City of Mobile

205 Government Street Mobile, Alabama 36602



Municipal Separate Storm Sewer System (MS4) 2024 Annual Report

NPDES Permit No. ALS000007

January 2025

Prepared By:



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Appendix A

Storm Water Collection System Operations

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- Litter and Property Enforcement Summary Form
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- Recycling Activity Report
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Appendices(cont.)

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- 2024 Outfall Screening List
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Appendix I

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SECTION 1

General Information



1. General Information

1.1. Signatory Requirements

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Name

City Engineer

Title

Signature

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A letter from Honorable William S. Stimpson delegating authority to Rosemary Ginn, P.E. is provided in Appendix B of the Storm Water Management Program (SWMP) Plan.







1.2. Overview and Summary

The City of Mobile's SWMP is an MS4-specific comprehensive program developed to accomplish the following objectives:

- Reduce discharge of pollutants from MS4 to the Maximum Extent Practicable (MEP);
- Monitor stormwater structural controls owned, operated, or maintained by the City;
- Develop and implement public education and public involvement programs to inform citizens about the impacts of stormwater discharges on local water bodies and illustrate steps they can take to help reduce pollutants in stormwater runoff.
- Identify and eliminate illicit discharges and improper disposal into the MS4;
- Develop, implement, and enforce controls to minimize pollutants from construction activities;
- Develop and implement pollution prevention / good housekeeping practices for municipal operations;
- Develop and implement stormwater management practices for qualifying new developments and redevelopments;
- Reduce discharges of pollutants from the application of pesticides, herbicides, and fertilizers;
- Prevent, contain, and respond to spills that may discharge into the MS4;
- Monitor and control pollutants in stormwater discharges from industrial facilities (such as municipal landfills, hazardous waste treatment, sewage treatment, storage, disposal, and recovery facilities subject to Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313); and,
- Implement public education activities regarding the stormwater management program, recycling programs, household hazardous waste, and proper disposal, etc.

The 2024 MS4 Annual Report demonstrates the City's efforts to maintain and comply with the NPDES permit requirements to the MEP.







1.3. List of Contacts

Part IV.4.a. of National Pollutant Discharge Elimination Systems (NPDES) Permit Number ALS000007 requires the Permittee to provide a list of contacts and responsible parties (e.g. agency, name, phone number) that had input to and are responsible for the preparation of the annual report. City Staff from Administration, Engineering, Public Works, Planning and Development, Parks and Recreation, Public Safety, and Information Technology contributed materials and data for incorporation into this annual report. Personnel directly responsible for the preparation of this annual report include the following.

Table 1.1 Contact List

Rosemary Ginn, P.E., CFM, CPMSM
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Any questions concerning Mobile's Municipal Separate Storm Sewer System (MS4) 2024 Annual Report shall be directed to Ms. Rosemary Ginn, P.E.

1.4. Introduction

Section 402(p)(6) of the CWA required the U.S. Environmental Protection Agency (EPA) to establish regulations governing stormwater discharge permit application requirements under the NPDES program. In response to this requirement, EPA







published a final rule on November 16, 1990, in Federal Register Volume 55, Number 222 establishing the regulations for NPDES permit application requirements and requirements water quality-based municipal stormwater programs to address stormwater runoff from certain industrial and construction activities located within medium and large MS4s serving populations of 100,000 or greater. Those regulations and requirements are provided in 40 CFR Parts 122, 123, and 124. These "Phase I" regulations were incorporated into Section 402(p) of the Clean Water Act as part of the existing NPDES permit rules that address point source dischargers. As a result, urban nonpoint source runoff became regulated as a point source.

The Alabama Department of Environmental Management (ADEM) presently has primary jurisdiction over permitting and enforcement of the Storm Water Program for Alabama. On 7 July 2021, ADEM issued NPDES Permit Number ALS000007 to the City of Mobile, which became effective on 7 July 2021 and will expire on 6 July 2026.

The City of Mobile's SWMP has been developed to include the storm water pollution prevention and management programs described in the NPDES Permit. Part II.B of the NPDES Permit describes ten program elements that are required to be incorporated into the City's SWMP:

- 1. Storm Water Collection System Operations;
- Public Education and Public Involvement on Storm Water Impacts;
- 3. Illicit Discharges Detection and Elimination (IDDE);
- 4. Construction Site Storm Water Runoff Control:
- 5. Post-Construction Storm Water Management in New Development and Re-Development;
- 6. Spill Prevention and Response:
- Pollution Prevention / Good Housekeeping for Municipal Operations;
- 8. Application of Pesticide, Herbicide, and Fertilizer (PHFs);
- 9. Oil, Toxics, and Household Hazardous Waste Control; and,
- 10. Industrial Storm Water Runoff.

This annual report summarizes the City's efforts for the reporting period from 1 October 2023 through 30 September 2024 to comply with the NPDES Permit and the above-listed ten program elements to the MEP.







SECTION 2

Program Evaluation



2. Program Evaluation

2.1. Permit Area and MS4

2.1.1. City of Mobile Permit Area

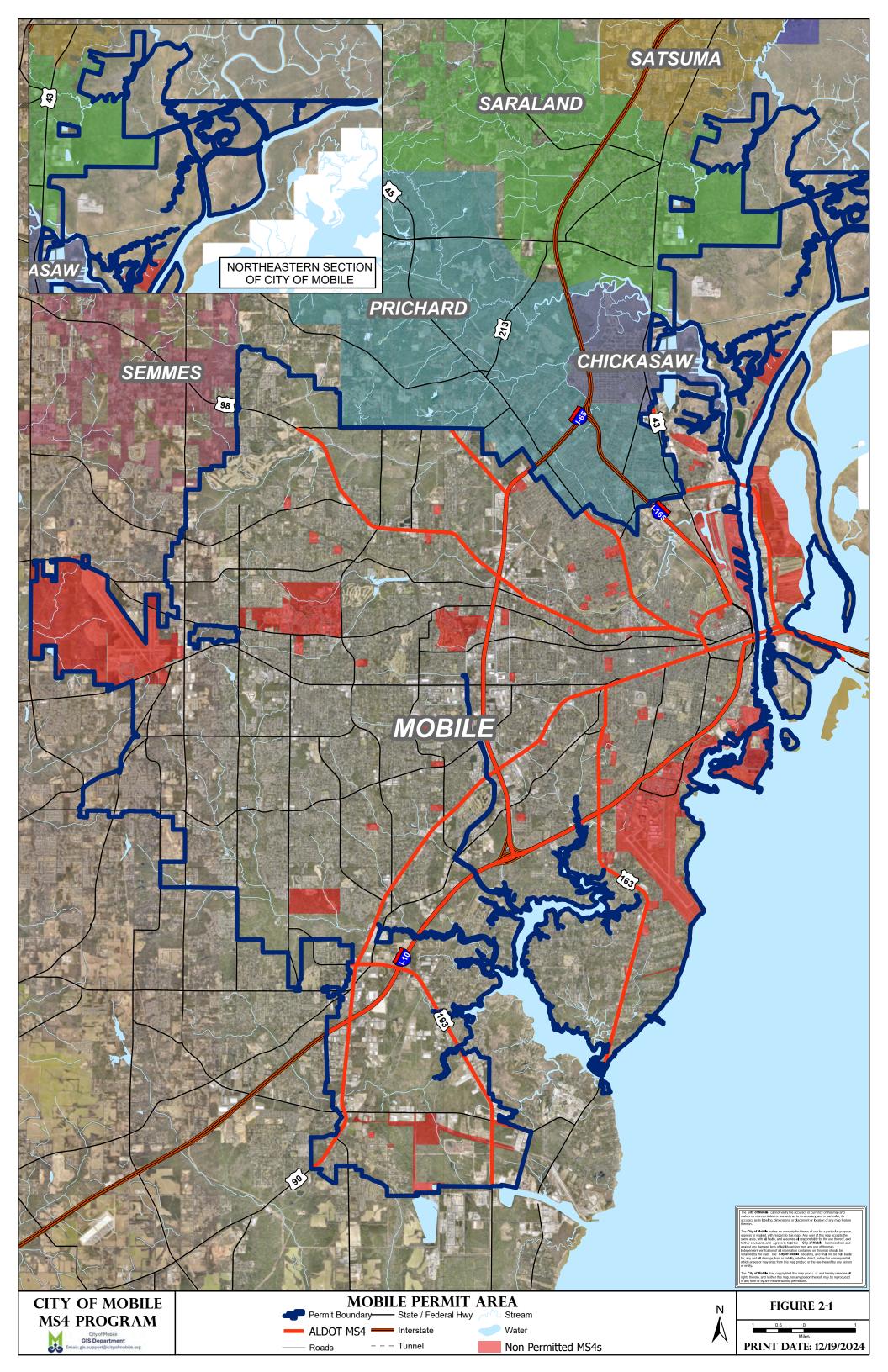
Part I.A. of NPDES Permit ALS000007 defines the City of Mobile Permit Area (Mobile Permit Area) as "The permit applies to the corporate boundaries of the City of Mobile that are regulated by the Permittee and discharge to the Permitte's Municipal Separate Storm Sewer System (MS4)." In accordance with Part II.A.3.a. of NPDES Permit ALS000007 the City of Mobile Permit Area is shown in City of Mobile MS4 Figure 2.1

A MS4 is defined by EPA at 40 CFR Part 122.26(b)(8) as:

- (8) Municipal separate storm sewer system means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
 - (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special district under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
 - (ii) Designed or used for collecting or conveying stormwater;
 - (iii) Which is not combined sewer; and
 - (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

The City of Mobile's NPDES Permit ALS000007, that became effective on 7 July 2021, defines a MS4 in Part V.AA.26 as:







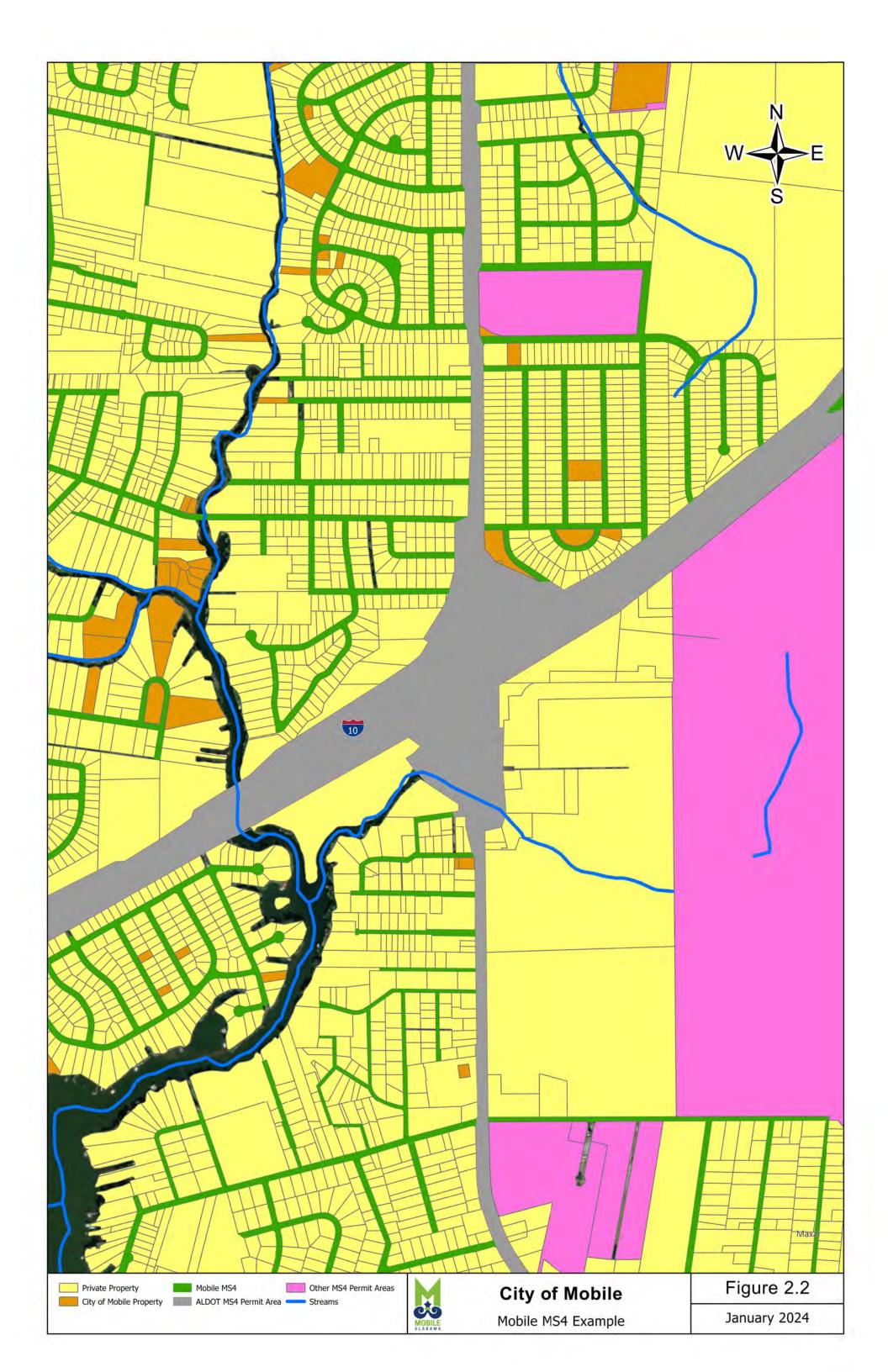
"Municipal Separate Storm System" is defined at 40 CFR Part 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined in ADEM Administrative Code 335-6-6-.02(nn).

It is important to note that the definition of MS4 is limited to "conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains)" that are owned or operated by an entity described in 40 CFR Parts 122.26(b)(8)(i) through 122.26(b)(8)(iv) and NPDES Permit Number ALS000007 Part V.AA.26. To further illustrate the City of Mobile MS4 (Mobile MS4), Figure 2.2 provides an example small area of the City of Mobile Permit Area that shows the following:

- 1. Areas highlighted in yellow are privately owned properties located within the City of Mobile Permit Area.
- 2. Areas highlighted in grey are part of ALDOT's Permit Area located within the City of Mobile Permit Area.
- 3. Areas that are highlighted in pink are part of other MS4s located within the City of Mobile Permit Area.
- 4. Areas highlighted in green and orange are owned, operated, and/or maintained by the City of Mobile. Conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), as defined by 40 CFR Part 122.26(b)(8) and NPDES Permit Number ALS000007 Part V.AA.26, located within the areas highlighted green and orange are part of the Mobile MS4.









The City shall implement its stormwater program within the City of Mobile Permit Area as described in this section, as supported by State law, and NPDES permit requirements as described below:

- Section 94 of the Alabama Constitution prohibits Alabama municipalities from using public money and resources on private property unless the expenditure is deemed to fulfill a "public purpose."
- 2. State law limits the <u>jurisdictional</u> scope of local MS4 program requirements to that <u>absolutely required by federal law</u> as shown in the sections of the *Code of Alabama* set forth below.
 - a. §11-89C-1(e) states "It is further the intention of the Legislature to limit the jurisdictional scope of local storm water management programs to include only those sites discharging into the municipal separate storm sewer system and, because this federal initiative is an unfunded mandate, to limit the substantive scope of such local programs to include only those rules, regulations, and/or aspects that are absolutely required to satisfy the Clean Water Act, as specifically set out in the Code of Federal Regulations. ..."
 - b. **§11-89C-1(f)** states "It is further the intention of the Legislature for an individual governing body or public corporation to primarily rely upon ADEM, to the fullest extent allowed by applicable state and federal laws, for the permitting and enforcement of all ADEM NPDES sites rather than subjecting such sites to double regulation. ..."
 - c. §11-89C-2(12) defines "STORM WATER LAWS. Those provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., together with all other and subsequent applicable federal and state laws, rules, and regulations, as set out in applicable permits, relating specifically to the control of discharges into and from municipal separate storm sewers, but specifically excluding any EPA guidance and/or interpretations of said laws, rules, and/or regulations not promulgated in accordance with the Alabama Administrative Procedure Act, 5 U.S.C. §500 et seq."
- 3. NPDES Permit No. ALS000007 Part V. Q. states "This permit is issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter that are applicable to this permit are hereby made part of this permit. This permit does not authorize the non-compliance with or violation of any laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws."







2.2. MS4 Characterization

The City of Mobile is located adjacent to Mobile Bay in the southernmost part of Alabama. The City occupies approximately 258.07 square miles. Municipalities that share boundaries with the City of Mobile include Prichard, Saraland, Chickasaw, Satsuma, Theodore, Tillman's Corner, and Mobile County.

There are several federal facilities, state facilities, military bases, universities, and state roads located within the City that are exempted from the City's regulations and enforcement authority. The City has initiated an effort to identify and inventory areas of the City that are not part of the MS4. The current inventory is summarized in Table 2.1.

Non-Regulated Area NPDES Permit No. Federal Facilities US Coast Guard Complex State Facilities Alabama Department of Transportation ALS000006 Alabama State Port Authority ALG140910 AL0002976 AL0047651 AL0042374 Alabama National Guard (Fort Whiting) **Educational Facilities** Bishop State University of South Alabama ALR040060

Table 2.1 Non-Regulated Areas

2.2.1. Annexations

Effective July 25, 2023, and after a special resident's vote, the City annexed three adjacent areas located in West Mobile into the corporate city limits. These annexations thereby increased the total area occupied by the City to 258.07 square miles and added approximately 19,000 more residents. The City is currently evaluating how to implement its SWMP in the annexed areas. The City of Mobile's corporate limits, Mobile Permit Area, Mobile County boundary, major roads, major streams, and surrounding communities are presented in Figure 2.2.

2.2.2. Climate

Mobile's geographical location on the Gulf of Mexico provides a mild sub-tropical climate, with hot, humid summers and mild, rainy winters. Average high and low







temperatures in January are 60.8°F and 40.0°F, respectively. Summer temperatures average 91.0°F in July with highs exceeding 90°F for more than 65 days per year. The Mobile area receives approximately 66 inches of rainfall annually. Rainfall studies have determined that Mobile is one of the wettest cities in the contiguous 48 states. Rainfall tends to be consistent throughout the year with wetter periods occurring during the summer and early fall months. Mobile is occasionally affected by major tropical storms and hurricanes which can produce copious amounts of rainfall in a very short period. Significant snowfall events are rare in Mobile. Average monthly rainfall and temperatures are summarized in Figure 2.3.

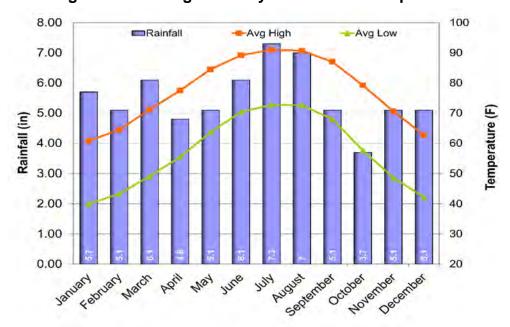


Figure 2.3 Average Monthly Rainfall and Temperatures

2.2.3. Population

Between its incorporation in 1814 through 1960, the City of Mobile experienced a steady increase in population. Over the past 50 years, the population has remained steady. Figure 2.4 provides a graph showing the historical population of the City since 1900.

The 2020 Census estimated the total population of the City of Mobile to be 187,041. As compared to the population in 2010 of 195,111, the City has experienced a population decrease of 8,070 (approximately 4.1%) over the past 10 years. The population growth in the City was relatively flat until the recent annexation, which increased the total population to over 200,000 people.







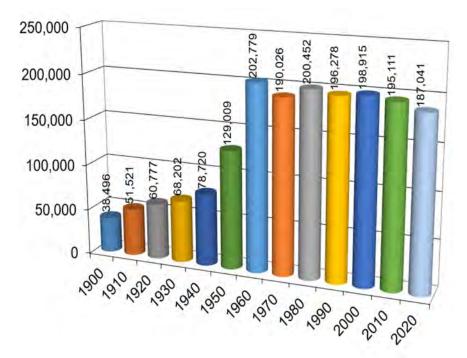


Figure 2.4 Historic Population

2.2.4. Watersheds

To develop, implement, and maintain an effective SWMP that minimizes pollutant discharges in stormwater runoff, it is important for the City to be knowledgeable of the following:

- Major drainage basins within the City;
- Water quality concerns of each drainage basin; and,
- Potential sources of pollutants by land use.

The City of Mobile is located within 16 drainage basins that have a 12-digit Hydraulic Unit Classification (HUC-12). The area of the City located within each HUC-12 drainage basin is summarized in Table 2.2 and shown in Figure 2.5.







Table 2.2 HUC-12 Drainage Basins

	City of Mobile		
HUC 12 Basin	Area (mi²)	Area (% of City)	
Upper Dog River	32.91	21.54	
Three Mile Creek	27.19	17.79	
Halls Mill Creek	24.76	16.20	
Lower Dog River	13.98	9.15	
Eight Mile Creek	11.81	7.73	
Tensaw River – Apalachee River	6.97	4.56	
Lower Chasaw Creek	6.66	4.36	
Mobile Bay	6.55	4.29	
Grand Bay	6.02	3.94	
Bayou Sara	5.50	3.6	
Pierce Creek – Big Creek	4.4	2.88	
Deer River	2.2	1.44	
Miller Creek	2.14	1.40	
Fowl River	1.36	0.89	
Gunnison Creek	0.19	0.12	
Bon Secour Bay	0.17	0.11	
Total	152.81	100.0	

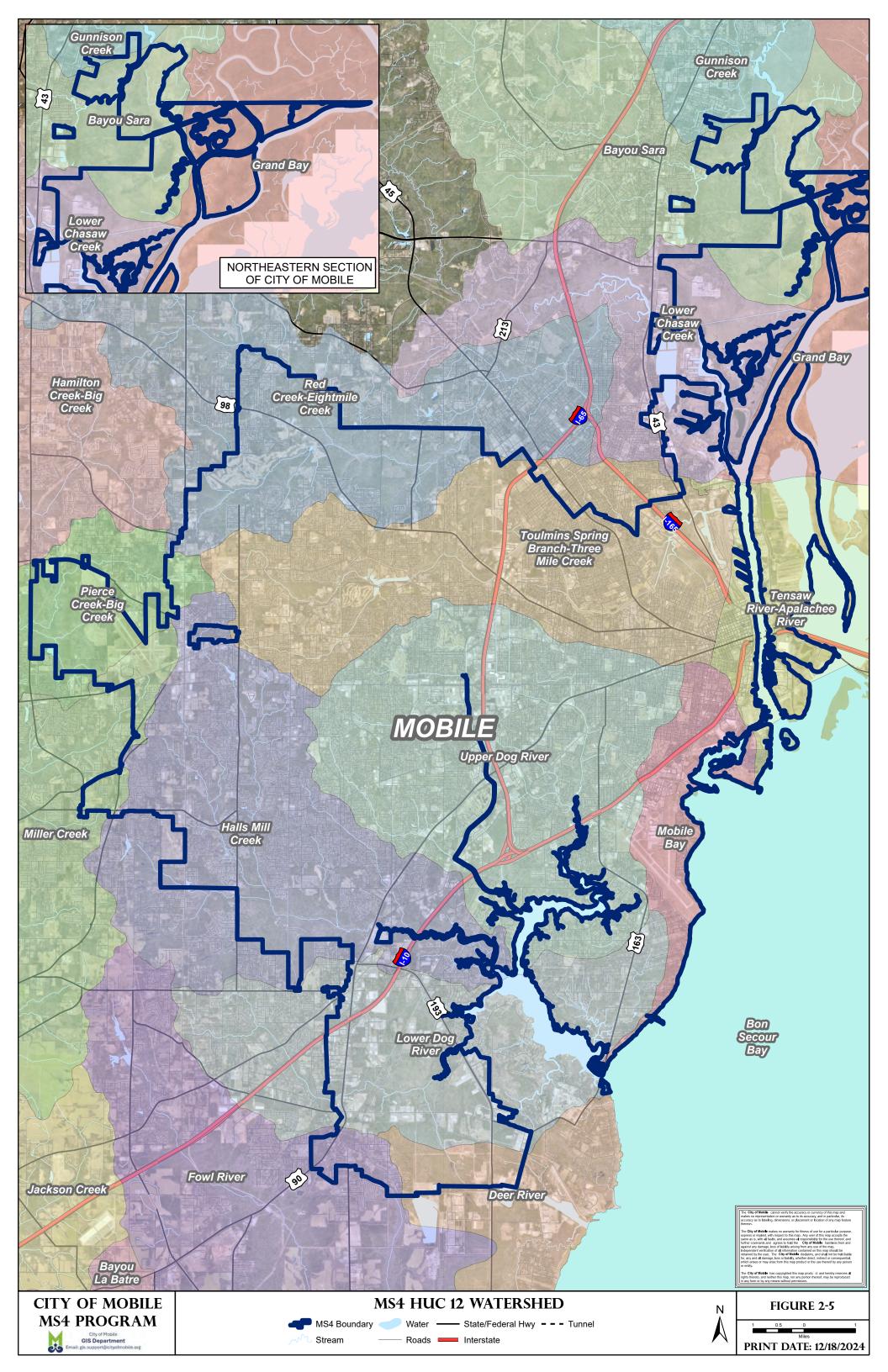
2.2.5. Land Use

The City maintains a GIS layer to track zoning and land use throughout the City. Each major district is further subdivided into more detailed subcategories that characterize specific land use or land cover. A summary of the approximate land use within the City is summarized in Table 2.3 and shown in Figure 2.6. This area does not include City rights-of-way.

Overlapping the land use with watershed boundaries provides the City with the information needed to identify and implement Best Management Practices (BMPs) that are targeted to help improve water quality.







