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# STORM WATER MANAGEMENT PROGRAM

## Annual Report

### MOBILE COUNTY COMMISSION PHASE II MS4

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**Report Period: April 1, 2017 – March 31, 2018**

Mobile County Commission  
205 Government St.  
Mobile, Alabama 36644-1600

***Permit Number ALR040043***  
*Issuance Date: September 6, 2016*  
*Effective Date: October 1, 2016*  
*Expiration Date: September 30, 2021*

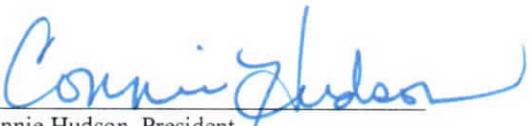
**SIGNATORY AND CERTIFICATION REQUIREMENTS**

NPDES PHASE II MS4 PERMIT

For

**Mobile County Commission  
Mobile, Alabama**

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 submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitted false information, including the possibility of fines and imprisonment for knowing violations.

  
\_\_\_\_\_  
Connie Hudson, President  
Mobile County Commission

Date 5/29/2018

Address: Mobile Government Plaza  
205 Government Street  
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Phone: (251) 574-3229

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**LIST OF ACRONYMS**

ADEM	Alabama Department of Environmental Management
BMP	Best Management Practices
CAST	Coastal Alabama Stormwater Team
CFR	Code of Federal Regulations
DAMP	Drainage Area Management Plan
EPA	Environmental Protection Agency
GIS	Geographic Information System
HUC	Hydrologic Unit Code
IDDE	Illicit Discharge Detection and Elimination
IT	Information Technology
MCC	Mobile County Commission
MCM	Minimum Control Measure
MCRC	Mobile County Recycle Center
MEP	Maximum Extent Practicable
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
PSA	Public Service Announcement
QCI	Qualified Credentialed Inspector
QCP	Qualified Credentialed Professional
SOP	Standard Operating Procedure
SWMP	Storm Water Management Plan
SWMPP	Storm Water Management Program Plan
TMDL	Total Maximum Daily Load

## **1.0 Introduction**

The Mobile County Storm Water Management Program (SWMP) Plan was adopted by resolution of the Mobile County Commission on December 11, 2017. This document presents the Mobile County Commission's (MCC) Storm Water Management Program Annual Report as required by the Alabama Department of Environmental Management's (ADEM) National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) permit.

### **1.1 Major Accomplishments**

The major accomplishment of the Mobile County Storm Water management was the revision and adoption of a new Storm Water Management Program Plan in December 2017 by the Mobile County Commission. Multiple departments worked together to create an effective and compliant program that meets the requirements outlined in the most recently issued NPDES permit. Also, the addition of a Land Disturbance permit has enabled increased storm water inspections that start the moment work begins at any site. The Inspection Services Department also now utilizes an online data service which stores and quantifies data regarding BMP inspections during site visits making the data easily accessible to multiple departments.

### **1.2 Overall Program Strengths and Weaknesses**

After the adoption the 2017 SWMPP, the effectiveness of the Mobile County storm water program has been significantly increased. Major improvements have been made that result in increased activity documentation and data retention have been taken to ensure compliance with the permit. Effectiveness of the 2017 SWMPP will be evaluated during the current reporting period. Limitations resulting from the lack of Home Rule continue to influence adoption of ordinances at the county level.

### **1.3 Future Direction of the Program**

The internal stormwater management committee, which is comprised of individuals from each relevant department, will meet in the summer of 2018 to evaluate progress made towards implementing the 2017 SWMPP. This committee will work to more fully integrate the SWMPP into activities in their relevant departments. As known outfalls in the new MS4 boundary are mapped in 2018; the known outfall inventory, the IDDE inspections, and the dry weather screening data collection will be reevaluated and reorganized for more effective data management.

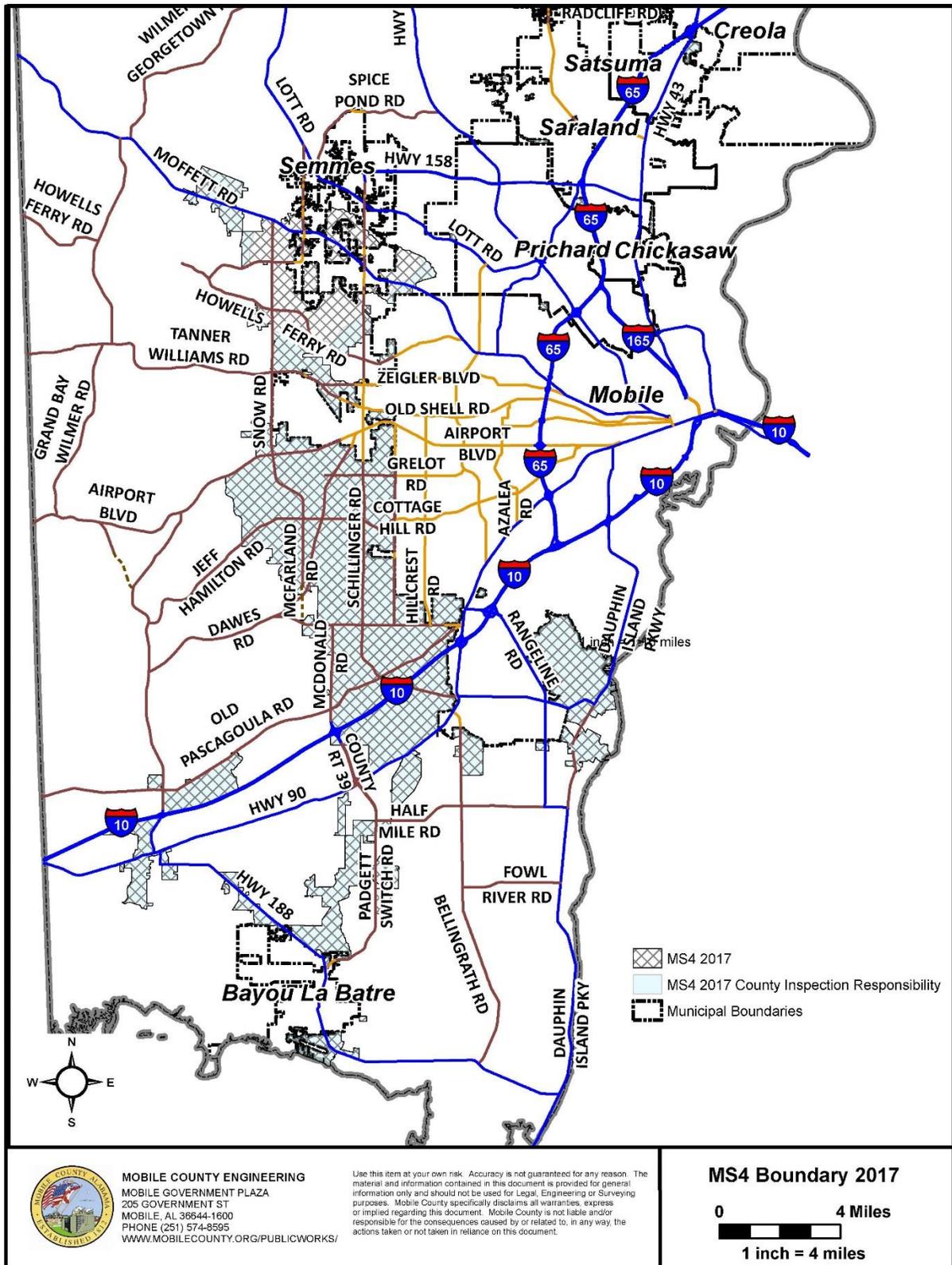


Figure 1. Mobile County MS4 Boundary Map

## 1.4 Watersheds

The Mobile County MS4 permit area contains portions of 22 watersheds with a 12-digit Hydrologic Unit Code (HUC 12). These watershed areas are summarized in Table 1. The majority of the watersheds within the MS4 boundary drain to either Mobile River or Mobile Bay. Portions of the remaining watersheds drain to the Escatawpa River and Mississippi Sound.

