UNIVERSITY OF
SOUTH ALABAMA

STORM WATER MANAGEMENT PROGRAM PLAN

REVISED MARCH 26, 2024

Prepared by
The University of South Alabama

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1. INTRODUCTION

This Storm Water Management Program Plan (SWMPP) was developed in general accordance with the guidelines provided in Title 40 Code of Federal Regulations (CFR), Part 122.26 (d) incorporated by reference in the Alabama Administrative Code 3356 as administered by the Alabama Department of Environmental Management (ADEM) and NPDES ALR040060 Phase II General Permit effective October 1, 2021.

The purpose of this SWMPP is to describe The University of South Alabama and its operation and identify the Best Management Practices (BMPs) to be utilized to reduce the discharge of pollutants from The University of South Alabama's main campus to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act (CWA).

1.1 OBJECTIVE

The primary goal of the developed SWMPP is to improve the quality of surface waters at The University of South Alabama by reducing the number of pollutants contained in storm water runoff to a maximum extent practicable (MEP). The University of South Alabama will seek to reduce the pollutants from entering storm water runoff through the implementation of best management practices. The SWMPP will describe the minimum best management practices to be implemented by The University of South Alabama and as required by ADEM General Permit ALR040060 (issuance date September 16, 2021).

1.2 MS4 DESCRIPTION

The beautiful, tree-shaded main campus of the University spreads across 1,200 acres, with a landscape that includes cultivated flower gardens, walking paths and groves of pine trees, more than 10 miles of bike trails, indoor and outdoor pools, and a disc golf course. The Glenn Sebastian Nature Trail contains more than 3 miles of trails that wind through 95 acres of native pine and oak woodlands.

1.3 DEFINITIONS

ADEM: Alabama Department of Environmental Management, responsible for enforcing environmental regulations in the State of Alabama.

Best Management Practices (BMP): may include schedule of activities, prohibition of practices, maintenance procedures or other management practices to prevent or reduce the pollution of Waters of the State. BMPs also include treatment requirements, operating procedures, and practices both structural and nonstructural designed to control runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

Clean Water Act (CWA): The Clean Water Act is an Act passed by U.S. Congress to control water pollution. It is formally referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972.

Code of Federal Regulations (CFR): A codification of the final rules published daily in the Federal Register. Title 40 of the CFR contains the environmental regulations.

Composite Sample: A sample collected with consideration giving towards flow and time.

Control Measure: Best Management Practice or other method used to prevent or reduce the discharge of pollutants to Waters of the State.

Discharge: Used without a qualifier, refers to "discharge of pollutant" as defined as ADEM Admin Code 33566.02(m)

EPA: Environmental Protection Agency

Grab Sample: A sample that is taken on a onetime basis without consideration of the flow rate of the sampling media and without consideration of time.

Green Infrastructure (GI): Systems and practices that use or mimic natural processes to infiltrate, evapotranspiration (the return of water to the atmosphere either through evaporation or by plants), or reuse storm water or runoff on the site where it is generated. Examples would include Tree canopies, rain barrels, rain gardens, green roofs, tree planter boxes, pervious concrete, etc.

Illicit Connection: Any man-made conveyance connecting an illicit discharge directly to municipal separate storm sewer system (MS4)

Illicit Discharge: Defined at 40 CFR 122.26(b)(2) and refers to any discharge to a municipal separate storm sewer (MS4) that is not entirely composed of storm water, except those discharges authorized or excluded under an NPDES permit.

Low Impact Development (LID): An approach to land development (or redevelopment) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.

Maximum Extent Practicable (MEP): The technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by the Clean Water Act (CWA) Section 402(p). A discussion of MEP as it applies to small MS4s like the University of South Alabama is found at 40 CFR 122.34.

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm ditches) owned or operated by a state, city, town or other public body having jurisdiction over the collection and conveyance of storm water which is not a combined sewer, and which is not part of a publicly owned treatment works.

Notice of Intent (NOI): The mechanism used to "register" for coverage under a General Permit.

National Pollutant Discharge Elimination System (NPDES): The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements under Section 307, 318, 402 and 405 of the CWA.

Permit: NPDES ALR040060 issued to the University of South Alabama and became effective September 16, 2021.

Permittee: The University of South Alabama

Priority Construction Site: Any qualifying construction site in an area where the MS4 discharges to a waterbody which is listed on the most recently approved 303d list of impaired waters for turbidity, siltation, or sedimentation, any waterbody for which a TMDL has been finalized or approved by the EPA for turbidity, siltation or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin Code 335610.09 and any waterbody assigned a special designation in accordance with 335610.10.

SEC: University of South Alabama Department of Safety and Environmental Compliance.

Storm water: Defined at 40 CFR 122.26(b)(13) storm water runoff, surface runoff and drainage.

Storm Water Management Program Plan (SWMPP): A plan developed for implementation of NPDES permit requirements.

Waters of the State: All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce. Waters of the State include but are not limited to all interstate waters and interstate waters and interstate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, play lakes or natural ponds.

2. CONTROL MEASURES

Storm water management controls or BMPs will be implemented to prevent pollution in storm water discharges from the University's main campus. The permit requires BMPs addressing six minimum control measures to be a part of the SWMPP. These BMPs are described in the remaining subsections of this section with applicable measurable goals and scheduled implementation dates for each BMP. BMP measurable goal effectiveness (measure of effectiveness) criteria is provided of each BMP.

The six control measures addressed by this SWMPP include:

1. Public Education and Outreach.
2. Public Involvement and Participation.
3. Illicit Discharge Detection and Elimination (IDDE).
4. Construction Site Storm Water Runoff Control.
5. Post-Construction Storm water Management in new Development and Redevelopment.
6. Pollution Prevention and Good Housekeeping.

Each minimum control measure will be addressed and detailed separately as part of the SWMPP.

2.1 PUBLIC EDUCATION AND PUBLIC INVOLVEMENT ON STORM WATER IMPACTS

Introduction

The University of South Alabama's Safety and Environmental Compliance Office implements a public education and outreach program which will distribute educational materials and information to the campus community. This education and outreach measure will inform the University staff, students, and residents about the impact of storm water discharges into Three Mile and Twelve Mile Creek, as well as steps that can be taken to reduce pollutants in storm water runoff to the maximum extent practical. These efforts are also designed to encourage individuals and groups to take active steps to reduce pollutants in storm water runoff. Additionally, the "Adopt a Creek" program signage and participation will continue to grow and serve as a visual reminder of the importance of keeping our waterways clean and healthy.

Rationale

Each best management practice (BMP) within the public education and outreach measure was selected by examining BMP databases and examples, analyzing the effectiveness of previously utilized BMPs and the evaluation of educational methodologies that are already in place at The University of South Alabama.

Summary

The public education and outreach measure is organized to identify how the campus community will be informed about ways to reduce storm water pollution; to identify how the campus community will be informed regarding how they can become involved in the University of South Alabama's storm water management program; to identify ways to reach the target audience and to identify the audience for the specified educational programs.

The University of South Alabama has a unique opportunity to reach several distinct target audiences throughout the year. These audiences include University faculty and staff, students, parents of students, visitors, contractors on campus, and surrounding community stakeholders. Segments of this audience may be targeted based upon specific goals or regulatory requirements. The goal of the public education and outreach measure is to reach all employees and students at the University of South Alabama within the life of the permitting cycle and to expose a significant segment of the visitor population to information regarding the impact of contaminated storm water discharges on local bodies of water and watersheds.

