UNIVERSITY OF SOUTH ALABAMA

ANNUAL MS4 REPORT

2023 Reporting Period

Prepared on: 04/05/2024

Prepared by:

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251-649-4011

Contents

1. Certification and Introduction

Certification:

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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

The implementation of the University's Storm Water Management Program Plan is dependent upon several departments and individuals at the University. I serve as the University's responsible official and authorized representative as set forth in ADEM Admin. Code r. 335-6-6-.09. In addition, I serve to initiate programs intended to promote and ensure the Plan's objectives and as ADEM's primary point of contact for the referenced permit. Should you have any questions or require further documentation, please do not hesitate to contact me.

Signature: _____

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Title: Director-Safety and Environmental Compliance, University of South Alabama

Date: _____

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Introduction

The purpose of this annual report is to describe the University of South Alabama's (University) compliance efforts in support of the Storm Water Management Program Plan (SWMPP), and how the University is operating its SWMPP along with how it records and documents measurable success.

This report will provide an assessment of the program, describe public education and outreach initiatives, list planned storm water controls for the next reporting cycle and current construction site details. In addition, this report will provide an overall picture of efforts taken by the University to reduce the discharge of pollutants from the 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). Reports, ADEM permits, and relevant information on the University's MS4 initiatives can be found on the Department of Safety and Environmental Compliance website https://www.southalabama.edu/departments/environmental/.

The report has been prepared by Driven Engineering, Inc. (DEI) to provide for transparency in the self-assessment process. This document reports the on-going achievements of the University's reporting year and continues upon required work. Specific references for attainment of SWMPP goals and permit compliance have been verified through documentation provided by the University and observations and confirmation by DEI.

Site Description

The 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 ten miles of bike trails, indoor and outdoor pools, and a disc golf course. The Glenn Sebastian Nature Trail contains more than three miles of trails that wind through ninety-five acres of native pine and oak woodlands. The campus is bisected by Three Mile Creek (303(d) watercourse) and Twelve Mile Creek (off Hillcrest Property).

History of Plan

The University filed a Notice of Intent for the Small Municipal Separate Storm Sewer System (MS4) General Permit in June 2017. Each year the University has submitted an annual report to ADEM describing actions taken in that year. In 2018, the University submitted the first Storm Water Management Program Plan (SWMPP).

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

The SWMPP includes:

- Best Management Practices (BMP).
- Control techniques and system design, and engineering methods.
- Coordination among entities.
- Measurable goals for each of the BMPs.
- Person or persons responsible for implementing and coordinating BMPs.
- Minimum Control Methods.

2. Stormwater Management Self-Assessment

Assessments were conducted to report on the effectiveness of the goals and objectives set forth in the SWMPP related to the measurable goals and requirements of the MS4 permit pertaining to requirements not specifically listed in the SWMPP. This section discusses relevant achievements and on-going permit compliance matters not considered a measurable BMP in the SWMPP, as well as clarification on permit requirements not specifically indicated in the BMP goal(s) attainment of this report. The Subsequent section discusses measurable BMPs identified in the SWMPP.

The report is set out in a logical manner that identifies each measurable BMP indicated in the SWMPP by category, intent of the BMPs, goals the BMPs are committed to achieve, measure of the achievement of the goals, and anticipated future initiatives for the subsequent reporting year. This will help guide the University in its overall goal of being a good steward for the health of its direct and indirect impacts to Three Mile Creek and Twelve Mile Creek.

Core to the achievements and compliance with the MS4 permit is the Safety and Environmental Compliance (SEC) department, which oversees ADEM permitting and activities that may or may not reveal impact upon the requirements of the permit. This allows for a single point of contact and monitoring of not only the MS4 permit requirements, but any overlap with other permit responsibilities to ensure consistency with the University's goal to promote environmental stewardship.

The University has completed the marking of 90% of the stormwater inlets within the MS4 area. These markings, which were referenced in the 2022-2023 report, have been an effective educational tool that reminds the public, staff, and students where the inlets discharge to, as well as the importance of being a good steward to the environment. Stormwater inlet medallions are replaced and/or added as needed.

The University has continued to expand its development of infrastructure and building facilities. Recognizing that runoff from construction sites could adversely impact receiving waters, the University has taken an initiative-taking approach to limiting pollutant laden stormwater from leaving construction sites. Reviews are conducted for all sites, regardless of size, for permit compliance.

For sites greater than 1-acre, the University uses the ADEM NOI process, inclusive of individual CBMPP manuals and erosion control plans, through the NOI system. This allows for a consistent approach for the mitigation of runoff from construction sites and ensures that the University is current with ADEM's requirements. The University is in contract 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 that repairs to BMPs are required, the issues are communicated to the University project manager for immediate rectification. For sites less than 1-acre, the University conducts internal reviews with the assistance of an outside consulting firm to ensure construction stormwater impacts are minimized.

SEC has implemented additional controls for construction and development activities on campus with the creation of a land disturbance checklist. The checklist provides the manager of a construction project the means of assuring compliance with the University's environmental compliance regulations to minimize construction stormwater runoff.

Much of the success and accomplishments of the program along with its partners in 2023-2024 include:

- USA Southerners hosted a campus cleanup held on April 10, 2023, around the Intramural Fields, and housing area. A total of two bags were collected from ten participants.

Figure 1: Multiple students posing for a picture at the USA Southerners Campus Cleanup

- Students from the University of South Alabama participated in the SGA & AED Campus Cleanup, held on November 12, 2023, around the stadium tailgating and surrounding park areas. A total of twelve bags were filled with trash by twenty-eight student participants.

Figure 2: Participants grabbing trash at the SGA & AED Campus Cleanup

The USA Green Jags were founded in 2009 and are the university's primary student environmental club. The Green Jags promote sustainability and green movements by ways of campus and local clean-ups. They host a variety of events such as campus clean-up days, adopt-a-stream clean-up days, and garden workdays. The Green Jags hosted two garden days during 2023. Fourteen volunteers participated in the first garden day on October 22, 2023. Fifteen volunteers participated in the second garden day on November 12, 2023.

Figure 3: Green Jags Logo

Dr. Kevin White, P.E., former University professor of civil, coastal, and environmental engineering worked with ADEM to conduct research on the effectiveness of bio-retention swales to minimize runoff volume and to capture sediment from unvegetated areas, parking lots, and roads. Landscaped bio-retention swales were installed in five areas between Whiddon Administration Building and Meisler Hall in 2017. The swales have been regularly monitored since 2017 and have shown a 75% to 78% reduction of sediment loads for the capture area. As a result of the reduced sediment loads, it is estimated that there has been a 40 to 70% reduction in nitrates and phosphates. See appendix L for the latest evaluation of these bio-retention swales completed by a consulting engineering firm.

In June 2019, an additional humanity “parking lot bio-infiltration swales" project (funded by ADEM) was installed. The project incorporated similar bio-infiltration features that capture runoff from parking areas before it enters a highly eroding gully just upstream of its confluence with Three Mile Creek. This parking lot bio-infiltration project reduces sediment loading to Three Mile Creek, thus improving both habitat and water quality.

Figure 4: Dr. White and a student discussing bio-infiltration swales beside a flower bed

Five flyers were created that emphasize the importance of limiting unwanted constituents into the natural water systems that surround the USA campus. The flyers have been made available to the public in all elevators throughout the Campus. The flyers can be seen below:

Figure 5: Flyer 1 – This is a Swimming Pool, This is a Filter

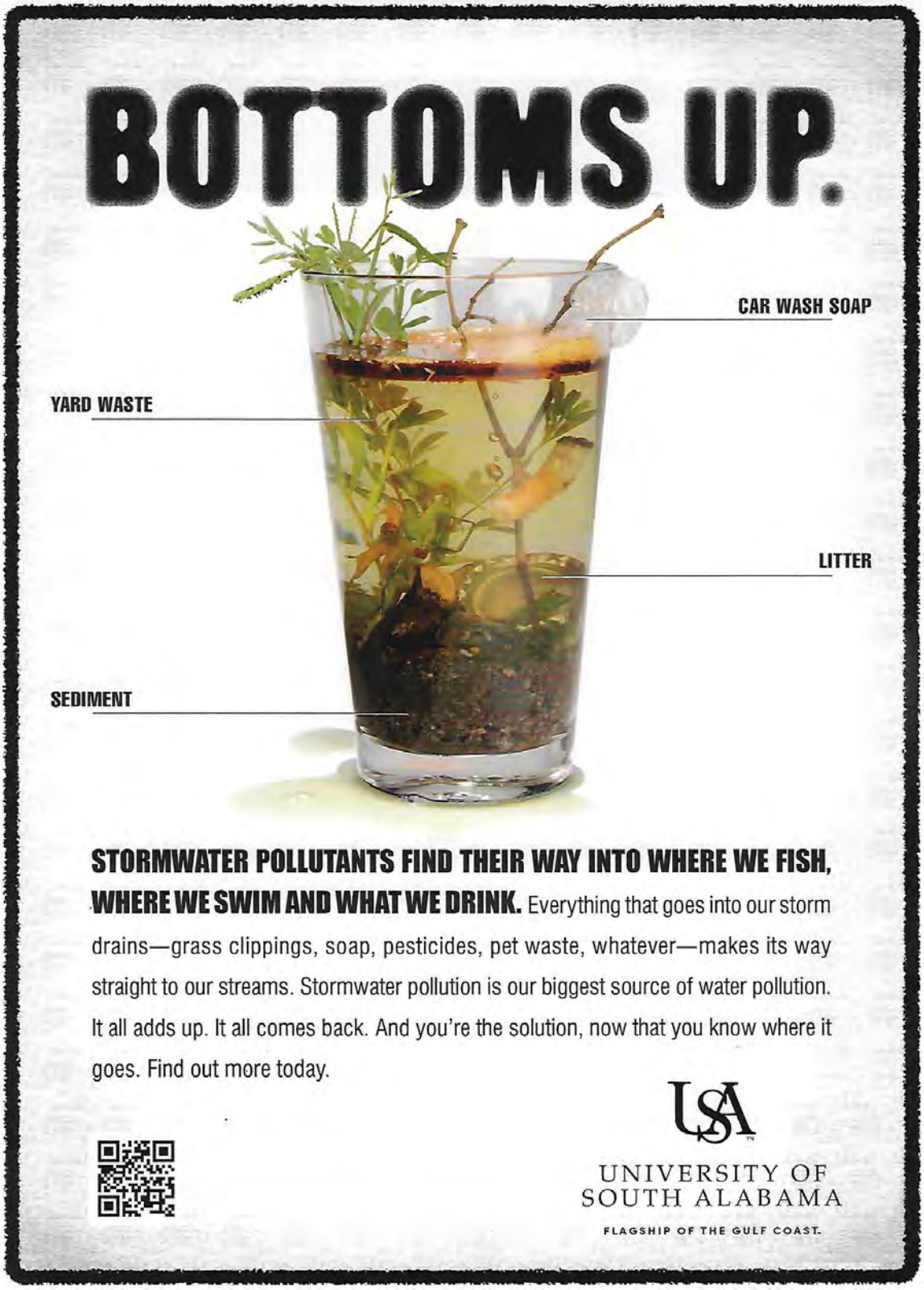


Figure 6: Flyer 2 – Bottoms Up

Figure 7: Flyer 3 - Preventing Polluted Runoff

Figure 8: Flyer 4 - Soak Up the Rain with Green Infrastructure (QR code at bottom of page for easy access to SEC website)

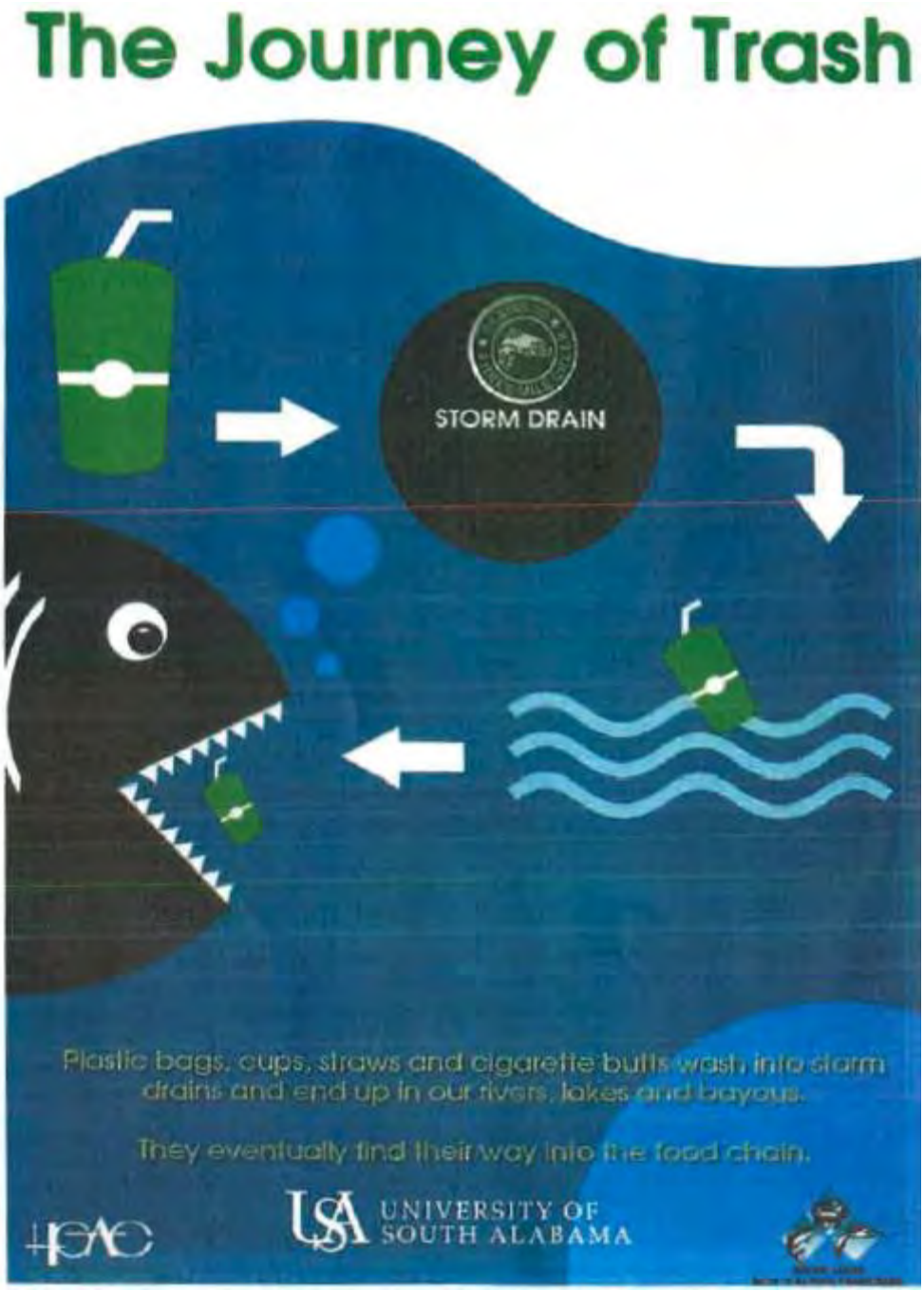


Figure 9: Flyer 5 - The Journey of Trash

The University recognizes specific requirements of the permit that are not SWMPP measured BMPs, which are also important. This report represents all additional commentary towards specific requirements of the permit that are not SWMPP measured, regardless of if it is accomplished or not yet met. They are listed below to help ensure transparency in the University's efforts of continuing to comply with the permit requirements. The items are numbered in a manner consistent with the ADEM permit for clarity and are as follows:

Part III.B.2.a.i.1 Requirement-Achieved -The latitude/longitude of all known outfalls on map: The map is being updated quarterly as IDDE inspections occur (See Appendix E).

Part III.B.2.a.i.3 Requirement-Achieved-Structural BMPs owned, operated, or maintained by the Permittee, if applicable: The map has been updated as of 02/20/2024 (See Appendix E). Currently there are no applicable BMPs to show on the map.

Part III.B.3.a.i Requirement-Achieved-Specific procedures for construction site plan (including erosion prevention and sediment controls) review and approval: The MS4 procedures must include an evaluation of plan completeness and overall BMP effectiveness: The Land Disturbance Checklist provides procedures for the review and approval of construction site plans, See Appendix I. An outside consultant reviews all construction plans.

Part III.B.3.a.iv Requirement-Achieved-Within 365 days of the effective date of the permit, develop and implement a construction site inspection form to include at least the items listed in Parts III.B.3.d.i.: Please see the Land Disturbance Checklist in Appendix I.

Part III.B.3.a.v Requirement-Achieved- Within 365 days of the effective date of the permit, maintain 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 MS4 Permittee must make the inventory available upon the Department's request: The University's Safety and Environmental Compliance Department acquires all said documentation and is available at the Department's request.

Part III.B.3.c.i. Requirement-Achieved-Procedures for site plan reviews as required by Part III.B.3.a.i: The Land Disturbance Checklist provides procedures for the review and approval of construction site plans, See Appendix I.