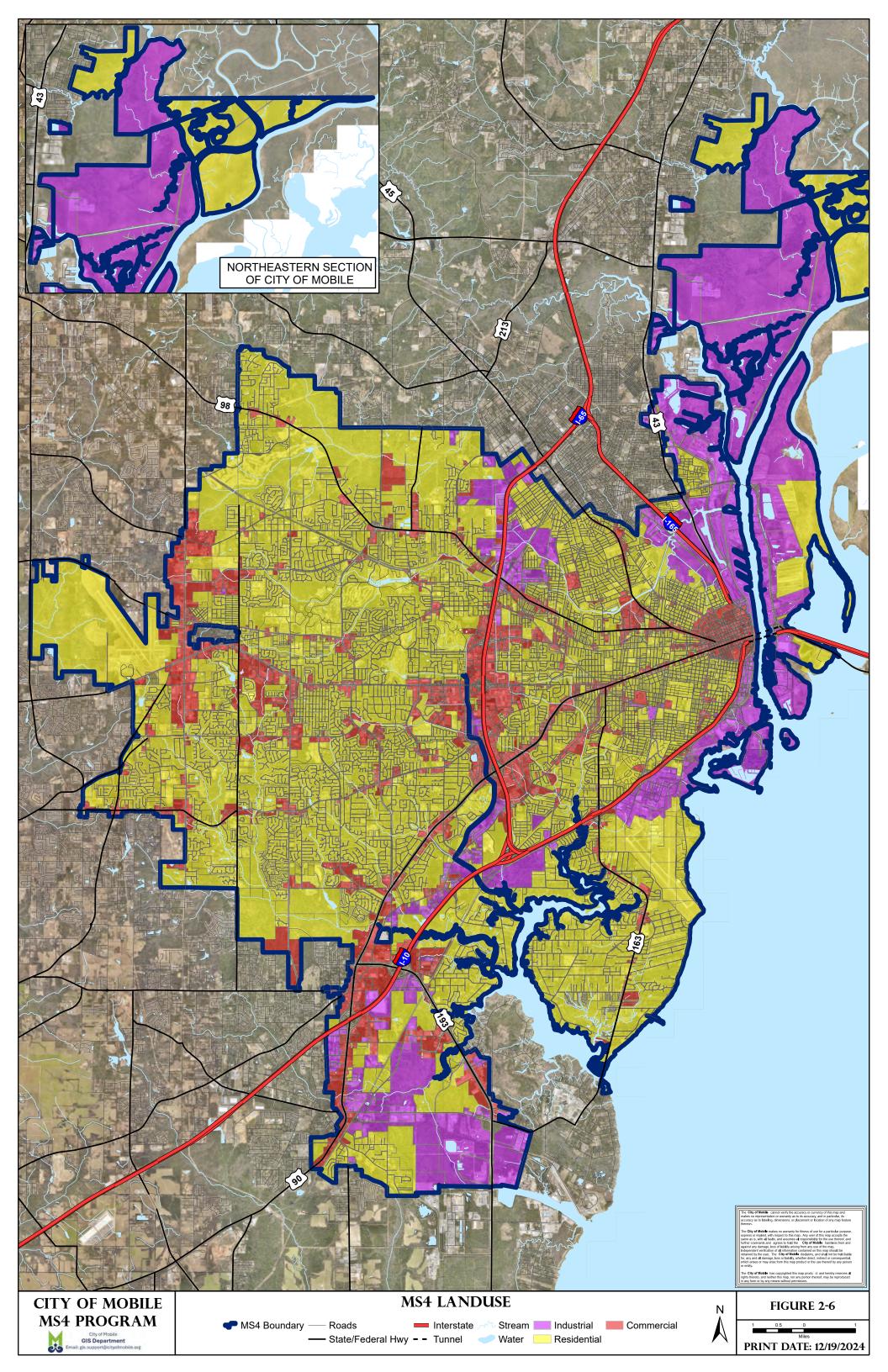




Table 2.3 Land Use Summary

Land Use	Area (mi²)	Area (%)
Residential	89.38	65.99
Commercial	16.85	12.44
Industrial	29.21	21.57
Total	135.44	100.0

2.3. Program Objectives

The primary objective of the SWMP is to effectively prohibit the discharge of nonstormwater discharges into the MS4 and reduce the discharge of pollutants from the MS4 to the MEP. The City of Mobile has implemented, maintained, and revised the SWMP as necessary to comply with the requirements of the NPDES permit.

2.4. Major Findings

Section 303(d) of the Clean Water Act (CWA) establishes that states are to identify and list waters (rivers, streams, etc.) for which technology-based limits alone do not ensure attainment of applicable water quality standards. The 303(d) list of impaired waters will include a priority ranking for the establishment of Total Maximum Daily Loads (TMDLs) for these waters. The state will establish a TMDL that will meet water quality standards for impaired streams, considering seasonal variations and a margin of safety that accounts for uncertainty. TMDLs establish the maximum amount of a pollutant that a water body can assimilate without exceeding water quality standards. Once a TMDL is developed for a water, that water will be removed from the 303(d) list.

2.4.1. 303(d) Listed Streams

According to ADEM's 2024 303(d) list, there are four (4) streams within the City that have been designated as impaired. ADEM's 303(d) listed streams located within the City are summarized in Table 2.4 and shown in Figure 2.7.





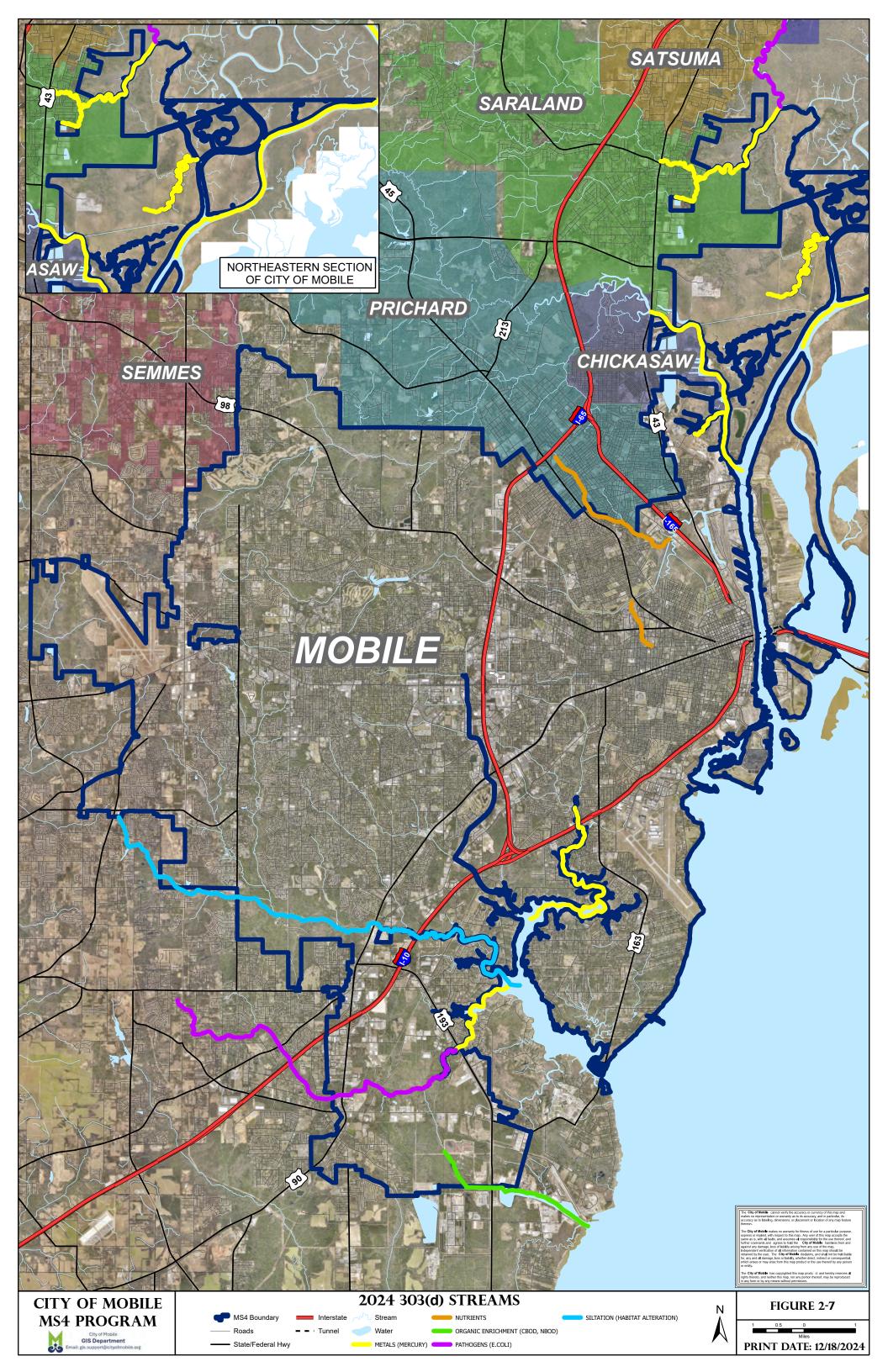




Table 2.4 2024 303(d) Listed Streams

Wa	aterbody	Designated	Pollutant	C	
Name ID		Use	of Concern	Sources	
Toulmins Spring Branch	AL03160204-0504-300	Fish and Wildlife	Nutrients	Urban Runoff Storm Sewers	
UT to Three Mile Creek	AL03160204-0504-500	Fish and Wildlife	Nutrients	Urban Runoff Storm Sewers	
Halls Mill Creek	AL03160205-0102-110	Fish and Wildlife	Siltation (Habitat Alteration)	Land Development	
Middle Fork Deer River	AL03160205-0105-300	Fish and Wildlife	Organic Enrichment	Collection System Failure Urban Runoff Storm Sewers	

2.4.2. Approved TMDLs

EPA has approved ADEM's TMDLs for selected stream segments on several streams located within the City. Pollutants of concern for each stream segment are summarized in Table 2.5. The location of streams where a TMDL has been developed is shown in Figure 2.8.

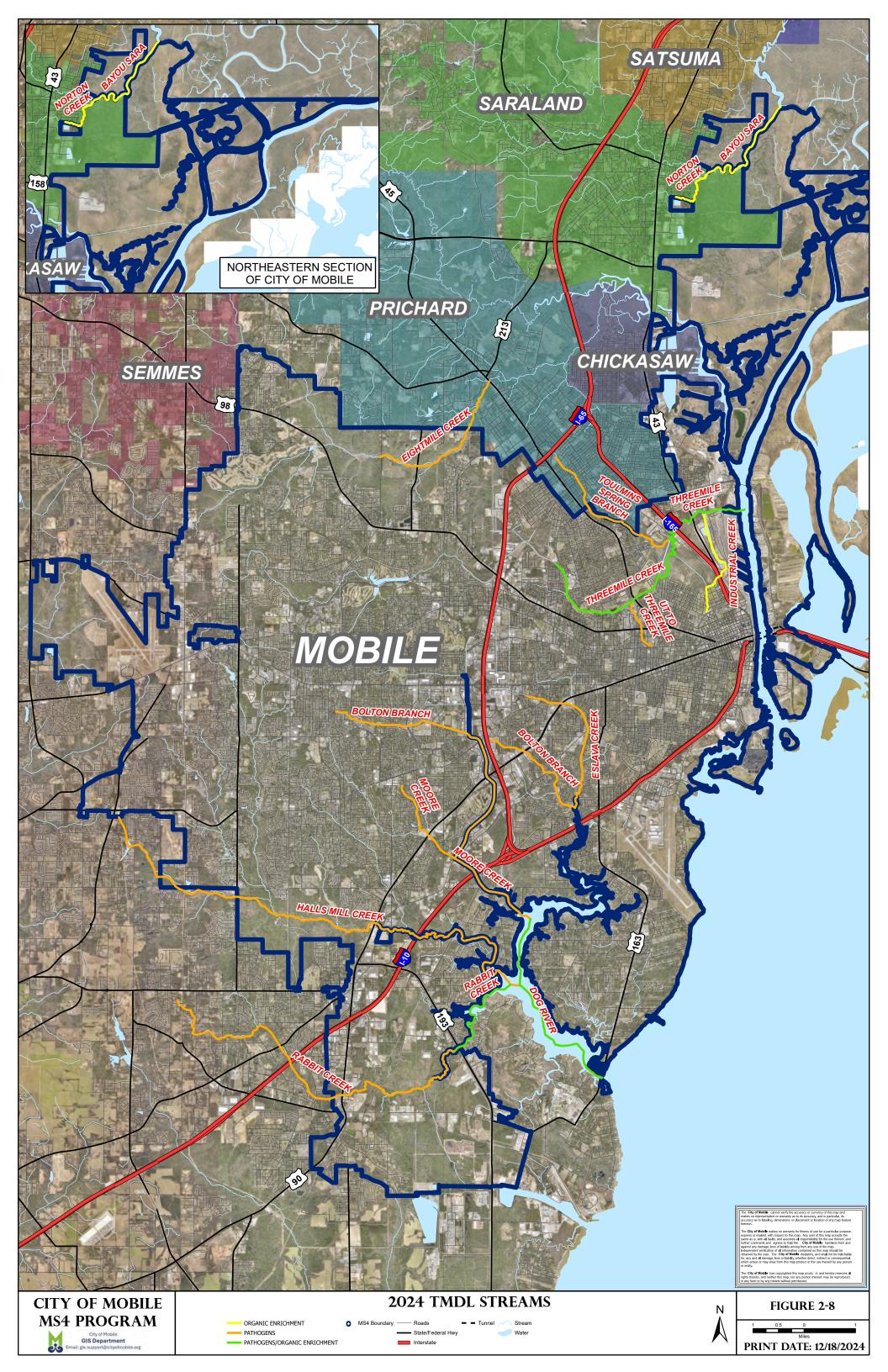
A review of the TMDLs revealed that the primary source of pollution contributing to the impairment is attributed to municipal collection system failure or on-site wastewater treatment systems. Sanitary sewer overflows (SSOs) reported by the Mobile Area Water and Sewer System (MAWSS) revealed a significant number of SSOs discharging a significant volume of wastewater into local streams. A graph showing the number of MAWSS-reported SSOs and the volume of wastewater discharged is provided in Figure 2.30.



Table 2.5 Approved TMDLs

Wa	aterbody	Pollutant of	Date of	
Name	Name Assessment ID		Approval	
Bayou Sara / Norton Creek	AL03160204-0402-102 AL03160204-0402-501	Organic Enrichment Low Dissolved Oxygen	August 1997	
Eight Mile Creek	AL03160204-0304-103	Pathogens	October 2004	
Rabbit Creek	AL03160205-0103-401	Pathogens Organic Enrichment Low Dissolved Oxygen	April 2005	
Dog River	AL03160205-0102-101 AL03160205-0101-101	Pathogens Organic Enrichment Low Dissolved Oxygen	April 2005	
Three Mile Creek	AL03160204-0504-101 AL03160204-0504-102 AL03160204-0504-103	Organic Enrichment Low Dissolved Oxygen	January 2007	
Toulmins Spring Branch	AL03160204-0504-300	Pathogens	September 2009	
UT to Three Mile Creek	AL03160204-0504-500	Pathogens	September 2009	
Bolton Branch (East)	AL03160205-0101-400	Pathogens	September 2009	
Bolton Branch (West)	AL03160205-0101-600	Pathogens	September 2009	
Eslava Creek	AL03160205-0101-500	Pathogens	September 2009	
Three Mile Creek	AL03160204-0504-101 AL03160204-0504-102 AL03160204-0504-103	Pathogens Organic Enrichment Low Dissolved Oxygen	November 2013	







2.5. Major Accomplishments

The City of Mobile has made significant progress over the past year in implementing its SWMP to the MEP. Major accomplishments are summarized below.

2.5.1. Structural Controls

Due to the topography of the MS4 Area, stormwater runoff is conveyed through a series of either closed conduit storm sewer systems and/or open drainage ditches. Structural controls owned, operated, or maintained by the City primarily consist of stormwater retention ponds located at various City facilities.

2.5.1.1. Inventory

The City maintains 17 structural controls at various City facilities. The current inventory of structural controls is shown in Figure 2.10 and summarized in a Structural Control Inventory Table provided in Appendix C of the SWMP Plan. A picture of the structural control located in the Halls Mill Creek watershed is provided in Figure 2.9.



Figure 2.9 Structural Control HMC-SC-01

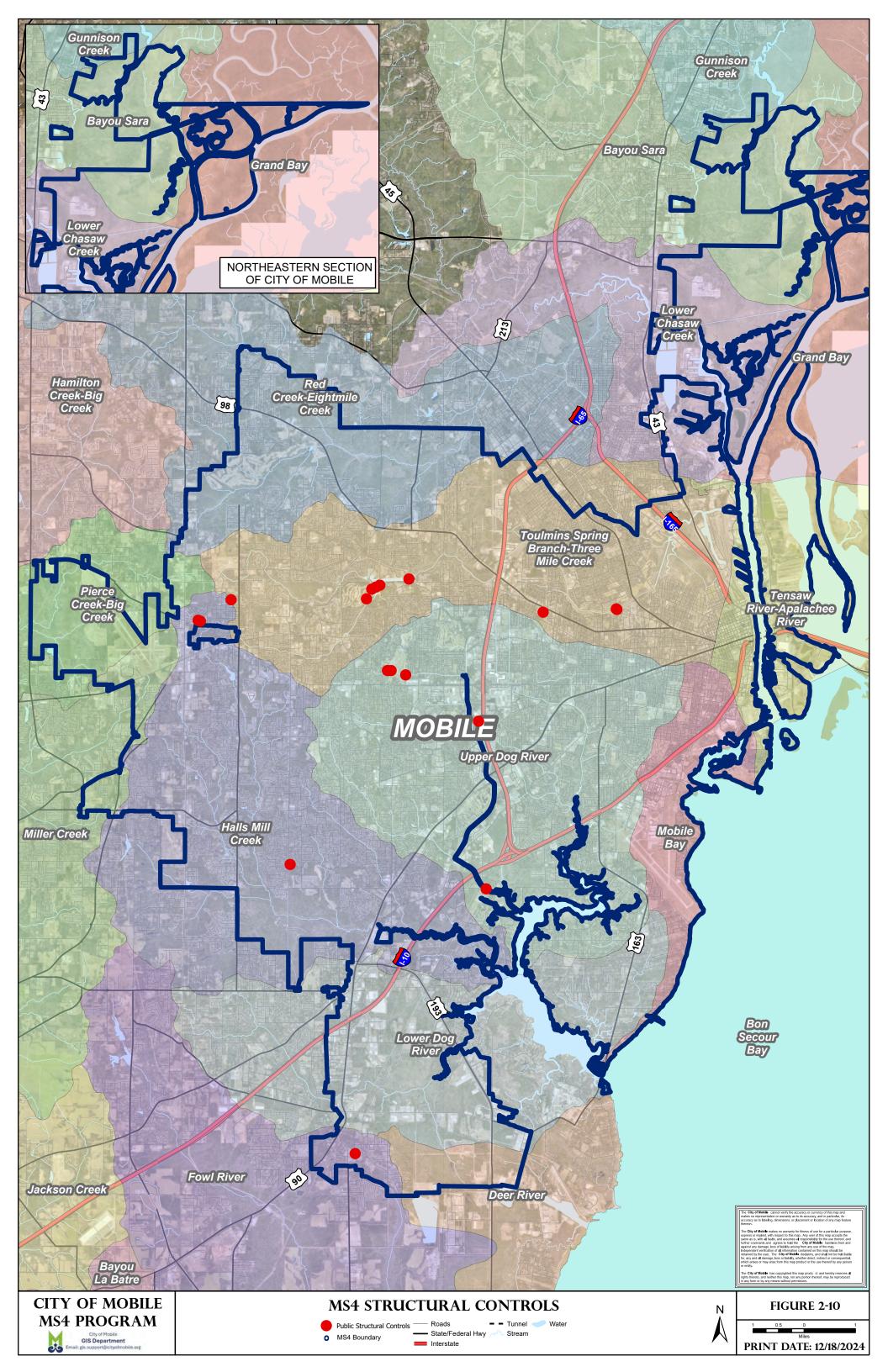
2.5.1.2. Inspections

The City conducts an inspection of each structural control on a semi-annual basis. To maximize the use of technology and resources for structural control inspections, the Structural Controls Inspection Form may be converted into an electronic format that can provide inspectors with enhanced capabilities that may include:

- GPS mapping to facilitate structural control location;
- Standardized workflow:
- Electronic data collection;
- Minimize the types of equipment needed for the inspection;









- Ability to report a problem immediately when it is discovered;
- Ability to create an inspection report; and,
- Data collected is automatically synchronized with the City's GIS database.

The City uses the NexGen Asset Management system to track and manage its structural controls. A screenshot of the NexGen Asset Management software is provided in Figure 2.11. In accordance with Part II.B.1.a.iv.1. of the City's permit, copies of the semi-annual inspection reports shall be made available upon request.

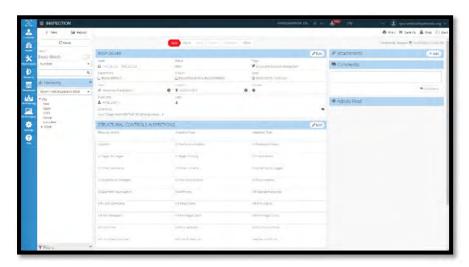


Figure 2.11 NexGen Asset Manager - Structural Controls

2.5.1.3. Maintenance

During the semi-annual inspection, the City's inspectors evaluate the presence of floatables, litter, sediment, debris, and other maintenance needs. If excessive amounts of floatables, litter, sediment, and/or debris are identified during the inspection, the inspector completes a Structural Controls Maintenance Request Form describing the maintenance required and assigns a priority on how quickly the maintenance should be performed. The inspector will assign one of the following priorities:

<u>High</u> – The structural control is not operating as designed and/or components of the structural control require immediate attention to prevent a structure failure:

<u>Medium</u> – The structural control is operating as designed, and components of the structural control only require routine maintenance; or,

<u>Low</u> – The structural control is operating as designed and only requires routine cleaning to remove sediment, debris, and/or litter.







Inspections during this permit year identified one (1) structural control that required low-priority maintenance. This structural control identified as TMC-SC-001 had a washout around an associated inlet and approximately 10 cubic yards of additional top soil was required as backfill to correct this erosion. In accordance with Part II.B.1.a.iv.1. of the City's permit, copies of inspection reports and maintenance request forms shall be made available upon request..

2.5.2. Catch Basins

The City uses the NexGen Asset Management system for catch basin inspections and maintenance. This system allows City workers to input inspections, and, if necessary, maintenance information into an application when fieldwork is completed. Once each inspection is marked as complete by the Public Services Supervisor, the NexGen application transfers the data into the City GIS geodatabase and is immediately available to City staff.

The information available to the Engineering Department representative during the inspection and cleaning operations includes a detailed map of the current location that shows parcels, addresses, and catch basin numbers. If a previously unmapped catch basin is identified, the Engineering Department representative can add the catch basin to the existing inventory in the field. Screenshots of the NexGen system are provided in Figure 2.12.

For the routine inspections, the City has developed a schedule to inspect all inventoried catch basins located within the City over a 20-year period. Currently, the City is mapping its storm sewer system. Therefore, the number of catch basins inspected by the City during the 2024 permit year has greatly exceeded the annual goal. This inspection pace will likely slow down when mapping is complete. The scheduled zone inspected for FY24 is shown in Figure 2.13.

Figure 2.12 NexGen Asset Manager – Catch Basins

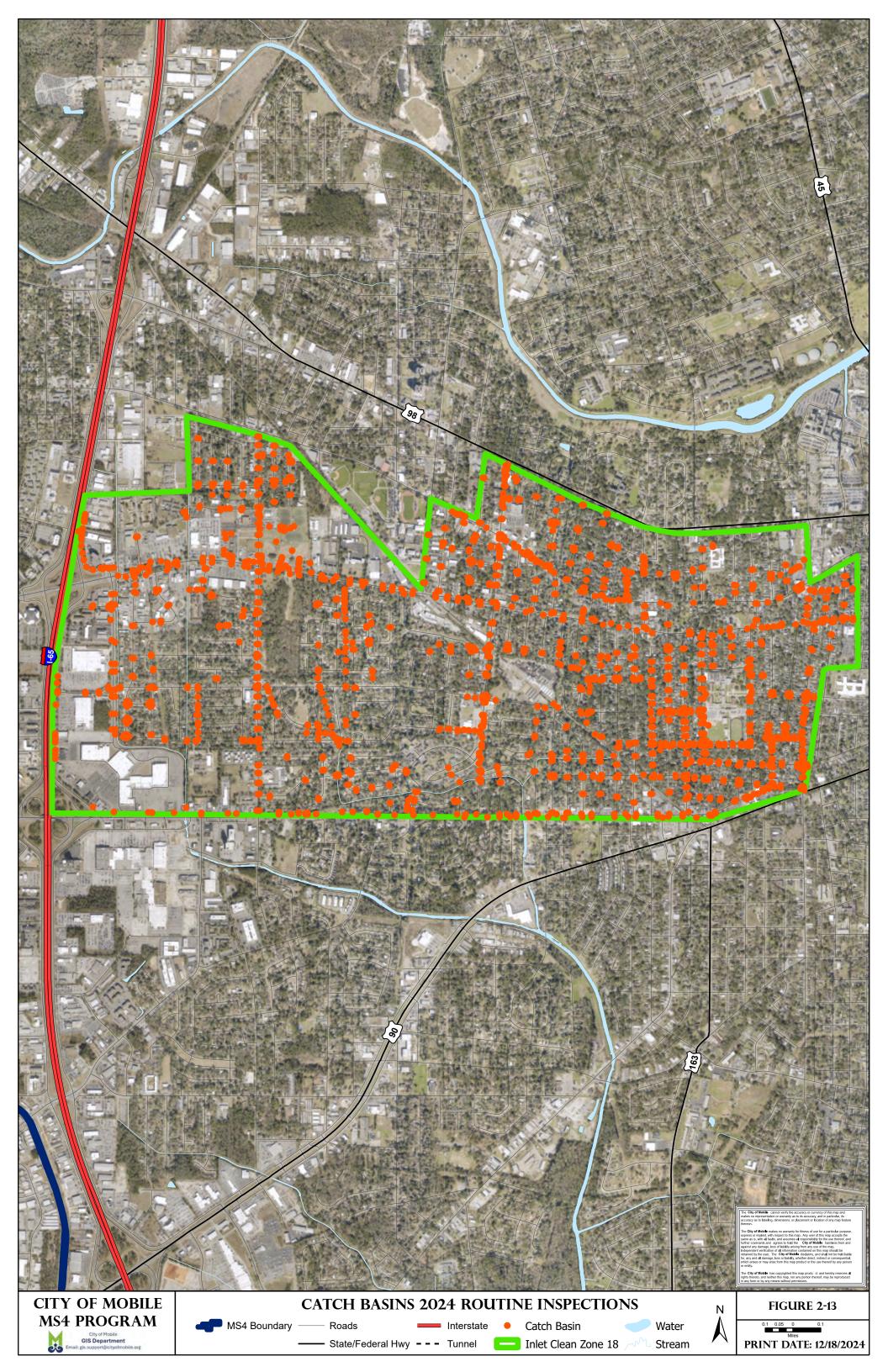














2.5.2.1. Inventory

As of 30 September 2024, the City maintains 31,828 catch basins within its corporate limits. A map showing the existing catch basin inventory is provided in Figure 2.14.

2.5.2.2. Inspection

A catch basin inspection will be triggered in one of two ways: 1) As part of the routine inspection program; or, 2) As a result of a citizen concern. Both types of inspections utilize the NexGen system and the same documentation.

