THE UNIVERSITY OF ALABAMA® | Division of Finance and Operations
Environmental Health and Safety

NPDES PHASE II

Stormwater Management Plan

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Introduction

The University of Alabama (University) has been issued a National Pollutant Discharge Elimination System (NPDES) permit for Stormwater discharges from regulated small Municipal Separate Storm Sewer Systems (MS4). The corresponding permit number is ALR040031. Environmental Health & Safety (EHS) is the University department responsible for maintaining the Stormwater Management Plan (SWMP). The City of Tuscaloosa is an adjacent MS4, and more information can be found **here** related to the City of Tuscaloosa Stormwater Management Plan.

The University originally submitted a Notice of Intent in July 2003. The initial NPDES permit was issued on March 10, 2003. The effective date of the current permit is September 16, 2021, with an expiration of September 30, 2026. Currently, the University of Alabama's MS4 does not impact any impaired waters with stormwater runoff as noted by review of Alabama's 2022 303(d) listing/Total Maximum Daily Loads (TMDLs).

The current Storm Sewer Map provides the locations of The University's 14 outfalls, and inlets from the City of Tuscaloosa, as well as the facilities that make up the MS4's urbanized areas. A copy of the map is provided **here.**

The Stormwater Management Plan (SWMP)

The SWMP has been developed and designed to manage the discharge of pollutants from The University's small MS4 to the maximum extent practical. The purpose is to protect the water quality of the Black Warrior River and to satisfy requirements of the Clean Water Act. The University SWMP includes various management practices, control techniques, engineering methods and other provisions, which are described in detail in the body of this document. Best Management Practices (BMPs) are outlined for each control measure, including the proposed schedule (example, interim milestones, as appropriate, inspections, frequency of actions, etc.). Anytime the University recognizes an inefficient or ineffective BMP, the BMP is revised to ensure effectiveness.

Minimum Control Measures

The minimum control measures outlined in the permit requirements are:

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

Each minimum control measure is addressed and detailed separately as part of the SWMP.

I. Public Education and Public Involvement on Storm Water Impacts

a. Introduction

A public education and public involvement program is in place to inform the public about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff to the maximum extent possible. This education and involvement measure, instituted by EHS, distributes educational materials and information to the campus community, and provides public involvement opportunities for the campus community related to the SWMP and the reduction of litter that may impact local water bodies. Opportunities for involvement include activities that directly benefit the environment and lead to improvements in overall water quality. EHS notifies the campus community of these opportunities by public notice of SWMP meetings and through campus electronic media sources. Notice of SWMP meetings are published on Twitter and also on other University multi-media formats. These public education and public involvement efforts are designed to encourage individuals and groups to take active steps to reduce pollutants in stormwater runoff.

b. Rationale

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

c. Summary

The public education and public involvement program communicates how to reduce stormwater pollution, explains how the campus community can become involved in the University's SWMP, identifies the audience for the specified educational programs, and outlines the planned means to reach the target audience.

The target audience is the University's campus community, which includes faculty, staff, students, and visitors. Segments of this audience are targeted based upon specific goals or regulatory requirements. The goal of the public education and public involvement measure is to reach all employees and students at the University within the life of the permitting cycle, and to expose a significant segment of the visitor population to information regarding the impact of contaminated stormwater discharges on local bodies of water and watersheds.

Targeted pollutant sources include sediment from construction sites, illicit discharges of hazardous materials, litter, and runoff related to Facilities and Grounds maintenance. Other pollutants may be included as conditions on campus change or other parameters are added. Evaluations of success for specific management practices are determined by analysis of the goals for each BMP within the public

education and public involvement measure. EHS establishes a measurable goal for each BMP and documents attainment of that goal.

d. BMP Summary

EHS utilizes a variety of BMPs to educate and inform the campus community regarding stormwater quality issues. This includes development of printed materials for direct distribution, creation and maintenance of a stormwater management website, and dissemination of electronic and printed public service advertisements. Steps are also taken to educate the University community on the impacts of illegal disposal and littering, as well as the importance of water quality and sediment control within university campus construction sites (specifically contractors and those working within campus construction sites). Additionally, the Stormwater Management Committee, Storm Sewer Marking Campaign, and the Campus Cleanup Activity are utilized to garner public involvement in the SWMP.