Part III.B.3.c ii. Requirement Achieved-A copy or link of the ordinance or other regulatory mechanism required by Part III.B.3.a.ii: In Appendix B of the 2024 SWMPP, the Land Disturbance Checklist contains a link to the Alabama Soil & Water Conservation Committee, a regulatory entity for erosion and sediment control.

Part III.B.4.a.i.1 Requirement-Achieved-Develop/revise and outline in the SWMPP procedures for the site plan review and approval process and a required re-approval process when changes to post-construction controls are required: Please see the Land Disturbance Checklist in Appendix B of the 2024 SWMPP.

Part III.B.4.a.i.2 Requirement-Achieved-Develop/revise and outline in the SWMPP procedures for a post-construction process to demonstrate and document that post-construction storm water measures have been installed per design specifications, which includes enforceable procedures for bringing non-compliant projects into compliance. The post-construction procedures can be found on page 26 of the 2024 SWMPP.

Part III.B.4.a.iii Requirement-Achieved-Encourage and Educate landowners and developers to incorporate the use of low impact development (LID)/green infrastructure where feasible. Information on low impact development)LID)/green infrastructure is available on the following websites: http://www.adem.alabama.gov/programs/water/waterforms/LIDHandbook.pdf;http://epa.gov/nps/lid. The Permittee shall include a narrative description in the SWMPP as to the means that will be taken to implement the requirement to encourage landowners and developers to incorporate the use of low impact development (LID)/green infrastructure; The procedures used are through the requirements of the ADEM NOI-Construction Stormwater Permit Process, and the SWMPP submitted on 03/24/2023 to ADEM includes those procedures. Please see page 26 of the 2023 SWMPP for more information.

Part III.B.5.a.iii 1-8 Requirement-Achieved-A Standard Operating Procedures (SOP) detailing good housekeeping practices to be employed at municipal facilities (that have the potential to discharge pollutants via stormwater runoff) and during municipal operations that may include, but not limited to, the following: (1) equipment washing, (2) street sweeping, (3) maintenance of municipal roads including public streets, roads, and highways, including but not limited to unpaved roads, owned, operated, or under the responsibility of the permittee, (4) storage, use, and disposal of chemicals, pesticide, herbicide and fertilizers (PHFs) and waste materials; (5) vegetation control, cutting, removal, and disposal of the cuttings; (6) vehicle fleets/equipment maintenance and repair; (7) external building maintenance; and (8) material storage facilities and storage yards. The University has established good housekeeping practices and made them a part of new employee orientation and works to educate visitors through the use of flyers and posters posted in various locations across the campus. The 2023 SWMPP also includes housekeeping BMPs in section 2.6 (Page 29).

Part III.B.5.a.iv Clarification / Requirement-Achieved-A program for inspecting municipal facilities for good housekeeping practices, including BMPs. The program shall include checklists and procedures for correcting noted deficiencies: Please see the Post-Construction Form in Appendix C of the 2023 SWMPP for the inspection procedure/checklist of storm water run-off.

Part III.B.5.b.iii Requirement-Achieved- Schedule for developing the SOP of good housekeeping practices required by Part III.B.5.a.iii: The following good housekeeping standard operating procedures are being maintained by USA personnel: Trims and fertilizes trees and shrubs, Mows and edges lawns, Polices grounds and picks up trash and debris, Waters plants as needed or directed, Hoes, weeds and otherwise tends flower beds, gardens and lawns, Collects, loads and hauls off trash, May operate a tractor or other groundskeeping equipment, implements and vehicles, Digs and plants flowers, shrubs and trees, May be responsible for performing groundskeeping and custodial duties in maintaining a small group of buildings and grounds, Installs wee fabrics and mulches, Stakes and guys trees, Removes debris, Cleans trash and debris from storm inlets, May apply chemical to lawns, trees, shrubs, flowers and paved surfaces as required, Solid waste collection campus-wide to include pick up of bagged, boxed and loose materials and transport by truck to dumpsters located throughout

campus for unloading, Assist in installation and repair of irrigation systems, Operate power washer to clean sidewalks and other paved surfaces.

Part III.B.5.b.iv Requirement-Achieved- An inspection plan and schedule to include inspection frequency, checklists, and any other materials needed to comply with Part III.B.5.a.iv: The Post-Construction Inspection Form can be found in Appendix C of the 2024 SWMPP. The post-construction procedures can be found on page 26 of the 2023 SWMPP. At this time, all inspection work is currently being outsourced.

Part IV.A.1 Requirement-Achieved-If the Permittee is relying on another entity to satisfy one or more requirements of this permit, then the Permittee must note that fact in the SWMPP. The permittee remains responsible for compliance with all requirements of this permit, except as provided by part III.B.3.b and reliance on another entity will not be a defense or justification for noncompliance if the entity fails to implement the permit requirements. All pertinent information pertaining to relying on outside consultants has been noted within the 2024 SWMPP.

3. Public Education and Outreach

The University of South Alabama's Safety and Environmental Compliance Office has implemented a public education and outreach program that distributes educational materials and information to the campus community. This education and outreach program is to inform University staff, students, and residents about preventing illicit discharges to Three Mile Creek 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-Stream" program signage and participation continues to grow and serves 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. The effectiveness of previously utilized BMPs have been analyzed and the evaluation of educational methodologies are already in place at The University of South Alabama.

Target Audience

The target audience is The University of South Alabama's campus community which includes faculty, staff, students, and visitors. Segments of this audience may be targeted based upon specific goals or regulatory requirements. The goal of the public education and outreach program is to reach all employees and students at the University of South Alabama within the life of the permitting cycle. It is also 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.

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.

Progress on Goals 2023-2024:

The USA SEC Department currently has five developed flyers. Flyer-1 was created in 2023, pertaining to spill containment, and the realization that individuals practically swim in the stormwater network deposits, in various rivers and lakes. Flyer-2 was also created in 2023, corresponding to water pollution and how each individual is the solution to a cleaner waterway.

	Flyer-3 pertains to source control BMPs in areas of pet waste, vehicle maintenance, and landscaping. Flyer-4 provides examples of low impact development, and how to reuse rainwater. Flyer-5 was created in 2021, reflecting on the general impacts litter has on water bodies, and how trash is delivered to streams.
Planned Activities for 2023-2024:	1. Modify current flyers as needed. 2. Monitor current operations; diagnose any new environmental risks with topic specific flyers when applicable. 3. Continue with distribution and posting.
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. Impacts of illicit discharges and how to report them.

Measurable Goals:	Stormwater Quality website.
Progress on Goals 2023-2024:	The 2024 SWMPP has been made available to the public via the USA SEC Department website. USA Storm Water Management Program Plan (southalabama.edu). USA has maintained the website and updated the information being provided to ensure consistency with the public education and outreach program and to track usage. This website was viewed 3,423 times in 2023. http://www.southalabama.edu/departments/environmental/index.html
Planned Activities for 2023-2024:	Continue maintaining the website and update the information being provided to ensure consistency with the public education and outreach program and to track usage. 2024 SWMPP to be made available to the public, when applicable.
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 of advertisements.

Progress on Goals 2023-2024: The USA SEC Department currently has five developed flyers. Flyer-1 was created in 2023, pertaining to spill containment, and the realization that individuals practically swim in the stormwater network deposits, in various rivers and lakes. Flyer-2 was also created in 2023, corresponding to water pollution and how each individual is the solution to a cleaner waterway. Flyer-3 pertains to source control BMPs in areas of pet waste, vehicle maintenance, and landscaping. Flyer-4 provides examples of low impact development, and how to reuse rainwater. Flyer-5 was created in 2021, reflecting on the general impacts litter has on water bodies, and how trash is delivered to streams.

Planned Activities for 2023-2024: SEC to maintain good records regarding the advertisements and will report the type and frequency of distribution.

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, in conjunction with other sources, 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.

Progress on Goals 2023-2024: There were no reporting incidents and/or visual confirmation of illegal dumping at the USA campus in 2022. A “Toolbox Talk” program has been created for all facility staff at the University as a 5-year refresher training. The discussion topics can be seen in appendix C. Flyers have also been distributed across campus that describes illegal dumping and littering. New employee

orientation educates new University employees on the impacts of illegal dumping and littering. See appendix C regarding the new employee orientation PowerPoint.

Planned Activities for 2023-2024: Continue with education programs to be affiliated with 100% of campus community. SEC to review, edit, and modify programs to ensure relevancy.

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.

Progress on Goals 2023-2024: A total of 46 BMP stormwater inspections were conducted, two of which failed, and were reported as incidents. The two failed BMP inspections are currently being addressed. There were no additional incidents reported on the USA SEC Department website in 2023. William Guess has informed Student Community Groups of reporting procedures. Construction site runoff reporting is included in the "Confidential Environmental/ Hazard Report" on the Safety and Environmental Compliance website. Confidential Environmental/Hazard Report | Department of Safety and Environmental Compliance (southalabama.edu).

Planned Activities for 2023-2024: Continue with current programs, add more mechanisms to inform the campus community where/when applicable.

Target Audience: General public, faculty/staff, students, Visitors, and Contractors

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 MS4 Advisory 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 MS4 Advisory Committee on water quality issues.
Progress on Goals 2023-2024:	There was a total of one MS4 Advisory Committee meeting during 2023.
Planned Activities for 2023-2024:	Continue with quarterly meetings starting back in 2024 and training as part of employee orientation will resume as well.
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. This group 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.
Progress on Goals 2023-2024:	A total of 462 employees/contractors/construction supervisors were educated on erosion and sediment control on construction sites, in accordance with the MS4 permit. Training programs such as the "Illicit Discharge Toolbox Talk" for a permit refresher, and the "New Employee Orientation Revision" for new hires, have continued in 2023. There has been no new information, thus no update required at this moment. See Appendix C for the new orientation PowerPoint, as well as the toolbox talk.

Planned Activities for 2023-2024: Update training program with edited or new information as required.

Target Audience: Contractors, Staff and Project Managers

BMP-8: Adopt a Stream Signage

The University has installed signage that encourage the general public, staff, and students to protect waterways and to Increase public awareness of the Campus' nonpoint source pollution and water quality issues.

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

Progress on Goals 2023-2024: Two campus cleanup days took place in 2023, totaling 14 bags of trash collected.

Planned Activities for 2023-2024: Update training program with edited or new information as required.

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

4. Public Involvement and Participation

The University of South Alabama is implementing a public involvement program which will create opportunities for the campus community to get involved in the Storm Water Management Program (SWMP). 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 SWMP implementation by public notice of MS4 Advisory 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 Storm Water Management Program Plan (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.

BMP-1: MS4 Advisory Committee

To oversee the implementation of the SWMPP and provide advice and consultation, SEC created the MS4 Advisory Committee (previously incorrectly referred to as the Storm Water Management Committee). The MS4 Advisory Committee is made up of various members of the campus community who have a stake in 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 need 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 and Environmental Compliance Website.
Progress on Goals 2023-2024:	Due to miscommunication, the Storm Water Management Committee is actually called the MS4 Advisory Committee. The committee conducted one meeting in 2023 .
Planned Activities for 2023-2024:	MS4 Advisory Committee to continue meetings in 2024.

Target Audience: Committee Members, Campus Community

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 medallions, which state, "Drains to Three Mile Creek" or "Drains to 12 Mile Creek" and adhesive to attach said medallions. 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.

Progress on Goals 2023-2024: There was a total of 126 medallions marked in 2023, with four being replacements. See Appendix K regarding the inlet medallions. Approximately 90% of all inlets along Three Mile Creek and Twelve Mile Creek are marked with medallions.

Planned Activities for 2023-2024: USA SEC Department plans to place as many medallions as possible on any unmarked inlets along Three Mile Creek. Once all construction is finished at the Hillcrest property (Twelve Mile Creek Outfall), USA SEC Department will identify the number of new inlet medallions needed, and start with placement.

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

5. Illicit Discharge Detection and Elimination

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."

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:

Industrial and Non-Storm Water discharges are not permitted under this program. There shall be no trace of any storm water or non-storm water discharge associated with industrial activity unless the discharges are regulated by a separate NPDES permit.

The University may allow, in accordance with 40 CFR 122.26(d)(2)(iv)(B)(1), 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.
- Discharges from portable water sources.
- Foundation and footing drains.
- Air conditioning drains.
- Irrigation water (not consisting of treated or untreated wastewater).
- Rising ground water and springs.
- Water from crawl space pumps and footing drains.
- Lawn watering runoff.
- Individual residential car washing, to include charitable carwashes.
- Residual street wash water.
- Discharge or flows from firefighting activities (including fire hydrant flushing).
- Flows from riparian habitats and wetlands.

- Dechlorinated swimming pool discharges.
- 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.

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.

Progress on Goals 2023-2024: A total of 3 SOPs were updated in 2023. No policies were updated.

Planned Activities for 2023-2024: Continue with policy and SOP updates as needed and continue monitoring for successful implementation.

Target Audience: Faculty/staff

BMP-2: Authorization to Control Improper Disposal of Discharges

Measurable Goals:	Identify Department(s) that have authority to direct those causing the illicit discharge to cease discharge activities.
Progress on Goals 2023-2024:	Mr. William Guess (Director, Safety and Environmental Compliance) has been given authority requiring activities to cease if generating improper discharges. See current letter of authority in Appendix F. There has been no change regarding the decrease in reported illicit discharges (0 reported illicit discharges).
Planned Activities for 2023-2024:	SEC to continue exercising authority to cause improper activities to cease.
Target Audience:	Faculty/staff

BMP-3: Dry Weather Screening

Measurable Goals:	Dry weather screening of approximately 15% of major outfalls was to occur annually with all (100%) of major outfalls being screened at least once during the five-year period.
Progress on Goals 2023-2024:	100% Complete for the yearly requirement. Seven inspections were conducted in 2023. The dry weather screening percentage complies with the 15% minimum. The outfall inspections for 2023 can be found in Appendix B.
Planned Activities for 2023-2024:	Continue with screening program as required. The 5-year 100% outfall inspections began in Quarter 2 of 2023. There are a total of 26 outfalls to be inspected every five years. Four IDDE inspections per year is the minimum requirement.
Target Audience:	Staff

BMP-4: Stormwater Network Mapping

Measurable Goals:	Review of storm drain location map for updates on a yearly basis.
Progress on Goals 2023-2024:	The map was reviewed and updated in 2023.
Planned Activities for 2023-2024:	Review and update as needed
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's website.
Progress on Goals 2023-2024:	Illicit discharge reporting can be done through the "Confidential Environmental/ Hazard Report" on USA's website. The website had 3,423 hits in 2023. There were 0 confidential reports for 2023. The confidential reporting system was tested three times by Office Staff, all of which were successful in the notification process. Confidential Environmental/Hazard Report | Department of Safety and Environmental Compliance (southalabama.edu)
Planned Activities for 2023-2024:	Review and update as needed
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.
Progress on Goals 2023-2024:	100% of trained staff considered training effective
Planned Activities for 2023-2024:	Review and update screening as needed
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.
Progress on Goals 2023-2024:	For 2023, there were zero reported improper discharges. The "Confidential Environmental/Hazard Report" on USA's website is used for all environmental/hazard issues, including the reporting of non-storm water discharges into storm drains. Confidential Environmental/Hazard Report | Department of Safety and Environmental Compliance (southalabama.edu). Functionality of the confidential reporting system has been confirmed.
Planned Activities for 2023-2024:	Update and monitor reporting system as necessary.
Target Audience:	General public, faculty/staff, students

BMP-8: Maintenance

Measurable Goals:	Maintain and update campus storm water conveyance system, including Three Mile Creek outfalls.
Progress on Goals 2023-2024:	Conducted inspections as required and in conjunction with dry weather reporting and kept general campus maintained. Campus groundskeepers monitor conditions and maintain inlets and outfalls as needed. Logs for this work are maintained by the grounds department and are available on request.
Planned Activities for 2023-2024:	Continue with maintenance activities.
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.
Progress on Goals 2023-2024:	The prohibition of dry weather flows, along with the rest of the MS4, was presented at a total of four community meetings in 2023 (SEC Annual Education, Universal Waste Presentation, Building and Safety Compliance meeting, and New Student Orientation). 100% of community comments/responses received indicated that they considered the training effective.
Planned Activities for 2023-2024:	Continue with public education and outreach. Review and update dry weather flow education as needed.
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. USA SEC Department to repeat training at an interval of every 5-years or less.
Progress on Goals 2023-2024:	IDDE Awareness Training is completed via new employee orientation. Illicit Discharge Toolbox Talk has also been implemented as a permit refresher. See Appendix C for both training materials . 100% of trained staff considered the training

effective for both sets of training. There has been no change in the percentage due to the fact that 100% of trained staff considered training effective in 2022 as well.

Planned Activities for 2023-2024: Provide training to all new hires during department orientation and review/update IDDE Awareness training as needed.

Target Audience: Faculty, staff

BMP-11: Analyze Illicit Discharges

Measurable Goals: Analyze data of illicit discharges.