Targeted pollutant sources for the University of South Alabama include pathogens as listed on the 2012 303(d) list for Three Mile Creek, sediment from construction sites, illicit discharges of hazardous materials, litter and runoff related to grounds maintenance. Other pollutants may be added as conditions on campus change or other parameters are added. All contents of the analysis and testing of TMDL waters comply with Part V of the Notice of Intent.

Evaluations of success of specific management practices will be determined by analysis of the goals for each BMP within the public education and outreach measure. Each BMP will have a measurable goal that is established by attainable goals for the BMP implementation steps and the ability of the University of South Alabama within the contract of financial and physical resources to meet stated goals.

The University of South Alabama will seek and consider public input in the development, revision, and implementation of the SWMPP on an annual basis through its Safety and Environmental Compliance website. The input will be considered by the MS4 Advisory Committee for inclusion into the SWMPP.

BMP Summary

The University of South Alabama's Safety and Environmental Compliance Office will utilize a variety of BMPs to educate and inform the campus community regarding storm water quality issues. Among these are printed materials for direct distribution, a storm water management website, electronic and printed public service advertisements, posting on the permittee's website, educating the campus community regarding impacts of illegal disposal and littering, public education concerning construction activities, education on the importance of water quality and education of the University of South Alabama and contractor personnel on sediment control on construction sites.

BMP-1: Printed Materials

Materials promoting green spaces, stormwater quality and the importance of the environment with distributions through various locations in addition to education flyers for illegal dumping.

Measurable Goals: Develop and distribute flyers. The flyers shall include the following: General impacts litter has on water bodies, how trash is delivered to streams via the MS4 and ways to reduce the litter; general impacts of storm water flows into surface water from impervious surface; and source control BMPs in areas of pet waste, vehicle maintenance, landscaping and rainwater reuse.

Measure of Effectiveness:

1. Number of QR code hits.
2. Number and type flyers distributed.

Target Audience: General public, faculty/staff, students.

BMP-2: Stormwater Quality Website

Safety and Environmental Compliance will maintain a section of the University of South Alabama's website, http://www.southalabama.edu/departments/environmental/index.html, to provide a mechanism for the reporting of illicit discharges, educate the public and the campus community on water quality issues and to provide a mechanism for feedback on storm water or water quality issues. SEC will edit, update, and modify the information provided to ensure consistency with the public education and outreach program, as well as impacts of illicit discharges and how to report them.

Measurable Goals: Safety and Environmental Compliance Website.

Measure of Effectiveness:

1. Verify that the SWMPP has been made available to the public.
2. Number of Department of Safety and Environmental Compliance website hits.

Target Audience: General public, faculty/staff, students.

BMP-3: Public Service Advertisements

Public service advertisement BMP focuses on material that relates to the impact of storm water runoff on local bodies of water and steps that can be taken to reduce storm water pollution. SEC will review, edit, update, and modify the advertisements to ensure relevancy to current water quality issues. SEC will maintain records regarding the advertisements and will report the type and frequency in the annual report.

Measurable Goals: Maintain records for advertisements.

Measure of Effectiveness:

1. Ease of access to records.

Target Audience: General public, faculty/staff, students.

BMP-4: Education Program for Impacts of Illegal Dumping and Littering

Educating the campus community of the impacts of illegal dumping and littering is vital to the cleanliness and beauty of the University of South Alabama campus. SEC has developed educational materials and programs that discuss the harmful impact of illegal dumping and littering and will provide the mechanisms for reporting incidents. SEC will review, edit and modify information to ensure relevancy to current issues. SEC will distribute public education materials that describe the harmful impacts of dumping on water bodies.

Measurable Goals: Create and update as needed a program that highlights the harmful impact of illegal dumping.

Measure of Effectiveness:

1. Number of illegal dumping incidents reported.
2. Number of staff trained in dumping and littering detection and reporting.

Target Audience: General public, faculty/staff, students.

BMP-5: Education Program for Construction Stormwater Activities

The University of South Alabama has a very aggressive construction and new development schedule, which results in almost continuous construction activity. This activity makes it important for there to be a mechanism in place to inform the campus community on steps that can be taken to report potential construction site runoff problems.

Measurable Goals: Develop, staff, and maintain a campus wide inspection regime.

Measure of Effectiveness:

1. Number of incidents reported to the website.
2. Number of inspections conducted.

Target Audience: General public, faculty/staff, students

BMP-6: Education on Importance of Water Quality

The education of the campus community on the importance of water quality is a vital priority for the Department of Safety and Environmental Compliance. Among the campus community, students are a major focus group. This group is likely to have a significant future impact on national, state, and local attitudes toward water quality issues. SEC, in partnership with USA's Sustainability Committee, will review, edit, and modify materials and programs to ensure relevancy to the University of South Alabama student population and current issues. SEC will provide information regarding education of the importance of water quality as part of the annual report.

Measurable Goals:	Coordinate with the SEC and Sustainability Committee on changes to relevant material and programs in reference to the importance of water quality.
Measure of Effectiveness:	1. Number of meetings with the Sustainability Committee.
Target Audience:	General public, faculty/staff, students.

BMP-7: Education of University Employees and Contractors

In order to ensure that the University of South Alabama construction project and contractor supervisors are informed on the most current policies and procedures related to sediment and erosion control on construction sites, the Safety and Environmental Compliance and the Engineering & Design and Construction Office have developed educational programs to communicate principles of sediment and erosion control as well as targeted pollutant sources. These offices will review, edit, and modify educational and training programs regarding the proper design, selection, implementation and maintenance of erosion and sediment control on construction sites. SEC will provide information regarding education of construction supervisors as part of the annual report.

Measurable Goals:	Develop communication protocols for contractors and education programs for existing staff and new hires.
Measure of Effectiveness:	1. Number of persons trained.
Target Audience:	Contractors, Staff and Faculty

BMP-8: Adopt a Stream Awareness

The University has installed signage that encourages the general public, staff, and students to protect waterways and to Increase public awareness of the Campus' nonpoint source pollution and water quality issues. The University will also encourage campus students to participate in campus and stream cleanups along campus property.

Measurable Goals: Number of campus and stream clean-up days and amount of trash collected.

Measure of Effectiveness:

1. Amount of trash collected (bags or pounds)

Target Audience: General public, faculty/staff, students.

2.2 PUBLIC INVOLVEMENT AND PARTICIPATION

Introduction

The University of South Alabama is implementing a public involvement program which will create opportunities for the campus community to get involved in the SWMPP. Opportunities for involvement in activities that directly benefit the environment and lead to improvements in overall water quality will be available. SEC will notify the campus community of opportunities to participate in water quality improvement activities and SWMPP implementation by public notice of USA Sustainability Committee meetings. These public notice announcements of meetings will be published in the Vanguard campus newspaper and in the University of South Alabama electronic media; http://www.southalabama.edu/specialprojects/usasustainability/.

SEC will utilize a variety of outreach methods to encourage public involvement in the SWMPP. The goals are to identify ways to notify individuals of opportunities to participate in activities related to the SWMPP, to provide opportunities for the campus community to participate in activities leading to water quality improvement and identify activities that have relevance to the SWMPP and improved water quality.

Rationale

The University's stormwater management program(s) can be greatly improved by involving the community throughout the entire process of developing and implementing the program. Involving the public benefits the University as well as the community. By listening to the public's concerns and coming up with solutions together, the University will gain the public's support and the community will become invested in the program.