i. Printed Materials – Education on the Importance of Stormwater

EHS continues to develop and distribute brochures, fliers, and posters to educate the campus community on stormwater quality issues. EHS edits, updates, and modifies these as needed to ensure that communications conveyed are in concert with the public education and outreach program. EHS preselects locations and makes available relevant literature and materials related to stormwater quality. EHS includes the number of printed materials provided in the required Annual Phase II Report that must be submitted by May 31st to the Alabama Department of Environmental Management. Example documentation is provided **here.**

ii. Stormwater – Social Media

EHS continues to designate a portion of its website (ehs.ua.edu) to educate the public and the campus community on water quality issues and provide a mechanism for feedback on stormwater or water quality issues. EHS edits, updates, and modifies the information provided to ensure consistency with the public education and public involvement programs. Additionally, EHS continues to post information pertaining to the University of Alabama Stormwater Management Program to social media using the twitter platform (@EHS_UA).

iii. Public Service Advertisements

EHS utilizes electronic and printed public service advertisements. Printed media is utilized on the University's Crimson Ride bus service. Printed ads also appear periodically in the University's student newspaper, The Crimson White. These advertisements focus on the impact of stormwater runoff on local bodies of water and steps that can be taken to reduce stormwater pollution. EHS reviews, edits, updates, and modifies the advertisements to ensure relevancy to current water quality issues. EHS maintains records

regarding the advertisements and reports the frequency of these advertisements in the annual report. Attached are examples of current ads **here.**

iv. **Impacts of Illegal Dumping and Littering - Training**

Educating the campus community on the impacts of illegal dumping and littering is vital to the cleanliness and beauty of the University campus. EHS develops and disseminates educational materials and trainings that discuss the harmful impact of illegal dumping and littering and provides a mechanism for reporting such incidents. EHS provides information regarding distribution of these educational materials/trainings as part of its annual report.

v. **Education Concerning Construction Activities**

The University is in a state of continuous construction and redevelopment. Because of these activities, it is important that there is a mechanism in place to inform the campus community on steps that can be taken to report potential construction site runoff problems. EHS provides information/training regarding the reporting process and stormwater concerns and/or efforts pertaining to construction activity as part of the annual report. This is provided as the number of individuals that received training related to stormwater construction activities.

vi. **Education of the University and Contractor Personnel**

To ensure University construction project supervisors and contractor supervisors are informed on the most current policies and procedures related to sediment and erosion control on construction sites, EHS, in conjunction with Construction Administration, provides educational programs and trainings to communicate related guidelines on these issues. EHS reviews, edits, and modifies educational and training programs regarding the proper design, selection, implementation, and maintenance of erosion and sediment control on construction sites. EHS provides information regarding education of construction supervisors as part of the annual report.

vii. **Education of the Public through Signage**

The education of the campus community on the importance of water quality is a vital priority for EHS. Students are a major focus group, as this group will have a significant impact on future national, state, and local attitudes toward water quality issues. To further educate the public, EHS, in conjunction with The University of Alabama's Transportation Services, has installed "No Littering – No Dumping" signage on campus in key locations. This signage is equipped with a QR Code that links to the EHS stormwater website for more information pertaining to campus stormwater efforts. Documentation of the number of signs installed and maintained is provided.

viii. Stormwater Management Committee

To oversee the implementation of the SWMP and provide advice and consultation, EHS utilizes the Stormwater Management Committee. The Stormwater Management Committee consists of various members of the campus community who have a stake in the SWMP and have expertise that will benefit the program. The SWMP Committee meet on an as needed basis, but at a minimum, once per year. During the permit cycle, EHS request committee members review education materials, inspection procedures, guidance information, and investigation methods detailed in the BMPs specified in the minimum control measures. Additionally, EHS provides notifications of committee meetings to the campus community through regular notice procedures. Public notices are published on Twitter and appear on the University multi-media signage system. EHS seeks public input in the development, revision, and implementation of the SWMP through the Stormwater Management Committee meetings as these meetings are announced and open to the public. EHS maintains records of committee meetings including, but not limited to, attendance records, minutes, and copies of the agenda. The annual report includes information concerning SWMP committee meetings, including the number of meetings and a summary of discussions.