**Table 1. Watersheds Under MS4 Boundary**

<b>HUC12 Name</b>	<b>Area (acres)</b>	<b>Area (%)</b>
Fowl River	9,578.8	16.775%
Halls Mill Creek	9,230.4	16.165%
Lower Dog River	7,838.3	13.727%
Miller Creek	7,497.9	13.131%
Big Creek – Hamilton Creek	7,323.8	12.826%
Eightmile Creek	3,585.7	6.280%
Bayou La Batre River	3,281.0	5.746%
Franklin Creek	2,706.0	4.739%
Big Creek-Pierce Creek	2,155.3	3.775%
Deer River	1,553.8	2.721%
Jackson Creek	834.2	1.461%
West Fowl River	697.0	1.221%
Gunnison Creek	194.4	0.341%
Bayou Sara	163.1	0.286%
Lower Chasaw Creek	160.4	0.281%
Bayou Heron – Grand Bay Swamp	124.7	0.218%
Seabury Creek	107.1	0.188%
Three Mile Creek	30.8	0.054%
Mifflin Lake	26.0	0.046%
Mississippi Sound	8.7	0.015%
Middle Mobile Bay	1.4	0.002%
Upper Dog River	1.4	0.002%
<b>TOTALS</b>	<b>57,100.2</b>	<b>100%</b>

## 1.5 Impaired Waters

There are two (2) EPA approved TMDLs for streams located within the MS4 boundary (Table 2). These streams include portions of Rabbit Creek and Dog River which are listed for Pathogens and Organic Enrichment/Dissolved Oxygen. The Dog River Watershed is composed of the Halls Mill Creek, Upper Dog River and Lower Dog River Watersheds, which covers approximately 93 square miles. The Mobile County MS4 Area contains approximately 12 square miles of the Dog River Watershed (14%). As a result, developments within the Mobile County MS4 Area may only impact approximately 14% of the total Dog River watershed and approximately 16% of the Halls Mill Creek watershed.

The two water bodies that have the impairment status of 303(d) have been listed since 1996 (Middle Fork Deer River) and 2012 (Halls Mill Creek). Middle Fork Deer River and Halls Mill Creek are listed for organic enrichment and siltation, respectively. Middle Fork has a draft date for its TMDL listed for 2013 while Halls Mill Creek's draft date is proposed as 2018.

NAME	STATUS	IMPAIRMENT	CAUSE
Dog River	TMDL	Pathogens (fecal coliform bacteria)	Urban runoff/ septic system overflow
Rabbit Creek	TMDL	Pathogens (fecal coliform bacteria)	Urban runoff/ septic system overflow
Middle Fork Deer River	303(d)	Organic enrichment	Urban runoff/ septic system overflow
Halls Mill Creek	303(d)	Siltation	Land development

## 1.6 Responsible Party

The Mobile County Commission is the body responsible for providing the mandate and resources required to implement the SWMP. The SWMP is coordinated and managed by the Mobile County Environmental Services Department which is an arm of the Mobile County Administration Department. Various Mobile County departments are tasked with implementing different components of the program. A brief description of key departments and primary departmental duties are listed below:

- **Environmental Services Department-** Administers overall program and permit compliance; coordinates public education and involvement activities as well as staff training, manages water quality sampling and illicit discharge detection programs,

coordinates response to non-hazardous and hazardous waste spills, coordinates assembly of Annual Report.

- **Engineering Department-** Designs and manages the construction of roads and bridges.
- **Public Works Department-** Maintains good housekeeping for operations facilities, inspects and maintains rights of way and easements, performs drainage infrastructure repairs and inspections.
- **Inspection Services Department-** Administers compliance with plan review component of subdivision regulations and commercial site plan requirements. Administers compliance with building construction, permitting, inspections, and enforcement of construction regulations, and flood damage prevention ordinance and Land Disturbance Permitting.
- **IT/GIS Department-** Updates GIS data base to include drainage infrastructure, subdivisions, corporate boundaries.
- **Environmental Enforcement Department-** coordinates clean-up activities on County right of way, coordinates Clean Sweep events, enforces Mobile County Junk Control Ordinance.
- The person responsible for the overall management and implementation of Mobile County's Storm Water Management Program is as follows:

G. William (Bill) Melton, P.E.  
 Environmental Services Director  
 Mobile County Commission  
 205 Government Street  
 Mobile, Alabama 36644-1700  
[billmelton@mobilecounty.net](mailto:billmelton@mobilecounty.net)

## 1.7 Program Implementation

It is the goal of the SWMP to reduce the discharge of pollutants to and from the MS4, to the MEP. The SWMPP covers the term of the permit and is updated as necessary, or as required by ADEM, to ensure compliance with the statutory requirements of the Clean Water Act and the NPDES Program. This SWMPP document and appendices, as well as any future revisions, are hereby incorporated by reference. Mobile County's SWMPP addresses the following five Minimum Storm Water Control Measures (MCM):

1. Public Education and Public Involvement on Storm Water Impacts
2. Illicit Discharge Detection and Elimination (IDDE) Program
3. Construction Site Storm Water Runoff Control
4. Post-Construction Storm Water Management in New Development and Redevelopment
5. Pollution Prevention/Good Housekeeping for Municipal Operation

## 1.8 Minimum Control Measure Accomplishments

- **Public Education and Outreach**

In January 2018, the Mobile County Commission launched the Stormwater Management Program webpage: <http://www.mobilecountyal.gov/stormwater/>

The webpage contains information for citizens who would like to learn more about watershed protection, the storm water cycle, common pollutants, proper and improper use, storage and disposal of household chemicals. A calendar of community events notifies and encourages the community to participate in events hosted by The County and its local environmental partners. Additionally, the site provides links to storm water resources; and contact information for reporting illicit discharges or other storm water complaints. The website includes a link to the SWMPP and the most current annual report.

The Mobile County SWMPP document is available for public review on the Stormwater Management Program webpage, as is the most recent MS4 Annual Report and the NPDES Permit. These documents can be found at: <http://www.mobilecountyal.gov/stormwater/> .

The email, [stormwater@mobilecounty.net](mailto:stormwater@mobilecounty.net), is provided on the website for stakeholders to submit comments, questions or concerns regarding the SWMPP. MCC Environmental staff will review comments and respond accordingly. Social media sites will be used to promote and encourage feedback.

- **Illicit Discharge and Elimination Program**

The stormwater outfall inventory map was updated over the 2017 reporting period using the ESRI Arc Collector app. The Collector app streamlines the mapping and storage of known outfall and dry weather screening data for illicit discharge and illicit discharge inspections. Each outfall mapped over the most recent reporting period was also screened for illicit discharges during the mapping process.

Illicit Discharge Detection and Elimination information cards were created and distributed to Mobile County Public Works employees that monitor and maintain the roads and rights of way. Training on how to identify and report an illicit discharge was also provided. The first round of illicit discharge detection training Mobile County traffic and construction crews was held in April 2018.

- **Construction Stormwater Runoff Control**

All subdivision construction plans within the County's MS4 permit boundary are subject to review. The County requires an engineer's certification that the erosion and sediment control plan is in conformance with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*. Proof of ADEM NPDES Permit is also required, where applicable.