Progress on Goals 2023-2024: Seven outfalls were analyzed in 2023. No illicit discharges were discovered. There is no change in the percentage of illicit discharges due to the fact there were zero in 2022 and 2023. The 5-year 100% outfall inspections began a new rotation in Quarter 2 of 2023.

Planned Activities for 2023-2024: Continue monitoring outfalls for illicit discharges in order to target education to prevent them.

Target Audience: Staff

BMP-12: Three Mile Creek & 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.

Progress on Goals 2023-2024: 100% compliance with quarterly monitoring program test results in 2023. Quarterly monitoring has been conducted and provided for in this report. Test results have been obtained from Analytical Chemical Testing Lab (ACT Lab).

Planned Activities for 2023-2024: Continue with the BMP.

Target Audience: General public, faculty/staff, students

6. 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 performs the associated inspections. The success of the construction site runoff control measure BMPs will be evaluated through analysis of each BMP goal.

BMP-1: Education

Training to be developed and provided to the University of South Alabama project supervisors and managers. This training will include 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 QCI training 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.

Progress on Goals 2023-2024: There were a total of 67 supervisors and managers trained in 2023. 100% of trained staff considered the training effective. There is no change due to the fact that 100% of trained staff considered the training effective in 2022.

Planned Activities for 2023-2024: Continue with the BMP.

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: Number of plans reviewed.

Progress on Goals 2023-2024: There was one set of plans reviewed in 2023.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: Staff

BMP-3: Construction Site Inspections

The University of South Alabama has developed standardized procedures for conducting construction site inspections to ensure compliance with storm water management requirements. The University of South Alabama will review existing procedures for tracking construction activities and revise as needed.

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 Advisory Committee received a copy of 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.

Progress on Goals 2023-2024: From a total of 46 BMP inspections, seven BMP's contained deficiencies. This is being addressed by the USA SEC Department, and corrective actions are being incorporated. This is an increase in violations from last year, considering there were two BMP violations in 2022.

Planned Activities for 2023-2024: Continue with BMP.

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.

Progress on Goals 2023-2024: Seven issues were reported regarding construction activity problems. 100% of issues were reported. The "Confidential Environmental/Hazard Report" on USA's website is used for all environmental/hazard issues, including the reporting of storm water and storm quality concerns. Confidential Environmental/Hazard Report | Department of Safety and Environmental Compliance (southalabama.edu). Functionality of the confidential reporting system has been confirmed. There has been a total of 3,423 website hits in 2023. The phone number for reporting storm water/storm quality concerns is the main line for the USA SEC Department (8 AM – 5 PM, Monday – Friday): (251) 460-7070. For any concerns after hours, please call Mr. William Guess at (251) 709-7783.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: Staff

7. 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 preconstruction conditions into consideration throughout the design, construction, and postconstruction 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 procedures for a post-construction process to demonstrate and document that post-construction storm water measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance. These procedures are bound within contract documents, completion bonds, maintenance bonds, and performance bonds. The documents either compel the contractor to rectify non-compliant project issues prior to acceptance by the University or provides for remedies during the warranty period.

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 I.

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.

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 Goals: Report on number of plans reviewed.

Progress on Goals 2023-2024: There was one set of plans reviewed in 2023.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: Staff

BMP-2: Three Mile Creek & 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, and Fecal coliform.

Progress on Goals 2023-2024: 100% compliance attained regarding quarterly inspections on the biological health of Three Mile Creek and Twelve Mile Creek for BOD, COD, DO, E. coli, and Fecal coliform in 2023.

Planned Activities for 2023-2024: Continue with BMP and hold consultants accountable to ensuring these tests are completed quarterly as required.

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.

Progress on Goals 2023-2024: Annual inspections have been made by USA SEC Staff. No maintenance/replacement has been needed.

Planned Activities for 2023-2024: Continue with BMP.

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 postconstruction BMP's.
Progress on Goals 2023-2024:	Postconstruction BMP information is kept by the USA Project Management Department and is available upon request.
Planned Activities for 2023-2024:	Continue with BMP.
Target Audience:	Staff

BMP-5: Stormwater Network Mapping

Measurable Goals:	Review of storm drain location map for updates on a yearly basis.
Progress on Goals 2023-2024:	The map was reviewed and updated in 2023.
Planned Activities for 2023-2024:	Continue with BMP.
Target Audience:	Staff

8. 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.

Progress on Goals 2023-2024: Maintained roads as problems occurred. There were no phone calls for individual road defects for 2022 or 2023, thus no change.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: General Public, faculty/staff, students

Measurable Goals (b): Number of alternate procedures created through the reporting year.

Progress on Goals 2023-2024: A total of 3 SOPs were updated in 2023.

Planned Activities for 2023-2024: Continue with BMP.

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. Currently a three person Grounds Department crew are dedicated full time to patrolling the campus and internal roadways to police areas for litter. Litter was 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.

Progress on Goals 2023-2024: A three-person Grounds Department crew is dedicated full time to patrolling the campus and internal roadways to police areas for litter. See Appendix J regarding the groundskeeper essential job functions. All litter was deposited into 1-20 yard and 3-30 yard roll offs on-site. The roll offs were dumped a total of 64 times in 2023 for a total of 1,880 yards removed from campus and prevented from entering downstream storm systems. There were no reports of litter received by the SEC Department.

Planned Activities for 2023-2024: Continue with scheduled activities.

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

Progress on Goals 2023-2024: There were a total of twenty five vehicle leaks reported for University vehicles in 2023. Scheduled repairs have been made.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: Staff

BMP-4: Hazardous Material Management

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.

Progress on Goals 2023-2024: No hazardous materials were measured. The University has an existing protocol for the management of hazardous materials and is incorporated into the overall MS4 requirements. The protocol complies with the RCRA permit. Department functions involving hazardous waste and materials management are shown in Appendix G.

Planned Activities for 2023-2024: Continue with BMP.

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.

Progress on Goals 2023-2024: 462 employees have been trained. 100 percent considered the training effective. Thus, being the same percentage as 2022, no change has been noted.

Planned Activities for 2023-2024: Continue with BMP.

Target Audience: Staff

Appendix A - Three Mile Creek & Twelve Mile Creek TMDL Data Collection, Results, and Commentary

This appendix includes reports from ACT Lab for water sample testing on Three Mile Creek and Twelve Mile Creek.

ANALYTICAL CHEMICAL TESTING
LABORATORY, INC.
Consulting Chemists, Scientists, & Engineers

March 13, 2023

Report To: Driven Engineering, Inc.
8005 Morris Hill Road
Semmes, AL 36575

Report Of: **USA MS4 - Three-Mile Creek Locations Upstream/Downstream**
Proposal #1: 1-1, 1-2 Locations -Sampling, Testing 1st Quarter 2023
Purchase Order #: 17005

Job #: 23-3793

Attention: Mr. Andrew Watley, E.I.T.

Analytical Chemical Testing Laboratory, Inc. has completed the analysis of water samples taken from the listed locations above. The samples were analyzed as directed, and the following is reported:

SAMPLED: 03/01/23 by R. Naman, S. Lindqvist
ANALYZED: 03/01/23–03/07/23 by RMN, SWL, SRC
REVIEWED: 03/13/23 by R. Naman

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0301-1 **Grab Sample Upstream Location 1-1 USA MS4** Sampled: 03/01/23 @ 1117	**Dissolved Oxygen**	**5.93 p.p.m.**	**0301-1117-SWL**
	Total Coliform	**0 CFU/100mL**	**0301-1228-SWL**
	Fecal Coliform	**0 CFU/100mL**	**0301-1233-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**4.7 p.p.m.**	**0301-1859-SRC**
	Chemical Oxygen Demand (C.O.D.)	**5.14 p.p.m.**	**0302-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0301-2 **Grab Sample** **Downstream** **Location 1-2 USA MS4** Sampled: 03/01/23 @ 1100	**Dissolved Oxygen**	**6.60 p.p.m.**	**0301-1110-SWL**
	Total Coliform	**0 CFU/100mL**	**0301-1236-SWL**
	Fecal Coliform	**44 CFU/100mL**	**0301-1240-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**2.9 p.p.m.**	**0301-1901-SRC**
	Chemical Oxygen Demand (C.O.D.)	**12.4 p.p.m.**	**0302-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

METHODS: Standard Methods for the Examination of Water and Wastewater, 21st Edition.
SW-846, Portable D.O. Meter-HACH.

We appreciate this opportunity to be of service. If there are any questions, please feel free to call.

Very truly yours,

ANALYTICAL CHEMICAL TESTING LABORATORY, INC.

Robert M. Naman, President
Analytical Chemist
AL Inspector Certification# AIN0221694867
Qualified Credentialed Inspector #T6112
Fellow, American Institute
of Chemists, Reg. 15488

RMN/SWL
Attachment: Custody Form

ANALYTICAL CHEMICAL TESTING
LABORATORY, INC.
Consulting Chemists, Scientists, & Engineers

March 13, 2023

Report To: Driven Engineering, Inc.
8005 Morris Hill Road
Semmes, AL 36575

Report Of: **USA MS4 - Twelve-Mile Creek Locations Upstream/Downstream**
Proposal #1: 1-3, 1-4 Locations -Sampling, Testing 1st Quarter 2023
Purchase Order #: 17005

Job #: 23-3793

Attention: Mr. Andrew Watley, E.I.T.

Analytical Chemical Testing Laboratory, Inc. has completed the analysis of water samples taken from the listed locations above. The samples were analyzed as directed, and the following is reported:

SAMPLED: 03/01/23 by R. Naman, S. Lindqvist
ANALYZED: 03/01/23–03/07/23 by RMN, SWL, SRC
REVIEWED: 03/13/23 by R. Naman

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0301-3 **Grab Sample Upstream Location 1-3 USA MS4** Sampled: 03/01/23 @ 1128	**Dissolved Oxygen**	**10.80 p.p.m.**	**0301-1135-SWL**
	Escherichia Coliform	**180 CFU/100mL**	**0301-1248-SWL**
	Fecal Coliform	**180 CFU/100mL**	**0301-1245-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**2.4 p.p.m.**	**0301-1904-SRC**
	Chemical Oxygen Demand (C.O.D.)	**14.1 p.p.m.**	**0302-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0301-4 **Grab Sample** **Downstream** **Location 1-4 USA MS4** Sampled: 03/01/23 @ 1135	**Dissolved Oxygen**	**9.42 p.p.m.**	**0301-1135-SWL**
	Escherichia Coliform	**1 CFU/100mL**	**0301-1252-SWL**
	Fecal Coliform	**5 CFU/100mL**	**0301-1256-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**12.0 p.p.m.**	**0301-1909-SRC**
	Chemical Oxygen Demand (C.O.D.)	**66.4 p.p.m.**	**0302-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

METHODS: Standard Methods for the Examination of Water and Wastewater, 21st Edition.
SW-846, Portable D.O. Meter-HACH.

We appreciate this opportunity to be of service. If there are any questions, please feel free to call.

Very truly yours,

ANALYTICAL CHEMICAL TESTING LABORATORY, INC.

Robert M. Naman, President
Analytical Chemist
AL Inspector Certification# AIN0221694867
Qualified Credentialed Inspector #T6112
Fellow, American Institute
of Chemists, Reg. 15488

RMN/swl
Attachment: Custody Form

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative										Chain of Custody Page ___ of ___
Driven Engineering **8005 Morris Hill Rd** **Semmes, AL 36575**			Dissolved Oxygen	E. Coli	Fecal Coliform	Biochemical Oxygen Demand	Chemical Oxygen Demand						**Analytical Chemical Testing Laboratory Inc.** **(251)479-9205** **P.O. Box 161198** **Mobile, AL 36616** **bobnaman@gmail.com**
Report to: **Andrew Watley**	Email To:												SDG #
Project Description: USA - MS4 Three- and Twelve- Mile Creek	City/State Collected: **Mobile, AL**	Please Circle: PT MT CT ET											Table #
Phone:	Client Project #	Lab Project # **23-3793**											Acctnum:
Collected by (print): **Spangler Lindqvist**	Site/Facility ID #	P.O. #											Template:
Collected by (signature):	***Rush?*** (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote #											Prelogin:
Immediately Packed on Ice N ___ Y ___	Date Results Needed	No. of Cntrs											PM:
													PB:
													Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		Remarks	Sample # (lab only)
1-1	Grab	GW		03/01/23	1117	4		
1-2	Grab	GW		03/01/23	1100	4		
1-3	Grab	GW		03/01/23	1128	4	no sample	
1-4	Grab	GW		03/01/23	1135	4		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Swl

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Spangler Lindqvist	03/01/23	1200			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

ANALYTICAL CHEMICAL TESTING
LABORATORY, INC.
Consulting Chemists, Scientists, & Engineers

June 15, 2023

Report To: Driven Engineering, Inc.
8005 Morris Hill Road
Semmes, AL 36575

Report Of: **USA MS4 - Twelve-Mile Creek Locations Upstream/Downstream**
Proposal #1: 1-1, 1-2, 1-3, 1-4 Locations -Sampling, Testing 2nd Quarter 2023
Purchase Order #: 17005

Job #: 23-3793

Attention: Mr. Andrew Watley, E.I.T.

Analytical Chemical Testing Laboratory, Inc. has completed the analysis of water samples taken from the listed locations above. The samples were analyzed as directed, and the following is reported:

SAMPLED: 06/07/23 by S. Lindqvist
ANALYZED: 06/07-14/23 by SWL, JJZ
REVIEWED: 06/15/23 by R. Naman

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0607-1 **Grab Sample Upstream Location 1-1 USA MS4** Sampled: 06/07/23 @ 1020	**Dissolved Oxygen**	**4.68 p.p.m.**	**0607-1020-SWL**
	Escherichia Coliform	**>300 CFU/100mL**	**0607-1156-SWL**
	Fecal Coliform	**0 CFU/100mL**	**0607-1201-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0608-1130-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**0608-1100-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0607-2 **Grab Sample Upstream Location 1-2 USA MS4** Sampled: 06/07/23 @ 1030	**Dissolved Oxygen**	**5.50 p.p.m.**	**0607-1030-SWL**
	Escherichia Coliform	**>300 CFU/100mL**	**0607-1206-SWL**
	Fecal Coliform	**8 CFU/100mL**	**0607-1209-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0608-1130-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**0608-1100-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0607-3 **Grab Sample Upstream Location 1-3 USA MS4** Sampled: 06/07/23 @ 1100	**Dissolved Oxygen**	**>20.00 p.p.m.**	**0607-1100-SWL**
	Escherichia Coliform	**180 CFU/100mL**	**0607-1212-SWL**
	Fecal Coliform	**>300 CFU/100mL**	**0607-1215-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0608-1130-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**65.9 p.p.m.**	**0608-1100-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0607-4 **Grab Sample Upstream Location 1-4 USA MS4** Sampled: 06/07/23 @ 1055	**Dissolved Oxygen**	**10.64 p.p.m.**	**0607-1102-SWL**
	Escherichia Coliform	**8CFU/100mL**	**0607-1217-SWL**
	Fecal Coliform	**60 CFU/100mL**	**0607-1220-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0608-1130-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**50.7 p.p.m.**	**0608-1100-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

METHODS: Standard Methods for the Examination of Water and Wastewater, 21st Edition.
SW-846, Portable D.O. Meter-HACH.

We appreciate this opportunity to be of service. If there are any questions, please feel free to call.

Very truly yours,

ANALYTICAL CHEMICAL TESTING LABORATORY, INC.

Robert M. Naman, President
Analytical Chemist
AL Inspector Certification# AIN0222694867
Qualified Credentialed Inspector #T6112
Fellow, American Institute
of Chemists, Reg. 15488

RMN/SWL
Attachment: Custody Form

Company Name/Address:	Billing Information:	Pres Chk	Analysis / Container / Preservative										Chain of Custody Page ___ of ___
Driven Engineering **8005 Morris Hill Rd** **Semmes, AL 36575**			Dissolved Oxygen	E. Coli	Fecal Coliform	Biochemical Oxygen Demand	Chemical Oxygen Demand						**Analytical Chemical Testing Laboratory Inc.** **(251)479-9205** **P.O. Box 161198** **Mobile, AL 36616** **bobnaman@gmail.com**
Report to: **Andrew Watley**	Email To:												
Project Description: USA - MS4 Three- and Twelve- Mile Creek	City/State Collected: **Mobile, AL**	Please Circle: PT MT CT ET											
Phone:	Client Project #	Lab Project # **23-3793**											SDG #
Collected by (print): **Spangler Lindqvist**	Site/Facility ID #	P.O. #											Table #
Collected by (signature):	***Rush?*** (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote #											Acctnum: Template: Prelogin: PM: PB:
Immediately Packed on Ice N___ Y___		Date Results Needed											Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
1-1	Grab	GW		06/07/23	1020	4		
1-2	Grab	GW		06/07/23	1030	4		
1-3	Grab	GW		06/07/23	1100	4		
1-4	Grab	GW		06/07/23	1055	4		

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
SwL

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Spangler Lindqvist	06/07/23	1100			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

ANALYTICAL CHEMICAL TESTING
LABORATORY, INC.
Consulting Chemists, Scientists, & Engineers

September 28, 2023

Report To: Driven Engineering, Inc.
8005 Morris Hill Road
Semmes, AL 36575

Report Of: USA MS4 - Twelve-Mile Creek Locations Upstream/Downstream
Proposal #1: 1-1, 1-2, 1-3, 1-4 Locations -Sampling, Testing 3rd Quarter 2023
Purchase Order #: 17005

Job #: 23-3793

Attention: Mr. Andrew Watley, E.I.T.