Summary

Safety and Environmental Compliance will utilize a variety of outreach methods to encourage public involvement in the SWMPP. The goals are to identify ways to notify individuals of opportunities to participate in activities related to the SWMPP, to provide opportunities for the campus community to participate in activities leading to water quality improvement and identify activities that have relevance to the SWMPP and improved water quality.

Targeted participants were selected based on permit requirements and the goal of creating opportunities for personal involvement in the SWMPP and impact on water quality at the local level. The public involvement program, in conjunction with other best management practices, is expected to reach most members of the University of South Alabama campus community during the life of the permit cycle.

The success of public involvement will be evaluated through analysis of each program goal within the public involvement measure. Each will have a measurable goal that is established by attainable goals for the SWMPP implementation steps and the ability of the University of South Alabama within the context of financial and physical resources to meet stated goals.

BMP Summary

Safety and Environmental Compliance will utilize a variety of resources to provide and encourage public involvement in the SWMPP. These are the MS4 Advisory Committee and the Storm Sewer Marking Campaign.

BMP-1: MS4 Advisory Committee

To oversee the implementation of the SWMPP and provide advice and consultation, SEC created the MS4 Advisory Committee. The MS4 Advisory Committee is made up of various members of the campus community who have a stake in the SWMPP; individuals with an expertise which would be of benefit to the program and other representatives of the campus community. The MS4 Advisory Committee will meet on an as needed basis but at least once per year.

During this permit cycle Safety and Environmental Compliance will request committee review of the education materials, inspection procedures, guidance information and investigation methods detailed in the BMPs specified in the six minimum control measures. SEC will provide notifications of committee meetings to the campus community through regular notice.

Measurable Goals: Post minutes of the MS4 Advisory Committee's meeting on the Safety an Environmental Compliance Website.

Measure of Effectiveness:

1. Number of Department of Safety and Environmental Compliance website hits.

Target Audience: Committee Members

BMP-2: Storm Sewer Marking

The storm sewer marking campaign provides a way for civic organizations and individuals to make a positive, hands on, impact on local water quality. SEC will provide storm sewer inlet discs, which state, “No Dumping Drains to River” and adhesive to attach said discs. To ensure continued success through the permit cycle SEC will seek to identify groups that may be interested in program participation, provide support to individuals or groups who volunteer for storm sewer marking and the Adopt-A-Stream program and update procedures as needed.

Measurable Goals: Continuation of storm sewer marking campaign and civic group engagement with the ultimate goal of 100% of 683 inlets marked, marking of newly installed inlets, and replacement of missing or damaged inlets.

Measure of Effectiveness:

1. Number of new inlets installed vs number of new markers installed.
2. Number of makers replaced.

Target Audience: General public, faculty/staff, students

BMP-3: Landscapers and Property Managers

In order for there to be 100% effectiveness when it comes to protecting water quality, Landscapers and Property Managers shall be notified of any and all proper yard techniques that protect water quality, adequate ways to use and provide storage for pesticides and fertilizers, carpet cleaning and auto repair and maintenance techniques, runoff reduction techniques (includes but is not limited to site design, pervious paving, retention of forests, mature trees, and maintenance required for LID/GI), and storm water pond maintenance. Maintenance for LID/GI may include but is not limited to vacuuming voided areas in pervious concrete, watering rain gardens during dry season, removing fallen branches from tree canopies, etc.

Measurable Goals: 100% of all runoff being properly contained in pervious material and/or storage containers.

Measure of Effectiveness:

1. No illicit discharges entering storm drain inlets.
2. Applying LID/GI techniques to landscaping and site improvements (i.e., rain gardens, pervious concrete, tree canopies, etc.).
3. Generating notification form for Landscapers/property managers listing proper material usage and showing adequate locations for the storage of pesticides, fertilizer, carpet cleaning liquids, etc.

Target Audience: General public, faculty/staff, students

2.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Introduction

The MS4 Permit requires the University to implement an ongoing program to detect and eliminate illicit discharges and improper disposals to the MS4. According to 40 CFR 122.26(b)(2), an Illicit Discharge is defined as follows:

"Illicit Discharge means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities."

Prohibition of Non-Storm Water Discharges

Section (p)(3)(B)(ii) of the Clean Water Act specifically requires an effective prohibition of non-storm water in the University's MS4 Permit. According to the MS4 Permit, the following discharges, whether discharged separately or commingled with municipal storm water, are not authorized:

A Non-Storm Water and Industrial Storm Water discharges of non-storm water or any storm water discharge associated with industrial activity, except where such discharges are regulated by a separate NPDES permit (or the discharges have been applied for such permit).

Allowable Storm Water Discharges

The University may allow, in accordance with 40 CFR 122.26(d)(2)(iv)(B)(1) and Part 1.B.2 of the University's General Permit No. ALR040060 certain non-storm water discharges to the MS4. The Storm Water Management Program shall identify any non-storm water discharges allowed under this paragraph:

- Water line flushing.
- Landscape irrigation.
- Diverted stream flows and uncontaminated ground water infiltration.
- Uncontaminated pumped groundwater and infiltration defined as water other than wastewater that enters a sewer system, including foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include and is distinguished from inflow.
- Uncontaminated pumped groundwater.
- Discharges from potable water sources.
- Foundation drains.
- Air conditioning condensate.

- Irrigation water (not consisting of treated, or untreated, wastewater).
- Rising ground water.
- Springs.
- Water from crawl space pumps.
- Footing drains.
- Lawn watering runoff.
- Individual residential car washing, to include charitable car washes.
- Residual street wash water.
- Discharge or flows from firefighting activities (including fire hydrant flushing).
- Flows from riparian habitats and wetlands.
- Dechlorinated swimming pool discharges, and
- Discharges authorized and in compliance with a separate NPDES permit.

Prohibited Storm Water Discharges

The following discharges are not authorized by this permit:

- Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are in compliance with a separate NPDES permit or determined by the Department not to be a significant contributor of pollutants to waters of the State.
- Storm water discharges associated with industrial activity as defined in 40 CFR Part 122.26(b)(14)(i)-(ix) and (xi).
- Storm water discharges associated with construction activity as defined in 40 CFR Part 122.26(b)(14)(x) or 40 CFR 122.26(b)(15) and subject to Alabama Department of Environmental Management (ADEM) Code r. 335-6-12.
- Storm water discharges currently covered under another NPDES permit.
- Discharges to territorial seas, contiguous zone, and the oceans unless such discharges are in compliance with the ocean discharge criteria of 40 CFR Part 125, Subpart M;
- Discharges that would cause or contribute to instream exceedances of water quality standards.
- Discharges of any pollutant into any water for which a Total Maximum Daily Load (TMDL) has been approved or developed by EPA unless the discharge is consistent with the TMDL.
- Illicit discharges, including spills, of oils or hazardous substances, from responsibilities and liabilities under State and federal law and regulations pertaining to those discharges.
- The discharge of sanitary wastewater through cross connections or other illicit discharges through the MS4 is prohibited.
- The use and storage of automobile chemicals.

- The illicit discharge of hazardous cleaning supplies/materials.