The City has developed a schedule to inspect a minimum of 5% of all inventoried catch basins (approximately 1,700 / year) located within the City each year. This permit year, the City inspected a total of 8,165 catch basins. A map showing the area of the City and the catch basins inspected is provided in Figure 2.13.

For a citizen's concern, the citizen typically contacts the City through the 311 system to identify the concern and initiate a Service Request Order (SRO). The City has recently enhanced the SRO procedure for catch basin cleaning by including a general map that shows the approximate location, street address, catch basin locations, and catch basin identification numbers.

2.5.2.3. Cleaning

During a routine inspection or an SRO inspection, City personnel determine if maintenance of the catch basin is needed and establish a priority on how quickly maintenance should be performed. If the catch basin only requires cleaning, it is cleaned at the time of inspection. If additional maintenance is needed, the Public Works catch basin crew will note the needed maintenance on their inspection form. A supervisor will then generate an SRO through the NexGen system. The condition of the catch basin is noted as Good, Minor Repair, or Major Repair. The Public Works Department schedules the required maintenance based on the maintenance priority and availability of resources.

To assist with routine, catch basin cleaning, the City operates (4) four vacuum trucks and one (1) flatbed truck. A photograph of a crew cleaning an existing catch basin is provided in Figure 2.15. If a catch basin is cleaned during the inspection, the Public Works crew documents the cleaning activities directly in the NexGen System. The volume of material removed is tracked by vehicle number. This permit year 1,510 vacuum truckloads were removed which totaled approximately 22,650 cubic yards of debris and litter.





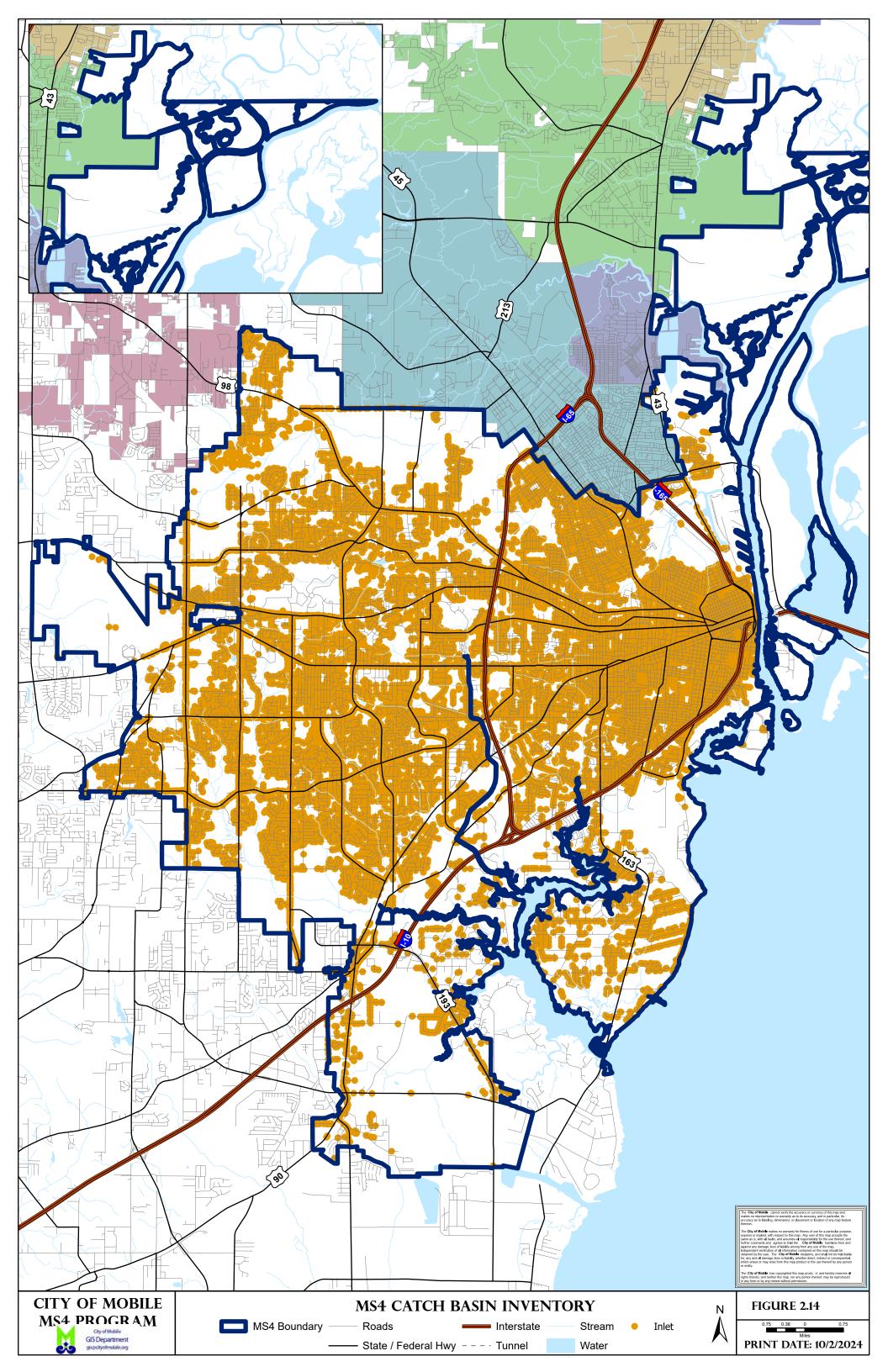




Figure 2.15 Cleaning Operations







In accordance with Part II.B.1.b.iv.1. of the City's permit, copies of the Storm Drain Catch Basin Cleaning Equipment Daily Reports shall be made available upon request.

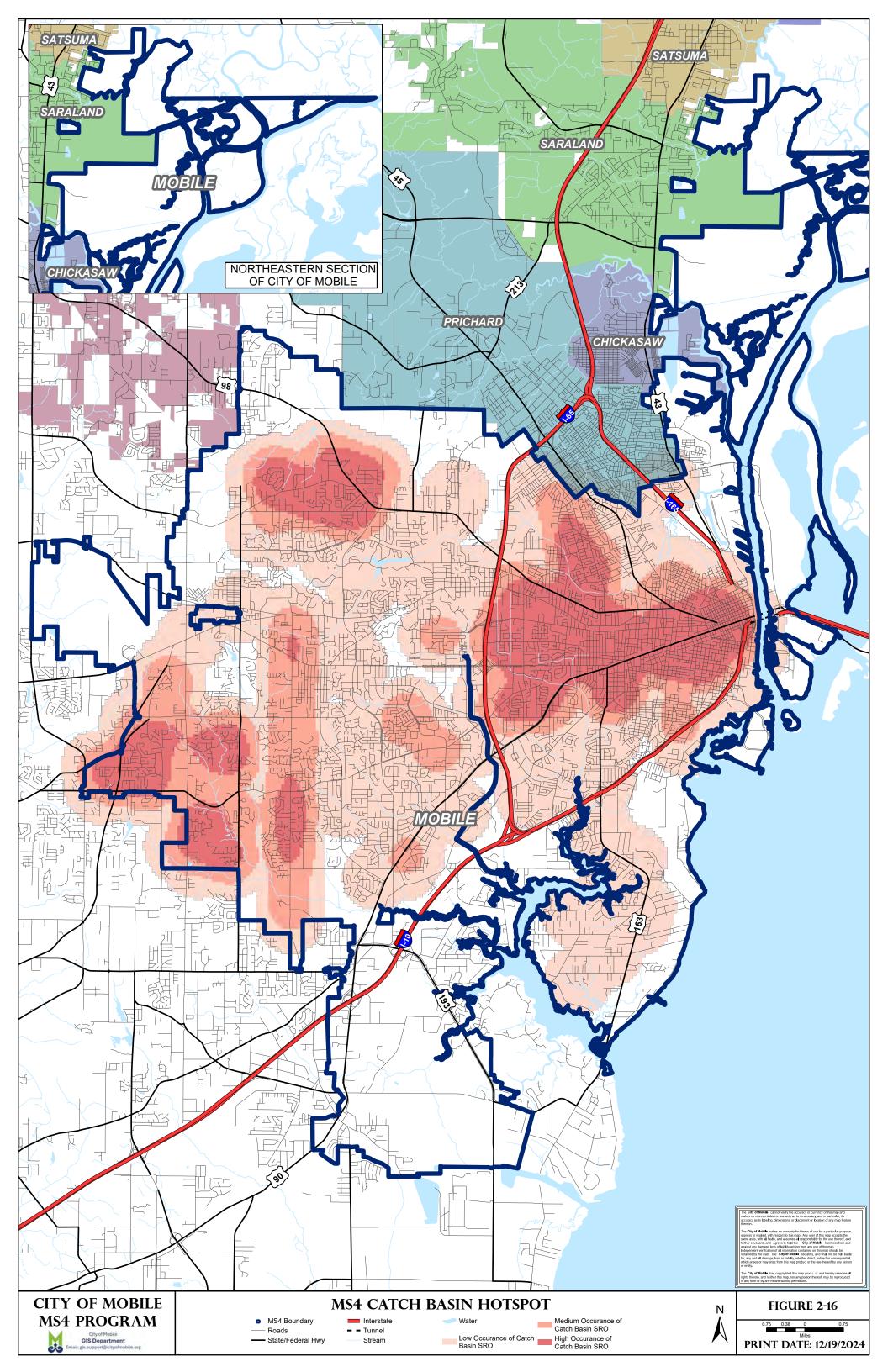
The City has developed a hot spot map showing SROs submitted for catch basin cleaning. This hot spot map is provided in Figure 2.16 and indicates that a significant number of the SROs are in the downtown area. These hot spots are most likely attributed to the high volume of traffic and residents passing through these areas. Hot spot areas are also located in parts of the City with the oldest infrastructure.

2.5.3. Litter Trap

The City currently operates a Bandalong litter trap in Eslava Creek, a tributary of Dog River, just off McVay Drive North. At this location, the litter trap receives stormwater runoff from approximately 8.7 square miles of the City. A map showing the drainage basin, land use, and photographs of the litter trap is provided in Figure 2.17.









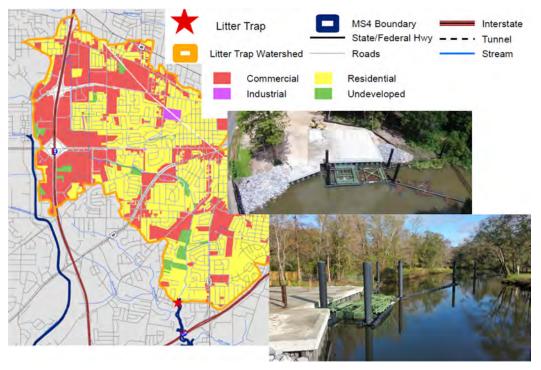


Figure 2.17 Eslava Creek Litter Trap

2.5.3.1. Inspections

The City inspected the litter trap weekly, as well as after significant rainfall events. If maintenance or cleaning was needed, the City would perform a follow-up inspection within three days to confirm the work was completed. A significant rainfall event is considered a 2-year, 24-hour storm event that produces approximately 5.67 inches of rainfall (according to NOAA Atlas 14, Volume 9). If a significant rain event occurs on a weekend or holiday, an inspection is performed on the next workday. During this permit year, the City conducted 52 routine inspections of the litter trap.

Litter trap inspections are documented in the NexGen Asset Management system. In accordance with Part II.B.1.c.iv.1. of the City's permit, copies of the Litter Trap Inspection Checklist and the Eslava Creek Litter Trap Inspection Form shall be made available upon request.







2.5.3.2. Cleaning

The litter trap is cleaned when it accumulates one-quarter cubic yard of floatable materials, excluding any vegetation. Vegetation is removed from the trap, along with the floatables, and disposed of appropriately. Litter trap cleaning activities are documented on the Litter Clean-Up Form summarized on the Eslava Creek Litter Trap Cleaning Summary Form. During this permit year, Osprey Initiative LLC, a contractor used by the City, cleaned the litter trap 40 times and removed approximately 22.1 cubic yards of material. Pictures of previous cleaning activities are provided in Figure 2.18.

In accordance with Part II.B.1.c.iv.1. of the City's permit, copies of the Litter Trap Clean-up Form shall be made available upon request. The completed Eslava Creek Litter Trap Cleaning Summary Form is provided in Appendix A.



Figure 2.18 Litter Trap Cleaning





2.5.4. Litter Enforcement

The Municipal Enforcement Division oversees the litter enforcement team as well as the activities of the property maintenance group. The Municipal Enforcement Division has field inspectors tasked to perform the following activities:

- Conduct investigations and initiate compliance measures with property owners, when warranted, for various city codes relating to litter, blight, and illegal dump sites;
- Routinely patrol commercial corridors for litter concerns or issues;
- Enforce the requirement for all dumpsters to be labeled and identify the responsible party;
- Investigate SROs; and,
- Issue tickets as warranted.





During this permit year, Municipal Enforcement issued 4,059 Notice of Violations and 1,271 Municipal Offense Tickets. Additionally, the City's Police Department also issues tickets for litter offenses. A copy of the Litter and Property Enforcement Summary Form is provided in Appendix A.

2.5.5. Litter Patrol

The City operates a litter patrol to remove litter directly from rights-of-way in the MS4. To supplement the City's rights-of-way litter patrol, the City utilizes a contractor that focuses on removing litter from Dog River and Three Mile Creek.

2.5.5.1. Rights-of-Way Litter Patrol

The City has devoted resources to acquiring specially designed ATVs with vacuums that pull the litter into attached garbage cans. Additionally, four trucks are devoted to patrolling and removing litter along City rights-of-way. Pictures of the litter truck and the specially designed ATVs are provided in Figure 2.19. During this permit year, the City's Litter Patrol removed approximately 114 bags (approximately 2,166 pounds) of litter from the rights-of-way.

Figure 2.19 Litter Truck and ATV





The amount of litter removed from the rights-of-way is documented in the Public Works Litter Collection Summary Form. A copy of the Public Works Litter Collection Summary Form is provided in Appendix A.

2.5.6. Special Events Collection

The City hosts several special events throughout the year that bring numerous residents and visitors to the downtown area. Notable special events include Mardi Gras and New Year's Eve celebrations. To help manage trash, debris, and potential pollutants from entering the storm sewer system, the City has implemented several structural and non-structural BMPs.







2.5.6.1. Catch Basin Screens

The City has installed catch basin screens that consist of metal grate covers over catch basin openings. Catch basin screens prevent trash from entering the storm sewer system and have been installed along the Mardi Gras parade Route A. The City has installed catch basin screens at 98 locations. An example of a catch basin screen is shown in Figure 2.20. A catch basin inventory is provided in Figure 2.22.



Figure 2.20 Catch Basin Screen Example

The City has implemented a pilot program to test the effectiveness of Litter InterceptorsTM (LITMI), formerly known as Marine Debris InterceptorsTM (MDITM). A LITM consists of a screen that is installed within a catch basin and is designed to collect litter. The City has installed 76 of the LITM devices at various locations within the City. Pictures of LITM devices installed are provided in Figure 2.21.

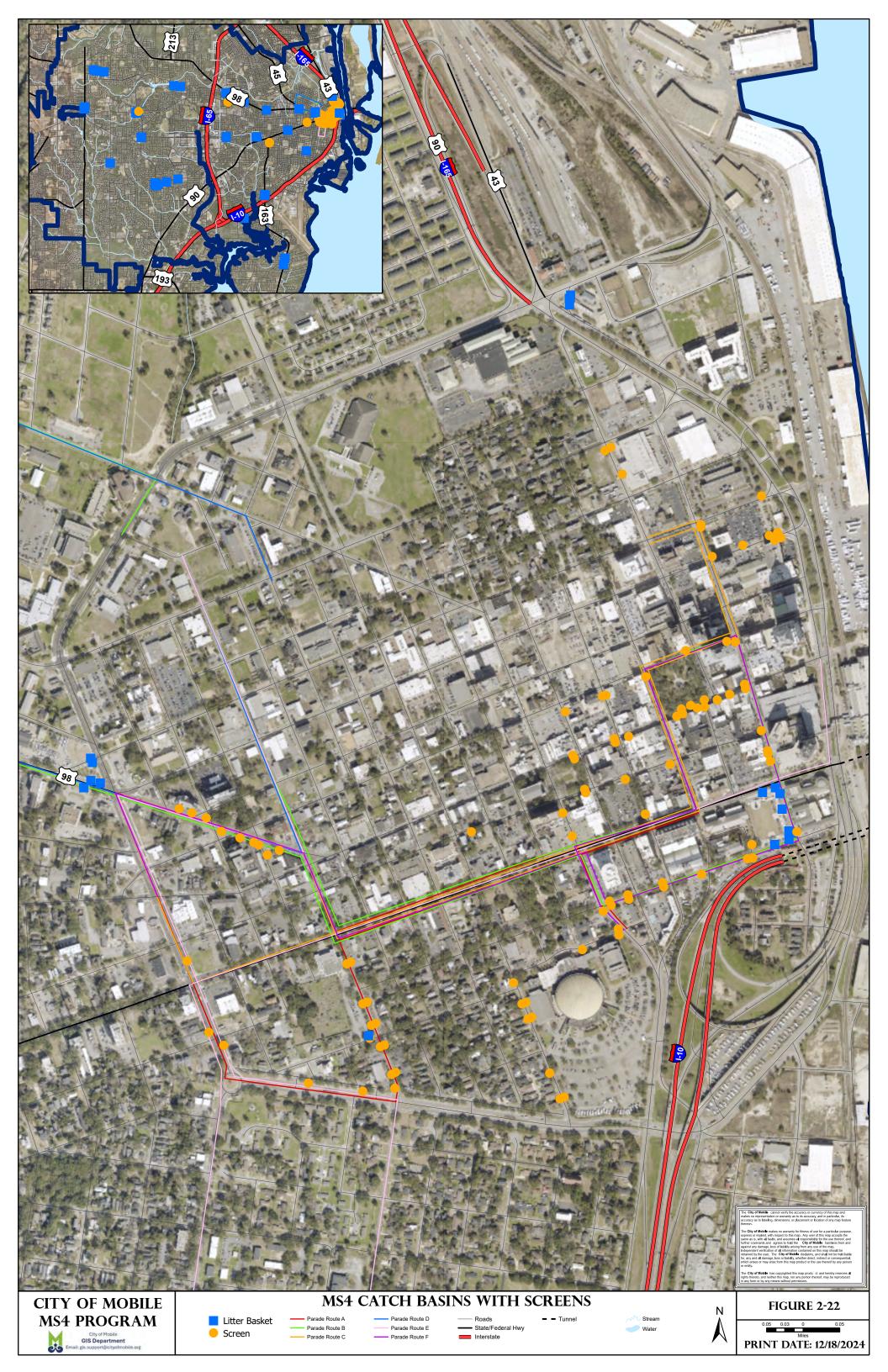


Figure 2.21 Litter Interceptor Examples



An inventory of existing catch basins screens including LITM devices is shown in Figure 2.22.







2.5.6.2. Trash Pick Up

At the conclusion of each special event day's activities, the City has a crew that consists of a variety of personnel, equipment, and street sweepers who clean the streets and surrounding area. Typically, this cleaning crew is deployed within 30 minutes after the special event has ended. These crews also pick up garbage from the food vendors. During Mardi Gras, the City collected approximately 387 tons of trash.

The amount of trash collected is documented on the Special Events Sanitation Collection Summary Form. The Special Events Sanitation Collection Summary Form is provided in Appendix A.

2.5.6.3. Cooking Oil Recycling

There are many food vendors that participate in special events. When these vendors apply for a City permit, they receive a letter explaining the garbage and grease pick-up service. At the conclusion of each day's activities, the vendors will place used cooking oil in a container and place the container in front of their booth. The Public Services Spill Crew picks up the cooking oil and sends the containers to an oil-recycling facility. This information is documented on a Spill Prevention and Response Summary Form. During Mardi Gras, the City collected approximately 218 gallons of cooking oil.

2.5.7. Public Education

The City has utilized several methods to inform its citizens about activities occurring throughout the City as well as provide information to help educate the local community on how to protect water resources. Some of the mechanisms utilized by the City are summarized in the following sections.

2.5.7.1. Local Partnerships

The City of Mobile has formed partnerships with local and statewide organizations to improve the City's MS4 program and educate citizens. During this permit year the City continued to work on its campaign, "OneMobile Litter-Free," to address litter within the City using an organized approach with multiple partners. The campaign seeks to correct litter issues through education, prevention, collection, and enforcement. Websites of partner organizations that provide beneficial activities to the City's stormwater program, as well as some of the involvement by the City are summarized below:







Alabama Coastal Foundation (ACF)

www.joinacf.org

- Sponsored and participated in the MLK Day of Service litter clean-up; and,
- Sponsored and participated in the "OneMobile Litter-Free" educational program.

Keep Mobile Beautiful

www.keepmobilebeautiful.org

- Sponsored and participated in the MLK Day of Service litter clean-up; and,
- Sponsored and participated in the "OneMobile Litter-Free" educational program; and,
- Participated in the Japanese Gardens cleanup day.

Mobile Bay National Estuary Program (MBNEP)

www.mobilebaynep.com

 Sponsored and participated in the "OneMobile Litter-Free" educational program.

Mobile Baykeeper

www.mobilebaykeeper.org

- Sponsored and participated in the MLK Day of Service litter clean-up;
- Participated in an EPA TFW Grant with the City; and,
- Sponsored and participated in the "OneMobile Litter-Free" and "Litter-Free Mardi Gras" educational programs.

The Peninsula of Mobile

https://thepeninsulaofmobile.org/

- Sponsored and participated in the MLK Day of Service litter clean-up; and,
- Sponsored and participated in "OneMobile Litter-Free" educational program.

Clean Water Future (CWF)

www.cleanwaterfuture.com

- The City's website provides a link to the CWF website; and,
- Contributed brochure files for use on the CWF website.

Dog River Clearwater Revival (DRCR)

www.dogriver.org

Participated in an EPA TFW Grant with the City; and,







 Sponsored and participated in the "OneMobile Litter-Free" educational program.

The City's contribution to the above-referenced organizations may include, but is not limited to staff participation, financial contributions, and/or technical assistance. A detailed breakdown of all activities accomplished can be found in the summary tables. Additional educational activities are performed by each entity and further documented on their websites. Links to each organization are provided on the City's stormwater website (www.stormwatermobile.org). Supporting information for the City's participation is provided in Appendix B.

2.5.7.2. News Media

The City's Stormwater program received exposure through various media outlets highlighting different accomplishments and initiatives throughout the permit year. Items receiving attention are listed below and supporting information can be found in Appendix B.

- 2023 November 1,20, "City of Mobile Scrap Tire Amnesty Day," Fox 10 News Stories:
- 2024 February 14, "City Works to Keep Streets Clean following Mardi Gras Parades", Lagniappe Newspaper;
- 2024 June 3, "Keeping Storm Drains Across Mobile Free from Debris," Fox 10 News; and,
- 2024 October 19-20, "City of Mobile Household Hazardous Waste Collection Day," WKRG 5 News stories.

2.5.7.3. Social Media

The City is active on several social media platforms. This allows the City the opportunity to send direct messages in a timely manner to residents, businesses, property owners, and others actively following the City on these platforms. This offers a cost-effective, environmentally friendly mechanism to potentially inform the public regarding stormwater-related issues. During largely attended events such as Mardi Gras parades, the City places Purple Mardi Gras Garbage Carts across the entire parade route to encourage proper disposal of garbage and recyclables. These carts are highly visible, and citizens are asked to share pictures using the social media tags #LitterFreeMG and #PartyOnJustPickItUp to help spread the message.









Figure 2.23 Mardi Gras Garbage Cart

The City currently maintains the following social media platforms:

Facebook: https://www.facebook.com/CityofMobile/

Instagram: https://www.instagram.com/cityofmobileal

Twitter: https://twitter.com/City_of_Mobile

YouTube: https://www.youtube.com/channel/UCdLrEwf3ewSNmCNm21fVfNg

Selected screenshots of the City's social media sites and the number of followers for each are provided in Figure 2.24







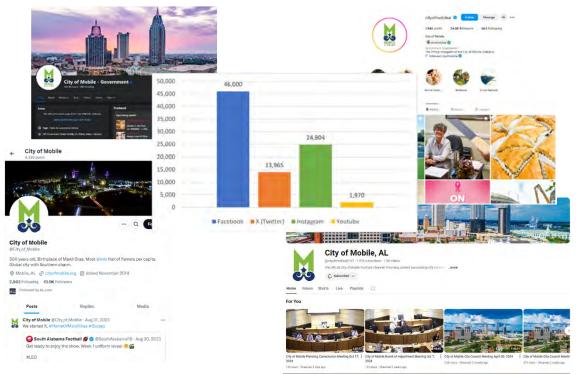


Figure 2.24 Social Media

2.5.7.4. Website

The City maintains two (2) separate websites that provide information about the City. The City's main website (www.cityofmobile.org) provides general information about the City regarding online services, Mobile government, newsroom, visiting Mobile, working in Mobile, and living in Mobile. The City has also developed a website dedicated to stormwater-related issues (www.stormwatermobile.org). The stormwater website provides some general information, what the public can do to help minimize pollution, and how to protect the quality of stormwater runoff. A summary of web pages and the information available on the website includes the following:

- Home;
- Litter;
- Outreach and Education;
- Links & Resources;
- Reports & Docs;
- News and Events; and,
- Contact Us.







The City's main website (www.cityofmobile.org) provides links to the City's regulations, ordinances, and permitting requirements. Both websites are maintained and updated on an as-needed basis.

Part II.B.2.d of the NPDES permit states. "The current SWMPP and latest annual report should be posted on the Permittee's website." Both documents are posted on the City's stormwater website.

2.5.7.5. **Brochures**

The City has developed several brochures to provide general information about stormwater-related issues. Brochures are made available through the Engineering Department, stormwater website and during various City sponsored events. Some brochures are developed to address either a specific stormwater-related issue or to a particular audience. These brochures are typically provided to the audience of interest. The City and Mobile County collaborated on many of the brochures to be used in both MS4 programs. Most of the brochures are available on the City's stormwater website. Brochures distributed by an inspector are summarized in Table 2.6

The City has enhanced its brochure development and distribution procedure to implement more cost-effective solutions. The City's websites and newsletter publications are effective in reaching a larger audience. This provides the City with more flexibility and creativity while reaching a wide public audience. There are many advantages to this strategy, including the following:

- Environmental impact of reduced brochure printing:
- Reduced cost of printing;
- Distribution to a wide-reaching audience independent of visiting a physical location;
- Reduction in potential litter;
- Ability to reach an audience full time through the website; and,
- Increased communication with City employees, residents, community groups, and neighborhood leaders.