Analytical Chemical Testing Laboratory, Inc. has completed the analysis of water samples taken from the listed locations above. The samples were analyzed as directed, and the following is reported:

SAMPLED: 09/21/23 by S. Lindqvist
ANALYZED: 09/21- by SWL, JJZ
REVIEWED: 09/25/23 by R. Naman

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0921-1 **Grab Sample Upstream Location 1-1 USA MS4** Sampled: 09/21/23 @ 1144	**Dissolved Oxygen**	**6.46 p.p.m.**	**0921-1146-SWL**
	Escherichia Coliform	**>300 CFU/100mL**	**0921-1230-SWL**
	Fecal Coliform	**0 CFU/100mL**	**0921-1232-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0922-1005-HMR**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**0928-1245-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0921-2 **Grab Sample Downstream Location 1-2 USA MS4** Sampled: 09/21/23 @ 1159	**Dissolved Oxygen**	**7.48 p.p.m.**	**0921-1203-SWL**
	Escherichia Coliform	**>300 CFU/100mL**	**0921-1235-SWL**
	Fecal Coliform	**60 CFU/100mL**	**0921-1237-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<60 p.p.m.**	**0922-1005-HMR**
	Chemical Oxygen Demand (C.O.D.)	**94.6 p.p.m.**	**0928-1245-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0921-3 **Grab Sample Upstream Location 1-3 USA MS4** Sampled: 09/21/23 @ 1050	**Dissolved Oxygen**	**No Discharge**	**0921-1050-SWL**
	Escherichia Coliform	**No Discharge**	**0921-1050-SWL**
	Fecal Coliform	**No Discharge**	**0921-1050-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**No Discharge**	**0921-1050-SWL**
	Chemical Oxygen Demand (C.O.D.)	**No Discharge**	**0921-1050-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-0921-4 **Grab Sample Downstream Location 1-4 USA MS4** Sampled: 09/21/23 @ 1102	**Dissolved Oxygen**	**4.62 p.p.m.**	**0921-1107-SWL**
	Escherichia Coliform	**>300CFU/100mL**	**0921-1240-SWL**
	Fecal Coliform	**80 CFU/100mL**	**0921-1243-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**0922-1005-HMR**
	Chemical Oxygen Demand (C.O.D.)	**31.8 p.p.m.**	**0928-1245-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per liter = mg/L

METHODS: Standard Methods for the Examination of Water and Wastewater, 21st Edition.
SW-846, Portable D.O. Meter-HACH.

We appreciate this opportunity to be of service. If there are any questions, please feel free to call.

Very truly yours,

ANALYTICAL CHEMICAL TESTING LABORATORY, INC.

Robert M. Naman, President
Analytical Chemist
AL Inspector Certification# AIN0222694867
Qualified Credentialed Inspector #T6112
Fellow, American Institute
of Chemists, Reg. 15488

RMN/SWL
Attachment: Custody Form

Company Name/Address:
Driven Engineering
8005 Morris Hill Rd
Semmes, AL 36575

Billing Information:

Report to: **Andrew Watley**

Email To:

Project Description: USA - MS4 Three- and Twelve- Mile Creek

City/State Collected: **Mobile, AL**

Please Circle: PT MT CT ET

Phone:

Client Project # :

Lab Project # **23-3793**

Collected by (print): **Spangler Lindqvist**

Site/Facility ID #:

P.O. #:

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____Same Day ____Five Day
____Next Day ____5 Day (Rad Only)
____Two Day ____10 Day (Rad Only)
____Three Day

Quote #:

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Dissolved Oxygen	E. Coli	Fecal Coliform	Biochemical Oxygen Demand	Chemical Oxygen Demand						Remarks	Sample # (lab only)
1-1	Grab	GW		09/21/23	1144	4	X	X	X	X	X							
1-2	Grab	GW		09/21/23	1159	4	X	X	X	X	X							
1-3 (No Discharge)	Grab	GW		09/21/23	1050	4	X	X	X	X	X						no sample	
1-4	Grab	GW		09/21/23	1102	4	X	X	X	X	X							

Chain of Custody Page ___ of ___

Analytical Chemical Testing Laboratory Inc.

(251)479-9205

P.O. Box 161198
Mobile, AL 36616
bobnaman@gmail.com

SDG #

Table #

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Swl

Samples returned via:
__UPS __FedEx __Courier _____

Tracking #

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact:	__NP __Y __N
COC Signed/Accurate:	__Y __N
Bottles arrive intact:	__Y __N
Correct bottles used:	__Y __N
Sufficient volume sent:	__Y __N
If Applicable	
VOA Zero Headspace:	__Y __N
Preservation Correct/Checked:	__Y __N
RAD Screen <0.5 mR/hr:	__Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Spangler Lindqvist	09/21/23	1200			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

ANALYTICAL CHEMICAL TESTING
LABORATORY, INC.
Consulting Chemists, Scientists, & Engineers

December 29, 2023

Report To: Driven Engineering, Inc.
8005 Morris Hill Road
Semmes, AL 36575

Report Of: USA MS4 - Twelve-Mile Creek Locations Upstream/Downstream
Proposal #1: 1-1, 1-2, 1-3, 1-4 Locations -Sampling, Testing 4th Quarter 2023
Purchase Order #: 17005

Job #: 23-3793

Attention: Mr. Andrew Watley, E.I.T.

Analytical Chemical Testing Laboratory, Inc. has completed the analysis of water samples taken from the listed locations above. The samples were analyzed as directed, and the following is reported:

SAMPLED: 12/20/23 by S. Lindqvist
ANALYZED: 12/20-26/23 by SWL, JJZ
REVIEWED: 12/29/23 by R. Naman

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-1220-1 **Grab Sample Upstream Location 1-1 USA MS4** Sampled: 12/20/23 @ 1112	**Dissolved Oxygen**	**8.90 p.p.m.**	**1220-1115-SWL**
	Escherichia Coliform	**160 CFU/100mL**	**1220-1300-SWL**
	Fecal Coliform	**120 CFU/100mL**	**1220-1300-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**1221-1100-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**1221-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per Liter

P.O. Box 161198 · Mobile, Alabama 36616 · 251.479.9205 · Fax 251.478.8181

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-1220-2 **Grab Sample Downstream Location 1-2 USA MS4** Sampled: 12/20/23 @ 1150	**Dissolved Oxygen**	**9.68 p.p.m.**	**1220-1155-SWL**
	Escherichia Coliform	**200 CFU/100mL**	**1220-1305-SWL**
	Fecal Coliform	**60 CFU/100mL**	**1220-1305-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**1221-1100-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**1221-0945-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-1220-3 **Grab Sample Upstream Location 1-3 USA MS4** Sampled: 12/20/23 @ 1043	**Dissolved Oxygen**	**10.71 p.p.m.**	**1220-1053-SWL**
	Escherichia Coliform	**60 CFU/100mL**	**1220-1309-SWL**
	Fecal Coliform	**80 CFU/100mL**	**1220-1309-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**1221-1100-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**<3 p.p.m.**	**1221-0945-SWL**

SAMPLE/DATA/INFO	TESTS	RESULTS	DATE/TIME/ANALYST
ACT ID 23-3793-1220-4 **Grab Sample Downstream Location 1-4 USA MS4** Sampled: 12/20/23 @ 1050	**Dissolved Oxygen**	**12.14 p.p.m.**	**1220-1056-SWL**
	Escherichia Coliform	**140 CFU/100mL**	**1220-1312-SWL**
	Fecal Coliform	**45 CFU/100mL**	**1220-1312-SWL**
	Biochemical Oxygen Demand (B.O.D.)	**<12 p.p.m.**	**1221-1100-JJZ**
	Chemical Oxygen Demand (C.O.D.)	**16.6 p.p.m.**	**1221-0945-SWL**

CFU=Colony-Forming Units
p.p.m. = parts per million = milligrams per liter = mg/L

METHODS: Standard Methods for the Examination of Water and Wastewater, 21st Edition.
SW-846, Portable D.O. Meter-HACH.

We appreciate this opportunity to be of service. If there are any questions, please feel free to call.

Very truly yours,

ANALYTICAL CHEMICAL TESTING LABORATORY, INC.

Robert M. Naman, President
Analytical Chemist
AL Inspector Certification# AIN0222694867
Qualified Credentialed Inspector #T6112
Fellow, American Institute
of Chemists, Reg. 15488

RMN/SWL
Attachment: Custody Form

Company Name/Address:
Driven Engineering
8005 Morris Hill Rd
Semmes, AL 36575

Billing Information:

Report to: **Andrew Watley**

Email To:

Project Description: USA - MS4 Three- and Twelve- Mile Creek

City/State Collected: **Mobile, AL**

Please Circle: PT MT CT ET

Phone:

Client Project #

Lab Project # **23-3793**

Collected by (print): **Spangler Lindqvist**

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
____Same Day ____Five Day
____Next Day ____5 Day (Rad Only)
____Two Day ____10 Day (Rad Only)
____Three Day

Quote #

Date Results Needed

No. of Cntrs

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Dissolved Oxygen	E. Coli	Fecal Coliform	Biochemical Oxygen Demand	Chemical Oxygen Demand						Remarks	Sample # (lab only)
1-1	Grab	GW		12/20/23	1112	4	X	X	X	X	X							
1-2	Grab	GW		12/20/23	1150	4	X	X	X	X	X							
1-3	Grab	GW		12/20/23	1043	4	X	X	X	X	X							
1-4	Grab	GW		12/20/23	1050	4	X	X	X	X	X							

Chain of Custody Page ___ of ___

Analytical Chemical Testing Laboratory Inc.

(251)479-9205

P.O. Box 161198
Mobile, AL 36616
bobnaman@gmail.com

SDG #

Table #

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	__NP	__Y __N
COC Signed/Accurate:		__Y __N
Bottles arrive intact:		__Y __N
Correct bottles used:		__Y __N
Sufficient volume sent:		__Y __N
If Applicable		
VOA Zero Headspace:		__Y __N
Preservation Correct/Checked:		__Y __N
RAD Screen <0.5 mR/hr:		__Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Spangler Lindqvist	12/20/23	1200			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Appendix B - Three Mile Creek & Twelve Mile Creek Outfall Inspections, Data Collected, and Commentary

Driven Engineering, Inc.
ADDING VALUE, BUILDING RELATIONSHIPS

8005 Morris Hill Road
Semmes, AL 36575
Phone (251) 649-4011
Fax (251) 645-0971

April 5, 2024

William Guess
University of South Alabama
Department of Safety & Environmental Compliance
EOB 220 / 600 Clinic Drive
Mobile, Alabama 36688

Subject: MS4 Phase IV IDDE Outfall Monitoring Report
Driven Engineering, Inc. Project no: 23074

Dear Mr. Guess:

This letter report presents the results of the observation(s) conducted from January 2023 to December 2023 at outfall(s) NA-5, OF-1, OF-2, OF-3, OF-4, OF-5, and OF-7 as required by the Phase II MS4 Permit as shown on the Three Mile Creek & Twelve Mile Creek Outfall Map by Driven Engineering, Inc. dated 02/20/2024.

No evidence of IDDE was found at the locations inspected.

Inspection checklists for the outfalls are presented in Appendix B.

Please contact our office if you have any questions.

Sincerely,
Driven Engineering, Inc.

Andrew Watley

Andrew Watley, E.I.T.

Avalisha Fisher, P.E.

Stormwater Outfall Inspection Checklist

Outfall ID# NA5 **Location Aid** _____

Date: 3/27/2023 Time: 3:37 PM

Surveyor/Observer: Andy Watley

Weather Today: Sunny / Partly Cloudy

Weather over past 72 hours: Sunny / Partly Cloudy

Flow Observed (circle): (YES) NO

	Pipe Flow Depth (inches) Note: measure from pipe invert	Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance	Flow Appearance / Color	Flow Odor	Field Monitoring Data (note: fill in units for each parameter)				Comments and Notes
					Turbidity	Temperature	pH	Conductivity	
1. Flow Observations (fill out this section only if flow is observed)	1.5' Depth	_____ Depth	✓ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *					

	Pipe Material	Pipe Condition	Channel, Ditch or Swale Condition	Diameter or Width (specify distance units)	Slope (degrees)	Outlet Structure	GPS Coordinates	Discharge directly to surface water?**	Comments and Notes
2. Structure Details (pipe or other conveyance info.)	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (OI)	✓ Good __ Cracked __ Exposed Steel __ Corroded __ Other*	__ Good __ Clogged __ Debris __ Scoured or Eroded __ Other*		__ Flat ✓ Moderate __ Steep	__ Headwall __ Riprap __ Flared End ✓ No Outlet Protection __ Other*	31.700650 Lat. -88.18392 Lon.	✓ Yes __ No If Yes, Provide Receiving Water Name Smile Creek	

	Deposits	Surrounding Vegetation	Erodibility	Land Use at Outfall	Land Use Upstream of Outfall	Appearance / Color	Odor	Sediment Depth (inches) (if present)	Comments and Notes
3. Outfall Observations (general conditions at outfall)	✓ None __ Grease/Oil __ Paper/Trash __ Foam __ Heavy sediment deposits __ Other *	✓ Little or No Distress __ Moderate Distress __ High Distress	✓ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	__ Forest __ Agriculture __ Residential __ Commercial __ Industrial ✓ Waterbody __ Detention Pond/Basin	__ Forest __ Agriculture ✓ Residential ✓ Commercial __ Industrial	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *		

	Surfactant	Ammonia Concentration	E. coli	Oil & Grease (if oil or sheen is observed)	VOCs (if solvent odor is present)	Additional Field Comments and Notes
4. Laboratory Analysis (check if submitted)						

Notes:

* Provide additional comments to describe the observations made for the category.

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water.

Stormwater Outfall Inspection Checklist

Outfall ID# OF-1 **Location Aid** _____

Date: 7/7/23 Time: 8:27 AM

Surveyor/Observer: Andrew Watley

Weather Today: Isolated Thunderstorms

Weather over past 72 hours: Isolated Thunderstorms

Flow Observed (circle): (YES) NO

	Pipe Flow Depth (inches) Note: measure from pipe invert	Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance	Flow Appearance / Color	Flow Odor	Field Monitoring Data (note: fill in units for each parameter)				Comments and Notes
					Turbidity	Temperature	pH	Conductivity	
1. Flow Observations (fill out this section only if flow is observed)	24" Depth	3' Depth	✓ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	—	—	—	—	—

	Pipe Material	Pipe Condition	Channel, Ditch or Swale Condition	Diameter or Width (specify distance units)	Slope (degrees)	Outlet Structure	GPS Coordinates	Discharge directly to surface water?**	Comments and Notes
2. Structure Details (pipe or other conveyance info.)	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	__ Good ✓ Cracked __ Exposed Steel __ Corroded __ Other*	✓ Good __ Clogged __ Debris __ Scoured or Eroded __ Other*	30"	✓ Flat __ Moderate __ Steep	__ Headwall __ Riprap __ Flared End ✓ No Outlet Protection __ Other*	30.699584 Lat. -88.190830 Lon.	✓ Yes __ No If Yes, Provide Receiving Water Name 3-mile Creek	—

	Deposits	Surrounding Vegetation	Erodibility	Land Use at Outfall	Land Use Upstream of Outfall	Appearance / Color	Odor	Sediment Depth (inches) (if present)	Comments and Notes
3. Outfall Observations (general conditions at outfall)	✓ None __ Grease/Oil __ Paper/Trash __ Foam __ Heavy sediment deposits __ Other *	✓ Little or No Distress __ Moderate Distress __ High Distress	✓ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	✓ Forest __ Agriculture __ Residential __ Commercial __ Industrial __ Waterbody __ Detention Pond/Basin	__ Forest __ Agriculture ✓ Residential __ Commercial __ Industrial	✓ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	—	—

	Surfactant	Ammonia Concentration	E. coli	Oil & Grease (if oil or sheen is observed)	VOCs (if solvent odor is present)	Additional Field Comments and Notes
4. Laboratory Analysis (check if submitted)	—	—	—	—	—	—

Notes:

* Provide additional comments to describe the observations made for the category

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water

Stormwater Outfall Inspection Checklist

Outfall ID# OF-2 **Location Aid** _____

Date: 7/7/23 Time: 7:30 AM

Surveyor/Observer: Andrew Watley

Weather Today: Isolated Thunderstorms

Weather over past 72 hours: Isolated Thunderstorms

Flow Observed (circle): YES (NO)

	Pipe Flow Depth (inches) Note: measure from pipe invert	Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance	Flow Appearance / Color	Flow Odor	Field Monitoring Data (note: fill in units for each parameter)				Comments and Notes
					Turbidity	Temperature	pH	Conductivity	
1. Flow Observations (fill out this section only if flow is observed)	0 Depth	1-2" Depth	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	—	—	—	—	Bubbles at Water Surface
	Pipe Material	**Pipe Condition**	**Channel, Ditch or Swale Condition**	**Diameter or Width (specify distance units)**	**Slope (degrees)**	**Outlet Structure**	**GPS Coordinates**	**Discharge directly to surface water?****	**Comments and Notes**
2. Structure Details (pipe or other conveyance info.)	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	✓ Good __ Cracked __ Exposed Steel __ Corroded __ Other*	__ Good __ Clogged ✓ Debris __ Scoured or Eroded __ Other*	36"	✓ Flat __ Moderate __ Steep	__ Headwall __ Riprap ✓ Flared End __ No Outlet Protection __ Other*	30.098390 Lat -88.190384 Lon	✓ Yes __ No If Yes, Provide Receiving Water Name 3-mile Creek	—
	Deposits	**Surrounding Vegetation**	**Erodibility**	**Land Use at Outfall**	**Land Use Upstream of Outfall**	**Appearance / Color**	**Odor**	**Sediment Depth (inches) (if present)**	**Comments and Notes**
3. Outfall Observations (general conditions at outfall)	__ None __ Grease/Oil ✓ Paper/Trash ✓ Foam __ Heavy sediment deposits __ Other *	✓ Little or No Distress __ Moderate Distress __ High Distress	✓ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	✓ Forest __ Agriculture __ Residential __ Commercial __ Industrial __ Waterbody __ Detention Pond/Basin	__ Forest __ Agriculture __ Residential ✓ Commercial __ Industrial	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	≤ 1"	Bubbles at Water Surface
	Surfactant	**Ammonia Concentration**	**E. coli**	**Oil & Grease (if oil or sheen is observed)**	**VOCs (if solvent odor is present)**	**Additional Field Comments and Notes**			
4. Laboratory Analysis (check if submitted)	—	—	—	—	—	Maintenance needed for easy access to outfall			

Notes:

* Provide additional comments to describe the observations made for the category.