All construction sites within the County's MS4 boundary are subject to an administrative review. The County requires a credentialed individual (QCI/QCP) to certify that the erosion and sediment control plan is in conformance with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*. Proof of ADEM NPDES Permit is also required, where applicable.

Subdivision construction within the County MS4 boundary requires the engineer of record and/or other appropriately credentialed individual to submit storm water inspection reports on a monthly basis during construction. Subdivision development construction sites require a Land Disturbance Permit and are inspected on a monthly basis by the Inspection Services Department.

Where inspection authority exists, construction sites within the County's MS4 boundary are inspected for storm water controls by the Inspection Services Department during the routine inspections performed for various building permit inspections. Construction sites are also inspected during the Land Disturbance process. Priority construction sites (i.e. those within the Halls Mill Creek watershed) are inspected at least once each month.

- **Post-Construction Storm Water Management in New Development and Redevelopment**

All proposed subdivision detention/retention ponds that outfall to the County's MS4 conveyance system will be designed for a minimum 10yr-24hr storm event to detain the increase due to development. A required land covenant establishes that the owner/developer as the responsible party for maintenance of the detention/retention ponds. Maintenance responsibility includes the submittal of annual inspection reports of the detention/retention ponds by a qualified credentialed professional. The maintenance covenant shall run with the land and have language that it is enforceable by anyone damaged by the failure to maintain the facility. A Detention Area Maintenance Plan (DAMP) shall be included as part of the covenants. The covenants ensure that the property owners bear 1/nth responsibility in the case the Home Owner's Association or Property Owner's Association goes defunct. The County Inspection Services Department will notify the owner if inspection reports are not received, followed by a second reminder with notice to ADEM, if necessary. Finally, legal action may proceed pursuant upon the language within the covenants.

Detention/retention ponds associated with commercial construction sites that outfall to the County's MS4 conveyance system and are within the County's inspection authority will be designed for a minimum 10yr-24hr storm event to detain the increase due to development. A covenant is required to establish that the owner/developer is responsible for maintenance of the detention/retention pond. Covenants and DAMP maintenance responsibilities include the submittal to the County of an annual inspection of the detention/retention pond by a qualified credentialed professional.

Detention/retention ponds associated with commercial construction sites that outfall to the County's MS4 conveyance system but outside the County's inspection authority will rely on the municipality with the jurisdiction to require post-construction storm water management in accordance with their procedures. A memorandum of understanding between the County and the municipality will define responsibilities for the purpose of permit compliance.

- **Pollution Prevention/Good Housekeeping for Municipal Operations**

In November 2017, MCC performed an internal audit of Mobile County Public Works facilities and evaluated best management practices. Updated site-specific BMP plans were written for each facility which includes the checklists for the quarterly BMP inspections.

## **2.0 PUBLIC EDUCATION AND INVOLVEMENT (MCM-1)**

In order to meet the requirements of the Public Education, Outreach and Involvement component,

MCC executes strategies to engage public participation with water quality protection and storm water pollution prevention. Strategies focus on storm water education and volunteer community actions to restore and protect local water resources. The primary target audience, as identified in the permit, includes public service employees, homeowners, citizens, businesses, schools, developers, property managers, engineers and contractors, as well as elected officials. The outreach and education effort is designed to specifically address topics relative to each audience. The topics involve the non-point source pollutants found in storm water such as litter, floatables, sediment, pathogens, fertilizers, pesticides, pet waste, and oil and grease. Information is available concerning pollution prevention, illegal dumping, illicit discharges, proper use of fertilizers, pesticides, and herbicides, home auto repair, oil and grease, and impacts from development.

## **2.1 GOAL**

The goal if this control measures to implement a county wide Public Education, Outreach and Involvement program designed to:

- Increase public knowledge and support about the storm drainage system and storm water quality and the relation to a healthy environment and protecting local waterways;
- Promote stewardship behavior through education and support of active participation in water pollution prevention and clean-up efforts: and,
- Inform citizens of steps they can take to reduce pollutants in storm water runoff.

## **2.2 STRATEGIES**

### **Strategy 1. Generate Public Awareness by Providing Information via Websites**

The Environmental Services webpage will include a separate item for storm water and will be located on the Mobile County Commission's website. The webpage will contain information available for citizens who would like to learn more about watershed protection, the storm water cycle, common pollutants, proper and improper use, storage and disposal of household chemicals. A calendar of community events will notify and encourage the community to participate in events hosted by The County and its local environmental partners. Additionally, the site will provide links to storm water resources; and provide contact information for reporting illicit discharges or other storm water complaints. The website will include a link to the SWMPP and the most current annual report.

### **Strategy 2: Promote Stakeholder Input on Mobile County SWMPP**

MCC will invite public comments on the SWMPP document and the most recent annual report by posting these documents online at [www.mobilecountyal.gov/stormwater](http://www.mobilecountyal.gov/stormwater), making them available for review. The email, [stormwater@mobilecounty.net](mailto:stormwater@mobilecounty.net), will be provided on the website for stakeholders to submit comments, questions or concerns regarding implementation of the SWMPP. MCC Environmental staff will review comments and respond accordingly. Social media sites will be used to promote and encourage feedback.

### **Strategy 3: Address Storm Water Concerns**

A storm water hotline, 251-574-6511, has been established and the number is posted on the webpage

and print materials. This enables the public to voice complaints or concerns regarding storm water issues and the SWMPP. The information is used to determine how best to incorporate the public's needs and desires into the overall goals of the storm water management program.

#### **Strategy 4: Engage Storm Water Community Collaboration**

##### Resources and Support to Other Agencies

Provide annual appropriations to agencies whose mission is to undertake ongoing education and involvement in environmental stewardship. For example, MCC partners with the Mobile Bay National Estuary Program and provides funding to support a wide variety of activities that target large audiences. The primary focus is protecting water quality and fostering community awareness. The Mobile County Soil and Water Conservation District and the Alabama Forestry Commission receive annual appropriations to undertake outreach activities targeted to the general public and towards best practices in agriculture and timber management. The date, time and location of activities or programs will be posted on the webpage calendar.

Examples of such programs are:

- Low Impact Development
- Watershed Clean up and Restoration
- Alabama Storm Water Forum
- Marine Debris Clean Up
- Alabama Coastal Foundation Water Festival
- Clear Water Alabama Annual Conference

##### Coastal Alabama Stormwater Team

Work with the Coastal Alabama Stormwater Team (CAST) to develop and implement a storm water education campaign for the Mobile Bay area. The campaign is a collaborative network of agencies and organizations whose missions intersect with storm water pollution prevention. Public service announcements (TV and radio) targets the general public. Examples of created materials include brochures, pocket guides, videos, and helpful web links can be seen at [www.cleanwaterfuture.com](http://www.cleanwaterfuture.com).

#### **Strategy 5: Facilitate Storm Water Education, Outreach and Involvement**

##### Mobile County Recycling Program

The Mobile County Recycling Center (MCRC) began operation in 2014 and is available to all Mobile County residents. The Mobile County Commission's continuing funding support and commitment are vital to making recycling a success for the community. The primary purpose of the center is to increase sustainability by reducing the amount of recyclable materials that enter the environment. The MCRC offers various educational events throughout the year targeting kindergarten through high school students about recycling and protecting water quality. Paper, cardboard, glass, plastics, aluminum, steel and computers are recycled by the center. Since opening, the center has collected and processed more than 5 million pounds of recyclable material.

##### Operation Clean-Sweep

Operation Clean Sweep provides a central location where residents may dispose of trash, including furniture, clothing, scrap metal, appliances, household items and yard debris. Mobile County Commission hosts several Operation Clean Sweep events throughout the year. The events date, time and location will be posted to the calendar on the webpage.