Brochures distributed are tracked on the Brochure Distribution Summary Form provided in Appendix B. Copies of the brochures are provided in Appendix D of the SWMP Plan.







Table 2.6 Brochures

Description	No. Brochures
Know your StormWater	7
Storm Water Pollution Prevention	9
Grass Clipping and Lawn Waste	14
Illicit Discharges	21
Proper Paint Disposal Methods	8
Household Hazardous Waste	5
Recycling Facilities	7
Composting and Mulching	6
Pesticides, Herbicides and Fertilizers	3
Construction Activities	1
Food Service Establishment	8
Storm Water Pond Maintenance	0
Pet Waste Disposal	8
Guidance for Draining Pool and Spas	8
Lawn Maintenance	3
Total	108

2.5.7.6. Presentations

The City has presented at various technical conferences this year and in addition, city staff prioritizes educational opportunities about the importance of litter disposal and recycling for its young citizens. Presentations given to schoolchildren are impactful and a great way to encourage good practices to protect the environment. A summary of presentations during this permit year is summarized below.

- 1 October 2023, "MS4 Mapping is Not Magic! Lessons Learned Updating GIS Mapping" Presentation, SESWA Annual Conference, Hilton Head, South Carolina;
- 1 March 2024, "The City of Mobile's: Recycling and Litter Pick-up Programs" School Presentation, E.R. Dickson Elementary School, Mobile, Alabama;







- 12 March 2024, "Environmental Engineering, Litter Update to Mobile Bay National Estuary Program Community Action Committee" Presentation, Mobile, Alabama;
- 16 May 2024, "Litter Gitters, Critters and Other Things in the Water"
 Presentation, IECA Wet Weather Conference, Auburn, Alabama; and,
- 30 July 2024, "Litter Gitters, Critters and Other Things in the Water" Virtual Presentation, City of Raleigh, North Carolina Municipal Stormwater Staff.

The presentations summarized above were well attended. Copies of the presentations are provided in Appendix B.

2.5.7.7. MS4 Meetings

The City has participated in meetings with other entities to discuss common issues and opportunities for working together. Meetings attended this permit year include:

- 1 October 2023, Southeast Stormwater Association (SESWA) Board of Directors Meeting, Hilton Head, SC, In-person Attendee;
- 30 November 2023, "AL Stormwater Association Fall Meeting and Webinar," Virtual Attendee;
- 19 January 2024, SESWA Webinar"Intersection of Green and Gray Stormwater Infrastructure", Virtual Attendee; and,
- 19 April 2024, Southeast Stormwater Association (SESWA) Spring Seminar, Westin Atlanta Perimeter North, In-person Attendee.

Copies of the agenda are provided in Appendix B.

2.5.7.8. Public Service Announcements

In the waiting area at the City's Permitting Office at Government Plaza, there are two (2) televisions that run a continuous video that provides information on stormwater. The information shown includes a public service announcement (PSA) created by Grassroots, Inc., a community organization, as well as an informational PowerPoint presentation used for public outreach by the City.

Clean Water Future has created several PSAs to help educate citizens on reoccurring problems with pollution that impact an MS4. The City's stormwater website has incorporated the "Understanding the MS4 Process" PSA and has a link to MBNEP's "Low Impact Development" PSA. The website also has a link to the Clean Water Future website where additional PSAs are provided. Available PSAs include:







- Cup;
- Bag;
- Understanding Your Storm Water Management Plan;
- Low Impact Development (LID) Stormwater doesn't have to be a Headache;
- Stormwater & Pollution Creating a Clean Water Future;
- A RedFish Tale;
- A RedFish Tale 2: FishSlap;
- Why Is There a Pond in My Backyard Maintenance Requirements for Detention and Retention Basins; and,
- Protecting Alabama's Waters Partnering with EPA's 319 Program.

The City has produced a Litter PSA featuring Mayor Sandy Stimpson that encourages citizens to actively clean up litter in the City and dispose of litter properly prior to it reaching roadways, property, and waterways. The PSA is located on the "Litter" page of the City's stormwater website.

PSAs are available on the City's and/or Clean Water Future websites.

2.5.8. Public Involvement

The City has utilized a variety of techniques to implement its public involvement and outreach program. Mechanisms and activities that have been implemented this permit year are summarized in the following sections.

2.5.8.1. SWMP Plan Update

In accordance with Part II.D. of the MS4 NPDES permit, the City has reviewed the SWMP Plan and made some administrative changes. Since the changes were administrative and no BMPs were added, changed, or deleted, seeking public input was not necessary. A copy of the updated SWMP Plan has been posted on the City's website.

2.5.8.2. Mobile 311

The City has implemented a hotline for the public to provide suggestions and/or to report incidents that may potentially impact the City's MS4. A citizen can report any issue of concern by calling 311, (251) 208-5311, sending an email to mobile311@cityofmobile.org, or using the City's phone app (City of Mobile, AL 311).







The City uses custom software as the backbone of the City's Mobile 311 call center. This system provides the City with effective tools to work with citizens and resolve their issues. The Mobile 311 was established to:

- Electronically route service requests to appropriate departments;
- Provide a neutral forum for citizens to make suggestions about City services and/or departments;
- Provide a way to track the progress of Service Request Orders (SRO);
- Answer questions citizens have concerning City organizations and services; and,
- Assist citizens in obtaining City services in a fair and efficient manner.

The City's Mobile 311 call center is operated by city personnel and staffed Monday through Friday from 7:00 am to 6:00 pm.

2.5.8.3. Litterbug Hotline

The City has a Litterbug Hotline for a citizen to report instances of another citizen throwing litter from their vehicle. For a citizen to report a litter issue, the citizen can call (251) 208-6025 or 311 and provide the vehicle tag number, driver or passenger, what they tossed, and the location. With this information, the Police Department will send a letter to the owner of the vehicle warning them that they have violated the Litter Ordinance. During this permit year, the Litterbug Hotline received 51 complaints.

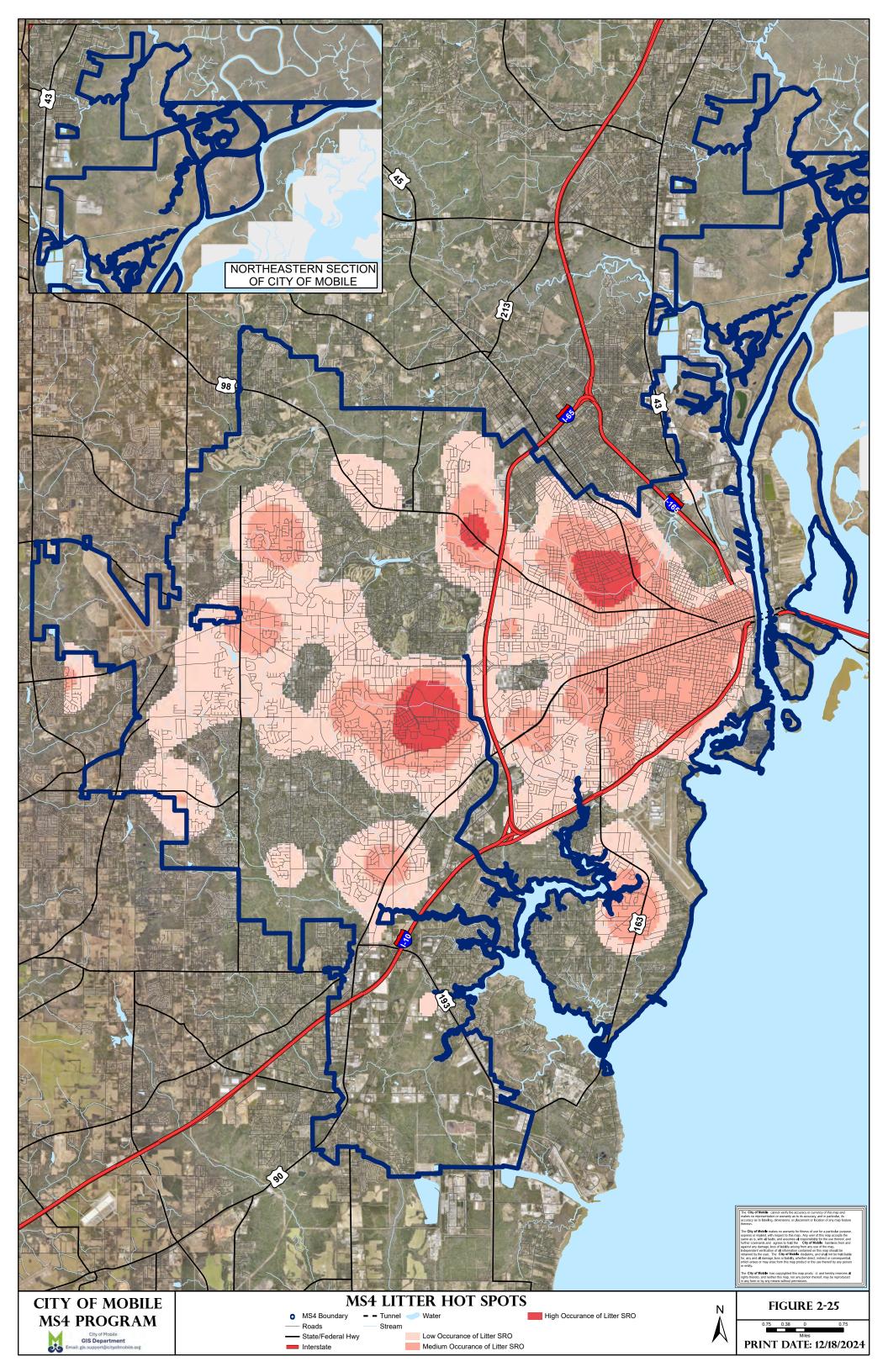
Information collected from the Litter Bug Hotline is used to identify areas of the City that receive numerous complaints. Evaluation of the data is accomplished by converting it into a geospatial format and mapping the complaints received. Litter complaints received this year are shown on a hot spot map provided in Figure 2.25. The City can use this information to focus the efforts of enforcement, educational awareness, and/or clean-ups.

2.5.8.4. Recycling

The City of Mobile strives to educate and motivate citizens to act for a cleaner environment and a more attractive City. As part of this process, the City promotes recycling utilizing a single-stream recycling program. On April 15, 2024 the City opened a new recycling center at 1750 Dauphin Island Parkway through a grant provided by the Alabama Department of Environmental Management. The City now has three drop-off locations including existing centers located at: 1) Pinehill









Drive near Public Safety Memorial Park and 2) Museum Drive across the street from Langan Park. Through additional support provided by The Recycling Partnership and the Alabama Beverage Association, the City aims to increase public education and outreach about the benefits of recycling and supports the "Every Bottle Back" initiative. To help disseminate information about the new center and what items are accepted at all centers, an educational flyer was mailed to citizens citywide. Pictures of the new single-stream recycling center are provided in Figure 2.26. Materials accepted at the recycling center are listed in Table 2.7.

Figure 2.26 Dauphin Island Parkway Recycling Center





Table 2.7 Recycling Materials

- Mixed paper products
- Cardboard;
- Plastic

• Tin

Steel

Aluminum

Recycling activity is measured by counting the number of vehicles that participate in single-stream recycling. The City tracks recycling activities in the Recycling Activity Report and Single-Stream Recyclables Form. A detailed breakdown of the amounts recycled can be found in the summary tables. Summary forms for the recycling activities are provided in Appendix B.

2.5.8.5. Clean-Up Events

The City has previously been proactive in hosting and assisting with numerous clean-up events focused on the removal of litter, floatables, and debris. Typically, clean-up events are coordinated through the Engineering or Public Works Department. The City works with schools, civic groups, community groups, environmental partners, private companies, and residents to coordinate and implement a clean-up event. The size of a clean-up event can range from only a few volunteers to hundreds of volunteers.





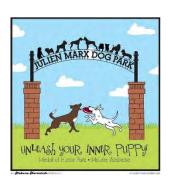


To support the MLK Day clean-up, scrap tire clean-up, and other clean-up events, the City provides cleanup materials (i.e., trash grabbers, gloves, safety vests, and trash bags) to volunteers. Additionally, the City Public Works Department provides trash disposal and scrap tire removal. To encourage both individual and organized clean-ups around the community throughout the year, the City will provide litter grabbers along with safety vests and gloves to interested citizens.

2.5.8.6. Pet Waste Stations

The City has continued to maintain 27 pet waste stations located at various parks. A photograph of the pet waste disposal system installed at one of the parks is provided in Figure 2.27.

Figure 2.27 Pet Waste Disposal Station







2.5.9. **Illicit Discharge and Improper Disposal**

The City has developed and implemented an Illicit Discharge Detection and Elimination (IDDE) Program in accordance with the SWMP Plan. The boundaries of each major watershed are shown in Figure 2.5.

2.5.9.1. Illicit Discharge Detection and Elimination Ordinance

On 8 July 2014, the City of Mobile adopted revisions to the Storm Water Management and Flood Control Ordinance (Ordinance No. 17-025-2014) to incorporate the requirements of the City's new MS4 NPDES Permit. ordinance establishes the guidelines for prohibiting, monitoring, and enforcing illicit discharges within the City's MS4.







The latest version of the Storm Water Management and Flood Control Ordinance is available on the City's website at:

https://library.municode.com/al/mobile/codes/code_of_ordinances?nodeId=CICO_CH17STMAFLCO

The ordinance has not been revised or modified this permit year.

2.5.9.2. Standard Operating Procedures

Standard Operating Procedures (SOPs) developed for the Illicit Discharge Detection and Elimination Program include the following:

- SOP ENG-0117 Illicit Discharge Detection and Elimination; and
- SOP ME-0216 Illegal Dumping and Illicit Discharges.

Copies of the SOPs are provided in Appendix E of the SWMP Plan.

2.5.9.3. Outfall Screening

The City's IDDE Program describes the approach and use of the best available technology for completing an ORI to screen outfalls. A mobile application was used to convert the ORI form into an electronic format. This mobile application provides field crews with the following enhanced capabilities:

- GPS mapping to facilitate outfall location;
- Uniform workflow for data collection:
- Minimize the types of equipment needed for fieldwork;
- Ability to report a problem immediately when it is discovered;
- Ability to automatically create an outfall screening report; and,
- Data collected is easily converted to a format for ArcGIS.

Data collected during the ORI is maintained in the City's GIS dataset for illicit discharges. Screenshots of the mobile application are provided in Figure 2.28. A summary of the outfalls screened from 1 October 2023 through 30 September 2024 is shown in Figure 2.29.

The City has continued with its efforts to screen existing major storm water outfalls within the City. In accordance with the outfall screening schedule presented in the SWMP Plan, 104 outfalls were evaluated during the permit year to determine if the outfall was a "Major Outfall" as defined by the City's MS4 NPDES Permit. A desktop review and field observation of the 104 outfalls was performed to determine if the outfall met one or more of the following criteria:







- The outfall was located in an adjacent MS4;
- The outfall was an NPDES-permitted facility outfall;
- The outfall was reclassified as a minor outfall;
- The outfall was considered Water of the State or conveyance of Water of the State such as a pass-through culvert; or,
- The outfall was under the city's minimum pipe size of 18 inches diameter for areas zoned industrial and would be associated with facility drainage.

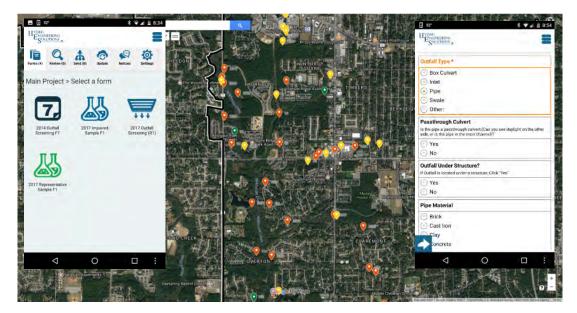
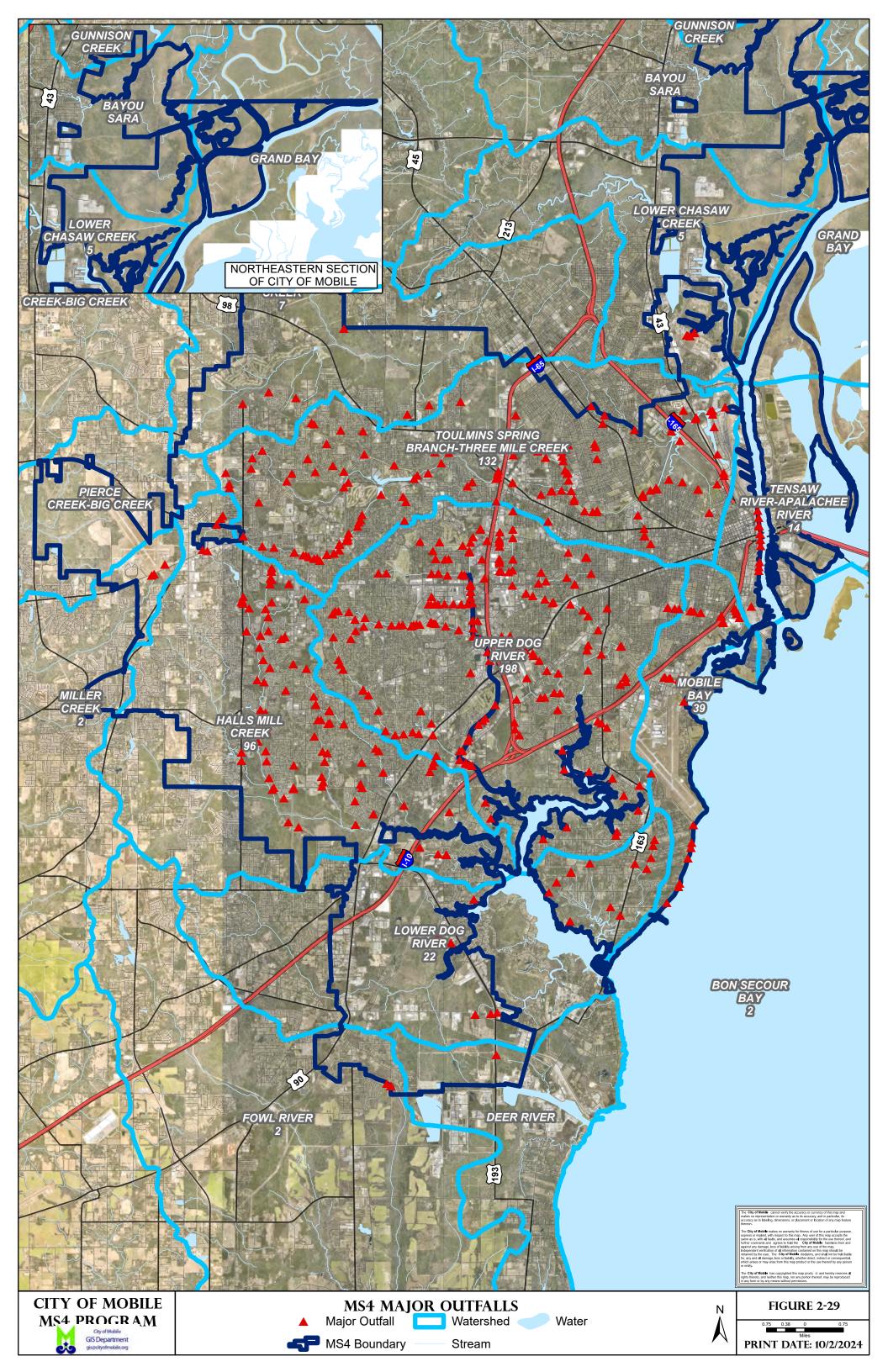


Figure 2.28 ORI Mobile App

Based on the desktop review and field observation, three (3) outfalls were removed from the City's outfall inventory, and no follow-up inspection will be required under the City's MS4 NPDES Permit. In addition, the City began to map and screen major outfalls in the City's newly annexed areas this year. Seven (7) locations in the annexed area were surveyed, and eight (8) new major outfalls were identified and added to the City's inventory. Of the 109 total major outfalls screened in 2024, none indicated the presence of potential non-stormwater discharges. An updated inventory of major outfalls is provided in Figure 2.29. A list of outfalls screened during the 2024 reporting year and resulting information is provided in Appendix C.









2.5.9.4. Complaint Tracking System

The City has implemented the Mobile 311 hotline for the public to report suspected illicit discharges and/or to report incidents that may potentially impact the City's MS4. A citizen can report any issue of concern by calling 311 or (251) 208-5311, sending an email to mobile311@cityofmobile.org, or using the City's phone app (City of Mobile, AL 311) or by going online to:

http://311.cityofmobile.org/311react/mainwelcome.aspx

The City has received 195 complaints (188 citizens and 7 internal) through the 311 system regarding potential illicit discharges. For each complaint received through 311, a Service Request Order (SRO) is generated to track the complaint and actions taken. Information, including SRO number, source of complaint, location, cause, incident date, date closed, corrective action, enforcement, and inspector for each complaint, is summarized on the Illicit Discharge Detection and Elimination Enforcement Summary Form. Illicit discharge investigations are also tracked in the City's GIS system. Staff can look at the location of the illicit discharge and information regarding the source and any corrective actions. A copy of the Illicit Discharge Detection and Elimination Enforcement Summary Form is provided in Appendix C.

2.5.9.5. Illicit Discharge Investigations

If a suspect illicit discharge is identified by the City or a direct call is received from the public, staff may create an SRO to track the complaint and actions taken. Information, including SRO number, source of complaint, location, cause, incident date, date closed, corrective action, enforcement, and inspector for each complaint, is summarized on the Illicit Discharge Detection and Elimination Enforcement Summary Form. A copy of the Illicit Discharge Detection and Elimination Enforcement Summary Form is provided in Appendix C.

2.5.9.6. Enforcement

The City's IDDE Program uses an escalating scale of enforcement action to abate illicit discharges. In rare instances, however, some illicit discharge investigations will warrant stronger enforcement actions. Action steps are provided in Section 17-14 of the Storm Water Management and Flood Control Ordinance and include the following:







- Verbal Warning;
- Notice of Violation (NOV);
- Stop-Work Order; and,
- Municipal Offense Ticket (MOT).

During this permit year, the City's enforcement actions consisted of nine (9) verbal warnings and 11 notices of violation. A summary of enforcement actions is provided in the Illicit Discharge Detection and Elimination Enforcement Summary Form provided in Appendix C.

2.5.9.7. Sanitary Sewer Overflows

The Mobile Area Water and Sewer System (MAWSS) is responsible for maintaining the sanitary sewer collection and treatment system. MAWSS has implemented a variety of programs to help minimize the potential of illicit discharges from the sanitary sewer system. To help minimize the discharge of grease into the sanitary sewer system, MAWSS has created a grease recycling program titled, "It's Easy to be Ungreasy." A citizen can pick up a leak-proof container and drop off used cooking grease at one of 22 recycling locations. Information about the MAWSS grease recycling program can be found on their website at: http://www.itseasytobeungreasy.com/home.html.

During this permit year, MAWSS has experienced 40 sanitary sewer overflows (SSOs) that occurred at 27 separate locations. A review of the SSO data revealed that multiple SSOs occurred at eight (8) of the locations and accounted for eight (21) of the SSOs (approximately 50%). Figure 2.30 provides a five-year comparison of the number of SSOs and the volume of wastewater discharged.

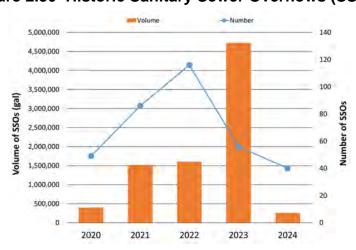


Figure 2.30 Historic Sanitary Sewer Overflows (SSOs)







2.5.10. Construction Site Runoff

Major accomplishments in the Construction Site Runoff Program are summarized below.

2.5.10.1. Erosion and Sediment Control Ordinance

On 8 July 2014, the City of Mobile adopted revisions to the Storm Water Management and Flood Control Ordinance (Ordinance No. 17-025-2014) to incorporate the requirements of the City's new MS4 NPDES Permit. ordinance establishes requirements for permitting, Best Management Practices (BMPs), and enforcement options for qualifying construction sites. The latest version of the Storm Water Management and Flood Control Ordinance is available on the City's website.

This ordinance has not been revised or modified this permit year.

2.5.10.2. Complaint Tracking System

The City has implemented the Mobile 311 hotline for citizens to report suspect issues with construction sites and/or to report incidents that may potentially impact the City's MS4. A citizen can report any issue of concern by calling 311 or 208-5311, sending an email to mobile311@cityofmobile.org, or using the City's phone app (City of Mobile, AL 311).

The City has received 13 complaints through the 311 system regarding potential issues with construction sites. For each complaint received through 311, a Service Request Order (SRO) is generated to track the complaint and actions taken. Information including date, address, permittee, nature of violation, type of enforcement, status of compliance, and inspector for each complaint is summarized on the Construction Site Violation Summary Form. A copy of the Construction Site Enforcement Action Summary Form is provided in Appendix D.

2.5.10.3. Permitting and Plan Review

Before the commencement of any land-disturbing activity that is not exempt from obtaining a permit, the owner and/or operator of the construction site is required to submit a permit application and obtain a land disturbance permit. The City has developed a permit checklist, permit application review checklist, and permit certification for each of the following types of construction activities:







- Tier 1 Qualifying Construction Site Land disturbance activity equal to or greater than one acre or land disturbance involving less than one acre that is part of a larger common plan of development; and,
- Tier 2 Construction Site All other land disturbance activities that are not exempt from obtaining a grading permit.

Additionally, the City has developed a checklist and affidavit for land disturbance activities associated with the construction of a single-family residential structure located in a special flood hazard area.

The City has implemented a new permitting system. As various components of the permit application are reviewed, the reviewer will document their review comments in the electronic permitting system. Once all comments have been adequately addressed by all disciplines who review the plans, a land disturbance permit is issued. Applicants are notified via email when there are comments and when their permit is ready to be issued.

Part of the Tier 1 Land Disturbance Permit Checklist includes a section to check if a Tier 1 Land Disturbance project has an ADEM permit for construction activities. The project Owner and/or Developer must provide proof of coverage under ADEM's permit for construction activities before the City will issue a Land Disturbance Permit.

The permit checklist, permit application review checklist, permit certification, and affidavit have not been revised this permit year and are provided in Appendix F of the SWMP Plan.