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water.

Danville, NH - Stormwater Outfall Inspection Checklist

Outfall ID# 3 **Location Aid** 30.696870, -88.188[illegible]

Date: 8/15/23 Time: 3:12 PM

Surveyor/Observer: Andrew Watley, EIT

Weather Today: Sunny, 99°

Weather over past 72 hours: Sunny, 100°

Flow Observed (circle): YES (NO)

					Field Monitoring Data (note: fill in units for each parameter)				
1. Flow Observations (fill out this section only if flow is observed)	**Pipe Flow Depth (inches) Note: measure from pipe invert**	**Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance**	**Flow Appearance / Color**	**Flow Odor**	**Turbidity**	**Temperature**	**pH**	**Conductivity**	**Comments and Notes**
	◯ 0.5" Depth	~ 0" Depth	✓ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	—	—	—	—	invert above bottom of RCP (only reason it standing H_2O)
2. Structure Details (pipe or other conveyance info.)	**Pipe Material**	**Pipe Condition**	**Channel, Ditch or Swale Condition**	**Diameter or Width (specify distance units)**	**Slope (degrees)**	**Outlet Structure**	**GPS Coordinates**	**Discharge directly to surface water?****	**Comments and Notes**
	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	✓ Good __ Cracked __ Exposed Steel __ Corroded __ Other*	__ Good __ Clogged ✓ Debris __ Scoured or Eroded __ Other*	3'	__ Flat ✓ Moderate __ Steep	✓ Headwall ✓ Riprap ✓ Flared End __ No Outlet Protection __ Other*	30.696870 Lat -88.188[illegible] Lon	__ Yes ✓ No If Yes, Provide Receiving Water Name	—
3. Outfall Observations (general conditions at outfall)	**Deposits**	**Surrounding Vegetation**	**Erodibility**	**Land Use at Outfall**	**Land Use Upstream of Outfall**	**Appearance / Color**	**Odor**	**Sediment Depth (inches) (if present)**	**Comments and Notes**
	__ None __ Grease/Oil __ Paper/Trash ✓ Foam ✓ Heavy sediment deposits __ Other *	✓ Little or No Distress __ Moderate Distress __ High Distress	✓ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	✓ Forest __ Agriculture __ Residential __ Commercial __ Industrial __ Waterbody __ Detention Pond/Basin	__ Forest __ Agriculture __ Residential ✓ Commercial __ Industrial	__ Clear __ Cloudy/Milky __ Dark (Tea) __ Sheen __ Suspended sediment (opaque) ✓ Other * N/A	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	Roughly 1"	↑
4. Laboratory Analysis (check if submitted)	**Surfactant**	**Ammonia Concentration**	**E. coli**	**Oil & Grease (if oil or sheen is observed)**	**VOCs (if solvent odor is present)**	**Additional Field Comments and Notes**			
	—	—	—	—	—	Sediment settling on top of Rip Rap due to Rip rap having a higher elevation than outfall (Turbid → Laminar Flow)			

Notes:

* Provide additional comments to describe the observations made for the category

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water.

Danville, NH - Stormwater Outfall Inspection Checklist

Outfall ID# 4 **Location Aid** 30.6982856, -88.1850538

Date: 8/15/23 Time: 3:57 PM

Surveyor/Observer: Andrew Whitley, EIT

Weather Today: Sunny, 99°

Weather over past 72 hours: Sunny, 100°

Flow Observed (circle): YES NO

					Field Monitoring Data (note: fill in units for each parameter)				
1. Flow Observations (fill out this section only if flow is observed)	**Pipe Flow Depth (inches) Note: measure from pipe invert**	**Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance**	**Flow Appearance / Color**	**Flow Odor**	**Turbidity**	**Temperature**	**pH**	**Conductivity**	**Comments and Notes**
	0" Depth	0" Depth	☐ Clear ☐ Cloudy/Milky ☐ Dark (Tea) ☐ Sheen ☐ Suspended sediment (opaque) ☑ Other * N/A	☑ None ☐ Chemical ☐ Petroleum ☐ Sewage ☐ Other *	—	—	—	—	—

2. Structure Details (pipe or other conveyance info.)	**Pipe Material**	**Pipe Condition**	**Channel, Ditch or Swale Condition**	**Diameter or Width (specify distance units)**	**Slope (degrees)**	**Outlet Structure**	**GPS Coordinates**	**Discharge directly to surface water?****	**Comments and Notes**
	☑ Clay ☑ Concrete ☐ Corrugated Steel ☐ PVC ☐ Cast Iron ☐ HDPE ☐ Steel (DI)	☐ Good ☐ Cracked ☐ Exposed Steel ☐ Corroded ☑ Other* 50% Collapsed	☑ Good ☐ Clogged ☐ Debris ☐ Scoured or Eroded ☐ Other*	1.5'	☑ Flat ☐ Moderate ☐ Steep	☐ Headwall ☐ Riprap ☐ Flared End ☑ No Outlet Protection ☐ Other*	30.6982856 Lat -88.1850538 Lon	☐ Yes ☑ No If Yes, Provide Receiving Water Name	—

3. Outfall Observations (general conditions at outfall)	**Deposits**	**Surrounding Vegetation**	**Erodibility**	**Land Use at Outfall**	**Land Use Upstream of Outfall**	**Appearance / Color**	**Odor**	**Sediment Depth (inches) (if present)**	**Comments and Notes**
	☐ None ☐ Grease/Oil ☐ Paper/Trash ☐ Foam ☑ Heavy sediment deposits ☐ Other *	☑ Little or No Distress ☐ Moderate Distress ☐ High Distress	☑ Little or No Erosion ☐ Small Areas of Erosion ☐ Many Eroded Areas	☑ Forest ☐ Agriculture ☐ Residential ☐ Commercial ☐ Industrial ☐ Waterbody ☐ Detention Pond/Basin	☐ Forest ☐ Agriculture ☐ Residential ☑ Commercial ☐ Industrial	☐ Clear ☐ Cloudy/Milky ☐ Dark (Tea) ☐ Sheen ☐ Suspended sediment (opaque) ☑ Other * N/A	☑ None ☐ Chemical ☐ Petroleum ☐ Sewage ☐ Other *	50% of Pipe = 0.75'	—

4. Laboratory Analysis (check if submitted)	**Surfactant**	**Ammonia Concentration**	**E. coli**	**Oil & Grease (if oil or sheen is observed)**	**VOCs (if solvent odor is present)**	**Additional Field Comments and Notes**
	—	—	—	—	—	—

Notes:

* Provide additional comments to describe the observations made for the category

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water

Stormwater Outfall Inspection Checklist

Outfall ID# OF-5 **Location Aid** 3-66" RCP

Date: 12/22/2023 Time: 1:45 Pm

Surveyor/Observer: Andy Watley

Weather Today: Sunny, 69° F

Weather over past 72 hours: Cold & Sunny (50° Avg)

Flow Observed (circle): (YES) NO

	Pipe Flow Depth (inches) Note: measure from pipe invert	Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance	Flow Appearance / Color	Flow Odor	Field Monitoring Data (note: fill in units for each parameter)				Comments and Notes
					Turbidity	Temperature	pH	Conductivity	
1. Flow Observations (fill out this section only if flow is observed)	 35" Depth	 4" Depth (very low flow due to dark colored water)	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	X	X	X	X	X

	Pipe Material	Pipe Condition	Channel, Ditch or Swale Condition	Diameter or Width (specify distance units)	Slope (degrees)	Outlet Structure	GPS Coordinates	Discharge directly to surface water?**	Comments and Notes
2. Structure Details (pipe or other conveyance info.)	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	✓ Good __ Cracked __ Exposed Steel __ Corroded __ Other*	✓ Good __ Clogged __ Debris __ Scoured or Eroded __ Other*	3-66"	✓ Flat __ Moderate __ Steep	✓ Headwall __ Riprap ✓ Flared End __ No Outlet Protection __ Other*	30.6995 Lat. -88.1841 Lon.	✓ Yes __ No If Yes, Provide Receiving Water Name 3 mile Creek	X

	Deposits	Surrounding Vegetation	Erodibility	Land Use at Outfall	Land Use Upstream of Outfall	Appearance / Color	Odor	Sediment Depth (inches) (if present)	Comments and Notes
3. Outfall Observations (general conditions at outfall)	✓ None __ Grease/Oil __ Paper/Trash __ Foam __ Heavy sediment deposits __ Other *	✓ Little or No Distress __ Moderate Distress __ High Distress	__ Little or No Erosion ✓ Small Areas of Erosion __ Many Eroded Areas	__ Forest __ Agriculture __ Residential __ Commercial __ Industrial ✓ Waterbody __ Detention Pond/Basin	✓ Forest __ Agriculture __ Residential __ Commercial __ Industrial	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	N/A not seen	Additional Storm/rock along right side of flow may be needed

	Surfactant	Ammonia Concentration	E. coli	Oil & Grease (if oil or sheen is observed)	VOCs (if solvent odor is present)	Additional Field Comments and Notes
4. Laboratory Analysis (check if submitted)	X	X	X	X	X	X

Notes:

* Provide additional comments to describe the observations made for the category.

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water

Stormwater Outfall Inspection Checklist

Outfall ID# OF-7 **Location Aid** 2-30" RCP

Date: 12/22/23 **Time:** 2:08 PM

Surveyor/Observer: Andy Wattay

Weather Today: Sunny, Windy

Weather over past 72 hours: Cold & Sunny (30° Avg)

Flow Observed (circle): (YES) NO

					Field Monitoring Data (note: fill in units for each parameter)				
1. Flow Observations (fill out this section only if flow is observed)	**Pipe Flow Depth (inches) Note: measure from pipe invert**	**Channel, Ditch or Swale Flow Depth (inches) Note: measure from center of conveyance**	**Flow Appearance / Color**	**Flow Odor**	**Turbidity**	**Temperature**	**pH**	**Conductivity**	**Comments and Notes**
	1" Depth	<1" Depth	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	x	x	x	x	x

	Pipe Material	**Pipe Condition**	**Channel, Ditch or Swale Condition**	**Diameter or Width (specify distance units)**	**Slope (degrees)**	**Outlet Structure**	**GPS Coordinates**	**Discharge directly to surface water?****	**Comments and Notes**
2. Structure Details (pipe or other conveyance info.)	__ Clay ✓ Concrete __ Corrugated Steel __ PVC __ Cast Iron __ HDPE __ Steel (DI)	__ Good ✓ Cracked __ Exposed Steel __ Corroded __ Other*	__ Good __ Clogged ✓ Debris __ Scoured or Eroded __ Other*	2-30"	✓ Flat __ Moderate __ Steep	✓ Headwall __ Riprap ✓ Flared End __ No Outlet Protection __ Other*	30.7068 Lat -88.1844 Lon.	✓ Yes __ No If Yes, Provide Receiving Water Name Smile Creek	Grease Rd on CM RCP is Cracked

	Deposits	**Surrounding Vegetation**	**Erodibility**	**Land Use at Outfall**	**Land Use Upstream of Outfall**	**Appearance / Color**	**Odor**	**Sediment Depth (inches) (if present)**	**Comments and Notes**
3. Outfall Observations (general conditions at outfall)	__ None __ Grease/Oil __ Paper/Trash __ Foam ✓ Heavy sediment deposits __ Other *	__ Little or No Distress ✓ Moderate Distress __ High Distress	✓ Little or No Erosion __ Small Areas of Erosion __ Many Eroded Areas	__ Forest __ Agriculture __ Residential __ Commercial __ Industrial ✓ Waterbody __ Detention Pond/Basin	✓ Forest __ Agriculture __ Residential __ Commercial __ Industrial	__ Clear __ Cloudy/Milky ✓ Dark (Tea) __ Sheen __ Suspended sediment (opaque) __ Other *	✓ None __ Chemical __ Petroleum __ Sewage __ Other *	7"-10"	x

	Surfactant	**Ammonia Concentration**	**E. coli**	**Oil & Grease (if oil or sheen is observed)**	**VOCs (if solvent odor is present)**	**Additional Field Comments and Notes**
4. Laboratory Analysis (check if submitted)	x	x	x	x	x	2" of observed flow from 1 pipe. Minimal amount of channel width consists of conveyed flow.

Notes

* Provide additional comments to describe the observations made for the category.

** Discharges directly to surface waters are defined as: any conveyance or discernable concentrated flow (i.e., pipe, swale, ditch) other than overland sheet flow that enters a body of water.

Appendix C – University of South Alabama Education and Training Material

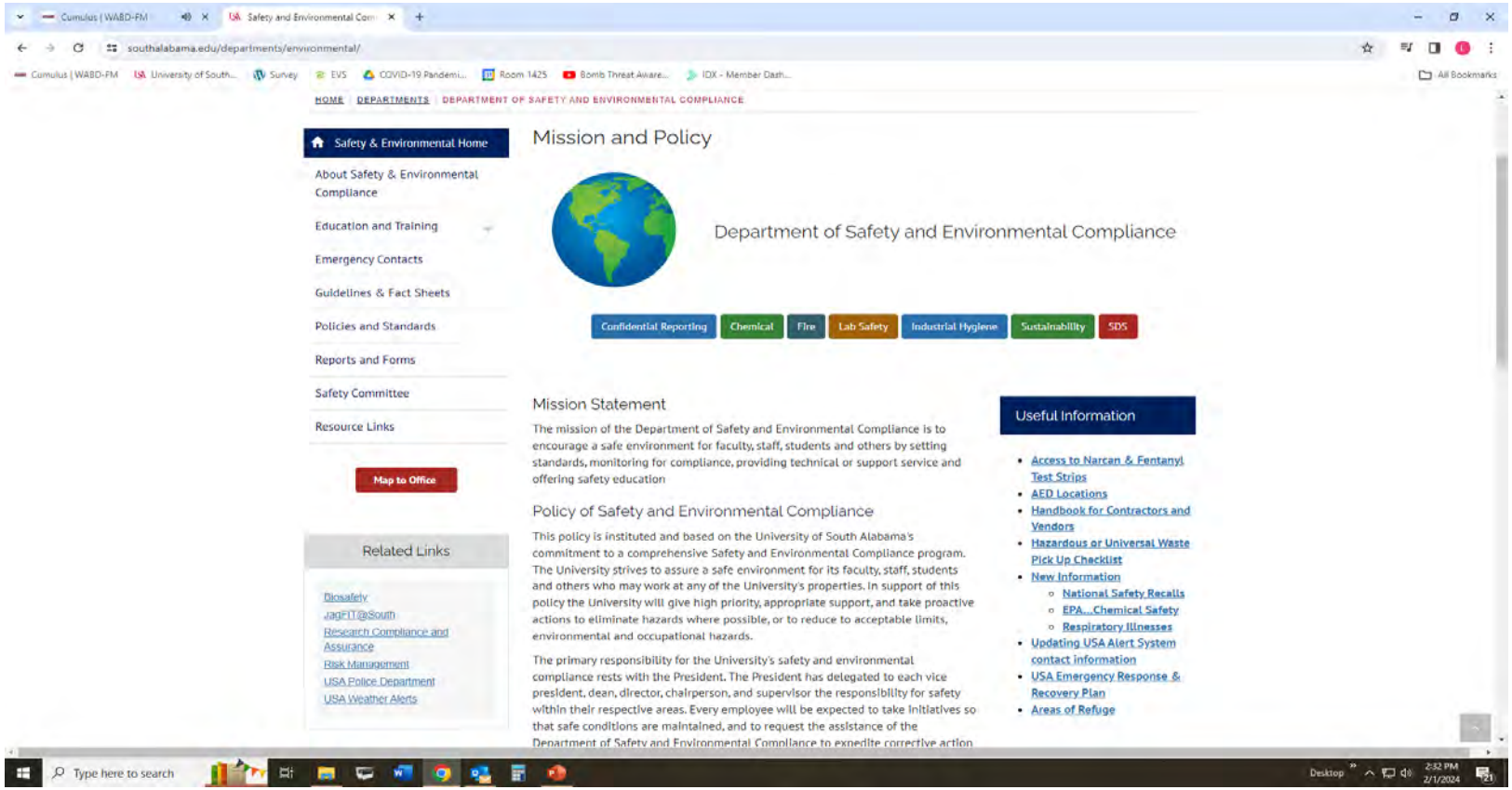
USA Employee Orientation
Safety Awareness Presentation

Lisa Cobb, RN

UNIVERSITY OF SOUTH ALABAMA

Safety & Environmental Compliance Revised 2022

Safety and Environmental Compliance



MS4 PROGRAM

THE WATER PLANET

Americans depend on clean water to drink, to irrigate crops, and to run industries. Water resources provide opportunities such a fishing and swimming, and wetlands provide protection from floods. Rivers, lakes, estuaries, and wetlands also provide critical habitat for wildlife.
Estuaries serve as birthplace and nursery for most saltwater fish and shellfish!