Mobile Area Earth Day

Participate in at least one community environmental event and promote public participation and awareness during recognition of Earth Day. The events date, time and location will be posted to the calendar on the MCC webpage, PSA's and emailed to partnering groups to include in E newsletters and print. Distribute promotional giveaways to the general public at a variety of events and festivals. These items may include: tote bags, compasses, rain gauges, coloring books and crayons and other materials.

Clean Parks = Clean Water Education Program

Mobile County parks and recreation facilities encompass over 1,200 acres of beautifully designed properties that offer scenic viewing of Mobile Bay and other waterways, fishing, hiking, biking, canoeing, kayaking, disc golf, picnic areas, and ball fields

Public parks offer a prime opportunity to inform a broad audience about the impacts that everyday activities can have on water quality. Mobile County coordinates efforts to heighten awareness and specific action that can help improve water quality, preserve green space and prevent degradation of the waterways. Brochures, flyers and signage are distributed at the parks emphasizing topics such as: pet waste clean-up, litter reduction, recycling, promoting the Clean Marina Program for active boaters, instilling "green camping" behavior and supporting environmental education events at the parks.

**2.3 EVALUATION MEASURES**

Evaluation Measure #1 – Number of hits on webpage, complaints on storm water hotline and email account.

In determining the effectiveness of the Mobile County Commission Storm Water Management Public Participation, Education and Outreach Program, the MCC Environmental staff track and quantify activities from various access points.

In the first quarter of 2018, the Storm Water Management Program webpage received 214 hits. The Storm Water hotline received 3 calls. The callers each had a question regarding run off from neighboring properties. The MCC Environmental Services staff responded appropriately. No emails were received from the Storm Water email.

Evaluation Measure #2 – Number and nature of partnering organization and events and locations, number of participants and the number of educational material developed and distributed.

MCC partners with several local agencies whose mission is to undertake ongoing education and involvement in environmental stewardship. The MCC provided financial, volunteer or technical support for the following:

**Mobile Bay National Estuary Program**

[www.mobilebaynep.com](http://www.mobilebaynep.com)

Participated in Coastal Alabama Storm Water Team planning meetings to develop and deliver a video on Low Impact Development and attended the Annual Breakfast and quarterly project implementation meetings.

**Alabama Coastal Foundation**

[www.joinacf.org](http://www.joinacf.org)

Sponsored & Participated in the Mobile County Water Festival (Oct. 27, 2017& March 27, 2018).

ACF provides an Eco Team at special area events throughout Mobile.

Alabama Public Television *Spotlight on Education* where they highlighted the Alabama Coastal Foundation important work (Oct. 16, 2017).

### **Create a Clean Water Future Partnership**

[www.cleanwaterfuture.com](http://www.cleanwaterfuture.com)

The MCC's website provides a link to the CWF website.

Sponsored and contributed coordination support for the Clear Water Alabama 2017 Conference (November 1-2, 2017) In 2017, approximately 140 participants attended the seminar and field day excursions.

### **Community Earth Day Events**

MCC funds and participates in annual Earth Day by promoting community events on the web page and actively engaging the community and fostering awareness through a themed event. In April 2017, MCC sponsored Earth Day at the Mobile County Recycle Center. The theme "Save our Pollinators" was used to encourage native plant gardening and showcase flowering plants for butterflies and bees. Over 30 volunteers participated. Participants installed plants with the assistance of 5 Master Gardener experts. Other volunteers gave out recycling bags and materials educating the community about recycling, waste reduction, water conservation, erosion control and pesticide use.

During the period of October 2017 through March 2018, the Center received 1.4 million pounds of recyclable materials. The most common material and largest volume collected is paper, including mixed office paper and cardboard. The second highest volume collected is glass. The Center received over 64,000 cars in the same period. In the first quarter of 2018, 93 students participated in an education outreach events and facility tours. In addition to education outreach, 85 volunteers assisted at the Center, accumulating 294 volunteer hour and 56 six community service workers provided support amounting to 1,277 community service hours. The Center provides work training programs and assisted citizens from four area school programs. Worker training hours totaled 672.25.

Evaluation Measure #4 – Clean Sweep participants and by the volume of waste collected;

In the past year Mobile County Environmental Enforcement Department offered six Clean Sweep Initiatives throughout the County. A total of 2,020 citizens participated and sent 165 loads of trash to the landfill. The Environmental Enforcement staff and volunteers collected 114,280 pounds of scrap metal.

## **2.4 RESPONSIBLE DEPARTMENT**

Mobile County Environmental Services Department is responsible for administering the Public Education, Outreach and Involvement component strategies of the SWMPP.

### **3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM (MCM-2)**

An illicit discharge is defined as any discharge to an MS4 that is not composed entirely of storm water, except allowable discharges pursuant to an NPDES permit, including those resulting from firefighting activities (40 CFR 122.26 (b)(2)). These illicit discharges can enter the storm water system either by direct connection or indirectly by spills, dumped materials, and cracks in pipes. Illicit discharges have the potential to be major sources of storm water pollution.

#### **3.1 GOAL**

Mobile County is required to develop a program to detect, and remove illicit discharges and improper disposal to the maximum extent practicable. The Illicit Discharge Detection and Elimination (IDDE) minimum control measure includes an ongoing program to detect and eliminate illicit discharges into Mobile County's MS4.

#### **3.2 LEGAL AUTHORITY: ADMINISTRATIVE AND REGULATORY MECHANISMS**

The Limited Self Governance Act authorizes Mobile County to prohibit dumping and littering. The Mobile County Junk Control Ordinance includes direction pertaining to prohibitions and removal of improperly disposed items. The Junk Control Ordinance also includes procedures for eliminating discharges and enforcement procedures. Reviews of legal authority and the ordinances permitting or prohibiting them will be conducted on an annual basis.

#### **3.3 STRATEGIES**

##### **Strategy 1: Storm Water Outfalls and Infrastructure Map Update**

Update the existing storm water outfall inventory map to include new outfalls located within the urbanized area of the County. The map will include Waters of the State that receive discharges from these outfalls and the map (Figure 2) will include structural BMPs owned and maintained by the Mobile County Commission and be updated annually.

##### **Strategy 2: Procedures for Locating the Source and Reporting Illicit Discharges to ADEM**

The procedures for locating suspected Illicit Discharges can be found in the SOP for Illicit Discharge Elimination (2017 SWMPP). If problems occur that require additional enforcement authority not granted by the Junk Control Ordinance or discharges from an adjacent MS4, MCC will contact the ADEM Mobile field office for enforcement assistance.

##### **Strategy 3: Dry Weather Screening Field Assessments and Site Inspections**

The dry weather screening SOP outlines the procedures for prioritizing and performing the applicable screening for illicit discharges. Environmental Services staff will survey 20% of known outfalls per year so that 100% are screened within 5 years.

The Mobile County Public Works staff regularly performs maintenance and cleaning on roadways, ditches, and culverts. Employees utilize information cards kept in their vehicle to guide illicit discharge response activities. A copy of the IDDE cards are put in the County vehicles.