2.5.10.4. Construction Site Inventory

During this permit year, the City had 126 Tier 1 construction sites, 65 of which were still active at the end of the permit year. There are 61 non-active stable construction sites. A non-active stable construction site is a site where construction activities have been dormant for an extended period, and all disturbances associated with the construction activity have been stabilized. Non-active stable construction sites are only being inspected when a re-inspection request is initiated by the permittee. The non-active stable construction sites are generally in this category due to one of two situations:

 The site has only received a Temporary Certificate of Occupancy (TCO); therefore, they cannot be moved to the As-Built Received list. The remaining deficiency(ies) is (are) minor, or the TCO is due to a lack of final documentation, but the land-disturbing activities are complete; or,







 The engineer's as-built certification for the site has not been received, and therefore the site cannot be issued a Final Certificate of Occupancy (FCO).
 Upon issuance of an FCO, the site will be moved to the As-Built Received list.

A map showing the location of the 126 Tier 1 construction sites is provided in

Figure 2.32. A summary of the active construction sites is provided on the Tier I Construction Site List provided in Appendix D.

On 6 March 2017, the City implemented a new permitting software that provides the ability to track both Tier 1 and Tier 2 construction sites. During the FY24 permit year, 112 Tier 2 construction sites were permitted using the new permitting software. Since Tier 2 construction sites have less than one acre of disturbance and are not part of a larger development, Tier 2 construction sites are inspected on a complaint-driven basis by the City.

2.5.10.5. Inspections

Inspections are to be performed for construction sites that discharge into the City's MS4. A construction site that discharges directly to the waters of the United States is not covered by the City's MS4 Permit. Inspections for Tier 1 Priority Construction Sites and construction sites the City has identified as a significant threat to water quality occur monthly. Inspections for all other Tier 1 construction sites may occur every two months. To maximize the use of technology and resources for construction site inspections, the City has developed an inspection form using Tyler EnerGov. Screenshots of the software system are provided in Figure 2.31. In accordance with Part II.B.4.d of the City's permit, copies of the inspection reports shall be made available upon request..

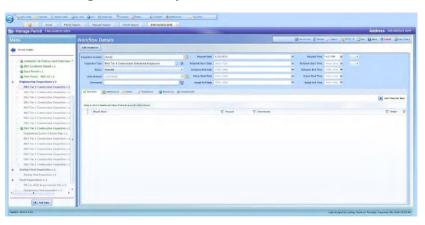
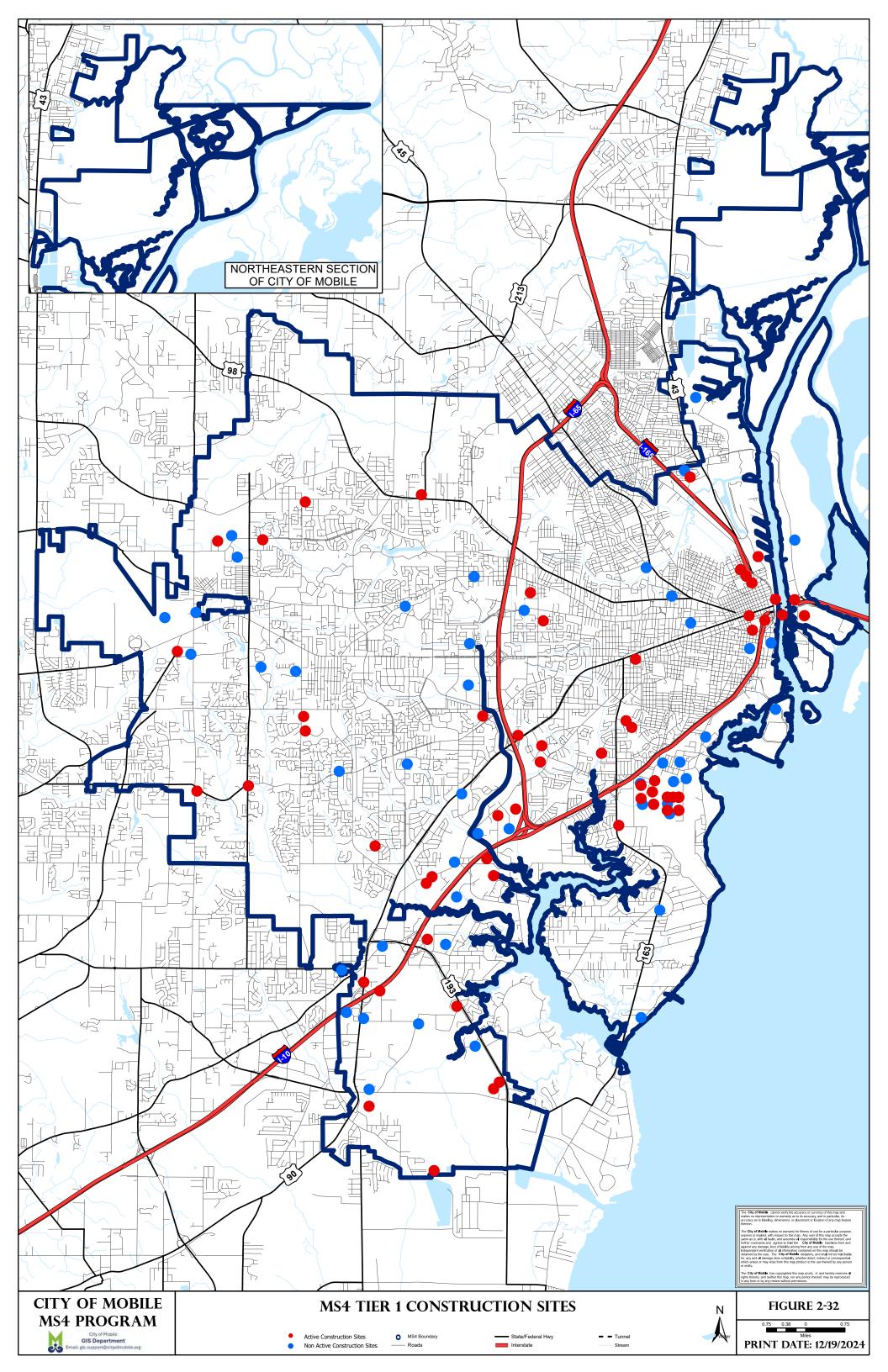


Figure 2.31 Tyler EnerGov Screen Shot









2.5.10.6. Enforcement

The City's Construction Site Storm Water Runoff Control Program uses an escalating scale of enforcement action to abate illicit discharges and other construction issues. There were 31 total enforcement actions related to construction violations. Of those, 13 complaints were submitted through Mobile 311, and Service Request Orders (SROs) were generated. The SROs were investigated and warranted some type of enforcement action. Potential Enforcement Actions are provided in Section 17-14 of the Storm Water Management and Flood Control Ordinance and include the following:

- Verbal Warning;
- Notice of Violation;
- Municipal Offense Ticket; and,
- Stop Work Order.

A summary of enforcement actions is provided on the Construction Site Enforcement Actions Summary Form provided in Appendix D.

2.5.10.7. Training and Certification

For the 2024 permit year and in coordination with Thompson Engineering, the City of Mobile certified 20 City staff in the initial Qualified Credentialed Inspector (QCI) training course and staff previously certified went through a four-hour refresher training course all of which were online. The City has 79 staff members from various departments who are QCI-certified. A list of City staff that are certified as a QCI through Thompson Engineering's training program is included in Appendix D.

2.5.10.8. Education and Training Materials

The City has provided links on its stormwater website for education, training materials, and resources for construction site operators.

2.5.11. Post Construction Storm Water Management

The City has developed a city-wide concept that provides a systematic basis for thinking about the City's future. The future development pattern of the City has been organized with appropriate recognition given to the City's green infrastructure, its street and utility infrastructure, and major existing uses of land.







2.5.11.1. Legal Authority

The City of Mobile has adopted ordinances, regulations, codes, and manuals for new development and re-development within the City which consider postconstruction stormwater management. These planning regulations include the following:

- Storm Water Management and Flood Control Ordinance;
- Zoning Ordinance; and,
- Subdivision Regulations.

The City updated its Zoning Ordinance on 12 July 2022 to adopt a Unified Development Code (UDC), which was effective in 2023 following the adoption of revised Subdivision Regulations. A more detailed description of the City's legal authority is provided in the SWMP Plan. The latest versions of the above-listed documents are available on the City's website.

2.5.11.2. Water Quality Requirements

Post-construction stormwater runoff quality is an important component of the City's SWMP. For all qualifying new development or redevelopment, post-construction stormwater management shall include water quality BMPs to detain and treat the first 1.14 inches of rainfall that occurs on the project site.

2.5.11.3. Low Impact Development

The City encourages landowners and developers to incorporate the use of low-impact development (LID) into development plans. The City has reviewed and adopted the latest version of the Low Impact Development (LID) Handbook for the State of Alabama.

In 2020, the City of Mobile received a RESTORE Act grant to, in part, develop a stormwater Low Impact Development (LID) Manual. The objectives of the project were three-fold: 1) support a future update to the City's 1984 Floodplain Management Plan, which guides stormwater management policy on public and private land in the City; 2) develop policies for best management practices (BMPs) that can be located in Special Flood Hazard Areas; and 3) comply with the City's 2021 NPDES-MS4 permit, which emphasizes the encouragement of LID-BMPs. The City had an online kick-off of the manual on 17 October 2023, and it is currently available to download at www.mapformobile.org/swm

The City also participated in the development of the MBNEP video on LID. A link to this video along with other reference material is located on the City's website







(http://www.stormwatermobile.org) under the LID and Green Infrastructure section of the Links & Resources page.

2.5.11.4. Planning Documents

The City has prepared numerous planning documents to help the City develop in a sustainable manner. Planning documents include, but are not limited to, the following:

- Map for Mobile, Framework for Growth;
- Comprehensive Plan;
- Downtown Development District Code:
- New Plan for Mobile;
- Comprehensive Plan Major Street Plan Map;
- Green Space Plan Map;
- Smart Growth for Mobile Implementation Initiatives; and,
- Smart Growth for Mobile Policy.

Copies of these documents are available on the Planning and Development website at http://urban.cityofmobile.org/.

2.5.11.5. Urban Canopy

The City has been proactive in expanding the tree canopy not only in the urban areas of the City, but throughout the City. Benefits of a tree canopy include but are not limited to the following:

- Reduce the heat island effect;
- Reduce flooding;
- Improve stormwater quality;
- Improve air quality; and,
- Provide an aesthetical streetscape.

Preserving natural resources is a high priority for the City. The Mobile Tree Commission was established in 1961 to oversee the protection of trees located in the City rights-of-way. In 1992, the Zoning Ordinance was amended to include landscaping, tree planting, and protection requirements. Tree planting and protection requirements in the City rights-of-way are administered and enforced by the Urban Forestry Department which is part of the Public Works Department; on private property, these requirements are administered and enforced by the Planning and Zoning Department.







2.5.11.6. Post Construction BMP Plan Review

The City already has a permitting and plan review process as shown in the SWMP Plan. During the development of the Post-Construction Stormwater Management Program, the City has incorporated the post-construction BMP plan review into the existing process.

2.5.11.7. As-built Certification

As a part of the NPDES permit, the City must ensure the BMPs that have been designed and approved are constructed and operated in accordance with their original design and intent. Two as-built certification forms have been developed to confirm that constructed BMPs meet the designer's intent.. It is the Owner's responsibility to have as-built information such as pond volume, embankment size and elevations, invert size and elevations, and spillway elevations field surveyed by a Professional Land Surveyor. It is the Engineer-of-Record's responsibility to utilize the field surveyed information to fill out the as-built certification form. The City has developed the following as-built certification forms:

- Engineer's As-Built Certification for ROW Work and Subdivisions Form; and
- Engineer's As-Built Certification for Commercial and Residential Site Work Form.

The As-built Certification is submitted prior to the final inspection and the issuance of the Certificate of Occupancy. During this permit year, the City has received 32 As-built Certifications. An inventory of As-built Certifications received during the permit year is summarized on the Tier I Construction Sites As-built Summary Form included in Appendix E. An inventory of post-construction BMPs is shown in Figure 2.33.

2.5.11.8. Annual Inspection

For post-construction BMPs to continue to function in accordance with their original design and installation, annual inspections are required by the City's NPDES permit. The City's Stormwater Management and Flood Control Ordinance requires a property owner or responsible party of post-construction BMP(s) to perform an annual inspection of the BMP(s) and provide copies of the inspections to the City by 1 January or such other date designated by the City Engineer. Inspections are to be performed by a QCI or QCP. In the event the property owner or responsible party fails to provide annual inspection records, the City may conduct an inspection of the BMPs and recoup the cost of the inspection from the property owner or responsible party.







Since the City has implemented the Post-Construction Program, 111 projects have been required to be completed and an annual inspection report has been submitted to the City. An inventory of sites required to perform an annual inspection is provided in Figure 2.33.

Due to the nature of how property owners do business, the City has changed its deadline for annual inspections to align with the end of the calendar year. The new deadline for annual inspection reports is 31 December and considered past due is submitted after 31 January. A summary of enforcement actions taken by the City is provided in Appendix E. As of this report, the City has received annual inspection reports from 89 developments.

2.5.11.9. Operation and Maintenance

In accordance with the Stormwater Management and Flood Control Ordinance, the Owner and/or responsible party of post-construction BMPs is required to create a formal maintenance covenant that must be approved by the City and recorded in the records of the Probate Judge, prior to the final plan approval.

It is the responsibility of the Owner and/or responsible party to operate and maintain the stormwater management facility and/or BMPs in accordance with the original design intent and approval. If the original Owner or Developer has sold the project or passed ownership on to a Homeowner's Association (HOA), then it is the new Owner or HOA's responsibility to maintain the facility and provide any required inspection and maintenance.

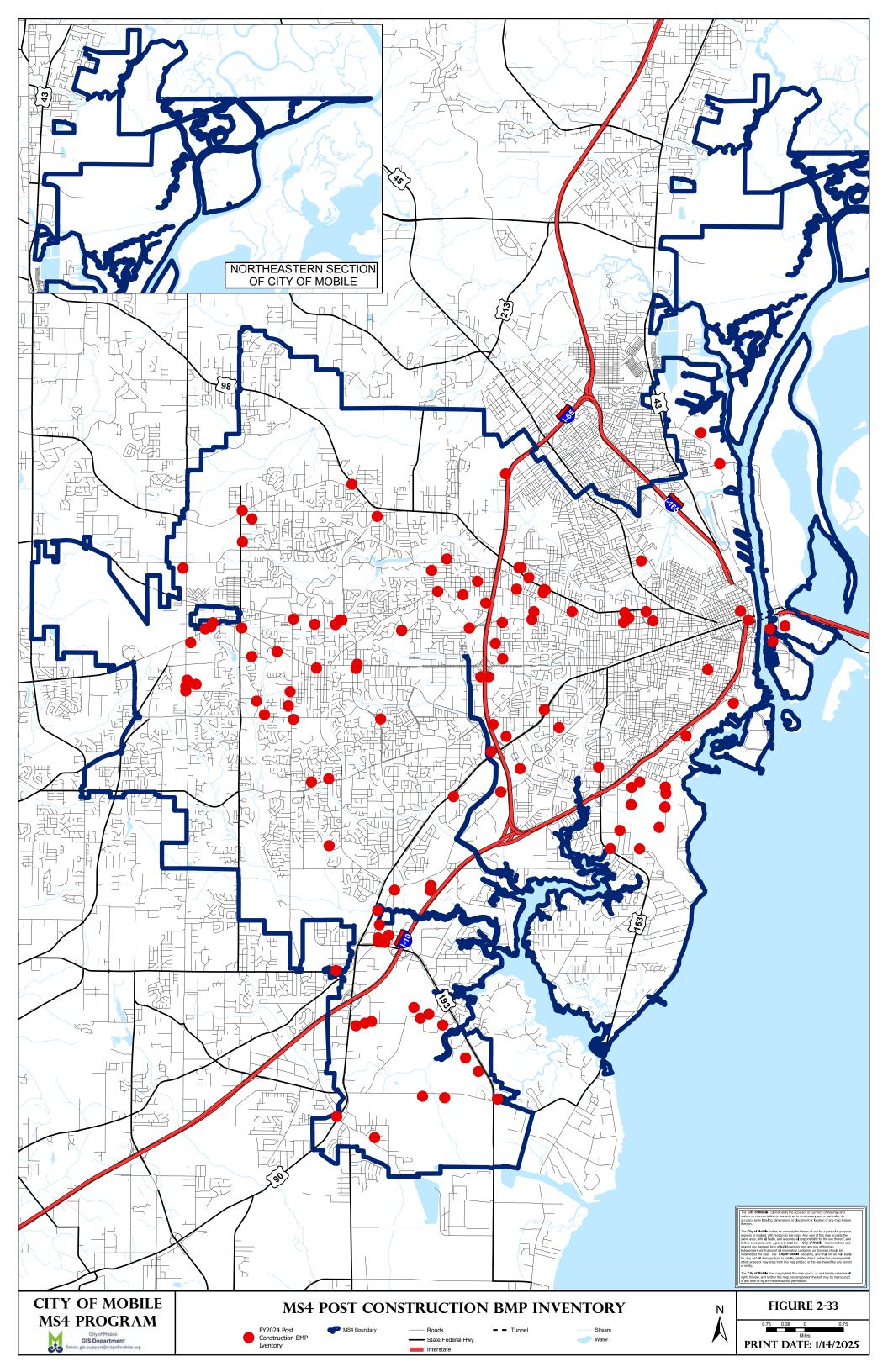
Should maintenance be needed at a facility as a result of the annual inspection, the Owner is required to provide the City with documentation describing the maintenance required and a schedule for completing all maintenance activities. Once all maintenance activities are completed, the Owner is required to provide documentation to the City of the maintenance performed and that the BMP operates as it was designed.

2.5.12. Spill Prevention and Response

The City of Mobile has developed and is currently implementing an effective program to prevent, contain, and respond to hazardous and non-hazardous spills.









2.5.12.1. Facility Inventory

To provide the most efficient services to the residents, the City has strategically located support facilities throughout the City. Some of the support facilities include fueling stations and/or the storage of petroleum products. If a facility has an aggregate storage capacity greater than 1,320 gallons of petroleum products aboveground or 42,000 gallons underground, the facility is required to develop and implement a Spill Prevention Control and Countermeasures (SPCC) Plan. An inventory of support facilities that handle petroleum products is provided in Table 2.8.

SPCC Plan **SPCC Plan Facility** Required Developed Azalea City Golf Course No No Yes Fire Station No. 7 Yes **Hurtel Sanitation Facility** Yes Yes Langan Park Refueling Station Yes Yes Police Department 3rd Precinct Yes Yes Public Safety Complex/4th Precinct Yes Yes Public Works/Garage Facility Yes Yes

Table 2.8 Petroleum Storage Facilities

The facilities that do not have SPCC Plans have petroleum product quantities that are less than the limit required to implement a program. Fuel storage facilities are inspected, at a minimum, annually, even if an SPCC Plan is not in place. The SPCC Plans for each facility are included in Appendix H of the SWMP Plan.

2.5.12.2. Spill Response – Fire and Rescue Department

The City has developed and is currently implementing an effective program to contain and respond to hazardous and non-hazardous spills. Currently, the City maintains hazardous response personnel and equipment at 5525 Commerce Boulevard East. If a spill occurs, the Fire and Rescue Department is responsible for responding to and controlling the spill. Depending upon the magnitude of the spill, the Fire and Rescue Department may utilize the resources of the City and/or private contractors to respond, contain, and clean up the spill.

The Fire and Rescue Department has developed Hazardous Materials Operation Guidance (HazMat OG) documents that describe various activities associated with spill response, which includes:







- HazMat OG 6200 Hazardous Materials on Scene Operations; and,
- HazMat OG 6300 Hazardous Materials Notification, Dispatch, Response.

Copies of the operation guidance are provided in Appendix H of the SWMP Plan.

Currently, the Fire Department maintains a Class 1 ISO rating, based partly upon an average response time of under six minutes. Spills that occurred during this permit year are shown in Figure 2.34 and summarized in Table 2.9.

If the spill entered the City's MS4, the Engineering Department conducted a followup inspection to ensure that there were no adverse impacts to the MS4 and to ensure adequate spill response. The Engineering Department did not perform any follow-up inspections this permit year. HazMat incidents during the permit year that may impact the MS4 system shall be tracked on the Environmental Incident Investigation Form.

2.5.12.3. Spill Response – Municipal

Any spills associated with City equipment and/or facilities are handled by the City's Spill Crew. The Spill Crew takes any appropriate corrective measures to abate the spill. If a spill occurs that exceeds the response capabilities of the Spill Crew, additional assistance may be provided by an environmental contractor.

The City has developed a SOP for reporting spills from City equipment (SOP SR-0116). The SOP describes procedures the vehicle/equipment operator should perform and contact information for City spill clean-up crews. Reportable spills that occur from City equipment and/or facilities shall be documented on an Environmental Incident Investigation Form and tracked on the Spill Prevention and Response Summary Form.

Spills that occurred during this permit year are shown in Figure 2.34 and summarized in Table 2.9. A copy of the Spill Reporting SOP is provided in Appendix H of the SWMP Plan. The Spill Prevention Response Summary form and the Spill Prevention and Response Tracking Sheet are provided in Appendix F.





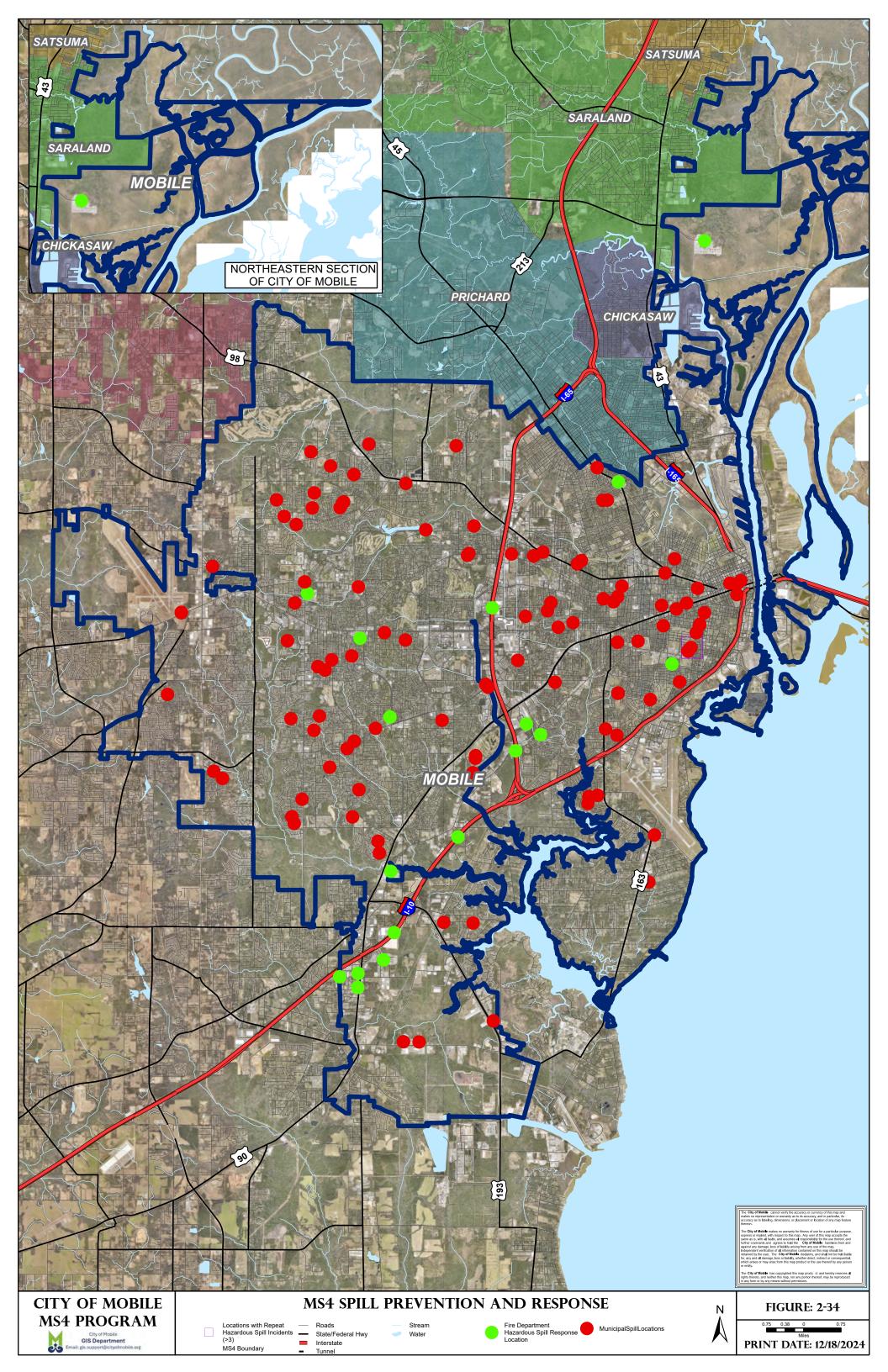




Table 2.9 Spill Response Summary

Description	No. Spills
Fire Department	
Spills	0
Spills entering Storm Sewer System	0
Municipal	
Spills	109
Spills entering Storm Sewer System	0
Spills entering waters of the state	0

Occasionally, the Engineering Department conducted a follow-up inspection to ensure that there were no adverse impacts to the MS4.

2.5.12.4. Staff Training

The Fire and Rescue Department has continued to implement a progressive training and response program. Training is provided for a variety of topics to applicable personnel. Approximately 65 new firefighters participated in a 40-hour HazMat Awareness and Operations training course during the permit year to bring the total to 162 firefighters who are certified. A total of 179 firefighters are trained as Hazmat Technicians, which is over half of the firefighters in the Department.

Two members of the Engineering Department MS4 team maintain the 8-hour HAZWOPER Emergency Response Training certification.

Staff from various municipal departments receive internal annual training regarding spill response. Specific information regarding this training is provided in the Pollution Prevention and Good Housekeeping section of the annual report. Supporting information is provided in Appendix G.

2.5.13. Pollution Prevention and Good Housekeeping

Major accomplishments in Pollution Prevention and Good Housekeeping are summarized below.







2.5.13.1. Standard Operating Procedures

The City has developed Standard Operating Procedures (SOPs) for the various activities required for implementing the Pollution Prevention and Good Housekeeping Program. SOPs include but are not limited to the following:

- SOP ES-0115 Fleet and Vehicle Maintenance;
- SOP ES-2717 Storage and Disposal of Chemical Waste;
- SOP PR-7514 Mowing and Park Maintenance;
- SOP PR-11714 Trash Receptacles;
- SOP PR-12014 Daily Activities;
- SOP PR-12214 Pet Waste:
- SOP PW-0114 Vehicle and Equipment Washing;
- SOP PW-0214 Material Storage Areas;
- SOP PW-0414 Asphalt Street Repair;
- SOP PW-0514 Concrete and Sidewalk Repair;
- SOP PW-0614 Dirt and Gravel Roads and Easement Maintenance;
- SOP PW-2217 Street Sweeper;
- SOP PW-0417 Mowing ROW Maintenance;
- SOP RE-0114 External Building Maintenance; and,
- SOP PW-6818 Special Events.