Whenever rain falls or snow melts, chemicals, fertilizers, sediment, and other pollutants from the land are washed into lakes, streams, wetlands, and rivers. To achieve healthy watersheds, the EPA needs the help of citizens like you! Because no matter where you live you live in a watershed.

USA has a growing but fully functional MS4 Program through water quality testing, 3 Mile Creek & 12 Mile Creek clean up projects around the water masses on campus, erosion and sediment control on construction sites, etc.

Illicit Discharges

"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".

University staff and students will assist Safety & Environmental Compliance with preventing and reporting any of the following prohibited discharges:

- 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.
- Spills of oils or hazardous substances

Illicit Discharges

- Sanitary wastewater
- Chlorinated pool water
- Commercial vehicle wash water
- Contaminated water
- Storm water discharges associated with industrial industry
- Storm water discharges associated with construction activity. These require a separate permit.
- 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 TDML . (Three Mile Creek is subject to this and the majority of the campus drains to Three Mile Creek)
- Corrective actions for detecting non-allowable discharges include notifying the Safety & Environmental Compliance office at 251-460-7070.

https://www.southalabama.edu/departments/environmental/confidentialreport.html

General Safety

*5,486 fatal work related injuries were recorded in the U.S. in 2022

(highest since 2008)

Violence and other injuries by persons or animals	849
Transportation Incidents	2066
Fires & Explosions	107
Falls, Slips, Trips	865
Exposures to harmful substances or environments	839
Contact with objects and equipment	738

General Safety

Avoid carelessness caused by:

Complacency – job is routine and taking shortcuts

Emotions such as anger or aggressiveness that

causes you to forget safety

Fatigue – too little sleep or too much work (Ex. Just returning from a trip late Sunday night and returning back to work early Monday), not understanding risks or recognizing hazards due to insufficient training

Reckless attitude –rules don't apply to you?

Basic Safety Rules

- Conduct safety assessment prior to starting work
- Read labels and Safety Data Sheets of hazardous materials (previously MSDS's)
- Use the right personal protective equipment
- Be careful around electricity
- Use proper ventilation
- Exercise caution around construction zones and pedestrian crossings
- Current chemical inventory records must be submitted to Safety & Environmental Compliance annually.

Basic Safety Rules

- Turn off equipment when not in use
- Make sure tools and equipment are working properly and use the equipment only for the intended purpose
- Follow all safety rules and work procedures
- Use step stools or ladders to reach *NOT ROLLING CHAIRS*

What You Should Do If Injured

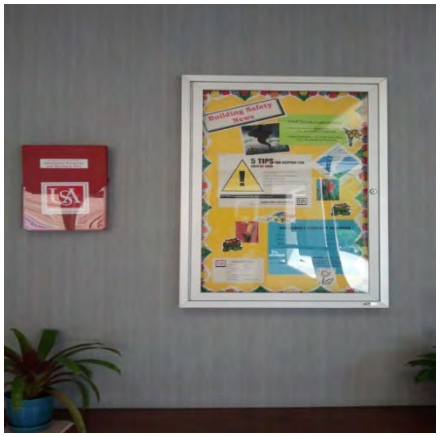
- Try to Stay Calm
- Seek Medical Attention if necessary
- Report All Injuries (per incident report process)
- Report Hazardous Conditions
- Make Sure First Aid Kit is Replenished

Building Safety Coordinators

Main Campus, MCI, and the Baldwin County campus have Building Safety Coordinators. Both hospitals and clinics have designated safety representatives.

Assignment: Find out who your BSC is or your “Go To Person”

How to: Submit Maintenance Work Orders



Emergency Response Plan

Copies of The University Emergency Response and Recovery Plan are in a printed flip chart format and placed near a land mark (ex. elevators)

Emergency Response Plan

- For Severe Weather Event:
- Find Shelter in an enclosed stairwell or interior room without windows. Know your Best Areas of Refuge.
- Active Shooter or Armed Individual
- Quickly determine the most reasonable way to protect your own life. Remember that students and visitors are likely to follow the lead of employees and faculty during an active shooter situation.
- Evacuate
- If there is an accessible escape path, attempt to evacuate the premises. Be sure to…
- Have an escape route and plan in mind.
- Evacuate regardless of whether others agree to follow
- Leave your belongings behind
- Help others escape, if possible
- Prevent individuals from entering an area where the active shooter may be
- Keep your hands visible to first responders
- Follow the instructions of any law enforcement officers

- Do not attempt to move wounded individuals

  Call 911 when you are safe and stay with the dispatcher until they have verified all the necessary information has been obtained!

  Hide Out

  -If evacuation is not possible, find a place to hide where the active shooter is less likely to find you

  Your hiding place should:

  Be out of the active shooter's view

  Provide protection if shots are fired in your direction (i.e. office with closed & locked door)

  Not trap you or restrict your options for movement

  To prevent an active shooter from entering your hiding place:

  Lock the door

  Blockade the door with heavy furniture or stuff something under the door to serve as a wedge

If the active shooter is nearby:

- Lock the door
- Turn off lights
- Silence your cell phone and/or electronic devices
- Turn off any source of noise (i.e. radios, TV's, etc.)
- Hide behind large items (i.e. cabinets, desks)
- Remain quiet and still

If evacuation and hiding out are not possible:

- Remain calm
- Dial 911, if possible, to alert police to the active shooter's location. Campus Police 251-460-6312 or utilize LiveSafe App
- If you are unable to quietly call 911, test a contact and have them call 911 with the details
- If you cannot speak, leave the phone line open to allow the dispatcher to listen

Take action against the active shooter:

- As a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the active shooter by:

Acting as aggressively as posssible against him/her

Utilize an improvised weapon and throw objects

** Commit to your action, Run-Hide-Fight!

Emergency Procedures

In case of spill, leak, fire incident

- Evacuate and secure the area
- Contact emergency response personnel
- Listen for instructions! Do Not re-enter the building until authorities instruct you to do so.

Knox Boxes

Accessible only to Mobile Fire-Rescue

Contains Building Keys/Access Cards for that specific building

In Addition Contains a USB Stick with the following information:

- Chemical Inventory for the laboratories in that building
- Building plans
- Emergency Contact Numbers as provided to SEC

Fire Safety

- Keep flammables away from ignition sources
- Practice electrical safety
- Practice good housekeeping techniques in your work area
- As of August 2015 smoking is **prohibited** on campus
- **For an active fire** (you see flames or smoke) Dial 9-911
- **For an unknown fire alarm** (alarm is ringing, but no flames or smoke)* Dial 251-460-6312 (University Police). Dial 251-460- 7047 (Central Utilities)
- Go to the Designated Assembly Point for your building

*University Police will determine whether it is necessary to contact Mobile Fire Department

Fire Safety

- Know the location of the nearest exit
- Be familiar with at least **two evacuation routes**

  from your work area
- Know the location of the closest pull station and fire extinguisher
- Be familiar with emergency numbers for reporting fires
- Know the location of the designated meeting area in the event of a building evacuation
- Remember:

  R Relocate/Rescue

  A Alarm

  C Confine

  E Extinguish

Using a Fire Extinguisher

P **PULL** the pin

A **AIM** at the base of the fire

S **SQUEEZE** the lever

S **SWEEP** from side to side

Using a Fire Extinguisher

- Attempt to use a fire extinguisher only if the fire is contained and you have received appropriate training
- Make certain that an alarm has been sounded, people are leaving the building and the fire department has been notified
- Consider the danger posed by hazardous or highly flammable materials near the fire area
- Have an unobstructed escape route
- There are specialized fire extinguishers for specific types of materials.

Discharged Fire Extinguishers

Pull inspection tag

Lay used fire extinguisher on its side away from traffic

Contact Maintenance for Replacement

Never place a discharged fire extinguisher back into cabinet!

Right To Know
Hazard Communication

Employees must understand the potential hazards associated with their job functions and how to protect themselves against these hazards to include the use of personal protective equipment.

Hazards In The Workplace

Supervisor Responsibilities

- Determine which workplace materials are hazardous
- Provide employees with information, training and equipment needed to protect themselves and others
- Compile an available list of hazardous materials know to be present in each work area

Employee Responsibilities

- Participate in University provided safety training
- Use training, safety procedures and protective equipment to work safely
- Report safety issues to appropriate supervisor or department

Hazards In The Workplace

What Should You Do if You See Something Like This on Campus???

Engineering and Work Practice Controls

Engineering Controls: An attempt to design safety into the tools and workplace organization

- Grounding cables
- Eye washes/Safety shower stations
- Hand washing facilities
- Tube racks
- Fume hoods/Biological cabinets

Basic work area safety rules

If you are working in an area where there is a reasonable likelihood of exposure you should never:

- Eat
- Drink
- Smoke
- Apply cosmetics or lip balm
- Handle contact lens

Bloodborne Pathogen Standard

(Designed to protect the nation's workers from exposure to bloodborne pathogens)

Universal Precautions

The concept that all blood and certain body fluids are to be treated as if contaminated with HIV, HBV, HCV or other bloodborne pathogens

Prevention

To minimize exposure to bloodborne pathogens, there are four strategies of prevention:

- Engineering controls
- Work practice controls
- Personal protective equipment
- Universal (Standard) Precautions

Reporting of Accidents/Incidents

For any incident/accident/injury occurring on a USA campus:

- Notify supervisor
- Complete and submit an Accident/Incident Form and indicate if it was an employee, student or visitor
- Follow USA Policy & Procedure
- Provide as many details as you can remember…weather conditions, was a "slippery when wet" sign up, type of shoes they were wearing, etc.

UNIVERSITY OF SOUTH ALABAMA

Employment Location

☐ USA Campus (includes all facilities except USA Hospitals) ☐ USA Medical Center

☐ USA Children's and Women's Hospital

Report of Accident/Incident Involving:

(O) Employee (O) Visitor (O) Student

Name: Last	First	Middle	Date of Birth:
Home Address:			Home Phone Number:
Social Security #:	Department (if employee):		Business Phone Number:
Name of Supervisor:	Office Address:		Business Phone Number:

DETAILS OF ACCIDENT/INCIDENT

Incident Date:	Date Reported to Supervisor:	Time: ____ a.m. ____ p.m.	Location of Accident:
Description of What Happened:			
Report What You Think Contributed to the Accident:			

Accident/Incident Forms are to be routed as per the "Employee Incident Report Routing Form" (HR document). Each incident is evaluated by Risk Management for trends and for potential follow-up, and are reviewed by the USA Safety & Environmental Compliance.


HOW STUPID CAN THEY BE
NEITHER OF THEM ARE
WEARING GOGGLES

Summary

Q & A

What we do and how we do it whether safely or unsafely affects others, whether it be our co-workers or our loved ones who care about and depend on us. Let's all work safely together.

IF CONTACTED RECiARDING A POTENTIAL ILLICIT DISCHARQE ON CAMPUS

Please get the rot/owing inrormation:

Specific location of the discharge (landmark or method to identify location}
Characteristics of the discharge (odor, color, etc.}
Date & time of the observation
General weather conditions at the time of observation

(this is *a* requirement *for* our MS-4 permit)

UNIVERSITY OF
SOUTH ALABAMA

ILLICIT DISCHARGE TOOLBOX TALK

What is an Illicit Discharge?

An Illicit Discharge (Improper Disposal) is any kind of emission to a Municipal Separate Storm Sewer Systems (MS4) that is not entirely composed of storm water. The MS4 consists of storm drains, ditches, man-made channels, and municipal streets. Eliminating illicit discharges into storm water can reduce pollution of our waterways.

Allowable Storm Water Discharges

- Water Line Flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from water sources
- Foundation and footing drains
- Air conditioning condensation
- Springs
- Water from crawl space pumps
- Lawn watering runoff
- Individual residential car washing and charitable car washes
- Flows from wetlands
- De-chlorinated swimming pool discharges
- Residual street wash water
- Discharges from firefighting activities
- Flows from riparian habitats and wetlands
- Non-storm water discharges which are in compliance with a separate National Pollutant Discharge Elimination System (NPDES) permit

Prohibited Storm Water Discharges

- Oil sheen in a body of water
- Leaves or grass clippings deposited in storm drains
- Spills or dumping of oil, paint, household cleaners, antifreeze, pesticides, or fertilizers
- Discharge of chlorinated swimming pool water to a storm drain
- Sediment tracking from construction sites into streets
- Illegal dumping (at sites where regular garbage and trash is not picked up)
- Someone dropping litter
- Anything being disposed of into a storm drain

Procedure for Reporting a Suspected Illicit Discharge

To report a suspected illicit discharge on campus you may either:

- Call the Safety & Environmental Compliance office at (251) 460-7070
- Go to the Safety & Environmental Compliance webpage and fill outthe"Confidential Environmental/Hazard Report" listed under the MS4 Information header. The link is as listed below...
  https://www.southalabama.edu/departments/environmental/confidentialreport.html .

  Reports can be made anonymously.

