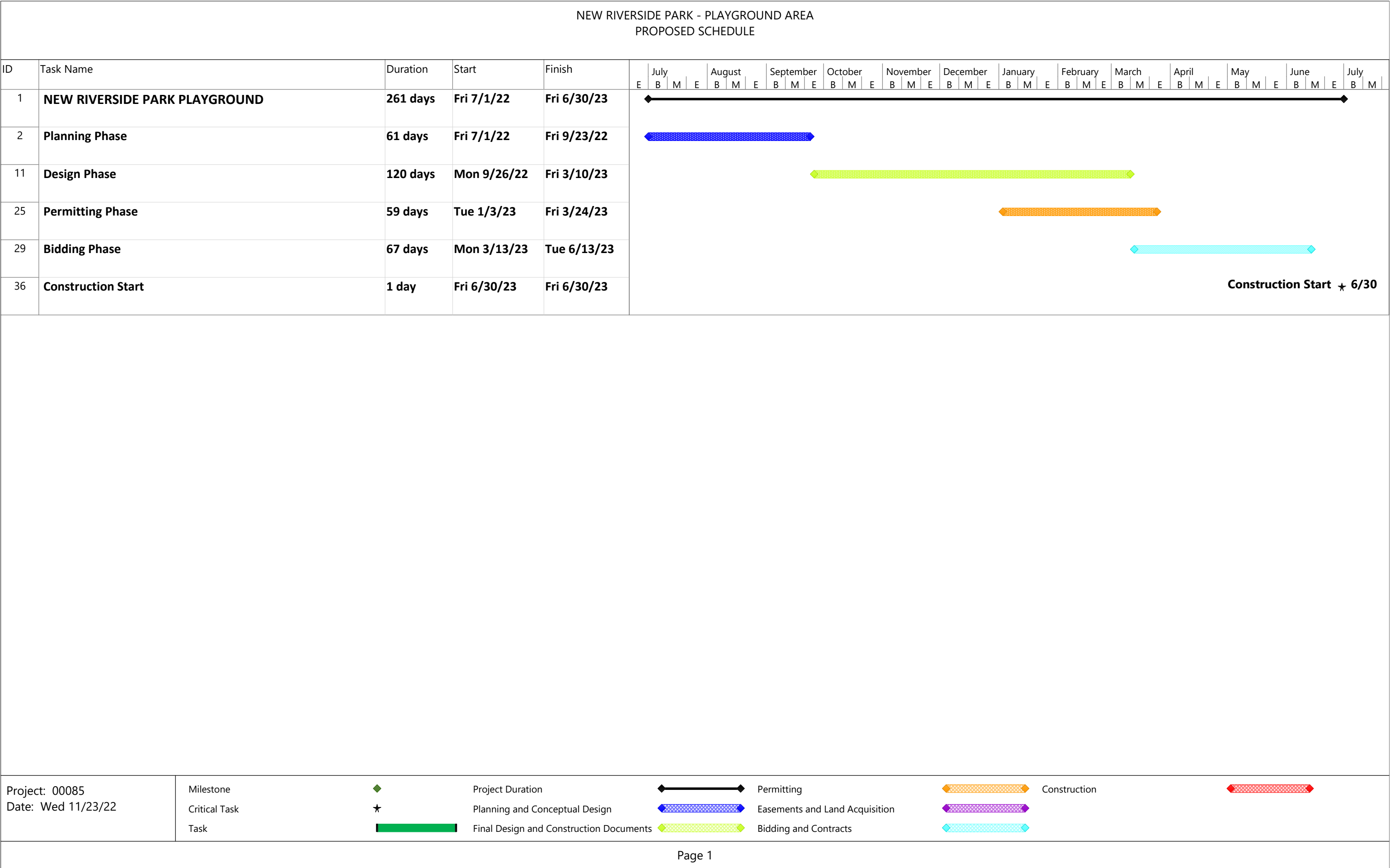
Bidding and Contract

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## 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	154 days	Fri 7/1/22	Wed 2/1/23	
26	Permitting	121 days	Thu 2/2/23	Thu 7/20/23	
32	Bidding and Contracts	55 days	Fri 7/21/23	Thu 10/5/23	
38	Submit Contract for TC Approval	1 day	Tue 11/14/23	Tue 11/14/23	
39					
40					
41					
42					
43					
44					
45					