ix. Storm Sewer Marking Campaign & Campus Cleanup

The storm sewer marking campaign provides a way for civic organizations and individuals to make a positive, hands on, impact on local water quality. EHS provides storm sewer inlet discs which state, "No Dumping - Drains to River" and adhesive to attach the discs. In the future, Construction Administration, in conjunction with EHS, plans to install new, revised, and more durable storm sewer markers on all new and existing storm sewer covers. EHS includes documentation of the installation of storm sewer markings in the annual report.

x. Campus Clean-up Event

EHS organizes, promotes, and hosts an annual campus clean-up event to educate campus partners on the importance of litter reduction and control, as litter impacts water quality for all. To ensure continued success through the permit cycle, EHS seeks to identify groups and civic organizations that are interested in program participation. As part of the campus clean-up event, litter, floatables, and debris are collected from specific locations on the University grounds for proper disposal. Information related to campus clean-up, such as the date of the most recent event, are included as part of the annual report and within the chart.

e. Utilization of BMPs

A chart is maintained summarizing goal attainment for each of the BMPs referenced below. Documentation to support such attainment is maintained by EHS.

Printed Materials – Education on the Importance of Stormwater: Printed materials are distributed throughout The University of Alabama Campus. EHS has an established annual goal of 50 brochures, fliers, posters, etc. The actual number of disseminated documents are recorded in the chart.

Stormwater - Social Media (Twitter @EHS_UA): Announcements and notices related to stormwater are uploaded as needed to social media, and EHS tracks followers of the twitter account in the chart as documentation of the audience.

Public Service Advertisements: EHS utilizes The University of Alabama Crimson White newspaper, digital media, and campus transit buses to inform the campus of the stormwater quality. This is notated as Yes/No in the chart, along with the schedule of these public service advertisements.

Impacts of Illegal Dumping and Littering: EHS documents in the chart the number of individuals throughout campus that have received training regarding the impacts of illegal dumping and littering.

Education Concerning Construction Activities: EHS, in conjunction with Construction Administration, documents the number of individuals throughout campus that have received stormwater training related to construction activities in the chart.

Education of University and Contractor Personnel: EHS, in conjunction with Construction Administration, documents the number of contractors that have received related stormwater training in the chart.

Education of the Public through Signage: EHS, in conjunction with Transportation Services, installed "No Littering – No Dumping" signage on campus in key locations. Documentation of the number of signs installed and maintained is provided. This signage contains QR codes for immediate access to training and information pertaining to the University's Stormwater Management Program.

Stormwater Management Committee: EHS holds, at minimum, one Committee meeting annually which is advertised and open to the public.

Storm Sewer Marking Campaign: EHS collaborates with Construction Administration to determine the number of discs and/or Storm-Sewer covers that are installed/replaced, and this information is documented within the chart.

Campus Cleanup: EHS promotes, organizes, and hosts a Campus Cleanup Activity, at least annually. Documentation outlines the date of the event.

	FY-22	FY-23	FY-24	FY-25	FY-26
Printed Materials – Education on Importance of Stormwater *(Public Education)*	50				
Stormwater Quality – Social Media *(Public Education)*	635 Followers				
Public Service Advertisements *(Public Education)*	Yes Quarterly 2022				
Illegal Dumping and Littering Training *(Public Education)*	99				
Education Concerning Construction Activities *(Public Education)*	99				
Education of University and Contractor Personnel *(Public Education)*	15				
Education of the Public through Signage *(Public Education)*	Yes 7				
Stormwater Management Committee *(Public Involvement)*	Yes 9-28-2022				
Storm Sewer Marking Campaign *(Public Involvement)*	+5%				
Campus Clean-up Event *(Public Involvement)*	Yes 3-25-2023				

II. Illicit Discharge Detection and Elimination (IDDE) Program

a. Introduction

The Illicit Discharge Detection and Elimination (IDDE) Program measure consists of BMPs that focus on the detection and elimination of illicit discharges into the

MS4. An illicit discharge is defined as any discharge to an MS4 that is not composed entirely of stormwater, except those specified in the NPDES permit, and exempt non-stormwater discharges.

b. Rationale

Each BMP within the IDDE measure is selected through the evaluation of techniques utilized by other permitted entities, analysis of the effectiveness of previously utilized BMPs, and given consideration of the economic impact of new practices and consideration of selected BMP's applicability to permit provisions.