Copies of SOPs are provided in Appendix I of the SWMP Plan.

2.5.13.2. Municipal Facility Inventory

Since an inventory of the City's facilities is provided as part of the Pesticides, Herbicides, and Fertilizers Program and the Industrial Stormwater Runoff Program, a facility inventory will not be duplicated in this section. The locations of City Parks are shown in Figure 2.38. Facility operations where maintenance activities are performed and/or chemicals are stored are summarized in Table 2.14 and shown in Figure 2.41.

2.5.13.3. Municipal Facility Inspections

Most municipal properties consist of parks and athletic fields, which are actively utilized by the public throughout the year. Maintenance and upkeep of these facilities are performed on a routine basis. Additional inspections of parks and athletic fields are not performed.







The City has identified three (3) facilities where operational activities occur to support City services. Good housekeeping inspections are performed once every two (2) weeks for the support facilities listed in Table 2.10. In accordance with Part II.B.7.d.1 of the City's permit, copies of the Good Housekeeping Checklist for each facility shall be made available upon request. Examples of completed Good Housekeeping Checklist for each facility are provided in Appendix G.

Table 2.10 Municipal Support Facilities

Facility Name	Department
Body Shop	Equipment Services
Garage/Public Works	Equipment Services/Public Works
Hurtel Street	Equipment Services

As part of the City's Industrial Stormwater Runoff Program, the City has identified municipal facilities that are used for small equipment maintenance and chemical storage. Municipal facilities listed in Table 2.14 are inspected on an annual basis.

2.5.13.4. Street Sweeping

The Public Works Department has eight (8) street sweeper operators dedicated to street sweeping. Sweepers are parked around the City for use in various areas. The City's goal is to sweep public paved streets once every two (2) years. Streets scheduled for resurfacing are swept and cleaned prior to resurfacing. Routine sweeping schedules have been developed to maximize the use of street sweepers. Downtown streets are typically swept weekly (see Figure 2.35), while those in the Oakleigh District are normally cleaned bi-weekly.

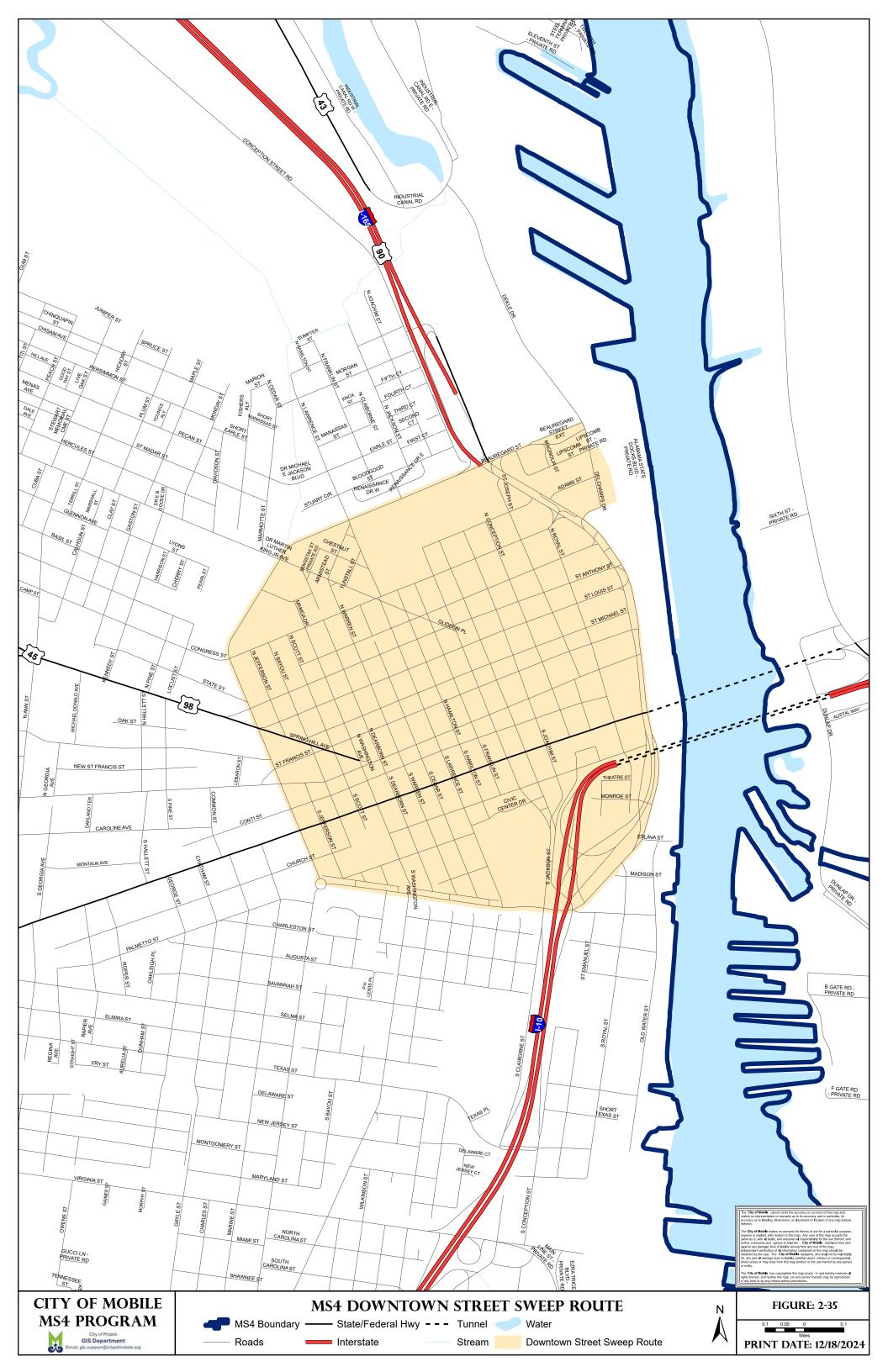
During this permit year, approximately 20,566 cubic yards of material was collected by street sweeping. A graph showing the annual amount of material collected over the past four years is provided in Figure 2.36. Street sweeping activities are summarized in the Monthly Street Sweeping Summary Forms included in Appendix G.

2.5.13.5. Litter Control

The Public Works Department utilizes an adaptive management approach for placing trash receptacles. Consideration is given to park amenities, events, athletic seasons, and previous patterns of litter collection.









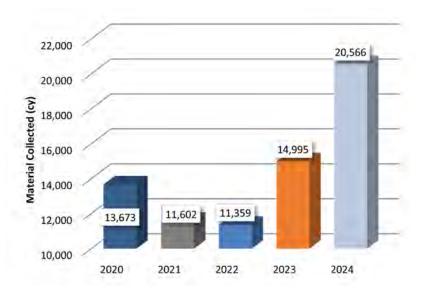


Figure 2.36 Street Sweeping Material Collected

The Public Works Department has two (2) divisions (ROW Mowing and Litter & Recycling) that routinely maintain City ROW by cutting grass and picking up litter. Litter collection is either performed by staff or by personnel needing community service hours.

The Parks and Recreation Department has two (2) divisions (Eastern Maintenance and Western Maintenance) that routinely maintain the City's parks by picking up litter and cutting grass.

This permit year, Community Service personnel assisted with litter collection for the Public Works Department. Approximately 2,717 community service hours were spent. The Community Service Hours Litter Collection Summary Form is included in Appendix G.

Various City departments collect trash at City facilities. During this permit year, the City collected 55,929 tons of trash. Details of trash collection and disposal are provided on the Trash Disposal Tracking Summary forms provided in Appendix G.

Right-of-way mowing is performed either by City mowers or contract mowers. Litter is collected prior to mowing activities. City mowers are used along roads with less than 20,000 vehicles per day. Typically, these roads include small ditches and rights-of-way and are cut on a 56-day cutting cycle. Contract mowers are used along roads with more than 20,000 vehicles per day. Mowing contracts were overseen by the Public Works Department. These contractors collected approximately 24 tons of litter from the rights-of-way during the mowing season.



The Public Works Litter Collection Mowing Contractor summary form is included in Appendix G.

Typically, these areas consist of main thoroughfares and are on a 7 to 14-day cutting cycle. Areas covered by the contract mowers are inspected by City personnel to ensure the work has been completed in accordance with the contract. After mowing is complete, contractors are required to blow grass clippings back into the grass area and away from storm drains. Mowing areas maintained by the City are shown in Figure 2.37.

2.5.13.6. Staff Training

The City has developed training programs specifically tailored to its facilities and operations. Training is performed annually and includes the topics listed in Table 2.11.

Table 2.11 Training Topics

- SPCC Plans
- Spill Control and Response
- Vehicle and Equipment Maintenance
- Materials and Waste Management
- Municipal Facility Maintenance

- Illicit Discharges
- Vehicle Fueling
- Vehicle and Equipment Washing
- Good Housekeeping and Spill Prevention

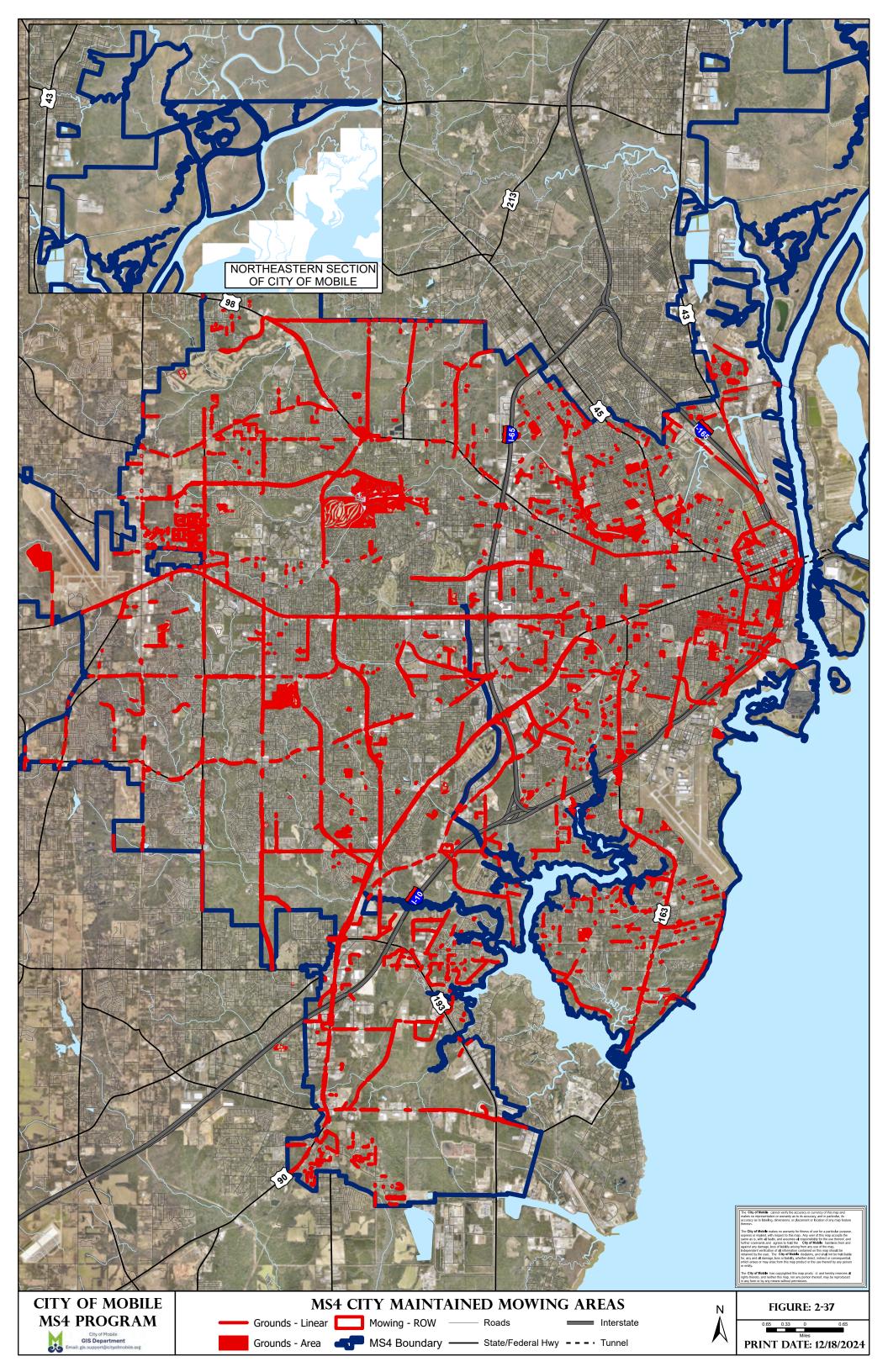
During this permit year, 378 City personnel attended an internal training course. Training activities are summarized on the MS4 Training Summary form provided in Appendix G. Copies of the training presentations and sign-in sheets are provided in Appendix G.

2.5.13.7. Deicing Activities

Based on the City's location, winter weather is infrequent. The City spreads sand on roads with snow or ice cover. After winter weather has subsided, the City removes the sand using a small front-end loader and a street sweeper. Salt is not used for any deicing activities. Once the icing event is over, City street sweepers remove the sand that was used to mitigate the hazardous road conditions. The City did not have any deicing events during the permit year.









2.5.13.8. Flood Control Structures

The MS4 NPDES permit requires the City to evaluate flood management projects for incorporation of additional water quality protection devices and practices to help improve water quality. During this permit year, no flood management projects were proposed within the City. Currently, the City does not have any flood control structures.

2.5.14. Pesticide, Herbicide, and Fertilizer

The City is continuously implementing an effective pesticide, herbicide, and fertilizer (PHF) program to prevent potential pollutants from entering the storm sewer system.

2.5.14.1. PHF General NPDES Permit

The City has reviewed ADEM's General NPDES Permit for discharges associated with the application of pesticides and has determined that the City does not meet the requirements to obtain coverage under this permit.

2.5.14.2. PHF Standard Operating Procedures

The application, storage, and disposal of pesticides, herbicides, and fertilizers are performed in accordance with federal and state regulations and manufacturer recommendations. The City has developed the following Standard Operating Procedure (SOP) for mixing, application, clean up, storage, training, and record keeping:

• SOP PR-9014 PHF Storage, Application, and Spill Procedures

A copy of the SOP is provided in Appendix J of the SWMP Plan.

2.5.14.3. Facility Inventory

The City has evaluated land under the control of the City to determine where PHFs are being used. Areas of interest within the MS4 Area may include, but are not limited to, the following:

- Public parks;
- Sports complexes;
- Green space around City facilities; and,
- City rights-of-way.







The City is continuously implementing an effective PHF program to prevent potential pollutants from entering the storm sewer system. The City maintains approximately 93 parks, 102 ball fields, and 120 building grounds. The locations of City Parks are shown in Figure 2.38.

2.5.14.4. Certification and Licensing

Commercial and non-commercial application of pesticides is regulated in the State of Alabama by the Department of Agriculture and Industries (DAI). To maintain a pest control license, applicators are required to obtain routine training that covers the following topics:

- Pests:
- Pest control and pesticides;
- Labels and labeling;
- The environment:
- Applicator safety;
- Laws and regulations;
- Pesticide storage and disposal;
- Record keeping:
- Application equipment and calibration; and,
- Weed control.

City staff and contractors involved with the application, storage, and/or disposal of PHFs in City areas shall maintain current certification and training as required by DAI. The City currently has seven (7) employees that maintain an applicator's certification. Their applicator's certification documentation is provided in Appendix H.

2.5.14.5. PHF Training

State-licensed applicators in the City attended various training sessions related to PHF usage.

2.5.14.6. PHF Storage Facilities

The City tries to optimize the use of pesticides, herbicides, and fertilizers as well as minimize the quantity of chemicals stored. Chemical storage facilities are summarized in Table 2.12 and shown in Figure 2.38.





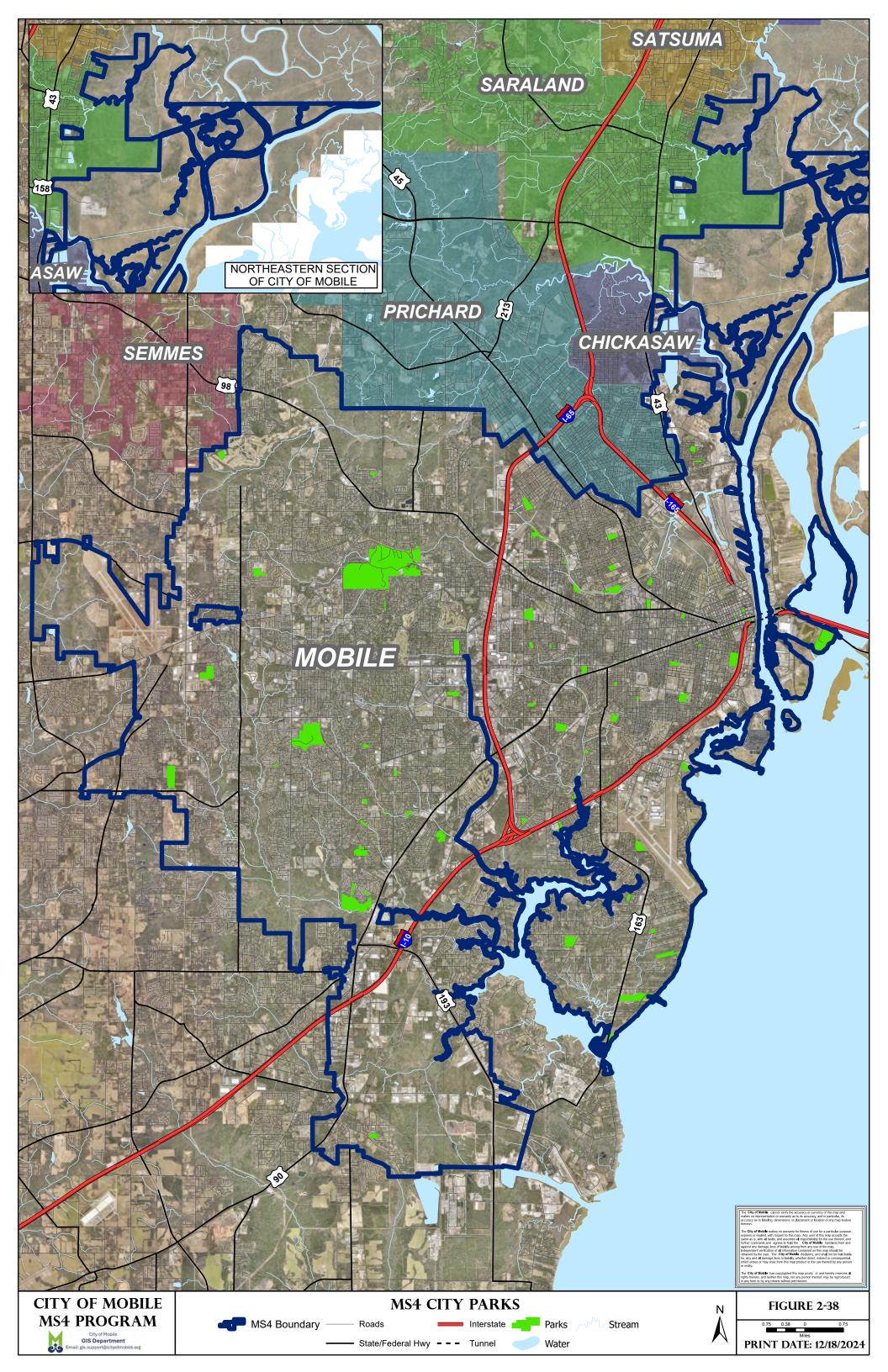




Table 2.12 PHF Storage Facilities

Facility	Address
Parks Administration Facility	48 N Sage Avenue
Langan Park Fueling Station	4901 Museum Drive
Azalea City Golf Course	1000 Joe Barbato Drive

Each PHF storage facility is inspected by the City annually using the PHF Storage Inspection Form. Inspections performed this permit year are summarized on the PHF Storage Inspection Summary form included in Appendix H. PHF storage inspections are provided in Appendix H.

2.5.14.7. Chemical Inventory

The City may use a variety of PHF chemicals on road rights-of-way and City areas. An inventory of PHFs stored at each City facility is maintained on a PHF Inventory Summary Form. Copies of the PHF Inventory Summary Forms for the Azalea City Golf Course and Parks are provided in Appendix H.

Safety Data Sheets (SDS) for PHFs used by City staff are maintained at each individual storage location. The SDS will provide information about the chemical to include but not limited to the following:

- Chemical constituents;
- Product use:
- Dilution requirements;
- Mixing requirements;
- Storage instructions; and,
- Health and safety precautions.

2.5.14.8. PHF Application

The City may collect soil samples to determine the optimum fertilizer and application rate for a particular facility. If results of the soil sample indicate that phosphorus is not needed, the City will use a non-phosphorous fertilizer.

The City routinely uses non-phosphorous fertilizers. During this permit year, the Azalea City Golf Course and the Parks and Recreation Department used approximately 19,770 lbs. and 40,304 lbs., respectively, of non-phosphorous fertilizers.







PHF applied by the Azalea City Golf Course and the Parks and Recreation Department are summarized on the Daily PHF Application Summary forms provided in Appendix H.

The City has defined High Application Areas:

- 1. Areas where application rates significantly exceed the manufacturer's written recommendations; or,
- 2. Areas where application of PHF results in an adverse condition(s) in receiving streams adjacent to application areas.

Currently, the City has not identified any high-application areas.

2.5.14.9. PHF Disposal

Typically, the City purchases chemicals as needed per application. This minimizes and/or eliminates the need for chemical disposal. During this permit year, the City did not dispose of any large quantities of PHF.

2.5.15. Oils, Toxics, and Household Hazardous Waste

Major accomplishments in Oils, Toxics, and Household Hazardous Waste are summarized below.

2.5.15.1. Public Education

To help minimize used motor vehicle fluids and household hazardous waste from being discharged into the MS4, the City provides materials and information to help educate the public on the proper methods of disposal. The City's website is the primary mechanism for distributing materials and information to the public. This allows the City to reach a larger audience more cost-effectively. Information that may be provided on the website includes but is not limited to the following:

- Brochures describing the impacts of these types of discharges; and,
- If these types of discharges are observed, how to report it to the City.

2.5.15.2. Mobile 311

The City has implemented a hotline for the public to report incidents that may potentially impact the City's MS4 as well as obtain information about the City by calling 311 or 208-5311.







2.5.15.3. City Facilities

As part of the Spill Prevention and Response Program, the City maintains an inventory of City facilities that require an SPCC Plan. Facility operations and maintenance are performed in accordance with the SPCC plans. Currently, the City has six (6) facilities that require an SPCC plan. City facilities with petroleum storage are listed in Table 2.8.

City facilities and vehicles generate used oil and oil filters. These items are routinely picked up and disposed of by a local used oil disposal company.

2.5.15.4. Training

City staff associated with vehicle and equipment maintenance receive annual training on the proper management and disposal of used motor vehicle fluids. Training activities are described in the Pollution Prevention and Good Housekeeping section of this report.

City staff involved with the operation, maintenance and spill prevention associated with Underground Storage Tanks (USTs) on City property maintain current certification and training as required by ADEM. The City currently has six (6) employees that maintain Class A/B/C Operator's certification. Their operator's certification documentation is provided in Appendix I.

2.5.16. Industrial Stormwater Runoff

The City has continuously implemented an Industrial Stormwater Runoff Program. Major accomplishments in the Industrial Stormwater Runoff Program are summarized below.

2.5.16.1. NPDES Facilities

The City has developed an inventory of industrial facilities that have either obtained a General or Individual NPDES permit for industrial activities. As of 30 September 2024, the City has 142 facilities with active or administratively extended NPDES permits. The types and number of NPDES-permitted facilities are shown in Figure 2.39 and summarized in Table 2.13. A detailed list of NPDES-permitted facilities is provided in Appendix J.