BMP-1: Develop Improper Disposal of Discharges Policy

Measurable Goals:	Review and update policies and SOPs that relate to improper discharges on a yearly basis or more frequent if necessary.
Measure of Effectiveness:	1. Number of SOPs updated. 2. Number of policies updated.
Target Audience:	Faculty/staff

BMP-2: Improper Disposal of Discharges

Measurable Goals:	Identify Department(s) that have authority to direct those causing the illicit discharge to cease discharge activities and quantify discovered improper discharges.
Measure of Effectiveness:	Decrease in the number of reported illicit discharges.
Target Audience:	Faculty/staff

BMP-3: Dry Weather Screening

Measurable Goals:	Dry weather screening of approximately 15% of major outfalls annually with all (100%) of major outfalls screened at least once during the five-year period.
Measure of Effectiveness:	Number of outfalls inspected during the reporting period meets the inspection goals.
Target Audience:	Staff

BMP-4: Stormwater Network Mapping

Measurable Goals:	Review of storm drain outfall location map for updates on a yearly basis.
Measure of Effectiveness:	Number of times the map was reviewed and updated.
Target Audience:	Staff

BMP-5: IDDE Reporting

Measurable Goals:	The University will develop and maintain a storm water discharge monitoring policy and systems to report and investigate illicit discharges. This policy will be posted on the University website.
Measure of Effectiveness:	Number of Department of Safety and Environmental Compliance website hits.
Target Audience:	General public, faculty/staff, students

BMP-6: IDDE Plan Implementation

Measurable Goals:	Train personnel performing illicit discharge screening on the IDDE Plan at least once per year.
Measure of Effectiveness:	Percentage of trained staff that considered the training effective.
Target Audience:	General public, faculty/staff, students

BMP-7: Reporting of Improper Disposal of Discharges

Measurable Goals:	Maintain confidential reporting system webpage to report non-storm water discharges into storm drains.
Measure of Effectiveness:	Confirmed functionality of the confidential reporting system (i.e. website hits).
Target Audience:	General public, faculty/staff, students

BMP-8: Maintenance

Measurable Goals:	Maintain and update campus storm water conveyance system, including Three Mile and Twelve Mile Creek outfalls.
Measure of Effectiveness:	Percent of system inspected, report on any stormwater system improvements completed.
Target Audience:	Staff

BMP-9: Education

Measurable Goals:	Educate the campus community (students, staff, faculty and visitors) on the prohibition of dry weather flows into the University's storm water system.
Measure of Effectiveness:	Percentage of community comments/responses that indicated that they considered the training effective.
Target Audience:	General public, faculty/staff, students

BMP-10: Train Staff

Measurable Goals:	Conducting training of University staff and faculty at least once per permit cycle. Grounds and Project Management departments' new team members receive IDDE Awareness training within six months of employment or as determined by the Department to which the employee is assigned. Repeat training an interval of every 5-years or less.
Measure of Effectiveness:	Increases in the percentage of trained staff that considered the training effective.
Target Audience:	Faculty, staff

BMP-11: Analyze Illicit Discharges

Measurable Goals:	Analyze data of illicit discharges.
Measure of Effectiveness:	Decreases in the percentage of illicit discharges vs the number of discharges analyzed.
Target Audience:	Staff

BMP-12: Three Mile and Twelve Mile Creek Monitoring

Measurable Goals:	Conduct quarterly monitoring of BOD, COD, DO, E. coli, Fecal coliform at an upstream and downstream location that encompasses the University's MS4 area.
Measure of Effectiveness:	Compliance with the quarterly monitoring program test results.
Target Audience:	General public, faculty/staff, students

Sample Site	Latitude	Longitude	Constituents Tested	Frequency
TDML-1	30.6993390	-88.1884000	BOD, COD, DO, E.coli, Fecal coliform	Quarterly
TDML-2	30.7013500	-88.1771500	BOD, COD, DO, E.coli, Fecal coliform	Quarterly
TMDL-3	30.6846867	-88.1891830	BOD, COD, DO, E.coli, Fecal coliform	Quarterly
TMDL-4	30.6843240	-88.1868380	BOD, COD, DO, E.coli, Fecal coliform	Quarterly

SOURCE TRACKING

Source tracking is a method of investigating the cause of illicit discharges to the stormwater system as observed at a stormwater outfall. Field observations of MS4 outfalls are conducted quarterly during dry weather by outsourced consultants or from observations by University staff as part of their illicit discharge training. If observations by trained University staff detect an illicit discharge, it would be reported to SEC, who would decide either to contact the consultant or direct University staff to conduct the source tracking.

Any outfall found to be flowing during dry weather shall be prioritized for investigation. Each outfall shall initially be sampled and tested for pH, total chlorine, copper, detergents, and phenols using the Hach storm water test kit. The same outfall shall be re-sampled at least 6-hours later. If testing indicates constituents being tested for, the outfall shall be classified as a potential illicit and targeted for further investigation. Standard Operating Procedures to identify and track the source of the illicit discharge shall generally include the following:

1. Identify the storm drain network connected to the outfall and continue the investigation upstream of the outfall to the next junction in the storm drain network to confirm evidence of the discharge.
2. Repeat the steps upstream until a junction is found with no evidence of the discharge.
3. Isolate the section between the junctions and try to identify the source of the discharge.
4. Investigate the surrounding area between the two junctions, to visually isolate and identify the source.
5. Utilize video inspection, smoke testing (non-toxic) and/or dye testing (non-toxic) to further isolate and identify the source if necessary.
    a. Video Inspection:
        - use cameras capable of radial views.
        - Inspect top, bottom and sides of the pipes.
    b. Smoke Testing:

- A process where smoke is introduced into the storm drain system and observed where the smoke surfaces.
- Equipment typically includes a smoke source, smoke blower, and pipe plugs. Notify residents, adjacent businesses and emergency agencies before undertaking any smoke testing.

c. Dye Testing

- Necessary equipment typically includes dye tablets, liquid concentrate, dye strips, powder, or dry wax cakes/donuts that are non-toxic.
- Flush or wash dye down the drain, fixture or manhole.
- Open the downstream manholes or outfalls and locate the dye.

6. Investigate potential source facilities in the surrounding area. Investigate any spills that may have occurred in the surrounding area.
7. Once the source of the illicit discharge and/or improper disposal has been traced and identified, initiate actions to stop or restrict discharge. Report the actions to the University's Safety and Environmental Compliance Department.

Procedure for Notification of Suspect Illicit Discharge from an Adjacent MS4.

The University of South Alabama is situated within the City of Mobile's MS4 area. The primary discharge route from the City's system is from the areas north and west of the University's property which would ultimately be discharged to Three Mile Creek or Twelve Mile Creek. If it is suspected illicit discharges are originating from the City of Mobile's stormwater system, ADEM shall be notified by the University of South Alabama University's Safety and Environmental Compliance Department. The following procedure for notification shall be as follows:

1. Determine the latitude and longitude or create an aerial graphic indicating the observed location of the discharge.
2. Document the characteristics of the discharge (odor, color, etc.).
3. Document the date and time of observation.
4. Document the general weather conditions.
5. Include the above information in the upcoming Annual Report.

2.4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

The construction site runoff control measure consists of BMPs that focus on the reduction of pollutants in storm water runoff that originate from construction activities involving land disturbances of one acre or greater. The pollutant of greatest concern is sediments from land disturbance activities. The selected BMPs are designed to minimize erosion and the transfer of sediments from construction to adjacent areas and outfalls.

Rationale

Each BMP within the construction site runoff control measures was selected by analyzing techniques utilized by other permitted entities, analyzing the effectiveness of previously utilized BMPs and consideration of the selected BMPs applicability to permit provisions.