c. Summary

The IDDE measure is designed to identify methods for conducting and documenting dry weather screening inspections, mitigating illegal dumping, and educating personnel on the proper methods for successful BMP implementation. The success of IDDE BMPs is evaluated through analysis of each BMP goal within the IDDE measure. EHS establishes a measurable goal for each BMP and documents attainment of that goal.

d. BMP Summary

EHS utilizes several BMPs to detect and eliminate illicit discharges. Included among these is the maintenance of the University storm sewer map, establishment and recognition of the Stormwater Management Policy, dry weather screening inspections, employee training, and illegal discharge/dumping detection and reporting.

i. Storm Sewer Map

The University maintains a storm sewer map, which details inlets, outlets, and lines on the University campus. Included are the latitude/longitude of all known outfalls and the name of the water of the State that receive discharges from these outfalls (The Black Warrior River). To continue this process, the University has a consistent method for updating the storm sewer map. Outfalls are identified, and new data is included as available. New outfall locations identified through this process will also be included in the EHS annual report. EHS collaborates with Construction Administration to ensure the map is up to date annually. The current Storm Sewer Map providing the locations of The University's 14 outfalls, and inlets from the City of Tuscaloosa can be found **here.**

ii. The University of Alabama Stormwater Management Policy

The recently approved Stormwater Management Policy, a document to govern/control all activity related to The University of Alabama Stormwater permit, includes escalating enforcement procedures and actions regarding illicit discharge minimization and removal. The EHS website contains access

to the new University of Alabama Stormwater Management Policy which has been distributed to The University of Alabama Campus.

iii. Dry Weather Inspections

EHS continues to perform dry weather screenings as developed and outlined in the SOP. Each outfall is inspected at least annually. EHS continues to review and conduct training programs, which target Construction Administration and Facility personnel. Training specifically addresses the identification, reporting, documentation, and mitigation of illicit discharges. EHS has a system for tracking and reporting non-stormwater discharges. This system includes incident specific activities including identification, reporting and mitigation actions. EHS documents the number of outfalls screened and the number of non-stormwater discharges identified and reported as part of the annual report. The Standard Operating Procedures (SOPs) for the Dry Weather inspections can be found **here.**

iv. Employee Training

EHS stormwater training programs focus specifically on the dry weather screening process, identification, and reporting of illicit discharges. EHS reports the number of personnel trained in the annual report. EHS conducts annual dry weather screenings. The successful implementation of the dry weather screening BMP will rely on properly trained personnel.

v. Illegal Dumping Detection and Reporting

One of the primary goals of the SWMP is to minimize incidents of illegal dumping and increase the ability of the University to respond to and mitigate incidents of illegal dumping. While EHS recognizes the list of non-storm water discharges provided in Part I B of the Permit as authorized, assuming they do not cause or contribute to a violation of water quality standards and they are not substantial contributors of pollutants to the University MS4, EHS responds promptly to any concern or report related to possible illegal dumping or illicit discharge. Additionally, toward this end, EHS includes illegal dumping in the dry weather screening process, as it implements a system to track illegal dumping occurrences and includes illegal dumping identification. EHS reports the training for illicit discharges and dry weather screening, including the number of illegal dumping incidents in the annual report. In the event of an Illicit Discharge, the University has appropriate SOP(s) in place which can be found here. According to the SOP, the University traces the contaminates back to its original inlet source and samples all outfalls in the chain until it has determined there are no contaminates, and then will make the determination whether the Illicit Discharge is the University's MS4 or if it has come from an adjacent MS4. The University provides sampling and testing analysis for all pathogens as deemed necessary. If further sampling or analysis is needed, the University

utilizes an accredited laboratory to perform the necessary sampling and analysis. Procedures to notify ADEM of a suspect illicit discharge entering the Permittee's MS4 are located in the Illicit Discharge SOP.

e. Utilization of BMPs

A chart is maintained documenting the annual review and last update of the storm sewer map, dry weather inspections, employee training, annual policy review, and illegal dumping detection and reporting.

Storm Sewer Map: EHS collaborates with Construction Administration to determine if the Storm-Sewer Map has been updated, or needs to be updated, and ensures any changes are deemed appropriate. This is notated as Yes/No on the chart.