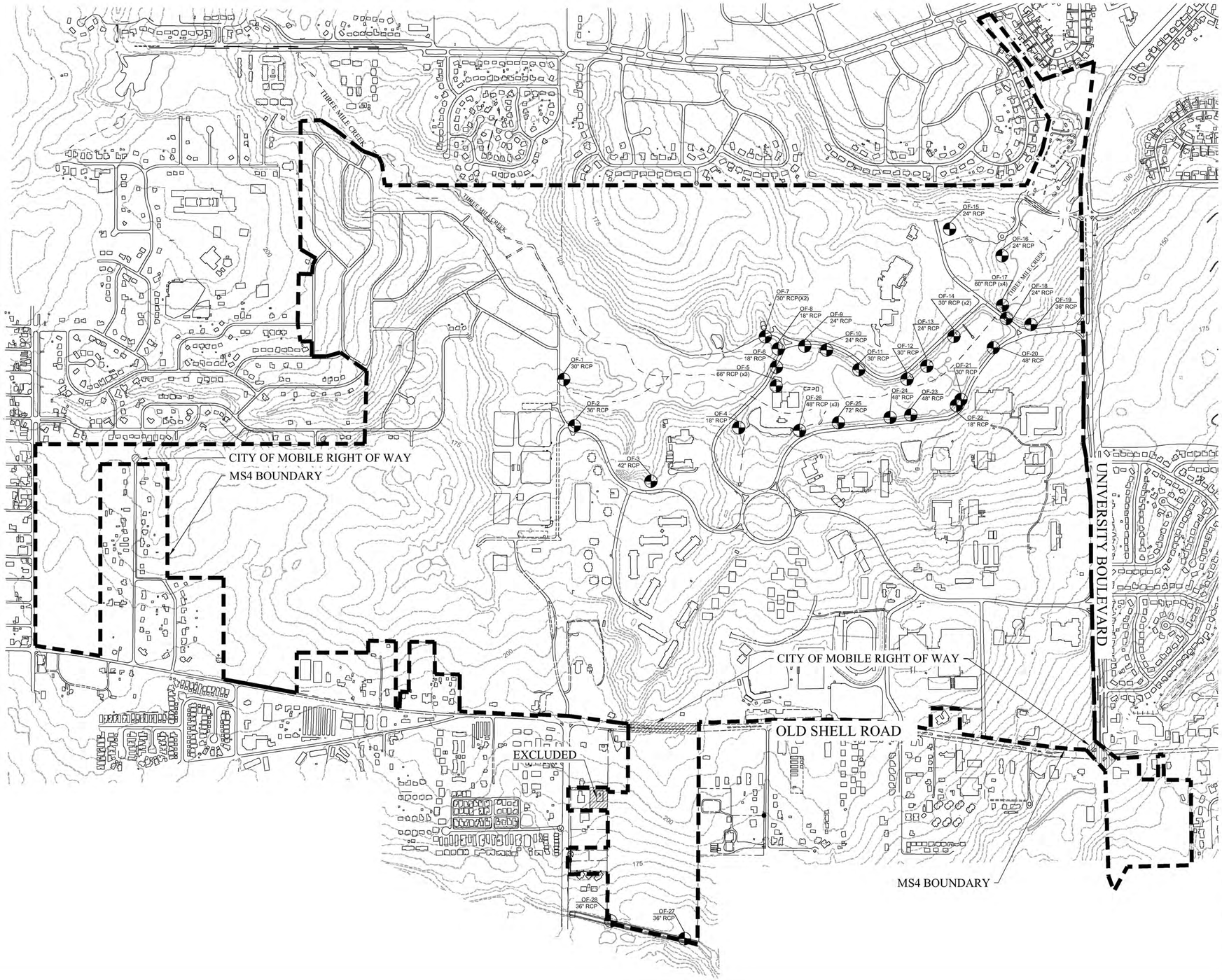
Procedure for the Corrective Action of Suspect Illicit Discharge

If a suspected illicit discharge is reported on campus, the following procedure for corrective action shall be as follows:

1. Give reference points/landmarks to 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.

Appendix D – Updated Outfall Inspection Map

(02/20/2024)



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	

PRELIMINARY

A	2/20/2024	AMW

WE UTILIZE SCREENING TECHNIQUES IN OUR DESIGN AND THESE SOMETIMES ARE NOT VISIBLE IF OUR DESIGN HAS BEEN COPIED OR PRINTED WITH 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

Driven Engineering, Inc.
8005 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

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

Appendix E – Authorization Letter

UNIVERSITY OF SOUTH ALABAMA

March 16, 2021

Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110

To whom it may concern:

As the Executive Vice President at the University of South Alabama, I hereby grant to Mr. William Guess, Director of Safety and Environmental Compliance, the authority to act as a responsible official for permit application and reporting to the Alabama Department of Environmental Management.

Sincerely,

John W. Smith
Executive Vice President

JWS/sed

OFFICE OF EXECUTIVE VICE PRESIDENT
AD 130 | 307 University Boulevard, N. | Mobile, Alabama 36688-0002

Appendix F – Safety and Environmental Compliance

Safety and Environmental Compliance

The office of Safety and Environmental Compliance strives to ensure all University campuses provide occupants a healthy and hazard free environment that complies with applicable federal, state, and local regulatory requirements. As part of their effort, Safety and Environmental Compliance provides technical consultations, training, building inspections and other specialized services in the following areas:

Fire Safety & Emergency Response

As a component of the University's Safety and Environmental Compliance program the Fire Safety program directly impacts every facility, department and individual. The National Fire Protection Association - NFPA primarily serves as the industry standard and source for relevant fire codes. The design and construction of buildings and structures, testing of building components and fire protection systems, and the enforcement of regulations pertaining to Life Safety from fire and other related hazards are addressed by specific Fire Code requirements.

A fire safety inspection program is a vital aspect of the overall Safety and Environmental Compliance program. Annually each building or structure is evaluated by the University's Fire Marshal and department representatives to identify unsafe conditions or deficiencies related to current codes and regulations.

Other key program components:

- Fire Drills and Fire Extinguisher Classes
- Fire investigations
- Code compliance reviews
- New construction & renovation project plan review and inspections

Hazardous Waste and Materials Management

The department of Safety and Environmental Compliance hazardous materials and waste program is managed by the University's Chemical Hygiene Officer and department representatives each as certified hazardous materials first responders. Other department functions are listed below:

- Coordination of hazardous material transportation, handling and disposal
- EPA and ADEM permit management
- Inspections to include associated enforcement duties
- Code Compliance monitoring
- Lab start up, relocation and closure oversight
- Central chemical inventory repository

Industrial Hygiene

The Industrial Hygiene program serves to identify, evaluate where potential health hazards may exist, and thereby develops and manages programs that promote a safe environment for all staff, faculty, students and visitors through engineering controls and or work practices. Several aspects of the program are listed on SEC website to include:

- Chemical fume hood and Biological Cabinet inspections & certifications
- Hearing conservation
- Water quality testing
- Indoor Air quality testing
- Health complaint investigations
- EPA and ADEM permit management
- ACM and LBP testing
- Code Compliance monitoring

Occupational Safety & Health Training

Education and associated training is an integral part of the Safety and Environmental Compliance program. The department's training specialist has created a series of training initiatives based on function specific job analysis and industry standards. Safety and Environmental Compliance participates in all campus new hire orientations, student orientations while offering the following to faculty and staff:

- Respiratory Fit testing & training
- BBP & Health training
- Hazardous waste and materials training
- Laboratory chemical hygiene training
- Quarterly occupational safety and health publications
- Web resource coordination to include lab related training matrix

Emergency Response and Recovery Plan

The University of South Alabama's Emergency Response and Recovery Plan has been developed by the Safety and Environmental Compliance Office and is managed to follow the National Incident Management System (NIMS). This includes NIMS concepts, principles, terminology and training programs. The plan serves as a guide for potential emergency responses, recovery actions and mitigation programs. The primary objective is to protect students, employees, visitors and the University properties from a wide spectrum of possible emergency events. The plans are categorized into thirteen event responses:

1. Events requiring building evacuations or occupant relocation
2. Campus evacuation
3. Civil disturbance

4. Violent or Criminal behavior
5. Psychological Crisis
6. Explosion or Hazardous Materials Incident
7. Large scale – community
8. Weather related
9. Utility
10 Gas leak
11 Power failures
12 Communications
13 Biological or Infectious Epidemics

- Two primary emergency notification systems: EverBridge mass notification system with faculty, staff and student emergency contact information uploaded daily.
  Siren/PA system which is an outdoor warning system with six units strategically located around campus.

The President has delegated to the Director of Safety and Environmental Compliance the responsibility and authority for assuring overall compliance with applicable safety and environmental standards university wide. In emergency situations and when required to do so by regulation, code, or agreement, the Director of Safety and Environmental Compliance or his/her representative may require the immediate halt or suspension of practices or conditions that have been determined to constitute a substantial risk of life or serious harm to others or the environment.

The University Safety and Environmental Compliance Committee serves as a referral group for all advisory and administrative committees related to the matter of Safety and Environmental Compliance and shall review recommended changes in University policies pertaining to Safety and Environmental issues. The Director serves as alternate Chair for the Committee while others from the department have reporting functions.

Safety Officer reviews and investigates incident reports from all campuses with exception each of the USA hospitals. Serves as a resource to USA hospitals; as an appointed member to each of their Environment of Care and Infection Control Committees.

Appendix G – University of South Alabama Sustainability Committee Meetings

University Sustainability Committee

January 25, 2023

Members Present: Victor Cohen, Bill Guess, Todd Culp, Scott Crow, Carol Sawyer, Doug Marshall, David Turnipseed, Monica Davidson

Guest: Simone Holmes (Diversity& Community Engagement Chair)

Brett Heckman (SGA Senator)

Shenghua Wu of Ambassadors for Solid Waste Sustainability

Call to Order: Meeting called to order at 2:03PM By Victor Cohen

Welcome Guest Simone, Brett, and Sheghua Wu

Old Business:

November Meeting's minutes were approved by the Committee.

Update on work groups/ Sub-Committees

Operations:

Todd: Updated Committee since meeting in July to November 79 bales of cardboard have been sent out and counting. Also informed the committee of cardboard measurements (1 Bail = 2 tons). Operations are still working on ways to collect plastic.

Bill: Has spoken with Scott at the Student Rec Center who is helping with recycling efforts and getting recyclables on trucks to send to the Hitt Rd. facility as well as Langan Park. Has taken about 4 to 5 bags average after part time workers have segregated items.

Todd: Stated they also have a part time worker that keeps up with the cardboard and separation of plastics.

Bill: Has spoken with Tammy Stokes about getting a local facility for plastics for the Coca-Cola Bottle back program since there are a lot of Clients and Corporate partners in the Mobile Region. Bill says she also gave him a flier to show how PET bottles are graded, how they need to be separated out, what contaminants are allowable and what are strictly prohibited. Looking into bailing plastics as well. Bill explained how bales of cardboards cost went from $110.00 per bail to $35.00 per bail and anything less than $45.00 we do not make any money from it.

Working on getting new labels for collections and changing from Pepsi to Coca-Cola. Also needing help finding Big Rolling Recycle Bins.

Academic & Innovation: No new updates but has a new Faculty member in her department from Germany. Says Germany is really good with recycling and says she will pick their brain to come up with some ideas.

Bill: Informed Carol about Student Groups that really want to be involved such as Marine and Environmental Sciences.

Planning & Administration: Bill- Still working on getting reports updated. MCOB Representatives not present at the meeting but Bill has sent them measurement reports.

Victor: There are people all over campus that are doing things with sustainability but we need one place that is visible where everyone can tap into.

Green Jags: Bill says they have sent him some reports about their activity in the Student Garden. They have been to the Food Bank and put in an order for supplies for Spring. They have been reporting to Scott Crow directly. Scott says they have taken over the Student Garden and are only asking for pine straw. Scott has also proposed doing an area around the perimeter of the Student Garden once we get wildflower seeds in.

Bill: Stated **Biology student Association** has joined with **Green Jags**

New Business:

Introduction of Shenghua Wu Ambassadors for Solid Waste Sustainability

Shenghua: Ambassador Program researches how we can make best use of recyclables. It is an EPA Funded project good for one year. The Hub includes 4 faculty members with 4 modules. Explained how the Ambassador Program produces and provides training for college students on sustainability. They will have a 2-day camp with about 20 High Schools students, allowing them to visit USA's campus for hands-on experiences with sustainability. Hopefully the program can get more funding to continue after 1 year. **Shenghua** has put out fliers around campus to recruit Ambassadors. He also stated the Society for Sustainable Energy had a meeting as well in hopes to help with recruiting.

Victor: Brought attention to the different sustainability web pages that multiple groups have.

David Turnipseed and **Victor** suggest we come up with a way to link all the different web pages together on the main Sustainability webpage. Bill states we come up with a way to know which different groups are out there. Possibly getting with the Digest to say if you are doing anything in the sustainability realm send your contact and a link and we'll get it uploaded to our webpage.

Dr. Sawyer: Asked what do students search for when they want to know about sustainability? Are they searching for simple recycling? Do they even search at all?

Bill: Spoke about possibly having a meeting with the Deans Council so they discuss ideas with the Chairs.

Victor: Suggested being collective with information to at least highlight all the efforts that go on around campus. He proposed the question: is this worthy of the University front page website?

Bill: Says speaking with Jim in Marketing to get legs on links for sustainability information.

Doug Marshall: Stated we can possibly survey different student organizations

Dr. Sawyer and **Shenghua**: Both stated different Universities take a very small portion of student fees and use them to fund sustainability projects. **Brett** agrees a portion of student fees may create more student presence on USA Campus.

Dr. Sawyer: Wants to look into soliciting proposals to Faculty on creating Environmental Scholarships as an incentive for students as well.

Meeting was adjourned at 2:51 PM

Dates for next Meeting in February TBA.

Sustainability Committee Meeting April 5, 2023

Began @2:05

Intro to guest from Marine Sciences
Approval of minutes @ 2:06pm

Work Groups

Marr Comm

Diana - Earth Day is this month so Social media will be updated
Bill · Two student groups have done Clean ups
SGA doing Maintenances side and Sustainability on East side and will have
Lisa to coordinate events

Operations
Bill says plastic recycling up per wk by 50 lbs and 8 tons as of last month. The market rate is down (not making or spending money) Todd has assigned people to track data for records.

Academic and Innovation
Sawyer has no updates for this month for the Academic & Innovation work group.

Planning & Admin
Bill says he has some upcoming activities in the works.
Victor explained workgroup development can help with doing the leg work to Certify w/ STARS

Green Jags

Victor informed committee student rep for Green Jags (Annalise Bonner) has graduated
Green Jags activities were suspended but have since merged w/ Biology
Student Association.
Bill suggested renaming the Green Jags group. Bill also states the Green Jags has taken pics to post on sustainability website.
Victor and Diana mentioned putting content on our webpage constantly with hopes of mainstreaming to identify Sustainability webpage. We are still looking for a clear place to post about events and have a way where content can be instantly uploaded.
Bill wanted to know who can put the content on the main page?
Diana says Jim controls what goes on the main page.
Dr. Sawyer mentioned she read an article about schools thinking about Sustainability and putting together questionnaires about wanting to identify possible interests within the student body.
Diana mentioned Kelly Rushing will be the one to help with the questionnaire. Says it can trickle down to possible Students finding a University home they would be interested in.
Bill says he will get with Kelly Rushing to assist with questionnaire.

Diana suggest Community Engagement would
be a good place to get sustainability information out as well as putting QR Codes on Recycling bins.

Eddie - in for Dr. Wu stated they have recruited 16 Sustainability
Ambassadors. They also did a module on sustainability, held competitions, and will have another glass tour @ Recycle Center to observe how to turn glass waste to Recyclable items.

New Business
Victor introduced Dr. Hwang College of HTM

Dr. Hwang Surveyed people who care about sustainability and also health conscious.
Hoping to convince eco-friendly containers are the way to go.

Dr. Hwang says results will be updated soon!
Bill asked will or have restaurants taken the survey?
Diana stated she would be interested to know which is truly the best eco-friendly container.
Dr. Chronister Suggested a Visit Mobile presentation for Dr. Wayne's Survey as well.

Victor spoke about MCOB and Student Curriculum. Says Dr. White is currently working on curriculum for sustainability.

Dr. Chronister mentioned funding ADEM, the Storm water
Issue and Building 8 or 9 Rain gardens. She says they are looking to
recruit teams to sponsor those rain gardens as well.

Scott Crow met w/ engineers and is working out pricing on materials that will absorb water. Say he should have it by the end of next week.

Floor has Opened/ No new topics

Next meeting will be in June

SGA Grad Camille will no longer be here. Committee offers Congrats to the 2023 Graduates
Bill suggested appointment of more faculty to the committee in the near future.

Meeting adjourned @ 3:06 pm

University Sustainability Committee

May, 2023

Members Present: Victor Cohen, Bill Guess, Todd Culp, Scott Crow, David Turnipseed, Diane Nichols, Amaya Douglas

Guest: Savannah Wallace

Welcome everybody

Victor: The minutes from the April 5 meeting do you have a copy of that?

I'll give you a few minutes to scan over it, and then I'd ask for a motion for acceptance.

Bill: Noted there needed to be correction to the minutes from April's Meeting. Instead of Plactic recycling it should have started cardboard recycling. Recycling was referenced in 2 parts. We were at eight tons last month and 280 lb. Of plastics per week. Bill also mentioned cardboard is not making any money.

Victor: Does the chair have a motion for acceptance with the corrections.

Second, all those in favor pose.

Work groups/ Sub-Committees

Marketing & Communications

Diane: I'm, after the last meeting, I talked to Kelly Rushing about what we could do on the website.

And everything that we talked about was doable, one thing we did do is add, just pull down to the bottom.

We have a link to the most recent Earth Day Event. She also stated that linking other opportunities on campus is also doable it's just a process of

getting all that information to me to get on the website, and trying to consolidate where everything is.

Victor/ Diane: Suggested getting all information sent to Diane via email, and then she can put it where it needs to go.

Diane also suggested once all information is gathered from various groups there could be links to display different ways to get involved on the Sustainability website with contact information and meeting days. She doesn't think there is information out there already but listing them would be helpful. We just need to bear it out what is going on, and how are we going to get that information sources?

Bill: Stated we have 2 different sources such as the Student Groups, and we have the campus, the faculty, staff activities.

Bill says he sees some things on the Digest that I always wonder why it's not kind of feeding into this

Victor: Mentioned Dr. Wu Just did something and it was published on the digest

Diane: Stated her office manages the Digest but it doesn't come through her for approval like most emails. It would just be a matter of looking through all of the info.

Bill: I see the marine sciences, and after doing some things, the biology dept. and college medicine group he didn't know about, so I didn't see that one to you.

Victor: I'm going to start pushing that kind of language to submit it, or link it to Diane to create a section there that has campus wide activities going on.

Bill: Suggested putting something in the digest, for those who read can set a reminder for those Sustainability activities.