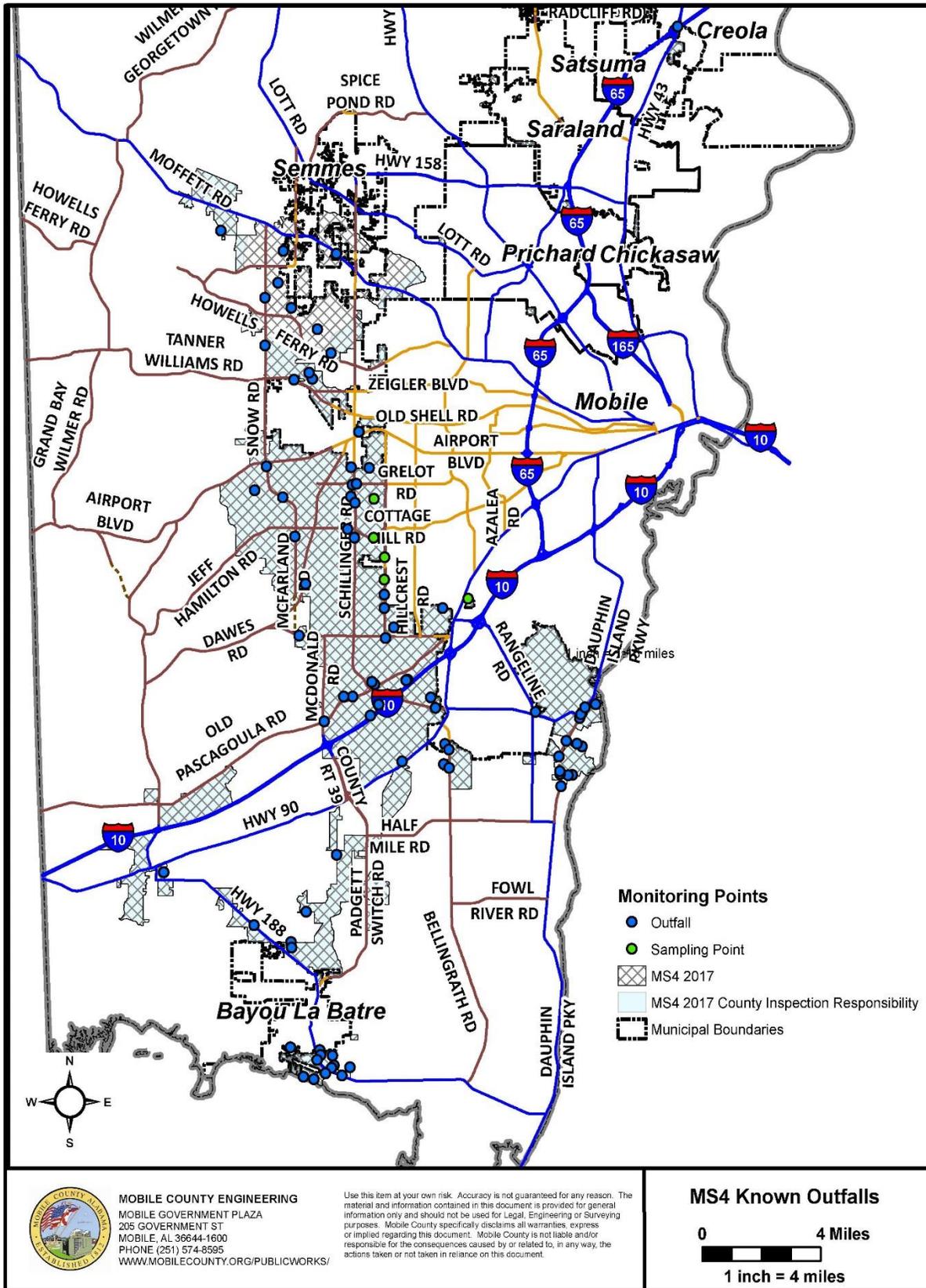


Figure 2: Known Outfalls Map

#### Strategy 4: Public Reporting of Illicit Discharges

Mobile County citizens may report illicit discharges by using the stormwater hotline, 251-574-6511 or MS4 email address stormwater@mobilecounty.net. The phone number and email can be found on the MS4 page of the Mobile County Environmental Services website [www.mobilecountyal.gov/stormwater](http://www.mobilecountyal.gov/stormwater). The County investigates and documents the reported illicit discharges.

#### Strategy 5: Staff Training

Mobile County Environmental Services coordinates annual training opportunities for staff involved with inspection and reporting illicit discharge activities related to illicit discharges (Engineering, Public Works, Inspections, and Environmental Enforcement employees)

### 3.4 EVALUATION MEASURES

#### Evaluation Measure #1 - Number of outfalls dry weather screened

Over the past year, 51 new outfalls in the updated MS4 boundary have been mapped and dry weather screened. After known outfalls in the new MS4 boundary are mapped and reviewed, the known outfall inventory will be updated and continually maintained with regular dry weather screenings. **Appendix D.**

#### Evaluation Measure #2 - Number of Illicit Discharges Found

During the known outfall mapping process all known outfalls mapped were also screened for illicit discharges. During the outfall mapping, no illicit discharges were found. All illicit discharge inspections are maintained on an online database for future evaluation and data retention.

#### Evaluation Measure #3 - Number of Illicit Discharges Eliminated in the previous year

No illicit discharges were detected during this reporting period. All data for illicit discharge screenings is maintained in an online database for future evaluation and data retention.

#### Evaluation Measure #4 – Amount of litter collected

During the reporting period, Mobile County Environmental Enforcement dedicated 1,997 hours to removing litter from the County Right of Way. This effort resulted in the collection and disposal of 13,452 30-gallon bags of collected litter. Further, Environmental Enforcement collected and disposed of 1,750 scrap tires in the past year. The Environmental Enforcement Department's Clean Sweep Initiative had 2,250 participants and sent 165 loads of trash to the landfill during the most recent reporting period. **Appendix D**

#### Evaluation Measure #5 – Number of people trained annually

In the 2017 SWMPP, the Environmental Services Department was tasked with training Mobile County personnel in order to help aid in the detection of illicit discharges. An illicit discharge detection card was created which will be accompanied with the training of Mobile County staff to be included in county vehicles. IDDE training for the traffic and construction departments field crews

was held in April 2018. A copy of the new IDDE cards directing IDDE reporting to the stormwater hotline is included below. Figure 3.

### 3.5 RESPONSIBLE DEPARTMENT EVALUATION MEASURES

The Environmental Services department is responsible for the Illicit Discharge Detection & Elimination Program.

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## **Pollution Reporting for Mobile County Employees**

When it rains all of the pollutants in the landscapes, neighborhoods, businesses, and roadways including trash, sediment, chemical spills oil and grease ends up in our waterways.

**IF YOU SEE:** septic sewer overflow, oily soapy discolored water OR construction, chemical, trash, sediment, paint, fertilizer, or oil, **BEING DUMPED OR FLOWING** into storm drains or ditches this is an illicit discharge and needs to be reported.

If witnessed please leave a detailed message at:

**Stormwater Hotline (251) 574-6511**

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Figure 3. Illicit Discharge Card for County Vehicles

## 4.0 CONSTRUCTION SITE STORM WATER RUNNOFF CONTROL (MCM-3)

### 4.1 GOAL

The goal is to implement a program to reduce pollutants to the *maximum extent practicable* in any storm water runoff from qualifying construction sites to Mobile County's MS4 conveyance system. The program must include specific procedures for review and approval of planned erosion prevention and sediment controls, periodic inspections during construction, and an enforcement strategy that includes notifying ADEM when the County's enforcement methods are considered unsuccessful. A training program for site inspection personnel and a method for the public to report complaints is also included in the program. Compliance is systematically documented and summaries of the same are included in this Annual Report.

### 4.2 LEGAL AUTHORITY: ADMINISTRATIVE AND REGULATORY MECHANISMS:

The Mobile County Commission currently has two regulatory and one administrative mechanism in place with regard to new construction projects. One regulatory mechanism relies on the Subdivision Regulations (2017 SWMPP) to regulate subdivision development in unincorporated Mobile County outside any Municipal Planning Jurisdiction. To supplement the Subdivision Regulations and provide controls inside a Municipal Planning Jurisdiction, there is an administrative mechanism including certain Engineering Requirements and Construction Specifications. The other regulatory mechanism relies on the enforcement authority within the adopted building codes.