Stormwater Management Policy: EHS documents the status of the Stormwater Management Policy that serves as the ordinance or regulatory mechanism and contains escalating enforcement procedures and actions related to the immediate cessation of improper disposal practices.

Dry Weather Inspections: EHS performs the screenings for all (14) outfall locations once a year (annually) in the dry season. This is notated as Yes/No on the chart.

Employee Training: EHS documents on the chart the number of individuals that have received related training throughout campus.

Annual Policy Review: EHS documents on the chart the review of the policy annually, and if there were any substantial changes required to the policy.

Illegal Dumping Detection and Reporting: EHS documents on the chart if there were any illicit discharge(s) reported.

	FY-22	FY-23	FY-24	FY-25	FY-26
Storm Sewer Map Exists/ Were Changes Required	Yes – No Changes				
Stormwater Management Policy	Yes - Policy Approved 5-26-2023				
Dry Weather Inspections	Yes – 100% (14 of 14)				

Employee Training	99				
Annual Policy Review Completed and Changes	Policy Approved				
Illegal Dumping Detection and Reporting	None Reported/ Detected				

III. Construction Site Runoff Control

a. Introduction

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

b. Rationale

Each BMP within the construction site runoff control measure is selected through the evaluation of techniques currently utilized by other permitted entities, analysis of effectiveness of previously utilized BMPs, and the applicability of the BMP to the specific site conditions where it is to be employed. Consideration of the selected BMP's applicability to permit provisions is of the upmost importance.

c. Summary

The construction site runoff control measure is designed to identify mechanisms which will be used to require sediment and erosion controls on construction sites; establish enforcement procedures; create requirements for construction site supervisors to implement erosion and sediment control BMPs and waste control on construction sites; develop procedures for site plan reviews that consider water quality impacts, site inspection and enforcement; and create education and training for construction site supervisors and the University personnel overseeing construction projects. The success of the construction site runoff control measure BMPs is evaluated through analysis of each BMP goal. EHS establishes a measurable goal for each BMP and documents attainment of that goal.

d. BMP Summary

The University utilizes several BMPs to control runoff from construction sites. Methods include the education of University project supervisors, construction plan reviews, implementation of a University of Alabama Stormwater Management Policy, inspection procedures, and reporting of problems related to construction projects.

i. Stormwater Management Policy

The University Stormwater Management Policy, recently approved, serves as the ordinance or regulatory mechanism relating to campus stormwater. This policy requires erosion and sediment controls and outlines sanctions to ensure compliance. The Stormwater Management Policy is reviewed annually.

ii. Education

Training is provided to University project supervisors and construction site operators regarding construction site storm water runoff and control. This training includes proper site management procedures, as well as protocols for reporting discharges and inspection results. EHS includes the number of individuals trained as part of the annual report. Documentation of training is available for review through electronic means at EHS.

iii. Construction Plan Reviews

To minimize occurrences of erosion and sediment transfer at construction sites, the construction process begins with the development of plans that incorporate BMPs for construction sites that are relevant to site conditions. To accomplish this, the University Construction Administration Department requires all designers to incorporate a detailed project sediment and erosion control plan in their design.

The University Construction Administration Department's Staff Civil Engineer reviews the construction plans at the following increments of design:

- 30%
- 60%
- 90%
- 100%
- Final Bid Documents

These detailed construction plan reviews are performed to assure conformance with stormwater guidelines and to ensure the designers are using the proper BMPs for the construction site. Information related to this process is documented in an electronic format (e.g., Microsoft Teams).

iv. Construction Site Inspections

The University's contract documents for construction requires contractors to perform daily inspections of the BMPs by a Qualified Credentialed Inspector (QCI), and to maintain a log of the inspection reports, which shall be made available for review to the University. In addition, the University reserves the right to withhold processing of monthly pay requests until these reports have been provided to the University. Also, the University has a procedure in

place to ensure the contractor properly installs and maintains all BMPs. This procedure allows the University to give the contractor a 4-hour notice to make required improvements to the BMPs or at that time the University can have the improvements made at a back charge the contractor. Finally, the University's Construction Administration Department requires all field coordinators to be QCI Certified and conducts in-house training for the field coordinators on an as needed basis. A link to the ADEM NPDES Construction Stormwater Inspection Report Form is provided here. This form provides the basis for construction site inspections by contractors (when a contractor or site-specific form of similar documentation is not utilized).