The construction site runoff control measures are designed to do the following: identify mechanisms which will be used to require sediment and erosion controls on construction sites, to establish enforcement procedures, to establish requirements for construction site supervisors to implement erosion and sediment control BMPs, to establish requirements for waste control on construction sites, to establish procedures for site plan reviews that consider water quality impacts, to establish procedures for site inspection and enforcement, and to develop education and training for construction site supervisors and the University of South Alabama personnel overseeing construction projects. A Quality Control (QC) consultant generally performs the associated inspections. The success of the construction site runoff control measure BMPs will be evaluated through analysis of each BMP goal.

The University of South Alabama requires construction site contractors to implement appropriate erosion and sediment control BMP's consistent with the Alabama Handbook for Erosion Control, Sediment Control, And Stormwater Management on Construction Sites and Urban Areas published by the Alabama Soil and Water Conservation Committee (hereinafter the "Alabama Handbook"). Construction site operators are also required to control waste, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

Development and implementation of the enforcement strategy includes escalating enforcement remedies to respond to issues of non-compliance. An enforcement tracking system designed to record instances of non-compliance and the MS4's responding actions includes the following documentation:

1. Name of owner/operator
2. Location of construction project or industrial facility
3. Description of violations
4. Required schedule for returning to compliance
5. Description of enforcement response used, including escalated responses if repeat violation occur or violations are not resolved in a timely manner;
6. Accompanying documentation of enforcement response (e.g. notices of noncompliance, notices of violation, etc.);
7. Any referrals to different departments or agencies; and
8. Date violation was resolved

As per Part III.B.3.a, all inspections (i.e. inspection reports) and employee training records must be kept, as well as site plan review procedures, a copy or link of the ordinance or other regulatory system, plans for the training of MS4 site inspection staff, and a copy of the construction site inspection form.

BMP-1: Education

Training will be developed and provided to The University of South Alabama project supervisors and managers for proper site management procedures as well as protocols for reporting discharges and inspection results. To ensure personnel and contractors are properly trained, Safety and Environmental Compliance will ensure that training materials take advantage of new technologies for managing storm water runoff on construction sites. Educational programs will be updated and modified as needed. QCI training shall be in accordance with ADEM Admin Code. R. 335-6-12 or the Alabama Construction Site General Permit). Applicable MS4 site inspection staff shall be trained at least once per year.

Measurable Goals: Provide training to the University of South Alabama applicable personnel.

Measure of Effectiveness:

1. Increase in the Percentage of trained staff that considered the training effective.

Target Audience: Staff

BMP-2: Construction Plan Review for Construction Stormwater

In order to effectively minimize occurrences of erosion and sediment transfer at construction sites the construction process must begin with the development of plans that incorporate BMPs for construction sites that are relevant to site conditions. To accomplish this the University of South Alabama will detail requirements for written project sediment and erosion control plans; implement plan review procedures to address conformance to storm water guidelines and the use of erosion controls; and provide an opportunity for the MS4 Advisory Committee to review procedures to evaluate effectiveness.

Measurable Goals: implement plan review procedures.

Measure of Effectiveness: 100% effectiveness determined from MS4 Advisory Committee.

Target Audience: Staff

BMP-3: Construction Site Inspections

The University of South Alabama has outsourced the conduction of all construction site inspections. The University of South Alabama will review existing procedures for tracking construction activities and revise as needed. The University will also apply all applicable storm water management requirements to ensure compliance.

For sites greater that 1-acre, the University uses the ADEM NOI process inclusive of individual CBMPP manuals and erosion control plans through ADEM's AEPACS system. This allows for a consistent approach to the mitigation of runoff from construction sites and ensures that the University is up to date with ADEM's general permit requirements for construction stormwater management. The University contracts with a consulting firm to perform the inspections required as a result of rainfall threshold exceedance or in the event of no rainfall, 30-day inspections in conjunction with daily inspections by the contractor. Reports are generated by the consulting engineer indicating any deficiencies in the BMPs and actions required to remedy the issues identified.

Additionally, the University conducts its own inspections via staff. When observations indicate repairs to BMPs are required, the issues are communicated to the contractor for immediate rectification. For sites less that 1-acre, the University conducts internal reviews with the assistance of an outside consulting firm to ensure construction stormwater impacts are minimized. The University of South Alabama will require contractors to utilize an independent QC to inspect and monitor construction sites. The University of South Alabama will require contractors to take immediate corrective actions when conditions are discovered that are not in compliance with construction site storm water guidelines. The University of South Alabama will maintain copies of QC inspections and corrective actions and report the number in the annual report.

The University has developed and implemented a construction site inspection form to include at least the items listed in Parts III.B.3.d.i.

The University maintains an inventory of qualifying construction sites containing relevant contact information for each construction site (i.e., tracking number and construction site contact name, address, phone number, etc.), the size of the construction site, whether the construction site has submitted for permit coverage under ADEM's Construction General Permit ALR100000, and the date the MS4 Permittee approved the site construction plan. The University will make the inventory available upon the Department's request.

Measurable Goals:	Report the number of inspections and corrective actions.
Measure of Effectiveness	Decrease in the percentage of noncompliance reports.
Target Audience:	Staff

BMP-4: Construction Site Problem Reporting

The University of South Alabama will provide a mechanism for the campus community to report storm water and water quality concerns related to construction projects. To this end, the University of South Alabama will provide a phone number and webpage for reporting concerns. Internal systems for accepting reported information will be reviewed and modified as necessary. Those sites reported by the campus community will be investigated. Records regarding the number of public reports received and responded to shall be maintained and included in the annual report.

Measurable Goals:	Issues that are encountered with construction activities are currently provided through a consulting firm and in coordination with ADEM and the ADEM NOI process.
Measure of Effectiveness:	100% of issues are reported.
Target Audience:	Staff

2.5 POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

The post construction storm water runoff measures consist of BMPs that are designed to minimize water quality impacts from new and redevelopments once construction activities are complete. BMPs selected are designed to: ensure that appropriate reviews are conducted, preconstruction conditions are taken into consideration during the design, and to take pre-construction conditions into consideration throughout the design, construction, and post-construction phases.

The University has developed a site-plan review and approval process and a required re-approval process when changes to post-construction controls are required.

The University has developed a Land Disturbance Checklist to ensure, to the maximum extent practicable, that the post construction runoff mimics pre-construction hydrology. The checklist is included in Appendix B.

The University of South Alabama encourages and promotes the incorporation and use of low impact development (LID)/green infrastructure where feasible for all of its development projects.

During the initial project briefing phase, the University consults with landscape architects, civil engineers, and building architects with experience and exposure to LID/green infrastructure to identify opportunities to incorporate these technologies into the building project. Once the opportunities are identified, they are assessed for inclusion into the project.

At a minimum of once per year, post-construction inspections are performed to confirm that post-construction BMPs are functioning as designed. The following documentation is included for each inspection:

1. Facility type
2. Inspection date
3. Name and signature of inspector
4. Site location
5. Owner information (name, address, phone number, fax, and email)
6. Description of the stormwater BMP condition that may include the quality of: vegetation and soils, inlet and outlet channels and structures, embankments, slopes, and safety benches; spillways, weirs, and other control structures; and sediment and debris accumulation in storage and forebay areas as well as in and around inlet and outlet structures;
7. Photographic documentation of all critical storm water BMP components;
8. Specific maintenance items or violations that need to be corrected by the owner/operator of the storm water control or BMP; and
9. Maintenance agreements for long-term operation and maintenance

Rationale

Each BMP within the post construction site runoff measures was selected by analyzing techniques utilized by other permitted entities, analyzing the effectiveness of previously utilized BMPs and consideration of selected BMPs applicability to permit provisions.