The Subdivision Regulations (in areas outside Municipal Planning Jurisdictions) and supplemental Engineering Requirements and Construction Specifications (2017 SWMPP) govern subdivision development within the unincorporated portion of the county and require the control of storm water runoff as it affects the County's right-of-way. Written certifications are required from the Engineer of Record that facilities have been constructed to the standards to which they were designed.

The County requires compliance with adopted building codes for construction sites within the unincorporated area of the County where a municipality has not exercised their permit policing authority. The Building Code adoption and review process includes the Commercial Site Plan Requirements (2017 SWMPP) used in the review and approval of commercial site plans. The Building Code process also requires a land disturbance permit prior to the construction of subdivision developments and commercial sites.

### 4.3 STRATEGIES

#### Strategy 1: Construction Plan Review Procedures:

All subdivision construction plans within the County's MS4 permit boundary are subject to review. The County requires an engineer's certification that the erosion and sediment control plan is in conformance with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*. Proof of ADEM NPDES Permit is also required, where applicable.

All construction sites within the County's MS4 boundary are subject to an administrative review. The County requires a credentialed individual (QCI/QCP) to certify that the erosion and sediment control

plan is in conformance with the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas*. Proof of ADEM NPDES Permit is also required, where applicable.

Any municipality with inspection authority within the County's MS4 boundary shares storm water responsibilities with the County pursuant to a Memorandum of Understanding (MOU). Construction plan review, permit issuance, and inspection roles and responsibilities are defined in the MOU.

### **Strategy 2: Construction Site Inspections:**

Subdivision construction within the County MS4 boundary requires the engineer of record and/or other appropriately credentialed individual to submit storm water inspection reports on a monthly basis during construction. Subdivision development construction sites require a Land Disturbance Permit and are inspected on a monthly basis by the Inspection Services Department.

Construction sites within the County's MS4 boundary are inspected for storm water controls by the Inspection Services Department during the routine inspections performed for various building permit inspections. Construction sites are also inspected during the Land Disturbance process. Priority construction sites (i.e. those within the Halls Mill Creek watershed) are inspected at least once each month.

Failure to maintain storm water controls results in an escalating enforcement strategy including verbal and/or written warnings, failed inspections, Stop Work Orders, and fees if work continues without remedying deficient items. ADEM is notified once it is determined that the County's enforcement methods are considered unsuccessful. ADEM is also notified if a qualifying inspected construction site does not have an NPDES permit.

Construction sites within the County's MS4 boundary but outside the County's inspection authority rely on the municipality's authority to inspect construction site storm water controls in accordance with their procedures. A memorandum of understanding between the County and that municipality will define responsibilities.

### **Strategy 3: Training of MS4 Site Inspection Staff**

All site inspection staff within the County's Inspection Services Department are trained and certified as Qualified Credentialed Inspectors (QCI) for identifying appropriate construction best management practices.

### **Strategy 4: Information Submitted by the Public**

Mobile County citizens may report problems with construction site storm water by using the MS4 complaint line or MS4 email address. The phone number and email can be found on the MS4 page of the Mobile County Environmental Services website. The Mobile County Inspection Services Department investigates and documents construction site storm water complaints.

#### 4.4 EVALUATION MEASURES

Evaluation Measure #1 – Number of Construction Site Inspection.

Beginning in December 2017, 100% of all building inspections are to include a site BMP assessment of stormwater management practices. A Land Disturbance Permit was created to aid the Building Inspections Department in tracking BMPs at subdivisions and commercial site developments. The Building Inspection Department reports that 6,442 BMP inspections were performed at active construction sites. Of this total, 54% of the building permits were located within the MS4 boundary. **See Appendix E for inspection templates and details.**

Evaluation Measure #2 - Number of non-compliant construction site referrals and/or enforcement actions and description of violations.

Of the 6,442 inspections referenced above; 67% have been compliant, 3.5% have been non-compliant, and 29% have been not applicable. Of the 106 Stop Work Orders issued in the past year 40, or 38% of them, were due to non-compliance of stormwater controls.

Evaluation Measure #3 - Number of construction site runoff complaints received.

During the reporting period, there were 11 construction site complaints investigated by Mobile County staff. Of those 11 complaints there were 6 Stop Work Orders issued in order to rectify the erosion and sediment control issues.

Evaluation Measure #4 - Number of MS4 staff/inspectors trained.

Following the revised SWMPP adopted in December 2017, 13 building inspectors were trained on stormwater/BMP inspections and all inspectors were assigned independent study using stormwater management training videos to aid in the identification of improper BMPs. Additionally, 9 inspectors participated in QCI training on January 20, 2017.

#### 4.5 RESPONSIBLE DEPARTMENT

The Public Works Inspection Services Department is responsible for implementing the Construction Minimum Control Measure.

## **5.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (MCM-4)**

### **5.1 GOAL**

The goal of this post-construction program is to address, to the *maximum extent practicable*, storm water runoff from qualifying new development and redevelopment projects within Mobile County's MS4 conveyance system. The program must include specific procedures for review and approval of storm water controls so that the County will receive documentation that post-construction storm water controls were installed per design specifications. This program also includes enforceable procedures for bringing noncompliant projects into compliance.

### **5.2 LEGAL AUTHORITY: REGULATORY AND ADMINISTRATIVE MECHANISMS**

There are two administrative mechanisms in place with regard to post-construction storm water management. One mechanism relies on the Engineering Requirements and Construction Specifications (2017 SWMPP). The other administrative mechanism relies on the enforcement authority within the adopted building codes.

The Engineering Requirements and Construction Specifications govern subdivision development within the unincorporated portion of the county and require the control of storm water runoff as it affects the County's right-of-way and dictate when storm water detention is required. Written certifications are required from the Engineer of Record that facilities are constructed to the standards to which they were designed.

The County requires compliance with adopted building codes for construction sites within the unincorporated area of the County where a municipality has not exercised their permit policing authority. The Building Code process includes the Commercial Site Plan Requirements used in the review and approval of commercial site plans and includes post construction regulatory elements.

### **5.3 STRATEGY**

#### **Strategy 1: Post-Construction Storm Water Management - Detention/Retention Ponds:**

All proposed subdivision detention/retention ponds that outfall to the County's MS4 conveyance system will be designed for a minimum 10yr-24hr storm event to detain the increase due to development. A required land covenant establishes that the owner/developer as the responsible party for maintenance of the detention/retention ponds. Maintenance responsibility includes the submittal of annual inspection reports of the detention/retention ponds by a qualified credentialed professional. The maintenance covenant shall run with the land and have language that it is enforceable by anyone damaged by the failure to maintain the facility. A Detention Area Maintenance Plan (DAMP) shall be included as part of the covenants. The covenants ensure that the property owners bear 1/nth responsibility in the case the Home Owner's Association or Property Owner's Association goes defunct. The County Inspection Services Department will notify the owner if inspection reports are not received, followed by a second reminder with notice to ADEM, if necessary. Finally, legal action may proceed pursuant upon the language within the covenants.

Detention/retention ponds associated with commercial construction sites that outfall to the County's MS4 conveyance system and are within the County's inspection authority will be designed for a minimum 10yr-24hr storm event to detain the increase due to development. A covenant is required to establish that the owner/developer is responsible for maintenance of the detention/retention pond. Covenants and DAMP maintenance responsibilities include the submittal to the County of an annual inspection of the detention/retention pond by a qualified credentialed professional.