v. **Construction Site Problem Reporting**
EHS provides a mechanism for the campus community to report stormwater and water quality concerns related to construction projects through a form on the EHS Stormwater website. Additionally, concerns are taken by phone and email by EHS. Internal systems for accepting reported information are reviewed and modified, as necessary. Construction sites reported by the campus community will be investigated. Records regarding the number of public reports received and responded to is maintained and included in the annual report. Any construction site that does not have a NPDES permit or ineffective BMPs discovered during routine/periodic inspections, will be immediately addressed by contacting Alabama Department of Environmental Management (ADEM) and providing specific details related to the location of the construction project, the name and contact information from the owner or operator, and a summary of the site deficiencies.

vi. **Non-Compliant Construction Site Referrals and/or Enforcement Actions**
EHS documents the number of non-compliant construction site referrals and/or enforcement actions, along with descriptions of the violations, as noted, when provided by Construction Administration.

e. **Utilization of BMPs**
A chart is maintained documenting the presence of an enforcement mechanism, education/training, construction plan reviews (if any changes), construction site inspections, and construction site problem reporting, if any.

Stormwater Management Policy: EHS documents the status of the Stormwater Management Policy that serves as the ordinance or regulatory mechanism pertaining to Stormwater Management on the University of Alabama campus.

Education: EHS documents in the chart the number of individuals throughout campus that have received related training. Additionally, EHS documents the training of MS4 staff/inspectors within the stormwater annual report.

Construction Plan Review: EHS documents in the chart if any changes need to be made (regarding the construction plan reviews), and it will be notated as Yes/No.

Construction Site Inspections: EHS collaborates with Construction Administration and posts the number of inspections that were performed.

Construction Site Problem Reporting: EHS, along with Construction Administration documents any reporting issues that were investigated. These are noted on the chart.

Non-Compliant Construction Site Referrals and/or Enforcement Actions: EHS documents the number of non-compliant construction site referrals and/or enforcement actions and the descriptions of the violations, if noted, as provided by Construction Administration.

	FY-22	FY-23	FY-24	FY-25	FY-26
Stormwater Management Policy	Yes Approved				
Education	99				
Construction Plan Review	No No Changes				
Construction Site Inspections	239 Inspections				
Construction Site Problem Reporting	None Reported				
Non-Compliant Construction Site Referrals and/or Enforcement Actions	0 Reported				

IV. Post-Construction Storm Water Management in New Development and Redevelopment

a. Introduction

The post-construction storm water management measure consists of BMPs that are designed to minimize water quality impact from new and redevelopments once construction activities are complete. BMPs selected are designed to ensure that appropriate reviews are conducted, and pre-construction conditions are taken into consideration during the design, construction, and post-construction phases. This measure includes structural and non-structural controls including low-impact development and green infrastructure practices to obtain permanent storm water management over the life of the property's use.

b. Rationale

Each BMP within the post-construction storm water management measure is selected by analyzing techniques utilized by other permitted entities, and through review of the effectiveness of previously utilized BMPs in consideration of the selected BMP's applicability to permit provisions.

c. Summary

The post-construction storm water management measure is used to identify procedures to address post-construction runoff from new and redevelopment projects. Procedures for long term inspections and maintenance of post-construction BMPs have been developed and implemented. The success of each BMP is evaluated through analysis of each BMP goal and related inspections. A measurable goal for each BMP has been established and EHS documents attainment of that goal. The Stormwater Management Policy outlines the need for post construction runoff to mimic pre-construction hydrology, with the design and implementation of post-construction BMPs to be based upon that of a 2 year – 24 hour storm event. The Stormwater Management Policy also outlines the requirement for Low Impact Development (LID) and Green Infrastructure (GI) options to be reviewed and incorporated during the design of projects/construction, where feasible.

d. BMP Summary

The University utilizes BMPs to minimize the water quality impact of post-construction and redevelopment site runoff through the implementation of the post-construction storm water management measure. These BMPs include the development and enforcement of the Stormwater Management Policy, plan reviews, post-construction structural controls, and post-construction structural control inspections, to encourage further protection of the MS4.