BMP-1: Plan Review for Construction Activities

In order to mitigate post construction site runoff issues, construction plans will be reviewed to determine if post construction runoff from new and/or redevelopment will adversely affect water quality. If negative effects occur, the plans, procedures or methods will be revised or modified to ensure compliance with storm water guidelines.

Measurable Goal: Report on number of plans reviewed.

Measure of Effectiveness: 100-percent of plans were reviewed.

Target Audience: Staff

BMP-2: Three Mile and Twelve Mile Creek Monitoring of Water Quality

To facilitate the effective review of post construction BMPs to be implemented on new and/or redevelopment projects a review of the potential impact to sensitive or impaired water bodies with approved TMDL's will be conducted during the plan review process for all new and/or redevelopment projects on the University of South Alabama campus. To ensure an accurate review the University of South Alabama will examine the most current 303 (d) listing of impaired

waters to determine if any are potentially affected. The approved TMDL's will also be examined for applicability. These reports are analyzed for trends on an annual basis.

Measurable Goals:	Conduct quarterly inspections on the biological health of the creeks for BOD, COD, DO, E. coli, Fecal coliform.
Measure of Effectiveness:	100% Compliance with the quarterly monitoring program.
Target Audience:	General public, faculty/staff, students

BMP-3: LID/Green Infrastructure and Structural BMP Inspections

Measurable Goals:	Conduct annual inspections on all LID/Green Infrastructure and structural BMPs.
Measure of Effectiveness:	Inspections conducted and infrastructure maintenance or replacement performed.
Target Audience:	Staff

BMP-4: Record Keeping of Inspections and Maintenance

Measurable Goals:	Maintain records of post-construction inspections, maintenance activities and make them available to the Department upon request and require corrective actions to poorly functioning or inadequately maintained post-construction BMP's.
Measure of Effectiveness:	100% of post-construction BMP's are adequately maintained.

BMP-5: Stormwater Network Mapping

Measurable Goals:	Review of storm drain location map for updates on a yearly basis.
Measure of Effectiveness:	Number of times the map was reviewed and updated.
Target Audience:	Staff

2.6 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

The Pollution Prevention and Good Housekeeping measure is made up of BMPs that focus on the reduction of pollutants in the storm water runoff that originated from the University of South Alabama operation and maintenance activities. The operations and maintenance activities include vehicle equipment maintenance, materials handling and storage, and facility operations. The BMPs selected will focus on the prevention of circumstances that have the potential to create polluted runoff.

Rationale

Each BMP within the pollution prevention and good housekeeping measure was selected by analyzing techniques utilized by other permitted entities, analyzing the effectiveness of previously utilized BMPs and consideration of selected BMPs applicability to permit provisions.

BMP-1 Road Maintenance

Routine street maintenance has significant potential to contribute to pollution runoff. In order to minimize potential impact from street maintenance the University of South Alabama will evaluate existing activities to determine if modifications would benefit storm water quality. The University of South Alabama will seek to identify alternative procedures or materials that would reduce the potential of maintenance activities contributing to polluted runoff. Specifications and SOP's will be revised according to identified alternative practices. The University of South Alabama will maintain records of road maintenance activities, alternate practices and include this information as a part of the annual report.

Measurable Goals (a):	Conduct Road maintenance activities through the reporting year.
Measure of Effectiveness:	Reduced number of repeat phones calls for individual road defects**.**
Target Audience:	Staff
Measurable Goals (b):	Number of alternate procedures created though the reporting year.
Measure of Effectiveness:	Number of SOPs updated per year.
Target Audience:	General public, faculty/staff, students

BMP-2: Litter Collection

The University of South Alabama will continue to promote anti-litter on campus. Several procedures will be utilized in an effort to reduce the discharge of floatable materials into local bodies of water. The University of South Alabama will periodically evaluate the location of litter and trash receptacles, collect litter on an established schedule and adjust locations of receptacles and collection schedules as necessary. Street sweeping is included as part of the litter collection on campus to remove debris and sediment from road surfaces. Currently a four person Grounds Department crew are dedicated full time to patrolling the campus and internal roadways to police areas for litter. Litter is collected on a daily basis. The University of South Alabama will include information regarding litter collection on campus as part of the annual report.

Measurable Goals: Establishment of schedule of litter collection / maintain schedule of litter collection.

Measure of Effectiveness:

1. Number of reports of litter
2. Quantity of litter collected.

Target Audience: Staff

BMP-3: Vehicle Maintenance

The University of South Alabama owns and operates a variety of vehicles and equipment used in the operation and maintenance of the facilities and services on campus. These vehicles range from passenger cars, trucks, and vans to heavy equipment; all of which require regular maintenance. Improperly maintained vehicles have a greater potential to contribute to water quality impairment. To ensure that vehicles do not contribute to impaired water quality the University of South Alabama will review and update the inventory of the University of South Alabama owned vehicles and equipment. The University of South Alabama will conduct routine maintenance of owned vehicles and shall inspect vehicles for the presence of fluid leaks during routine maintenance. The University of South Alabama will schedule repairs for vehicles determined to have leaks; maintenance records shall be available for review as requested.

Measurable Goals: Retention of existing program

Measure of Effectiveness: Number of vehicle leaks reported.

Target Audience: Staff

BMP-4: Hazardous Material Management (Materials Handling and Storage)

Safety and Environmental Compliance has operated a hazardous material management program for many years. This program along with campus facilities are periodically inspected by regulatory agencies for compliance with standards. SEC has an active material inventory system that tracks and accounts for hazardous materials and chemicals on campus. SEC will continue to operate the hazardous material program and will continue to perform environmental audits in laboratories and facilities on campus.

Measurable Goals: Retention of existing program.

Measure of Effectiveness: 1. No hazardous materials came into contact with storm water.

Target Audience: Staff

BMP-5: Training

Safety and Environmental Compliance will prepare training that focuses on pollution prevention and good housekeeping measures. SEC will identify the University of South Alabama personnel who will be required to attend training and will maintain records to this training. Training materials will focus on vehicle and building maintenance, herbicides, and hazardous material management.

Measurable Goals: Number of Employees Trained.

Measure of Effectiveness: Increase in the Percentage of trained staff that considered the training effective.

Target Audience: Staff

BMP-6: Illegal Dumping Signs

The University of South will post signs referencing local codes that prohibit littering and illegal dumping at selected designated public access points to open channels, creeks, and other relevant waterbodies.

Measurable Goals: Install signs referencing local codes that prohibit littering.

Measure of Effectiveness: Signs posted at all public access points.