Detention/retention ponds associated with commercial construction sites that outfall to the County's MS4 conveyance system but outside the County's inspection authority will rely on the municipality with the jurisdiction to require post-construction storm water management in accordance with their procedures. A memorandum of understanding between the County and the municipality will define responsibilities for the purpose of permit compliance.

#### **5.4 EVALUATION MEASURES**

Evaluation Measure #1 - A list of the post-construction structural controls installed and inspected during the permit year.

There have been no reported post-construction structural controls installed or inspections reported since the adoption of the new SWMPP in December 2017. This number is expected to increase over the next reporting period.

Evaluation Measure #2 - Updated inventory of post-construction structural controls including those owned by the Permittee.

There were no post-construction structural controls installed therefore there was no update to the inventory. This number is expected to increase over the next reporting period.

Evaluation Measure #3 - Number of inspections performed on post-construction structural controls.

There have been no post-construction structural control inspection reports submitted since the adoption of the new SWMPP in December 2017. This number is expected to increase over the next reporting period.

Evaluation Measure #4 - Summary of enforcement actions.

There have been no enforcement actions since the adoption of the new SWMPP in December 2017. This number may increase over the next reporting period should enforcement actions be required.

#### **5.5 RESPONSIBLE DEPARTMENT**

The Inspection Services Department is responsible for implementing the Post-Construction Minimum Control Measure.

## **6.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS (MCM-5)**

### **6.1 GOAL**

The goal of the control measure is to develop and implement a program that o prevents storm water pollution and promote good housekeeping at the various County operations. The permit requires the development and implementation of an employee training program designed to prevent and reduce storm water pollution, to the MEP, from activities such as vehicle parking, fleet and building maintenance, and other applicable municipal operations. The potential benefits realized include reduced storm water pollution from County operations and increased employee awareness regarding the effect of their daily activities on storm water management.

### **6.2 STRATEGIES**

#### **Strategy 1: Facility Inventory**

The MS4 area contains two facilities maintained by the Public Works Road and Bridge Camp Maintenance crews (Camp 1 and Camp 2). Both facilities are utilized for road equipment parking, vehicle washing, fueling and storage. West Mobile County Park is also located in the area. New facilities within the permit area will be added to the inventory each year.

#### **Strategy 2: Implementing BMPs**

The County’s pollution prevention/good housekeeping program for daily operations targets non-point source pollutants. These pollutants include, but are not limited to, sediment, trash, nutrients, pathogens and, oil and grease. Each County facility is equipped with a standard operating BMP plan and inspection checklist. The sites are inspected and reports are generated quarterly. The BMP Plans are located in the 2017 SWMP Plan document.

#### **Strategy 3: Training**

Staff is trained on pollution prevention measures and methods (e.g., regular street sweeping, proper use of pesticides/herbicides, frequency of cleaning drainage structures). The training is based upon the *“Rain Check Stormwater Pollution Prevention for MS4s”*. “Rain Check” instructs employees on how to practice good housekeeping, spill response, materials management, vehicle fueling and washing and the other good housekeeping measures. This training is provided annually to Mobile County employees and to all new hires. Employees also attend various workshops and training events throughout the year.

#### **Strategy 4: Right of Way Maintenance and Litter Control**

Public Works employees continuously maintain roadside shoulders, and embankment vegetation. Staff is responsible for vehicle and equipment maintenance, facility maintenance, paint and materials storage and disposal. The road and bridge maintenance crews perform removal of pollutant causing agents found in roadway and ditch areas (e.g., storm drains and catch basins). Public Works is also involved in sediment removal from road and drainage system after significant rain events that cause any sediment deposition within the maintained right of way which could create any form of public safety concern.

The Environmental Enforcement Department addresses clean-up of litter, tires, junk, and other wastes in the County MS4 permitted area.

### **6.3 EVALUATION MEASURE**

Evaluation Measure - Mobile County facility BMP inspections and inspection checklists.

A site-specific BMP audit was performed at each Mobile County Public Works facility and subsequently site-specific BMP plans developed in 2017.

### **6.4 RESPONSIBLE DEPARTMENT**

The Mobile County Public Works Department is responsible for BMPs at Mobile County Facilities and Operations. The Environmental Enforcement Department is responsible for the control of litter and junk removal and the documentation of these efforts.

## 7.0 WATER QUALITY MONITORING

MS4 Phase II permittees that discharge to an impaired water included on the ADEM 303(d) list or for which a TMDL has been approved, may have monitoring requirements under Part IV.D of the permit and must submit a monitoring plan within 6 months of the date of coverage of the permit.

There are two (2) EPA approved TMDLs for streams located within the Mobile County MS4 boundary. These streams are portions of Rabbit Creek and Dog River and are listed for Pathogens and Organic Enrichment/Dissolved Oxygen. There are two water bodies that have impairment status of 303(d) and have been listed since 1996. Middle Fork Deer River and Halls Mill Creek are listed for organic enrichment and siltation, respectively (Table 1).

The Mobile County MS4 does not impact the majority of the Dog River watershed or the Rabbit Creek watershed. The primary storm water influences to the Middle Fork Deer River watershed appear to be industrial facilities.

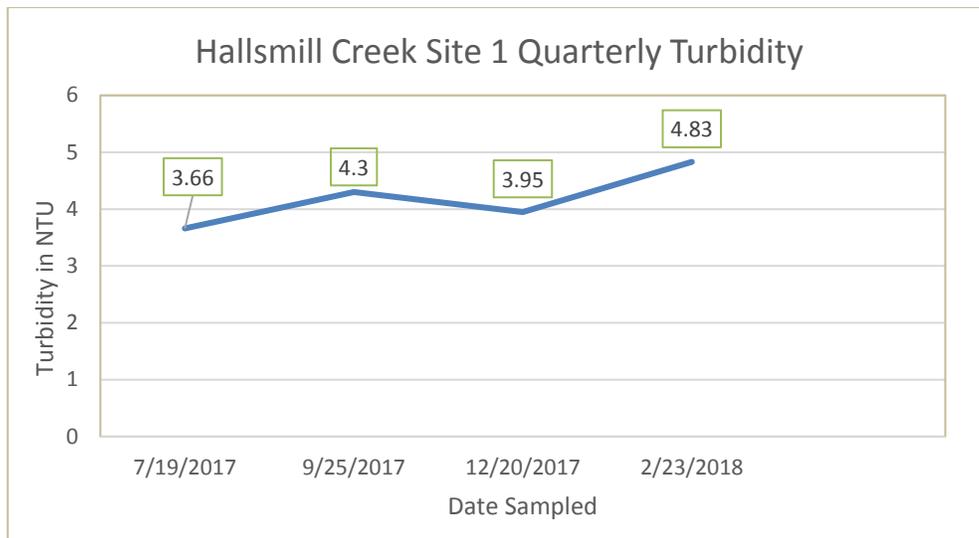
Monitoring for turbidity is performed quarterly. Monitoring locations (Halls Mill 1 and Halls Mill 2) are located at overpasses on upper Halls Mill Creek at Cody/Sollie Road. The Water Quality Monitoring Plan is included the 2017 SWMPP.