i. Stormwater Management Policy

The recently approved Stormwater Management Policy serves as the regulatory mechanism relating to stormwater management for the University

of Alabama. Within this policy, specific reference is made to controls that must be incorporated to protect the quality of waterways. Included in these references are specific controls for post construction runoff to mimic pre-construction hydrology, along with strategic use of structural and/or non-structural BMPs, including requirements for review and incorporation for LID/GI options during design of projects and construction when feasible. Included is a copy of the policy for your review.

ii. Plan Review

To mitigate post-construction site runoff issues, construction plans are reviewed to determine if post-construction runoff from new and/or redevelopment will adversely affect water quality. If negative effects/illicit discharges seem likely to occur, the plans, procedures, or methods are revised or modified to ensure compliance with stormwater guidelines and the Stormwater Management Policy. Also, a review of the potential impact to sensitive or impaired water bodies with approved Total Maximum Daily Loads (TMDL) is conducted during the plan review process for all new and/or redevelopment projects on The University campus. To ensure an accurate review, The University will examine the most current 303(d) of impaired waters to determine if any are potentially affected. The approved TMDL's will also be examined for applicability.

iii. Post-Construction Structural Controls Inspections

Post-Construction Inspections, occurring at a minimum of once a year, are performed on qualifying construction sites to confirm that post-construction BMPs are functioning as designed. The inspection schedule is based upon the completion of qualifying construction site. Documentation of the post-construction inspections are available electronically at EHS. Any documentation regarding corrective actions related to poorly functioning or inadequately maintained post-construction BMPs is also available for review at EHS. A copy of the Post-Construction Inspection Form is available here.

iv. Enforcement Actions

EHS documents any enforcement actions related to post-construction storm water management in new development and redevelopment.

e. Utilization of BMPs

A chart captures the data pertaining to, or the status of, the Stormwater Management Policy, Post-Construction Structural Controls Inspections, and enforcement actions, if any.

Stormwater Management Policy: EHS documents the status of the Stormwater Management Policy.

Post-Construction Structural Controls Inspections: Post-Construction Inspections are performed annually at qualifying construction sites and are notated regarding the number of completed inspections.

Enforcement Actions: EHS documents any enforcement actions related to post-construction storm water management in new development or redevelopment sites by providing reference to the actual enforcement mechanism and details.

	FY-22	FY-23	FY-24	FY-25	FY-26
Stormwater Management Policy	Yes Approved				
Post - Construction Structural Controls Inspections	3				
Enforcement Actions	None				

V. Pollution Prevention/Good Housekeeping for Municipal Operations

a. Introduction

The pollution prevention/good housekeeping measure for municipal operations consists of BMPs that focus on the reduction of pollutants in stormwater runoff that originates from the University's operations and maintenance activities. The operations and maintenance activities include vehicle and equipment maintenance, materials handling and storage, and facility operations. The BMPs selected focus on the prevention of circumstances that have the potential to create polluted runoff.

b. Rationale

Each BMP within the pollution prevention/good housekeeping measure is selected through analysis of techniques utilized by other permitted entities, determining the effectiveness of previously utilized BMPs, and taking into consideration the selected BMPs applicability to permit provisions.

c. Summary

The pollution prevention/good housekeeping measure is designed to identify procedures for transportation system maintenance, vehicle and equipment maintenance, proper storage and handling of hazardous materials, and continued employee training on proper housekeeping and pollution prevention procedures. The success of the pollution prevention and good housekeeping measures is evaluated

through analysis of each BMP goal. EHS establishes a measurable goal for each BMP and documents attainment of that goal.

d. BMP Summary

The University utilizes several BMPs which are designed to minimize pollution related to operations and maintenance. Among these are roadway maintenance projects, street sweeping, litter collection, herbicide application, vehicle maintenance, hazardous material management, and employee training.

i. Roadway Maintenance

The University's Transportation Services as well as Construction Administration are the responsible parties for roadway maintenance throughout campus. Routine street maintenance has the potential to contribute to pollution runoff significantly. To minimize the potential impact from street maintenance, the University evaluates existing activities to determine if modifications would benefit stormwater quality. The University seeks to identify alternative procedures or materials that reduce the potential of polluted runoff. Specifications and SOPs are revised according to identified alternative practices. The University maintains records of road maintenance activities and any required alternative practices, as a part of the annual report.