There's a list of registration reports, as well as potential reaching up to Coleman with contact information to the executive numbers on the Student level as well as the Advisors. They can potentially send out emails directly to those who anticipate having events like this.

Bill: stated we have a new person who's managing the garden. He didn't say which group he was associated with but will share the information with everyone about the

Victor: For everything sustainability, please link in or loop in, or send to Diane.

Diane suggested sending a link preferably with a website or that person's email and contact information. **Diane** also said that she will add something to the Digest that will solicit this type of information as well outlining the website, contact information, name of organization when they meet etc.

Victor stated the more information we get the more info we get could dictate how we can reorganize the site.

Diane suggested adding a section saying Sustainability around campus since they all will not always fall under the same category.

Victor: More notable on the student side, biology Student Association has probably been the most visual, but we know that engineering has a group, um, um, with the Green Jags merged into biology.

HTM has a group that's doing things as it relates to sustainability.

There are a number of different groups that are doing something related to sustainability. I think once you put that out there it will start to hit Diane's inbox

Bill asked if there was an environmental person appointed to the SGA?

SGA Rep: stated she has not appointed an environmental cabinet member yet but has a cabinet member for Community Engagement who is taking on the misc. gaps She's singing on things such as the Jag Country, as well as one big project from

Bill: Says Jag Country ties into the Garden that actually supplies some of the programs.

Victor: When the next meeting, amount announcements go out, it's going to go to SGA

if you want to add the Community Engagement member to that, so she gets it as well, she'll know when the next meeting is, and we'd love to see her see her

Operations

Todd/Bill:

Todd: Stated Operations did 18 bales last month, and looks like they have 15 more bales of cardboard ready to go.

We recycled 64 batteries, 40 lbs. They also recycled starters and water pumps.

They really don't keep up with that that much but wanted to let you know we do.

Todd: You have to turn the starters in to get the coil, so they recycle them.

They do the same thing with water pumps and spark plugs. Any other kind of metal they pull out, goes to the metal recycling and being down in the center utilities. If it does need to be recycled, it just does through that department.

Todd: Stated that Central Utilities do a lot of recycling the metal down there. They've also had 113 tires in the recycle bins and 80 bags and plastic and aluminum that's been taken down to recycle the different parts.

This is considered summer weight. Operations won't get into the tonnage until August or September.

Diane: Asked were they planning that the truck be set up at the residence' halls?

Todd: stated Yes, the truck will be parked. Be part of that along with some movers and someone to help with recycling while moving out.

We have someone stationed by some ground trucks and then a couple of custodian scanners here and there.

Trying to keep people from throwing trash in those bins.

Scott: Stated they have about six staged equipment operators and stuff like that to crush. Dumpsters are all trash and need beans, and we still end up with a lot of development when we're done.

Scott: We've spent a good bit of time last year, actually, in the dumpsters.

First thing about the next morning is what they'll do if they come out and we're all gone and throw them all in there.

We get here at seven and go, dump it out for a little bit, pull out as much as we can.

Bill: I did notice that housing has Goodwill donation boxes everywhere for people who want to get clothes and all that, where they're moving out, or whenever.

They're located in the housing area all over.

Savannah says she usually make the rounds through Azalea and Chameleon, mainly picking up, volunteering to take people's boxes as they unpack them

but heard this year they're doing something different. If you're on the second floor for example you come in a certain time slot, and then make the elevator, so it'll only go up to that floor.

They're staggering when people are moving in.

Academic and Innovation.

Dr. Carol Sawyer is not here today.

Steven/ Gulf Scholars: The big update, I guess, from last time is we did finish recruiting our first group of Gulf Scholars. Gulf Scholars has 12 scholars that are largely freshman and sophomore. When they show back up on campus in August, we're going to hopefully have some potential project ideas to float to them to see what they might want to get involved in. If there's anything from this group that would benefit from having a highly motivated undergrad engaged, we could come up with a couple

of project ideas and he can send that request directly to the group.

Steven mentioned that we had a social science methods workshop on campus last week, and one of the people here from Michigan State was really involved in their early Ashy Star certification. They spoke with them a little bit and exchanged some contacts.

They said they would be happy to host anything from a visit up there at Michigan State or a phone call, or whatever we might want to do with that gained momentum again.

Steven stated that he is in one of the like Sustainability across the curriculum, working groups for the summer and would love to go back this fall if I can work it into my schedule in Boston.

Bill asked about the rain gardens and all that activity.

Scott: Says it has all been sent up since we last met. Says they wrapped up budget numbers, and is relaying up to all the different offices that needed the standard approval.

I think the target date for those funds was that they had to be used by the end of September. Hopefully we hear something in the near future.

Planning and Administration.

No Updates

Victor: Biology Student Association. not here today.

Bill is working on getting some photos from them.

I think we did receive some photos, and passed it on.

Victor: Dr. Hwang couldn't make it today either. But she has an update to the survey that she is doing, the study she's doing through HTM, sustainability of the containers that's being used by food service entities.

She's got some data she's continued to compile as relates to that and she'll be back too.

Victor: I talked to Dr. Kent as well about the addition of a few additional folks to the committee. She'll be sending those letters. Dr. Kent will send it out as we approach the fall semester so we'll see some different faces, additional faces at this table. So that's a good thing and we need more help.

The more the merrier as far as I'm concerned, and if you've got additional students that's just got that burning desire as it relates to sustainability.

New business/Floor is open.

We have a lot of construction going on campus.

That's not going to interfere with anything from a sustainability standpoint, other than blocking drainage for a while.

But other than that, we all should be good as it relates to the campus.

Campus should remain healthy through all of that. I am shocked we didn't get any concerns about the number of trees that were cut down.

I'm working on, and this is through the book in the facilities office on, a more culture master plan for our University master plan.

As far as we don't have anything outlined for tree replacement plans.

Well, more places in the when, how, what kind of size trees are going in, and so on and so forth.

Oaks that's kind of part of the course, when they get about 50 years old, they like to fall apart.

You can, you can cut on them for ten years, trying to save them in the middle of all anyways that's a tough tree in a tough location.

There's no budget being owns any planet place that comes out of the grounds budget so it's really outlining and putting up a driven plan in place so that, um, you know, the state and other people that look at that master plan have seen that we take the steps to alleviate some of those factory losses that we do experience on campus. With a growing campus, that's just kind of what we do urban forestry is to replace what you can so you can, well, most of the projects you put in more trees.

Next meeting will be in August. We'll send out a doodle poll so that everybody can weigh in on what's available to them.

I know that's a busy, busy time. The front part of it, you're trying to finish up your summer vacations and the, the, the, the back part of it, you're trying to recuperate from the middle week that we're loading everybody in, even if it's just to get reacquainted with some kind of committee meeting.

If there is nothing else, all motions are adjourned.

*No second.

Meeting adjourned at 02:40 p.m.

Sustainability Committee Meeting Minute for August 29, 2023

Members present: Christina Wassenaar, Cori Scherbring, Evan Wilkes, Scott Crow, Dr. Steven Scyphers, Todd Culp, Joel Billingsley, Dr. Carol Sawyer, Dr. Shenghua Wu, Bridgette Soderlind, Amaya Douglas, Bill Guess, Dr. Eun Min Hwang, Diana Nichols

Guests: Sarah Limer and Savannah Wallace

2:04 PM

Welcome to the first Sustainability Committee Meeting of 2023-2024

Victor: Goes over the Sustainability Committee Mission Statement and thanks all old and new members of the committee.

Minutes from June 20, 2023 meeting were approved at 2:06 PM

Work Group Reports

<u>Marketing & Communications</u>

Diana: Currently working on consolidating Sustainability website. She landed on needing to know who and what to consolidate for the website. There is some post on the University social media pages for Move-In day cardboard recycling.

Bridgette: Asked about doing an annual report on the website? She also suggested SGA information could be added.

Amaya SGA: Mentioned Campus Safety & Improvements can update **Diana** on what their group is doing.

Victor: Wanted to know if there was a possibility of placing a Sustainability Tab on the University's Homepage where it can give a Sustainability web page overview.

Dr. Scyphers: Suggested adding the Gulf Scholars to the Home Page Banner and add an introduction of the members of the Gulf Scholars as well.

<u>Operations</u>

Todd: Thanks **Scott Crow** and Grounds Crew for all their help on move-in day. He also mentioned the mountains of cardboard that was collected.

Bill: Stated a lot of parents were helping during move-in day as well.

Bill/ Todd: Stated they are sill in the process of bailing cardboard so no updates just yet on the amount/total.

Academic

Dr. Sawyer: Didn't have any updates for work group, but suggested the addition of a Co-Chair for Academic work group to help identify programs going on with sustainability and getting that information out to students.

Victor: Stated that we do not need an approval from Provost to add said Co-Chair within the work groups so it would be no problem for the addition.

Planning

Bill: Is looking to add Earth Day ideas to the web page. He also suggested the President's Office and SGA may want to add Earth Day April 2024 to the web page as well.

No Updates for the Biology Student Association

Amaya stated that they are hoping to do a Campus wide clean up soon.

Victor advised the day after home football games are a good target date for Campus Cleanups.

Bill suggested posting flyers for volunteers to help **Aaron** (**Student Garden Organizer**) with first game clean up.

Diana stated that the committee forward all useful sustainability info to her so she can place it on the Sustainability Web Page.

Bill Introduced **Christina Wassenaar**/ VP Of the Faculty Senate.

Christina States that there are no current activities. Says the Faculty Senate has completed a survey and will present results at the Senate Plenary meetings the 3rd week of September. One of them being ECO Development and how it relates to the world and not just recycling.

Christina also mentioned this Faculty Senate can lead the charge for Curriculum for Sustainability.

General Updates

Dr. Scyphers Announced on September 15 school is introducing a Minor in Sustainability. Wants to look into marketing for Sustainability classes. Gulf Scholars has funds for curriculum and encourages participation in sustainability modules. He also mentioned at the end of the semester new scholars will

be selected**. Dr. Scyphers** stated that he would like to be paired with **Dr. Sawyer** and the Academic Sub Committee.

Dr. Wu says The Society for Sustainable Engineering is hosting events with guest speakers monthly. He also mentioned 3 student projects that the Sustainable Engineering group worked on such as Micro Plastics and its prevalence in fish, Glass recycling by turning it into artificial sand as well as some projects in Biomedical, Journalism Arts & Humanities fields.

New Business

Victor: Proposed an Election of Co-Chairs for Committee

Bill suggested electing a member from Faculty and/or students so we can gain perspective from all areas on campus.

Dr. Steven Scyphers and **Amaya Douglas** are nominated/ voted in as new Co-Chair and Student Co-Chair of the Sustainability Committee.

Where do we go from here?

Victor/Bill suggested gathering information relate to sustainability that we can get and start feeding information to Diana to be marketed. Also suggested we invite Student Organizations and Faculty Senate to Committee meetings as well.

Meeting Adjourned at 3:03 PM

Sustainability Committee Meeting September 28, 2023

Members Present: Monica Davidson, Evan Wilks, Amaya Douglas, Sarah Limer for (Dr. Scyphers), Diana Nichols, Scott Crow, Joel Billingsley

Guests: Aaron Wiggs, Jason Strickland and Andrew Partca

Welcome at 2:06 PM

Acknowledgement of Guests

Aaron Wiggs Student Garden, Jason Strickland Biology Student Assoc., Andrew Partca SGA

Work Groups

Marketing and Communications

Diana: Presented a mock up of the Sustainability Website and says the Resources tab is where we can put information for anything pertaining to Sustainability. **Diana** says she is also working on adding a sustainability tab to the University's Main page as well. Gulf Scholars is looking to add their projects to the USA News and have someone add an article of the Gulf Scholars to the Banner as well.

Joel: Suggested adding a **WHY Sustainability** tab defining what sustainability is accompanied by a vision statement. Also suggested adding things that students would want to know about sustainability as well. **Diana** mentioned highlighting the How the world is working toward having a more sustainable environment.

Victor asked if Student Representatives could draft a report about what information would the student body like to know about sustainability? **Andrew** suggested a survey platform and Diana says we could include a link on the page.

Jason: suggested including What you would want your campus to do when it comes to sustainability initiatives as well as **"What does sustainability mean to you?"** in the surveys.

Operations

No Updates for this work group.

Scott Crow: Cardboard is almost finished bailing not quite done for total/numbers from campus move-in.

Academic

No Updates. Work group still needs a Co-chair for this sub-committee.

SGA and BSA

Aaron: The Biology Student Association has a committee for the Student Garden to help get more information about the garden out also looking to appoint a Sustainability Officer for the Student Garden as well. **Jason** stated he wants to build a legacy for the Student garden instead of it switching hands with every new VP. Both Aaron and Jason have plans to reconstruct the garden.

Andrew: Campus Cleanup with SGA and other student organizations will be held on October 29 and November 12. He also mentioned they plan to have a Trashion Show/Fashion Show with garments that are made from 100% recyclable materials for Earth Day.

Amaya President of the SGA along with other student organizations such as the Fashion Club will be sewing a lot of those garments.

New Business

Victor: Earth Day 2024 is Monday April 22, 2024. He suggests rallying efforts towards what students will be doing and think the Fashion Show would be a BIG Event. Says Grand Prizes would be a great incentive and Sustainability Committee could be one of the judges at the Fashion Show.

The BSA will host Nature Walks the Friday before Earth Day. **Diana** suggested having a day long observance for Earth Day. **Amaya** added we could map out all events going on for Earth Day and let the Fashion Show be the Finale.

Joel wants to look into engaging with colleges about different things they are doing for Earth Day as well as ask the Deans will they support and display their commitments.

Victor asked how early can we present these ideas and start planning? **Diana** stated the press release for Earth Day can be out a couple weeks before the Earth day events.

Diana also stated that she will have a plan established to roll out in March 2024. **Andrew** mentioned he will work on planning and will update on those plans prior to roll out as well.

Victor talks about the position for Goodwill Easter Seals has been vacant for some years and would like to refresh our position with them or look for another entity. Says he will reach out to Dr. Kent to see what she thinks in hope to get a person on the Committee. **Scott** mentioned there are some limitations with Goodwill as oppose to the City of Mobile when it comes to Sustainability.

Joel wants to see about possibly adding a rep from Goodwill and The City of Mobile to the Committee.

Meeting Adjourned at 2:49 PM

Appendix H – 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 I – Groundskeeper Essential Job Functions

Groundskeeper I - Essential Job Functions

1. Trims and fertilizes trees and shrubs.
2. Mows and edges lawns.
3. Polices grounds and picks up trash and debris.
4. Waters plants as needed or directed.
5. Hoes, weeds and otherwise tends flower beds, gardens and lawns.
6. Collects, loads and hauls off trash.
7. May operate a tractor or other groundskeeping equipment, implements and vehicles.
8. Digs and plants flowers, shrubs and trees.
9. May be responsible for performing groundskeeping and custodial duties in maintaining a small group of buildings and grounds.
10. Installs wee fabrics and mulches.
11. Stakes and guys trees.
12. Removes debris.
13. Cleans trash and debris from storm inlets.
14. May apply chemical to lawns, trees, shrubs, flowers and paved surfaces as required.
15. Solid waste collection campus-wide to include pick up of bagged, boxed and loose materials and transport by truck to dumpsters located throughout campus for unloading.
16. Assist in installation and repair of irrigation systems.
17. Operate power washer to clean sidewalks and other paved surfaces.

Groundskeeper II - Essential Job Functions

1. Mows and edges lawns.
2. Removes grass clippings, leaves, pine needles, trash and debris from lawns and landscape areas.
3. Prunes shrubbery and trees.
4. Plants and mulches shrubs, trees and flowers.
5. Installs stakes and guys on tress as required.
6. Applies irrigation water to trees, shrubs and flowers.
7. Applies chemical and fertilizers to lawns, trees, shrubs and flowers.
8. Operates tools and equipment such as pruner, line trimmer, blower, rake, shovel push mower, edger, sod cutter, riding mower, tractor mounted flail/bush hog, hydraulic tree spade, tractor mounted spreader/sprayer and high-speed chipper grinder.
9. Loads and unloads bags of fertilizer, peat moss and other materials up to 60 lbs. in weight.
10. Sweeps streets, driveways and parking lots.
11. Operates a variety of pickup trucks and other trucks, including water tanker.
12. Maintains and calibrates equipment as required.
13. Installs and repairs irrigation systems.

Appendix J – Inlet Medallions


DRAINS TO
THREE MILE CREEK


DRAINS TO
12 MILE CREEK

Appendix K – Bio-infiltration Assessment

Re: [External] Fwd: Bio infiltration systems

WG
William Guess <wguess@southalabama.edu>
To Andrew Watley
Cc Savannah Wallace

Reply | Reply All | Forward

Tue 4/16/2024 6:32 AM

I spoke with Scott Crow, Mgr. for Grounds and he says that they periodically cleanout the bio-infiltration a couple of times annually. Still functioning. Especially after significant rain events.

Bill

On Mon, Apr 15, 2024 at 4:54 PM Andrew Watley <andrew.watley@drivenengineering.com> wrote:

> Any luck with Grounds?