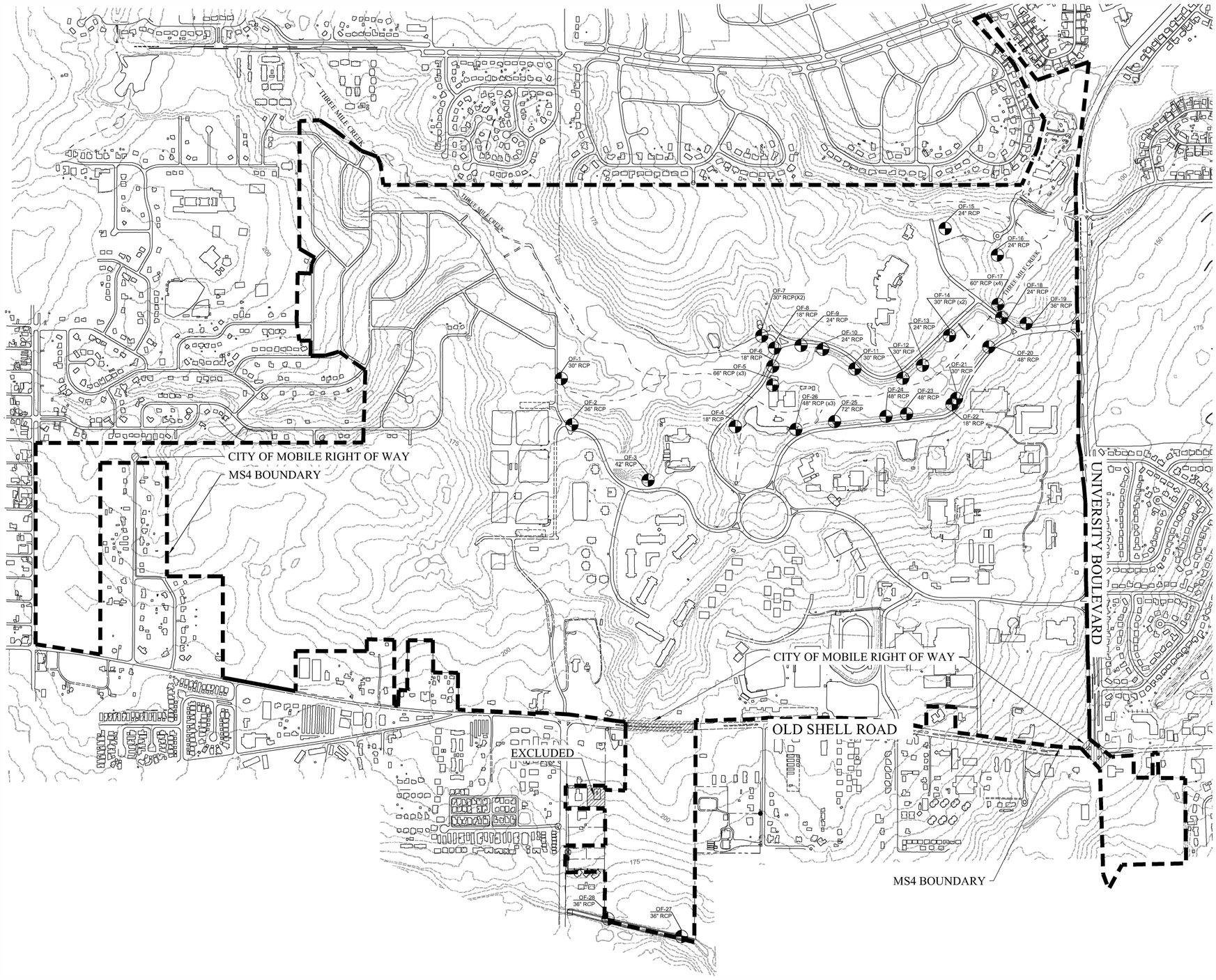
Target Audience: Staff

3. ENFORCEMENT

The University of South Alabama will utilize a variety of enforcement strategies depending upon the nature of the incident and the individuals involved. Enforcement could include monetary penalties, civil action, institutional restrictions, police response and other actions. Students involved in activities requiring enforcement face academic actions including suspension up to expulsion. Faculty and staff are subject to supervisory discipline including possible termination. Contractors are subject to financial penalties, termination of contracts and expulsion from work on campus. Any individuals exercising willful violations of storm water management guidelines may be subject to police involvement and civil actions.

APPENDIX A – OUTFALL MAP

Outfall names were revised on the Outfall Map for easier reference.



N

500 0 500 1000

SCALE: 1"=500'

Outfall	Size	Latitude	Longitude	Inspection Date	Notes
OF-1	30" RCP	30.699584	-88.190830	2023-Q2	Inspected 7/7/2023
OF-2	36" RCP	30.698390	-88.190384	2023-Q2	Inspected 7/7/2023
OF-3	36" RCP	30.696870	-88.188020	2023-Q3	Inspected 8/15/2023
OF-4	18" RCP	30.698286	-88.185054	2023-Q3	Inspected 8/15/2023
OF-5	66" RCP (x3)	30.699500	-88.184100	2023-Q4	Inspected 12/22/2023
OF-7	30" RCP (x2)	30.700800	-88.184400	2023-Q4	Inspected 12/22/2023
OF-8	18" RCP	30.700630	-88.184086	2024-Q1	Inspected 2/20/2024
OF-6	18" RCP	30.699962	-88.183907	2024-Q1	Inspected 2/20/2024
OF-26	48" RCP (x3)	30.698300	-88.183300	2024-Q2	
OF-27	36" RCP	30.684300	-88.186800	2024-Q2	
OF-9	24" RCP	30.700600	-88.183100	2024-Q3	
OF-28	36" RCP	30.684700	-88.189200	2024-Q3	
OF-10	24" RCP	30.700500	-88.182500	2024-Q4	
OF-25	72" RCP	30.698500	-88.182100	2024-Q4	
OF-11	30" RCP	30.699900	-88.181400	2025-Q1	
OF-23	48" RCP	30.698700	-88.179800	2025-Q1	
OF-24	48" RCP	30.698600	-88.180400	2025-Q2	
OF-12	30" RCP	30.699700	-88.179900	2025-Q2	
OF-13	24" RCP	30.700100	-88.179300	2025-Q3	
OF-15	24" RCP	30.703800	-88.178600	2025-Q3	
OF-14	30" RCP (x2)	30.700900	-88.178400	2025-Q4	
OF-21	30" RCP	30.699200	-88.178200	2025-Q4	
OF-22	18" RCP	30.699000	-88.178300	2026-Q1	
OF-20	48" RCP	30.700600	-88.177200	2026-Q1	
OF-17	60" RCP (x4)	30.701700	-88.176900	2026-Q2	
OF-16	24" RCP	30.703100	-88.176900	2026-Q2	
OF-18	24" RCP	30.701400	-88.176700	2026-Q3	
OF-19	36" RCP	30.701200	-88.176000	2026-Q3	

A	2/20/2024	AMW

UTILIZES SCREENING TECHNOLOGY AND DECREASED THE RESOLUTION AS SEEN IN VISIBLE DOTS OR LINES. IT HAS BEEN COMPRESSED FOR DIGITAL USE IN A LOW QUALITY SETTING. YOU CAN BE SURE THAT YOU HAVE A HIGH QUALITY PRINT OR COPY IF YOU CAN SEE THE DRIVEN ENGINEERING, INC. LOGO BEHIND THE TEXT IN THIS BOX.