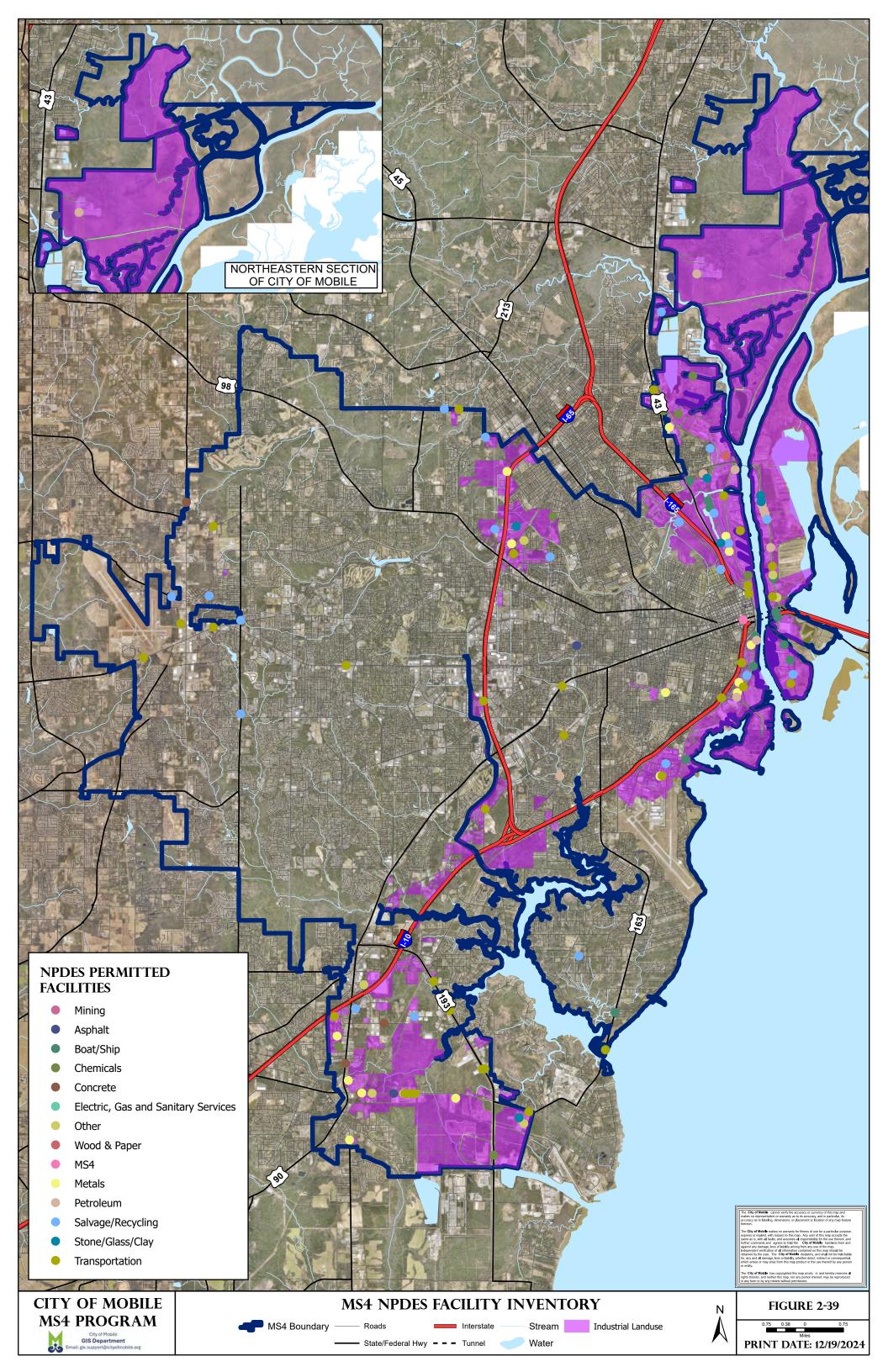




Table 2.13 NPDES Permitted Facilities

Facility Type	No.	Facility Type	No.
Asphalt	4	Paint	1
Boat/Ship	14	Paper & Allied Products	1
Chemicals & Allied Products	8	Pesticides	1
Concrete	6	Petroleum	11
Electric, Gas, Sanitary	3	POTW	3
Food	2	Salvage/Recycling	21
Lumber/Wood	3	Small Mining	1
Metals	15	Stone/Glass/Clay	7
Mining	2	Transportation	34
MS4	1	Wholesale Trade	2
Nonclassifiable	2		

2.5.16.2. Toxic Release Inventory Facilities

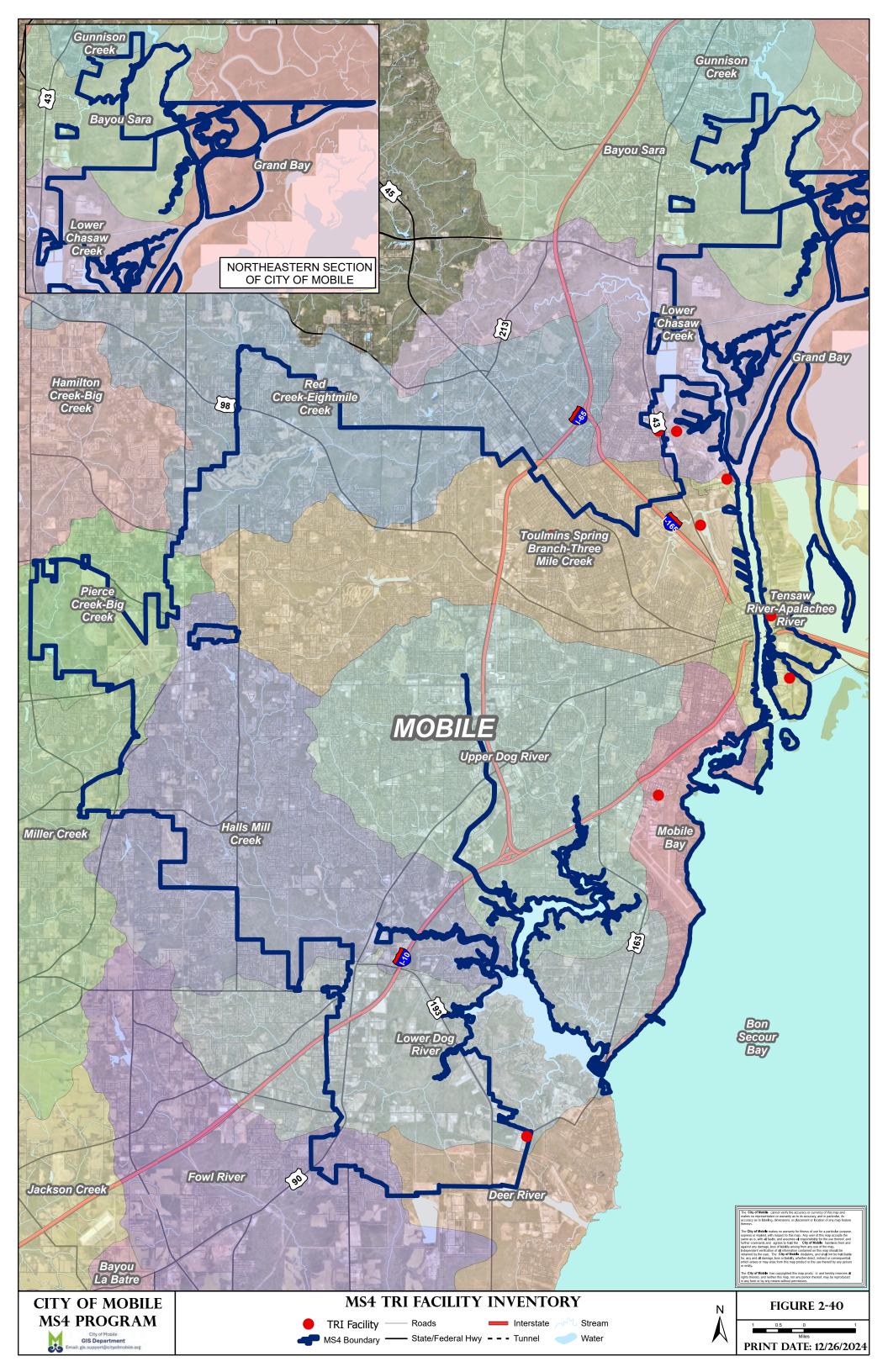
Facilities regulated under the Emergency Planning and Community Right to Know Act (EPCRA) Title III, Section 313 (Toxic Release Inventory Facilities) that manufacture, process, or otherwise use listed chemicals above specific thresholds are required to submit detailed inventory reports by 1 July for each preceding year.

These facilities must report both routine and accidental chemical releases, off-site transfers, and other waste management activities to both the EPA and the Alabama Emergency Response Commission (AERC).

Currently, the City has 10 TRI Facilities that provide this information. All TRI Facilities have an NPDES permit. An updated inventory of TRI Facilities is shown in Figure 2.40 and a detailed list of the facilities is provided in Appendix J.









2.5.16.3. Municipal Facilities

The City provides a wide range of services to its citizens through various City Departments and facilities located throughout the City. The City has developed an inventory of facilities used for PHF storage, municipal shops, and equipment yards where operations may have the potential to contribute pollutants to stormwater runoff. The municipal high-risk facility inventory is summarized in Table 2.14 and shown in Figure 2.41.

Depending upon the operations at each facility, the facility is either inspected biweekly or annually. The bi-weekly inspections are conducted by Public Services. The annual inspections are conducted by the Engineering Department. Examples of Good Housekeeping Inspection Checklists are provided in Appendix G. A summary of the annual inspections is provided on the Municipal Facility Annual Inspections Summary form included in Appendix J.

Table 2.14 Municipal Facilities

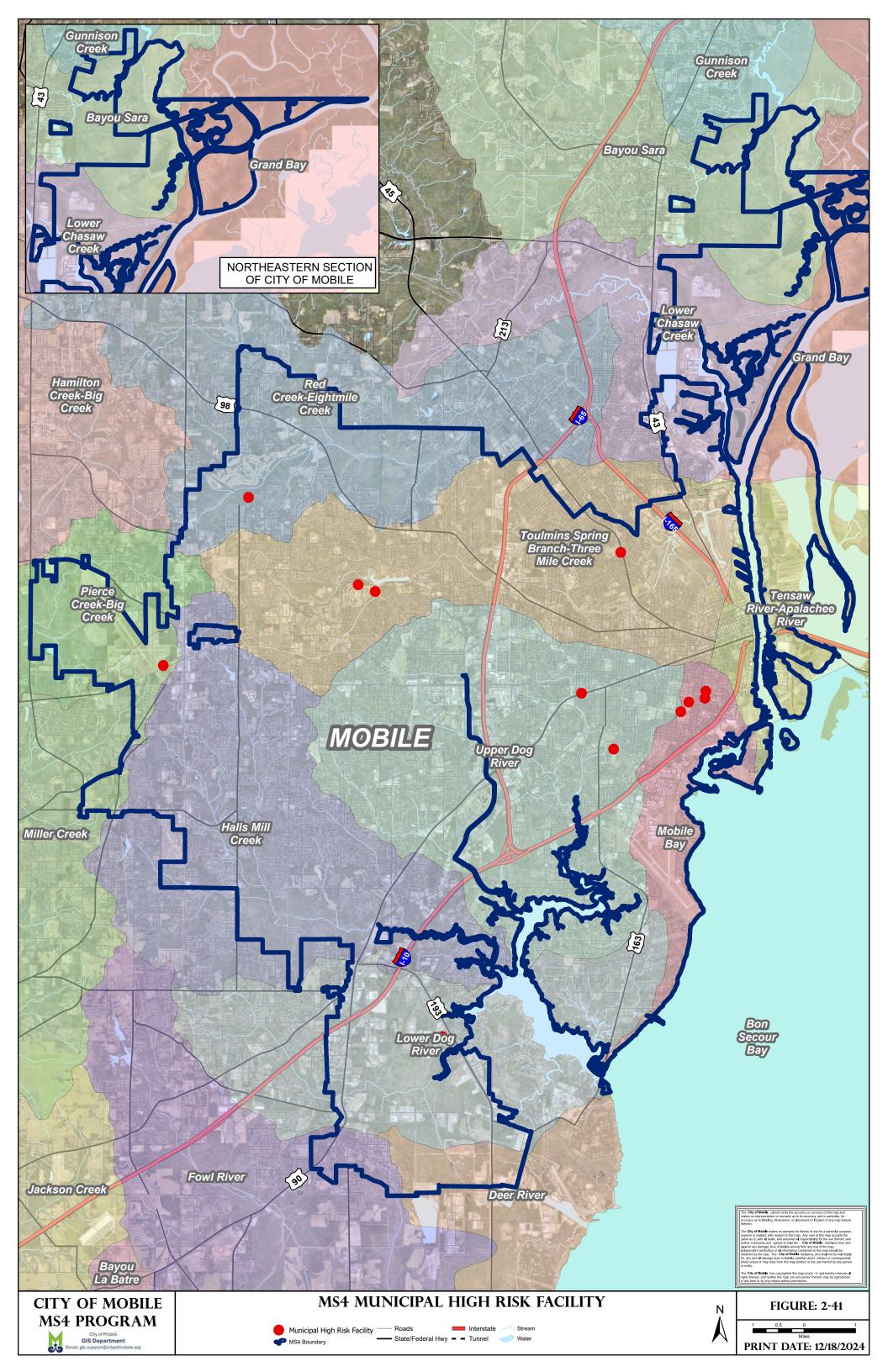
Facility Name	Department	Inspection Frequency
Parks Administration Facility	Parks and Recreation	Annually
Parks Mowing Division	Parks and Recreation	Annually
Langan Park Fueling Station	Equipment Services	Annually
Public Safety Complex/Police 4 th Precinct	Mobile Fire & Police Departments	Annually
Police 3 rd Precinct	Mobile Police Department	Annually
Fire Station No. 7	Mobile Fire Department	Annually
Public Works/Garage Facility	Public Works/Equipment Services	Bi-weekly and Annually
Azalea City Golf Course	Parks and Recreation	Annually
Paint and Body Shop	Equipment Services	Bi-Weekly and Annually
Hurtel Sanitation Facility	Public Works	Bi-Weekly and Annually
Myland Avenue	Public Works	Annually

2.5.16.4. Commercial Facilities

Due to the variety of commercial facilities located throughout the City, inspections of commercial facilities are complaint-driven. When the City receives a complaint that a non-stormwater discharge is occurring from a commercial facility, the City conducts an inspection to investigate the non-stormwater discharge.









During this permit year, the City received four (4) complaints regarding potential non-stormwater discharges. Based on the City's investigation, the City issued one (1) municipal offense ticket and it was determined that the remaining three (3) facilities did not have an illicit discharge. The results of the City's investigations are summarized in the High-Risk Commercial Inspection Summary Form included in Appendix J.

2.5.16.5. Employee Training

City staff have extensive professional experience in working with industrial facilities. Based on this professional experience, employee training is not needed. City staff performing the inspections are working under the direction of a Professional Engineer with extensive professional experience.

2.6. Monitoring Activities

The City has developed its monitoring program to evaluate the watersheds that have 303(d) or TMDL-listed streams. The City has focused its monitoring efforts on smaller watersheds. If the BMPs implemented within the smaller watersheds show improvement in water quality, implementing similar BMPs throughout the City should produce similar results and improve water quality.

2.6.1. Rainfall Data

For this permit year, the City has used Weather Underground stations to acquire rainfall data for the representative monitoring locations. The nearest available stations were selected based on sampling locations. Total monthly rainfall amounts for each representative monitoring location are presented in Figure 2.42.

Due to the size of the City and the spatial variation of rainfall, the monthly rainfall totals may have a significant variation. The total yearly rainfall in the City was approximately 70.52 inches. This is approximately 4.52 inches of rainfall above the average annual rainfall amount.

2.6.2. Representative Monitoring

Representative monitoring provides water quality data collected during a storm event that is used to evaluate the stormwater quality from various land use categories that are representative of the municipality. As noted in Section 2 of the SWMP Plan, the primary land use categories within the City are residential, commercial, and industrial.







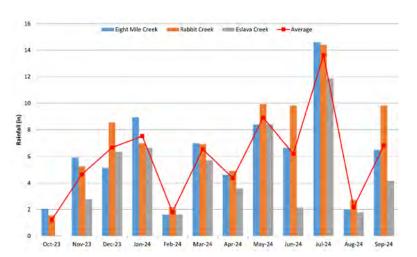


Figure 2.42 Monthly Rainfall Totals

In accordance with Part III.A of the NPDES Permit and the SWMP Plan, the City has performed representative monitoring at one monitoring location in each of the watersheds listed in Table 2.15. Representative monitoring locations are shown in Figure 2.43.

Representative Land Use Waterbody Latitude Longitude Watershed Rabbit Creek Dog River Industrial 30.5735 -88.1352 Eslava Creek (East) Commercial -88.1122 Dog River 30.6731 Eight Mile Creek Chickasaw Residential 30.7489 -88.1326

Table 2.15 Representative Monitoring Locations

Representative sampling consisted of collecting grab samples of the discharge resulting from a storm event that is greater than 0.1 inch in magnitude. In accordance with Part III.B. of the NPDES Permit, the City has collected a grab sample at each monitoring location. Analysis and sample collection were performed in accordance with the methods specified in 40 CFR Part 136. The results of the grab samples collected are summarized in Table 2.16. Copies of the analytical reports are provided in Appendix K.

Rabbit Creek, Eslava Creek, and Eight Mile Creek all have a water use classification of Fish and Wildlife. Eight Mile Creek also has a Public Water Supply water use classification. Specific water quality criteria associated with the Fish and Wildlife water use classification as defined in ADEM Rule 335-6-10-.09(5) are summarized below.





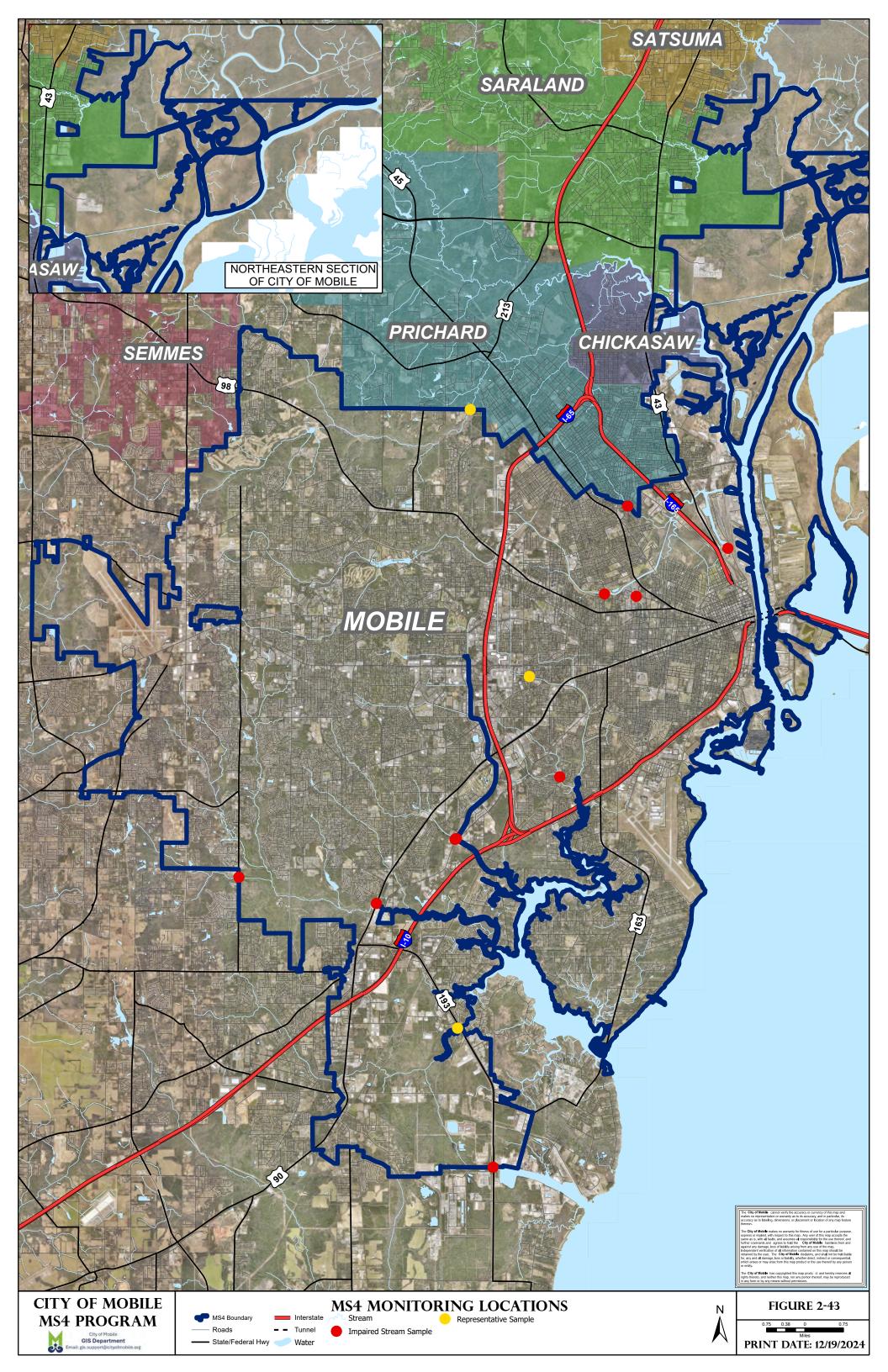




Table 2.16 Grab Sample Results

Danamatan	Rabbit	Creek	Eslava	Creek	Eight Mi	le Creek
Parameter	3/22/24	9/17/24	3/22/24	9/17/24	3/22/24	9/17/24
Ammonia as N (mg/L)	<0.20	<0.16	<0.20	<0.16	<0.20	<0.16
Biochemical Oxygen Demand (mg/L)	<4.0	11	<4.0	<4.0	<4.0	<4.0
Cadmium (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chemical Oxygen Demand (mg/L)	15.0	29.3	20.2	13.7	<13.0	20.5
Conductivity (µS/cm)	170	1847	150	63	91	90
Copper (mg/L)	0.00114	<0.001	0.00164	0.00208	<0.001	<0.001
Dissolved Oxygen (mg/L)	6.62	5.99	9.04	9.12	7.69	7.44
E. Coli (MPN/100mL)	162	144	2420	>2419.6	80.1	461
Fecal Coliform (CFU/100mL)	136	690	2940	>2419.6	168	488
Hardness as CaCO3 (mg/l)	49.0	437	93.0	36.0	17.0	18.0
Lead (mg/l)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nitrate plus Nitrite Nitrogen (mg/l)	<1.0	<0.5	<1.0	<0.5	<1.0	<0.5
Oil & Grease (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
pH	7.67	7.24	7.69	7.47	7.9	7.11
Temperature (°C)	21.9	29.1	18.7	27.8	16.2	25.3
Total Dissolved Solids (mg/L)	197	2302	105	34	49	32
Total Kjeldahl Nitrogen (mg/L)	<1.16	<1.16	<1.16	<1.16	<1.16	<1.16
Total Nitrogen (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Total Phosphorous (mg/L)	<0.050	0.050	<0.050	0.070	<0.050	<0.050
Total Suspended Solids (mg/L)	5.26	5.00	6.49	5.80	5.64	8.70
Turbidity (NTU)	37	22	11	11	4	11
Zinc (mg/l)	<0.050	<0.005	0.00949	0.0122	<0.050	<0.005





- pH Not less than 6.0 or greater than 8.5;
- Temperature Not greater than 90°F (32.2°C);
- Dissolved Oxygen (DO) Not be less than 5 mg/l at all times; except under extreme conditions due to natural causes, it may range between 5 mg/l and 4 mg/l;
- Bacteria In non-coastal waters, bacteria of E. coli group shall not exceed a geometric mean of 548 colonies/100 ml; nor exceed a maximum of 2,507 colonies/100 ml in any sample;
- Bacteria Incidental water contact and recreation during May through October, bacteria of E. coli group shall not exceed a geometric mean of 126 colonies/100 ml; nor exceed a maximum of 298 colonies/100 ml in any sample; and,
- Turbidity Will not cause a substantial visible contrast with the natural appearance of waters or exceed 50 Nephelometric units.

Due to the high number and frequency of SSOs within the City's MS4, the high E. Coli and Fecal Coliform results at monitoring locations in Rabbit Creek, Eslava Creek, and Eight Mile Creek indicate the presence of a sanitary sewer discharge. The results of the other parameters are consistent with stormwater runoff from land used in the representative watersheds.

2.6.3. Impaired Stream Monitoring

In addition to representative monitoring, the City has conducted monitoring of waterbodies within the City's MS4 that ADEM and EPA have identified as impaired. A detailed summary of impaired waterbodies located within the City's MS4 is described in Section 2.2 of the SWMP Plan. In general, an impaired waterbody is a waterbody listed on the latest final 303(d) list, designated impaired by ADEM, or has an approved EPA TMDL.

Due to the number and frequency of SSOs, the City cannot confidently determine if it is a contributor to impaired waterbodies. Therefore, the City has developed an impaired waterbody monitoring strategy to validate its observations over previous permit years.

Based on the review of 303(d) and TMDL waterbodies, the City has identified monitoring locations where samples have been previously collected to evaluate an impaired waterbody. Impaired stream monitoring locations are shown in Figure 2.43.

January 2025







Monitoring parameters have been selected based on the pollutants of concern for which a waterbody is listed as impaired, and which contributes to the listed impairment. Monitoring parameters for each impaired waterbody are presented in Table 2.17.

Since the primary source of pollution contributing to impaired waterbodies is attributed to municipal collection system failure or on-site wastewater treatment systems, pathogens, and/or organic enrichment are the pollutants of concern. Water quality criteria for these pollutants are more restrictive from June through September. Criteria established for sampling impaired waterbodies were based on the following:

- Collect grab samples;
- Conduct sampling during the months of June through September; and,
- Collect no less than five (5) grab samples over a 30-day period at intervals greater than 24 hours.

Table 2.17 Impaired Stream Monitoring Parameters

Waterbody	Pollutants of Concern	Parameter
Three Mile Creek	Pathogens Organic Enrichment Low Dissolved Oxygen	Enterococci CBOD NBOD
Toulmins Spring Branch	Nutrients Pathogens	Total Phosphorus E. Coli Fecal Coliform
UT to Three Mile Creek	Nutrients Pathogens	Total Phosphorus E. Coli Fecal Coliform
Bolton Branch (East)	Pathogens	E. Coli Fecal Coliform
Bolton Branch (West)	Pathogens	E. Coli Fecal Coliform
Moore Creek	Pathogens	E. Coli Fecal Coliform
Halls Mill Creek #1 Halls Mill Creek #2	Siltation Pathogens	Total Suspended Solids E. Coli Fecal Coliform







This sampling protocol provides data to evaluate single sample and geometric mean water quality criteria. Since sampling occurred within a 30-day period, varying types of weather conditions were encountered. Sample events occurred during dry periods and storm events. A graph showing the sampling dates and daily rainfall totals for selected Weather Underground stations is provided in Figure 2.44.

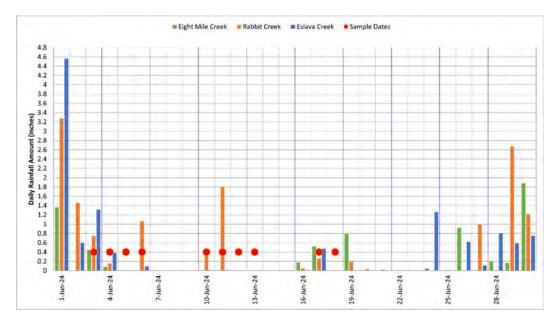


Figure 2.44 Impaired Stream Sampling Dates

As shown in Table 2.17, all streams identified for sampling have a pathogen impairment. Due to the significant number of reoccurring SSOs encountered within and outside of the City's MS4, it is highly likely that the source of the pathogen impairment on these streams is directly attributed to the sanitary sewer system. Analytical results for E. Coli and Fecal Coliforms are summarized in Table 2.18 and Table 2.19, respectively. Graphs of analytical results for E. Coli and Fecal Coliforms are shown in Figure 2.45 and Figure 2.46, respectively.