Project 00092 Wed 11/9/22	Project Duration		Critical Task		Planning and Conceptual Design		Permitting		Bidding and Contracts	
	Task		Milestone		Final Design and Construction Documents		Easements and Land Acquisition		Construction	











PATHWAY PEDESTRIAN SAFETY IMPROVEMENTS PROPOSED SCHEDULE	
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ID	Task Name	Duration	Start	Finish																																																								
					July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February																																				
1	Pathway Pedestrian Safety Improvements	414 days	Thu 7/1/21	Tue 1/31/23																																																								
2	Planning and Conceptual Design	88 days	Thu 7/1/21	Mon 11/1/21																																																								
6	Final Planning and Construction Documents	76 days	Fri 11/5/21	Fri 2/18/22																																																								
11	Permitting	154 days	Wed 3/2/22	Mon 10/3/22																																																								
18	Bidding and Contract	48 days	Mon 10/3/22	Wed 12/7/22																																																								
23	Construction	40 days	Wed 12/7/22	Tue 1/31/23																																																								

Project: 00050 Date: Wed 11/23/22	Milestone	◆	Project Duration	◆————◆	Permitting	◆————◆	Construction	◆————◆
	Critical Task	★	Planning and Conceptual Design	◆————◆	Bidding and Contract	◆————◆		
	Task	■	Final Design and Construction Documents	◆————◆	Easements and Land Acquisitions	◆————◆		







PRITCHARD STREET DRAINAGE IMPROVEMENTS  
PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	July 6/26   7/3   7/10   7/17   7/24   7/31   8/7   8/14   8/21   8/28   9/4   9/11   9/18   9/25   10/2   10/9   10/16   10/23   10/30   11/6   11/13   11/20   11/27   12/4   12/11   12/18   12/25   1/1   1/8   1/15   1/22   1/29   2/5   2/12   2/19   2/26   3/5   3/12   3/19   3/26   4/2   4/9   4/16   4/23   4/30   5/7   5/14   5/21   5/28   6/4   6/11   6/18   6/25   7/2   7/9   7/16   7/23   7/30   8/6   8/13   8/20   8/27   9/3   9/10   9/17   9/24   10/1   10/8   10/15   10/22   10/29   11/5   11/12   11/19   11/26   12/3   12/10   12/17   12/24   12/31
1	PRITCHARD STREET DRAINAGE IMPROVEMENTS	543 days	Fri 7/1/22	Tue 7/30/24	
2	Pritchard Street Design and Construction Documents	201 days	Fri 7/1/22	Fri 4/7/23	
4	Pritchard Street Bidding and Contracts	37 days	Mon 4/10/23	Tue 5/30/23	
10	Pritchard Street Construction	139 days	Wed 5/31/23	Mon 12/11/23	

Project: 00106 Milestone  Task  Planning and Conceptual Design  Permitting  Easements and Land Acquisitions   
 Date: Fri 9/23/22 Critical Task  Project Duration  Final Design and Construction Documents  Bidding and Contract  Construction 

SARAH RILEY HOOKS MASTER PLANNING  
FY 23 PROPOSED SCHEDULE

ID	Task Name	Duration	Start	Finish	Timeline																														
					7/24	August			September				October				November				December				January			February			March				
1	SARAH RILEY HOOKS COTTAGE MASTER PLAN	315 days	Mon 8/1/22	Fri 10/13/23																															
2	Planning	40 days	Mon 8/1/22	Fri 9/23/22																															
6	Design (Master Planning)	115 days	Mon 9/26/22	Fri 3/3/23																															

Project 00101 Fri 7/15/22	Milestone		Project Duration		Permitting		Construction	
	Critical Task	★	Planning and Conceptual Design		Easements and Land Acquisition			
	Task		Final Design and Construction Documents		Bidding and Contracts	