CLIENT:
UNIVERSITY OF SOUTH ALABAMA
307 N UNIVERSITY BLVD
MOBILE, AL 36608

PRELIMINARY

Driven Engineering, Inc.
8 65 Morris Hill Road, Semmes, AL 36575
(251) 649-4011 Office
(251) 645-0971 Fax
www.drivenengineering.com

TITLE:
UNIVERSITY OF SOUTH ALABAMA
MS4 OUTFALL INSPECTION MAP

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DATE	SCALE	
2/20/2024	1"=500'	
DRAWN BY: AMW	CHECKED BY:	APPROVED BY:
PROJECT NUMBER: 17005		
DRAWING NUMBER C01	TOTAL SHEETS 1	REVISION A

Outfall	Size	Latitude	Longitude	Inspection Date	Notes
OF-1	30" RCP	30.699584	-88.190830	2023-Q2	Inspected 7/7/2023
OF-2	36" RCP	30.698390	-88.190384	2023-Q2	Inspected 7/7/2023
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OF-7	30" RCP (x2)	30.700800	-88.184400	2023-Q4	Inspected 12/22/2023
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OF-27	36" RCP	30.684300	-88.186800	2024-Q2	
OF-9	24" RCP	30.700600	-88.183100	2024-Q3	
OF-28	36" RCP	30.684700	-88.189200	2024-Q3	
OF-10	24" RCP	30.700500	-88.182500	2024-Q4	
OF-25	72" RCP	30.698500	-88.182100	2024-Q4	
OF-11	30" RCP	30.699900	-88.181400	2025-Q1	
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OF-24	48" RCP	30.698600	-88.180400	2025-Q2	
OF-12	30" RCP	30.699700	-88.179900	2025-Q2	
OF-13	24" RCP	30.700100	-88.179300	2025-Q3	
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OF-16	24" RCP	30.703100	-88.176900	2026-Q2	
OF-18	24" RCP	30.701400	-88.176700	2026-Q3	
OF-19	36" RCP	30.701200	-88.176000	2026-Q3	

APPENDIX B – LAND DISTURBANCE CHECKLIST

UNIVERSITY OF SOUTH ALABAMA

Land Disturbance Checklist

Project: _____ Date: _____

Location: _____

Printed Name of Engineer: _____

Signature of Engineer: _____

Professional License No.: _____

The following items must be submitted to the USA Safety and Environmental Compliance Office.

____ Vicinity Map

____ Plans drawn to scale, stamped and signed by an Alabama licensed P.E.

____ Topographical details for existing conditions and proposed development.

____ If an existing detention facility is utilized, documentation that the detention facility has been field- surveyed to verify the capacity and functionality of the existing detention facility. If is found to be deficient, the pond will be brought up to the required capacity and functionality.

____ Engineering calculations showing that the receiving storm drainage system can handle the additional flow due to the proposed development are provided.

Confirm the following:

____ Sedimentation and erosion control plan in accordance with the latest version of Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas, stamped by a professional engineer licensed in the state of Alabama.
https://alconservationdistricts.gov/wp-content/uploads/2019/03/2018-Field-Guide-combined-with-covers.pdf

____ That the grading and drainage plans comply with existing federal, state, University standards and guidelines.

____ That if an existing detention facility is utilized, the detention facility has been field-surveyed to verify the capacity and functionality of the existing detention facility. Deficient, the pond will be brought up to the required capacity and functionality.

____ That the receiving storm drainage system(s) can handle the additional flow due to the proposed development. Based on one of the following being met under condition A or B:

A. Flood Plain Management Plan, "An adequate channel shall be defined as a natural or man-made channel or pipe which is capable of conveying the fun-off from a 25-year storm without overtopping its banks or eroding after development of the site in question, or without causing the flooding of structures from the 25-year storm event."

B. If the outfall is into a natural watercourse, the 25-year peak flow from the development within the watershed must be at a flow rate and velocity, which allows the watercourse to handle without erosion or over bank flooding.

____ The existing outfall system does not meet the required 25-year design capacity; therefore, the post development peak flow has been reduced by an amount large enough to avoid making improvements to the outfall system.

____ Analysis of the existing outfall system is provided. I have verified that there is no historical flooding in the area, based on examination for evidence of prior flooding. I certify that there is no flooding problem created with this development for a 25-year storm.

____ Analysis of the existing outfall system is provided. I have verified that there is historical flooding in the area, based on examination for evidence of prior flooding. A storm water detention system providing 100-year volume with a pre-development two-year release (volume and velocity) has been designed.

____ There is no existing outfall. A drainage system is being constructed to tie to the nearest storm drainage system (within 300 feet of the project). The design and calculations for the proposed drainage system are provided. The receiving system has been analyzed and meets condition A or B:

A. Flood Plain Management Plan, "An adequate channel shall be defined as a natural or man-made channel or pipe which is capable of conveying the run-off from a 25-year storm without overtopping its banks or eroding after development of the site in question, or without causing the flooding of structures from the 25-year storm event."

B. The existing outfall system does not meet the required 25-year design capacity; therefore, the post development peak flow has been reduced by an amount large enough to avoid making improvements to the outfall system.

____ That site drainage is tied to the City of Mobile's storm water system.

____ That wetlands are not show on-site or on the GIS system.

____ That if wetlands exist on-site or shown on GIS system, they have been delineated by a certified professional, and the delineation is depicted on the plans and the following is confirmed.

- ____ wetlands are not disturbed.
- ____ wetlands are disturbed and a Corps of Engineers permit has been submitted with this application.
- ____ wetlands are disturbed and a Corps of Engineers permit will be submitted at a later submittal. I understand that the submission of the Corps of Engineers permit is required before a land disturbance permit will be issued.

____ That wetlands are show on GIS system, but are not present on-site, and the attached letter from a licensed environmental professional has disproved their existence.

____ That if the site is in an OWR Flood Plain, all requirements of ADECA Floodplain Management are in compliance.

1/2/20

APPENDIX C – POST-CONSTRUCTION INSPECTION FORM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES CONSTRUCTION STORMWATER INSPECTION REPORT AND 8MP CERTIFICATION

Instructions: Please complete all questions. Respond with **"N/A"** as appropriate. Forms with incomplete or incorrect answers, or missing signatures will delay processing and may result in appropriate compliance action by the Department.

ITEM I.

Pennittee Name:	Facility/Site Name:
Pennit Number:	County:
Facility/Site Entrance Latitude & Longitude:	Phone Number:
Facility/Site Street Address or Location Description:	

ITEM II.

J.ist name of current ultimflte receivine; water(5) (indicate if through MS4) and the number of disturbed acres which drains through each treatment syslt:111 ur BMP: Add additional sheet(s) if necessary.

Receiving Water	Disturbed Acres	Discharge Point #

ITEM III.

☐**YES** ☐**NO**	I. Did discharges of sediment or other pollutants occur from the site? lf"Yes", please list a description of the discharge(s) and their location(s):
☐**YES** ☐**NO**	2. Were BMPs properly implemented and maintained at the time of inspection? lf"No", please provide location(s) and descriptions of BMPs that need maintenance:
YES **NO**	3. Are BMPs needed in addition to those already present onsite at the time of inspection? If "Yes" please provide a description and location of additional BMPs that are needed:
YES 0NO	4. Have any BMPs failed to operate as designed? lf"Yes", please provide location(s) and description ofBMP(s) that failed:
YES **NO**	5. Were there BMPs required by the CBMPP that were not installed or installed in a manner not consistent with the CBMPP? lf"Yes", please provide a description and location where the BMPs were not installed or installed incorrectly:

ITEM IV.

Weather Conditions:			
Discharge Point#	**Date, Time, and Location of Samples Collected**	**Sample Results**	**Analytical Method(s)**

"Based upon an inspection conducted on _____ (Date & Time) by the QCP, QCI, or a qualified person (List Name(s):_____ under the direct supervision of the QCP identified below, the QC! or QCP identified below certifies that effective structural and non-structural BMPs have been fully implemented and regularly maintained to the maximum extent practicable for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff, **except for those deficiencies noted above,** in accordance with the facility's CBMPP, good sediment, erosion, and other pollution control practices, and the requirements of the permit. I certify that discharges have been tested or evaluated for the presence ofnon-stormwater and non-authorized process wastewaters. 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 certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

Name & Designation of QCJ or QCP	Signature	Date

Name & Title of Permittee Responsible Official	Signature	Date