Table 2.18 E-Coli. Sample Results

Date	BBE	TSB	UTMC	BBW	HMC1	HMC2	MC
6/3/2024				437	111	199	313
6/4/2024	1730	2420	830				
6/5/2024				192	118	186	1730
6/6/2024	456	445	977				
6/10/2024				48	130	88.4	37.4
6/11/2024	202	334	3110				
6/12/2024				78.9	291	225	14.5
6/13/2024	215	357	832				
6/17/2024				161	194	179	13.4
6/18/2024	1300	3110	1630				
Geometric Mean	536.7	832.3	1278.8	138.6	157.2	167.5	83.0
Results in color	nies / 100 m	nl					

BBW Bolton Branch West BBE Bolton Branch East HMC1 Halls Mill Creek 1 HMC2 Halls Mill Creek 2 TSB Toulmins Spring Branch

UTMC Unnamed Tributary Three Mile Creek

Figure 2.45 E. Coli Sample Results

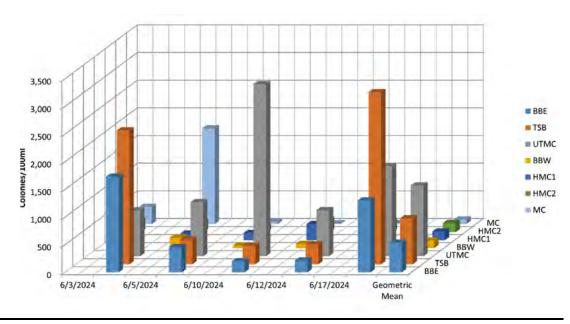




Table 2.19 Fecal Coliform Sample Results

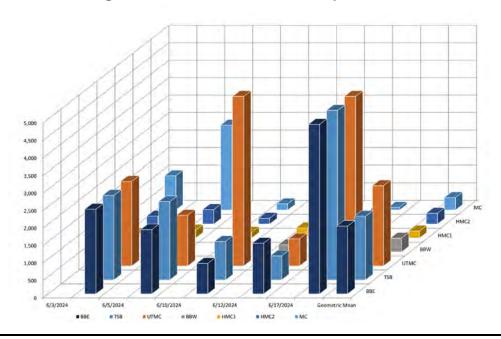
Date	BBE	TSB	UTMC	BBW	HMC1	HMC2	MC
6/3/2024				1200	124	222	980
6/4/2024	2420	2420	2420				
6/5/2024				921	225	411	2420
6/6/2024	1840	2240	1450				
6/10/2024				142	166	166	176
6/11/2024	870	1100	4840				
6/12/2024				205	291	435	178
6/13/2024	1450	690	775				
6/17/2024				291	219	411	79
6/18/2024	4840	4840	4840				
Geometric Mean	1,936	1,819	2,295	393	197	307	358
Results in colo	Results in colonies / 100 ml			*Geometric N	Mean not ca	culated for	stations
Results III Colonies / Too mi			with TNTC re	esults.			

TNTC = Too Numerous To Count

BBW Bolton Branch West BBE **Bolton Branch East** HMC1 Halls Mill Creek 1 HMC2 Halls Mill Creek 2 Moore Creek **Toulmins Spring Branch** MC TSB

UTMC Unnamed Tributary Three Mile Creek

Figure 2.46 Fecal Coliform Sample Results









Three Mile Creek is also listed as impaired for Organic Enrichment and Low Dissolved Oxygen. Three Mile Creek has a use classification of Agricultural and Industrial Water Supply. In accordance with ADEM water quality standards, the minimum dissolved oxygen (DO) concentration allowed in a stream classified as Agricultural and Industrial Water Supply is 3.0 mg/L. As part of the impaired stream monitoring on Three Mile Creek, DO was measured in the field and samples were collected for analysis of Nitrogenous Biochemical Oxygen Demand (NBODu) and Carbonaceous Biochemical Oxygen Demand (CBODu). Figure 2.47 shows the dissolved oxygen concentrations measured during the monitoring period. Analytical results are summarized in Table 2.20.

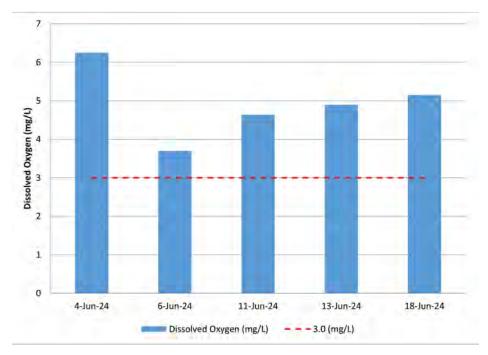


Figure 2.47 Three Mile Creek Dissolved Oxygen

Table 2.20 Three Mile Creek Sample Results

Date	NBOD (mg/L)	CBOD (mg/L)	DO (mg/L)
4-Jun-24	ND	ND	6.25
6-Jun-24	ND	ND	3.7
11-Jun-24	ND	5	4.64
13-Jun-24	ND	ND	4.9
18-Jun-24	ND	ND	5.15







The Organic Enrichment / Dissolved Oxygen TMDL for Three Mile Creek identifies two (2) NPDES-permitted wastewater treatment plants (WWTP) within the Three Mile Creek watershed as major contributors to the impairment of Three Mile Creek. The sanitary sewer collection systems associated with both WWTPs have experienced frequent and reoccurring SSOs. As a result, it is highly likely that the source of the impairment on these streams is directly attributed to the sanitary sewer system.

Toulmins Spring Branch and the Unnamed Tributary (UT) to Three Mile Creek have been identified as an impaired stream for nutrients on ADEM's 303(d) list. Total Phosphorus (TP) was selected as the parameter to evaluate nutrients of both streams. Analytical results are summarized in Table 2.21.

Table 2.21 Toulmins Spring Branch and UT to Three Mile Creek Sample Results

Date	Toulmins Spring Branch Total Phosphorous (mg/L)	UT to Three Mile Creek Total Phosphorous (mg/L)
04-Jun-24	0.153	0.135
06-Jun-24	-Jun-24 0.082 0.091	
11-Jun-24	0.074	0.103
13-Jun-24	0.073	0.068
18-Jun-24	0.08	0.115

Using average pollutant loading values from the Nationwide Urban Runoff Program (NURP) data, TP concentrations from urban areas can range from 0.11 mg/L to 0.52 mg/L. According to NURP data, average TP concentrations for forest / rural open areas are 0.11 mg/L. Sampling events on Toulmin's Spring Branch and the Unnamed Tributary to Three Mile Creek indicated TP concentrations were within or below TP concentrations for forest / rural open areas.

Halls Mill Creek has been identified as an impaired stream for siltation on ADEM's 303(d) list. Total Suspended Solids (TSS) was selected as the parameter to evaluate siltation. Two sampling locations were selected on Halls Mill Creek to evaluate siltation entering and leaving the City's MS4. Monitoring location HMC1 is located where Halls Mill Creek enters the City's MS4 and monitoring location HMC2 is located where Halls Mill Creek leaves the City's MS4.

TSS results for both sampling locations are summarized in Table 2.22. The results indicate that there is not a significant siltation contribution from the City's MS4. ADEM has finalized siltation TMDLs for portions of the Cahaba River and Shades





4.8

2.9



Creek which established a numeric effluent limitation for TSS not to exceed 45 mg/L as a monthly average. Based on the sampling data, the average TSS concentrations were 2.18 mg/L and 3.58 mg/L at sampling locations HMC1 and HMC2, respectively. This is well below the limits established in the Cahaba River and Shades Creek TMDLs.

HMC1 (Upstream) **HMC2 (Downstream) Date** TSS (mg/L) TSS (mg/L) 3-Jun-24 1.5 2.4 5-Jun-24 2.4 4.3 10-Jun-24 1.3 3.5

3.5

2.2

Table 2.22 Halls Mill Creek Sample Results

2.7. **SWMP Program Evaluation**

12-Jun-24

17-Jun-24

The City has developed realistic, achievable, measurable goals, and performance milestones to measure the progress in implementing its SWMP. The most basic measure to evaluate the program's effectiveness is to evaluate whether the program goals are being met. During this permit year, the City has met its measurable goals and performance milestones as defined in the SWMP Plan.

2.7.1. Overall Strengths

The biggest program strength is that the City has moved forward with developing, managing, and implementing its SWMP. City staff are actively involved in the development, management, and daily implementation of BMPs that will protect and help improve stormwater quality. This also allows the City's SWMP to be a dynamic program with the ability to evolve as necessary to meet the specific needs of the City.

Advantages of the City's SWMP include but are not limited to the following:

- City leadership actively supports the stormwater program;
- City leadership can develop policies and initiatives that are in the best interest of the City, its citizens and the environment;
- The City has a vested interest in the success of their SWMP;







- The Engineering Department has been tasked with the responsibility of coordinating with other City departments to develop, manage, and implement the SWMP;
- City staff have a better understanding and knowledge base of the facilities, infrastructure, and activities that are occurring within the City. This allows City staff to proactively address potential problems before they arise;
- City Staff are involved daily with the implementation of the SWMP; and,
- The City has existing programs that are used to minimize and/or eliminate the potential for discharging pollutants in stormwater runoff. Some of these programs have been operating for many years.

The City is continuously making improvements to its MS4 Program to identify potential pollutant sources and improve the quality of its water resources. Multiple tools and technologies are being used to assist the City in understanding the concerns about stormwater runoff and developing cost-effective solutions.

2.7.2. Weaknesses

While the City has made significant improvements in the stormwater management program, weaknesses in the stormwater management program continue to surface.

- Enforcement New rules, regulations, and ordinances are being developed in support of the SWMP. Informing the community of new rules, regulations, and ordinance changes will be an ongoing process. Although gradual improvement in compliance will occur over time, compliance and enforcement issues will still exist.
- Public Expectations The public is very aware of environmental-related issues and proactively involved in community affairs. Sometimes public expectations exceed the resources and capabilities of the City.
- Increased Regulation ADEM incorporated new requirements in the City's MS4 NPDES Permit that will put an additional burden on the City's staff and resources. As new permit requirements are added, the City may need additional staff and resources to maintain permit compliance.
- Funding There are several stream segments within the corporate limits that are either listed on the 303(d) list or have a TMDL that has been developed. Most of these stream segments have listed urban runoff as a source of the impairment. In on-stream segments where a TMDL has been







established, the TMDL requires certain load reductions from each source that has been identified. Structural BMPs may be required at a significant cost to adequately address the source of the impairments and restore the stream segments. Currently, there are limited funds available for these types of projects.

2.7.3. Effectiveness

The City has developed and is implementing a very effective SWMP to protect the natural resources within the City. Some examples that demonstrate the effectiveness of the City's SWMP are summarized below:

- Structural Controls Routine maintenance of structural controls reduces the potential of pollutants to be discharged from City facilities. The nominal amount of litter, sediment, and/or debris removed from structural controls, shows that the City is effectively implementing BMPs to reduce pollutant sources to the MEP.
- Public Education The City has tracked growth in public awareness through public participation in social media platforms. Residents have consistently utilized the City's website and social media to stay informed of the City's SWMP and any new developments as the program has developed;
- Public Involvement The City has received complaints and reports through various conduits including phone calls to City Departments, 311 requests, calls to the Mayor, and City employee reports. This shows the effectiveness of the City's public education program;
- IDDE The City has implemented an effective outfall mapping and screening program. During the mapping and screening of major outfalls the City identified only a few non-stormwater discharges. The City has also received notifications from citizens of suspected non-stormwater This implies that citizens are aware of stormwater-related issues and are protecting the City's natural resources;
- Construction Site Runoff The City has implemented an effective construction site runoff program to help educate and hold the development community accountable for their construction activities. Enforcement actions taken by the City have helped the development community to improve its erosion and sediment control practices to reduce the loss of sediment from construction sites:







- Post-Construction Stormwater Management The City has developed and implemented a post-construction stormwater management program that provides water quality benefits and stormwater management to minimize the impact of development. The program provides for review of post-construction stormwater management practices in the design phase, construction phase, and operation phase. As new developments occur, the potential stormwater impact of the development will be reduced;
- Pollution Prevention and Good Housekeeping The City has implemented municipal facility inspections, street sweeping, litter patrols, PHF BMPs, and other BMPs to minimize the potential of pollutants from being discharged in stormwater runoff. Street sweeping and litter patrols remove a significant amount of potential pollutants from being discharged in stormwater runoff.







SECTION 3

Summary Tables



3. Summary Tables

The purpose of the table is to document the program activities and the permittee's compliance status with quantifiable permit requirements in a concise form. The following tables in this section provide a summary of the City of Mobile's MS4 program activities.

3.1. Stormwater Collection System Operations

Program	SWMP Activity Schedule			
Component	Required	Complied	Accomplished	
Structural Controls	Inventory Annually	Yes	17 Structural Controls	
	SOPs Update as needed	Yes	No update or revision required	
	Collector App Update as needed	Yes	No update or revision required	
	Inspections Semi-Annual	Yes	17 Structural Controls 34 Inspections	
	Maintenance Request Form Update as needed	Yes	No update or revision required	
	Maintenance Track	Yes	Structural Controls Low Priority	
Catch Basins	Inventory Annual	Yes	31,828 Catch Basins	
	Inspection Schedule Annual	Yes	No update or revision required	
	Inspection and Cleaning 5% / Year	Yes	8,165 Catch Basins 87,258 ft of pipe cleaned 22,650 cy of debris/litter removed	
Litter Trap	Inspection Form Update as needed	Yes	No update or revision required	
	Inspections Weekly	Yes	52 Inspections	
	Cleaning Track	Yes	40 Cleaning events 22.1 cy material removed	







Program	SWMP Activity Schedule			
Component	Required	Complied	Accomplished	
Litter Enforcement	Business Services Track	Yes	4,059 Notice of Violations 1,271 Municipal Offense Tickets	
Litter Patrol	Rights-of- Way Litter Patrol Track	Yes	114 bags of litter 2,166 lbs of litter	
Special Events	Catch Basin Screens Inventory Track	Yes	98 Catch basin screens	
	LI Devices Track	Yes	76 LI devices	
	Trash Pick Up Mardi Gras Track	Yes	14 days 387 tons (Mardi Gras)	
	Cooking Oil Recycling Track	Yes	218.0 gallons	

Comments:

1. Supporting documentation and information of the activities described above are included in Appendix A.







3.2. Public Education and Involvement

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
Public Education (Minimum of 2	Local Partnerships On-going	Yes	7 Active partnerships
activities / year)	Website Update as needed	Yes	Website current
	Social Media Track	Yes	Number of Followers 46,000 Facebook 24,804 Instagram 13,965 Twitter 1,970 YouTube
	Brochures Track	Yes	15 Total Brochures 108 Brochures Handed out
	Presentations Track	Yes	5 Presentations
	MS4 Meetings Track	Yes	4 Meetings
	Public Service Announcements As needed	Yes	9 Public Service Announcements available online
Public Involvement (Minimum of 2	Mobile 311 Track	Yes	Available upon request
activities / year)	Litter Bug Hotline Track	Yes	51 Complaints
	Clean-up Events Track	Yes	2 Clean-up Events
	Recycling (Single Stream) Track	Yes	440.73 tons Police Headquarters 350.44 tons Western Admin. Complex 34.59 tons Dauphin Island Parkway Center
	Pet Waste Disposal Stations	Yes	27 Stations

Comments:

1. Supporting documentation and information of the activities described above are included in Appendix B.







3.3. Illicit Discharges and Improper Disposal

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
Legal Authority	Stormwater Management and Flood Control Ordinance Update as needed	Yes	No update or revision required
Outfall Screening	Schedule Update as needed	Yes	No update or revision required
	Outfall Evaluation Inspection Form Update as needed	Yes	No update or revision required
	Outfall Map Annually	Yes	Map has been updated
	Outfall Screening 1 / 5 yr.	Yes	109 Major Outfalls 3 Outfalls Removed
	Suspect Non- Stormwater Discharges Track	Yes	None
Illicit Discharges	SOPs Update as needed	Yes	No update or revision required
	Complaint Tracking System Mobile 311 Track	Yes	195 SROs 188 Citizen complaints 7 Internal reports
	Illicit Discharge Investigations and Enforcement Actions Track	Yes	195 Investigations 9 Verbal Warnings 11 Notice of Violations
	Sanitary Sewer Overflows (SSOs) Track	Yes	40 SSOs 258,847 gallons discharged

Comments:

- 1. Supporting documentation and information of the activities described above are included in Appendix C.
- 2. Information for SSOs was obtained from MAWSS.







3.4. Construction Site Runoff

Program	SWMP Activity Schedule			
Component	Required	Complied	Accomplished	
Legal Authority	Stormwater Management and Flood Control Ordinance Update as needed	Yes	No update or revision required	
Permitting and Plan Review	Land Disturbance (LD) Permit Application Update as needed	Yes	No update or revision required	
	Tier 1 LD Checklist Update as needed	Yes	No update or revision required	
	Tier 1 LD Permit Application Review Checklist Update as needed	Yes	No update or revision required	
	Tier 1 LD Permit Certification Update as needed	Yes	No update or revision required	
	Tier 1 LD Performance Bond Letter Update as needed	Yes	No update or revision required	
	Tier 1 LD Performance Bond Update as needed	Yes	No update or revision required	
	Tier 2 LD Permit Checklist Update as needed	Yes	No update or revision required	
	Tier 2 LD Permit Application Review Checklist Update as needed	Yes	No update or revision required	
	Permits Issued Track	Yes	No update or revision required	
Complaint Tracking System	Mobile 311 Continuous	Yes	13 Complaint	







Program	SWMP Activity Schedule			
Component	Required	Complied	Accomplished	
Inventory	Construction Site Inventory Update as needed	Yes	126 Tier I Construction Sites 65 Active sites 61 Non-Active Stable sites 32 As-built sites 112 Tier 2 Construction Sites	
Inspections	EnerGov Update as needed	Yes	No updates or revisions required	
	Inspections Track	Yes	457 Tier I Construction Sites	
Enforcement Actions	Tier I Construction Sites Track	Yes	26 Verbal Warnings 0 Written Warnings 4 Municipal Offense Tickets 0 Notices of Violation 1 Stop-Work Orders	
Training	QCI Certification Annually	Yes	79 Staff Certified	

Comments:

1. Supporting documentation and information of the activities described above are included in Appendix D.







3.5. Post-Construction Stormwater Management

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
Legal Authority	Stormwater Management and Flood Control Ordinance Update as needed	Yes	No update or revision required
	Zoning Ordinance Update as needed	Yes	No update or revision required
	Subdivision Regulations Update as needed	Yes	No update or revision required
Post-Construction Stormwater Management	Low Impact Development Encouraged	Yes	Low Impact Development is encouraged
J	Post-Construction Stormwater Management Req. Update as needed	Yes	No update or revision required
	Plan Review Procedures and Checklist Update as needed	Yes	No update or revision required
	Inventory of Post Construction BMPs Track	Yes	111 Projects / Development
As-Built Certifications	As-Built Certification Form Update as needed	Yes	No update or revision required
	As Built Certifications Track	Yes	32 Projects / Developments
Annual Inspections	Annual Inspections Track	Yes	89 Projects / Development
Enforcement	Enforcement Activities Track	Yes	9 Projects / Developments requiring enforcement

Comments:

1. Supporting documentation and information of the activities described above are included in Appendix E.







3.6. Spill Prevention and Response

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
Spill Prevention	Inventory of City Facilities Update as needed	Yes	7 Facilities
	Facility Inspections Annually	Yes	7 Facility Inspections
	SPCC Plans Update as needed	Yes	6 SPCC Plans
	Fire and Rescue Department Training Track	Yes	162 HazMat Awareness and Operations 179 HazMat Technician
	Municipal Staff Training Annually	Yes	378 personnel
Spill Response	Fire and Rescue Department No. Spills / yr.	Yes	0 Spills 0 Spills entering Storm Sewer System
	Municipal No. Spills / yr.	Yes	109 Spills 0 Spills entering Storm Sewer System
	Fire and Rescue Department Training Track	Yes	162 HazMat Awareness and Operations 179 HazMat Technician
	Municipal Staff Training Annually	Yes	378 personnel

Comments

- 1. Supporting documentation and information of the activities described above are included in Appendix F.
- 2. Detailed records and information regarding each response are maintained with the Mobile Fire and Rescue Department.







3.7. Pollution Prevention and Good Housekeeping

Program Component	SWMP Activity Schedule			
	Required	Complied	Accomplished	
SOPs	SOPs Update as needed	Yes	15 existing SOPs	
Municipal Facilities	Facility Inventory Update as needed	Yes	3 Facilities	
	Inspections Bi-Weekly	Yes	3 Facilities 78 Inspections	
	Inspections Annually	Yes	15 Facilities 15 Inspections	
Roads	Street Sweeping Track	Yes	20,566 cy Material removed	
	Litter Control Track	Yes	90 Trash receptacles 2,717 Community service hours 55,929 tons Trash collected	
	Deicing Events Events / yr.	Yes	0 events	
Litter Collection	Public Works Track	Yes	35.93 tons of litter	
	Mowing Contractor Litter Collection Track	Yes	24 tons of litter	
Training	Training Modules Update as needed	Yes	9 Training modules No update or revision required	
	Training Annually	Yes	14 Departments / Divisions trained 378 City staff trained	
Flood Control Structures	Evaluate to include water quality As needed	Yes	No new proposed flood control structures	

Comments:

1. Supporting documentation and information of the activities described above are included in Appendix G.







3.8. Pesticide, Herbicide, and Fertilizer Application

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
SOPs	SOPs Update as needed	Yes	No update or revision required
Facility Inventory	No. Facilities Update as needed	Yes	315 Facilities
	Facility Map Update as needed	Yes	No update or revision required
PHF Storage Facilities	Inventory Annually	Yes	3 Facilities
	Inspections Annually	Yes	3 Inspections
Certification and Licensing	Pesticide Applicator Permit 1/3 Years	Yes	7 City personnel
Chemical Inventory	PHF Inventory at each location Update as needed	Yes	Inventory is current
	SDS at each location Update as needed	Yes	SDS are current
Chemical Use	Summary by Chemical Annually	Yes	Non-phosphorus fertilizers 19,770 lbs. ACGC 40,304 lbs. Parks and Recreation
	Disposal As needed	Yes	No disposal required
Soil Testing	Golf Course As needed	Yes	No soil samples collected

Comments:

- 1. Supporting documentation and information of the activities described above are included in Appendix H.
- 2. The PHF Application Summary Form summarizes the daily application of PHF and is included in Appendix H.





Oils, Toxics, and Household Hazardous Waste 3.9.

Program	SWMP Activity Schedule			
Component	Required	Complied	Accomplished	
Public Education and Involvement	Website Update as needed	Yes	Locations linked to website	
	Educational Materials Track	Yes	30 Brochures	
City Facilities	Inventory of City Facilities Update as needed	Yes	6 Facilities	
	SPCC Plans Update as needed	Yes	No updates or revisions required	
Training	Training Modules Update as needed	Yes	9 Training modules No update or revision required	
	Training Annually	Yes	14 Departments / Divisions trained 378 City staff trained	

Comments

1. Supporting documentation and information of the activities described above are included in Appendices B, F, and G.

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3.10. Industrial Stormwater Runoff

Program	SWMP Activity Schedule		
Component	Required	Complied	Accomplished
Legal Authority	Stormwater Management and Flood Control Ordinance Update as needed	Yes	No update or revision required
Facility Inventory	NPDES Permitted Facilities Annually	Yes	29 Individual Permitted Facilities 113 General Permitted Facilities
	TRI Facilities Annually	Yes	10 Facilities
	Municipal Facilities Annually	Yes	11 Facilities
Facility Inspections	NPDES Facilities Track	Yes	0 Facilities
	TRI Facilities Annually	Yes	0 Facilities
	Municipal Facilities Annually	Yes	11 Facilities
	Commercial Facilities By Complaint	Yes	4 Facilities
Enforcement Actions	NPDES Facilities Track	Yes	0 Verbal Warnings
	Commercial Facilities Track	Yes	Verbal Warning Notices of Violation Municipal Offense Ticket
Training	Training Program	Yes	Based on professional engineering / environmental experience of staff, training is not needed.

Comments

1. Supporting documentation and information of the activities described above are included in Appendix J.







3.11. Monitoring

Program	SWMP Activity Schedule				
Component	Required	Complied	Accomplished		
Representative Monitoring	Rabbit Creek Grab Sample Bi-annual	Yes	2 Sampling events 22 Parameters		
	Eslava Creek Grab Sample Bi-annual	Yes	2 Sampling events 22 Parameters		
	Eight Mile Creek Grab Sample Bi-annual	Yes	2 Sampling events 22 Parameters		
Impaired Stream Monitoring	Three Mile Creek Annual	Yes	1 Location 3 Parameters 5 Grab Samples		
	Toulmins Spring Branch Annual	Yes	1 Location 3 Parameters 5 Grab Samples		
	UT to Three Mile Creek Annual	Yes	1 Location 3 Parameters 5 Grab Samples		
	Bolton Branch (East) Annual	Yes	1 Location 2 Parameters 5 Grab Samples		
	Bolton Branch (West) Annual	Yes	1 Location 2 Parameters 5 Grab Samples		
	Moore Creek Annual	Yes	1 Location 2 Parameters 5 Grab Samples		
	Halls Mill Creek Annual	Yes	2 Locations 3 Parameters 5 Grab Samples at each location		

Comments

1. Supporting information and data for monitoring activities is provided in Appendix K.







SECTION 4

Summary of Proposed Program Changes



4. Summary of Proposed Program Changes

4.1. SWMP Review and Update

In accordance with Part II.D. of the MS4 NPDES permit, the City is currently evaluating SWMP Plan to incorporate the newly annexed areas. After the SWMP Plan is updated, it will be submitted to ADEM via AEPACS.

4.2. Coordination with Surrounding Municipalities

If the City relies upon another entity to perform activities described in the City's SWMP Plan, ADEM has requested that inter-jurisdictional agreements between such entities are a necessary component of this program. The City does not rely on any other entity to perform any components of the City's SWMP Plan. Therefore, the City does not need or require inter-jurisdictional agreements with any other entities to be compliant with the NPDES Permit.







SECTION 5

Fiscal Analysis



5. Fiscal Analysis

Permit Year 2024 is from 1 October 2023 through 30 September 2024. Many City Departments contribute to the City's SWMP. Since the City's budgeting process does not provide a detailed analysis of the City's effort regarding the stormwater program, the gross annual cumulative budget for departments that contribute to the stormwater program is summarized in Table 5.1.

Table 5.1 Fiscal Analysis

Department	2024	2025	
311	\$ 430,542	\$ 437,373	
GIS	\$ 906,267	\$ 908,985	
Municipal Enforcement	\$ 1,802,859	\$ 1,929,473	
Engineering	\$ 8,827,033	\$ 8,876,290	
Parks and Recreation	\$ 15,261,698	\$ 15,941,581	
Public Services	\$ 34,634,291	\$ 36,003,853	
Fire and Rescue	\$ 43,727,039	\$ 47,998,872	
Total	\$105,589,729	\$112,096,427	

As required by State Act 2014-439, the City is required to send the State 5% of the stormwater fees collected.

Comments:

- Cost associated with some existing City programs, salaries, and/or activities that are independent of the stormwater program but may provide benefit(s) to the stormwater program are not included in the stormwater program budget. These items and/or activities are incorporated into the individual departments' budgets.
- 2. FY2024 budget and FY2025 proposed annual budget are provided in Appendix L.
- 3. A summary of the stormwater fees collected is provided in Appendix L.