### EVALUATION MEASURE

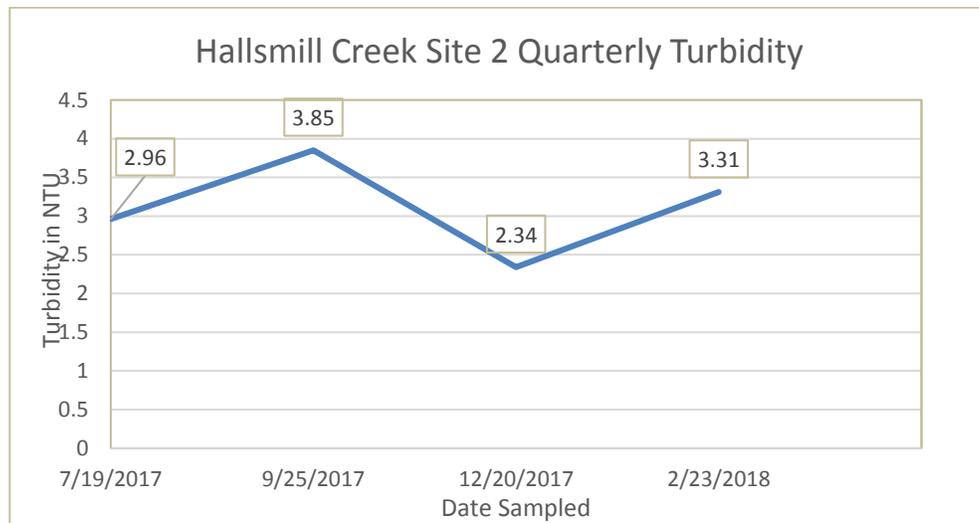
Evaluation Measure- Quarterly turbidity monitoring at two sampling locations in the Halls Mill Creek Watershed.

In the 2017 revision to the SWMPP, the frequency of turbidity sampling was updated to quarterly. No elevated turbidity samples were detected in the last 4 consecutive sampling events of the reporting period. Due equipment malfunction, no turbidity sampling occurred in the first and second quarter of 2017. For site 1 the historical data average was 3.06 NTU and the average NTU for the previous reporting period was 4.18. For site 2, the historical data average was 3.29 NTU and the average NTU for this reporting period was 3.29.

Turbidity data for the reporting period is in Figures 4 and 5 and historic turbidity data for both sampling locations is shown in Figures 6 and 7.



**Figure 4. Halls Mill Creek site one 2018 sampling data**



**Figure 5. Halls Mill Creek site two 2018 sampling data**

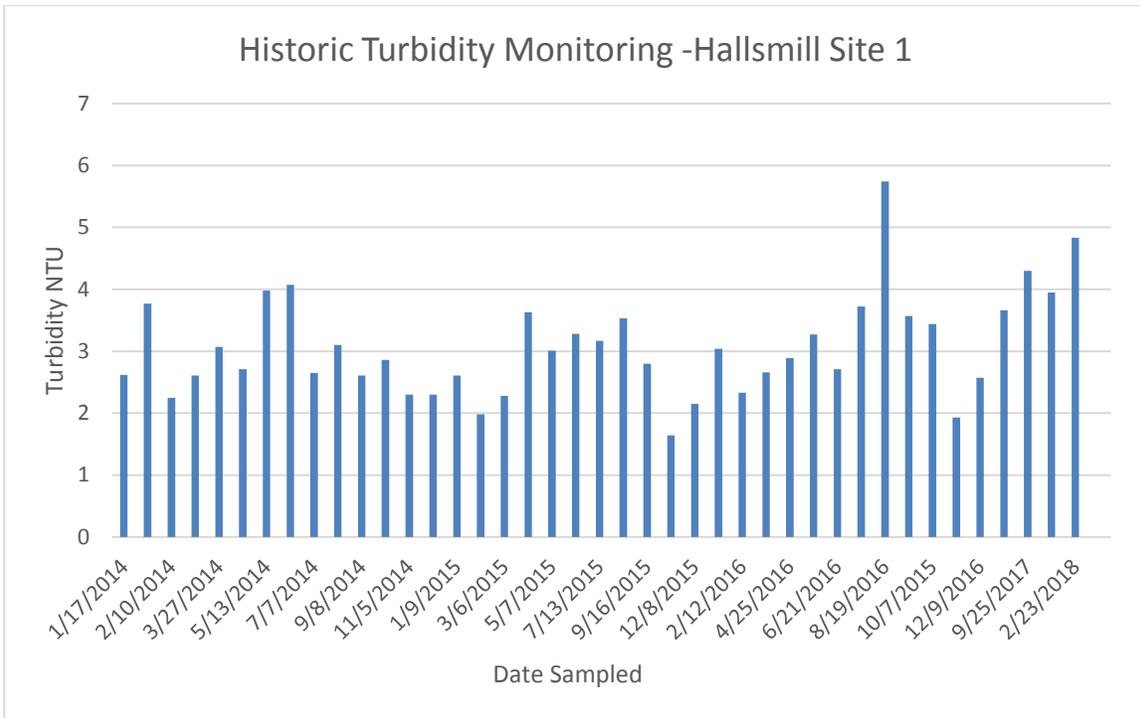


Figure 6. Halls Mill Creek site one historic sampling data

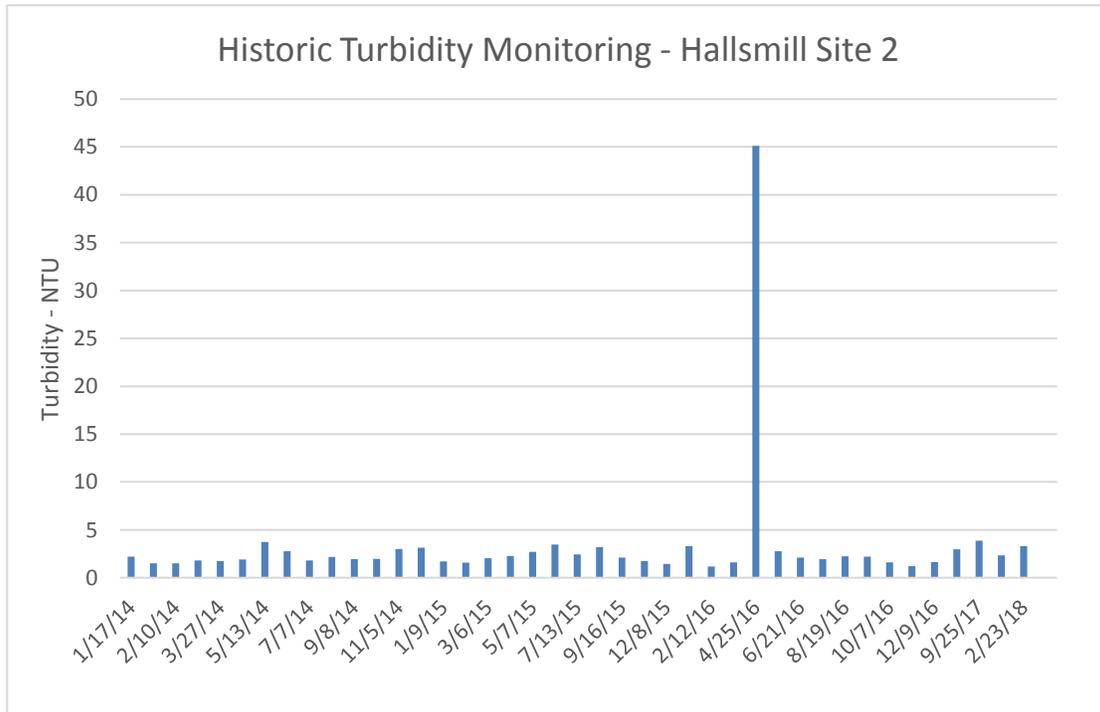


Figure 7. Halls Mill Creek site two historic sampling data

## Appendix A

Municipal Separate Storm Sewer  
(MS4) Permit  
NPDES Permit No. ALR040043

## Appendix B

# Stormwater Management Program Plan

# Appendix C

IDDE

## Appendix D

# Construction Site Stormwater Runoff Control

## Appendix E

# Water Quality Monitoring