ii. Street Sweeping

The University's Facilities and Grounds department is the responsible party for street sweeping throughout campus. Street sweeping is an effective method of reducing sediment and pollutants from roadways. To ensure these activities are conducted in an effective manner, The University identifies roadways that are to be swept. The University also establishes schedules for sweeping of identified roadways. The University maintains records of street sweeping including man hours involved and roadways. This information is included in the annual report.

iii. Litter Collection/Recycling

The University's Facilities and Grounds Department, along with the Logistics Department, are the responsible parties for litter collection/recycling throughout campus. The University continues to promote anti-littering campaigns on campus. Several procedures are utilized to reduce the discharge of floatable materials into local bodies of water. The University periodically evaluates the location of litter and trash receptacles. Also, collection of litter continues an established schedule, and Facilities and Grounds adjusts locations of receptacles and collection schedules, as necessary. In conjunction to litter collection, the University operates a recycling facility which recycles approximately 1,224 tons of recyclable materials annually, including paper, cardboard, metal, aluminum, wood, electronics, plastic, cooking oil, and ink

toner. Logistics and Support Services is the responsible party for recycled goods. More information can be obtained **here**. The University will include information regarding litter collection and recycling on campus as part of the annual report.

iv. Herbicide Application

The University's Facilities and Grounds Department, as well as, the Athletic Department, are the responsible parties for the herbicide application throughout campus. The use of herbicides is a very effective tool for controlling the growth of unwanted vegetation. Improper or indiscriminate use can have potentially harmful effects on water quality. To ensure that herbicide application does not contribute to negative water quality, the University reviews all areas with herbicidal use and determine alternatives where possible. The University will ensure compliance with herbicide application regulations. The amount of herbicide applied is included as part of the Stormwater Annual Report.

v. Vehicle Maintenance

The University's Automotive Services Facility is a full-service facility that supports vehicles owned or leased by the University. The University 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's Automotive Services department review and update the inventory of the University owned vehicles and operated equipment. The University conducts routine maintenance of vehicles and shall inspect vehicles for the presence of fluid leaks during routine maintenance. The University schedules repairs for vehicles determined to have leaks. Maintenance records are available for review as requested.

vi. Hazardous Material Management

EHS is the responsible party for the Hazardous Material Management Program and has operated the program for several years. This program, along with campus facilities, are periodically inspected by regulatory agencies for compliance with applicable standards. EHS has an active material inventory system that tracks and accounts for hazardous materials and chemicals on campus. In support of the Hazardous Material Management Program, EHS performs audits in laboratories and facilities on campus. More information can be obtained **here.**

vii. **Employee Training**

University personnel receive training that focuses on pollution prevention and good housekeeping measures. EHS identifies University personnel who are required to attend training. EHS maintains records related to this training. Training materials include, but are not limited to, the importance and need for vehicle and building maintenance, roadway maintenance, herbicide use, hazardous material management, and litter collection. Training documentation, including employee attendance, is a part of the data collected for the annual report.

e. **Utilization of BMPs**

Documentation of the referenced BMPs is recorded in the chart, along with the schedules associated with development of the SOP or measure. Additional details on each BMP and SOPs are found within the annual report and the Stormwater Management website here.

Municipal Facility Inventory: For the purposes of the stormwater management plan, all university buildings are considered municipal facilities. Due to continuous construction, renovation and expansion, a list of all current University facilities is available upon request by contacting EHS at 205-348-5905. This information is also available as a part of the annual report.

Floatable Material: An estimate of the floatable material collected from the MS4 is included in the table.

Inspection Plan and Inspections Conducted: Regarding facility good housekeeping and maintenance, EHS performs a variety of inspections including, but not limited to, building inspections and laboratory inspections, to document concerns related to campus facilities. These inspections are electronically documented. Provided in the chart is documentation of any necessary changes to the current inspection plan related to pollution prevention/good housekeeping, along with the number of inspections completed.

Roadway Maintenance Projects: Also, EHS collaborates with Construction Administration to document the list of roadway projects within the annual report, along with the total roadway construction/maintenance schedule performed yearly. Data documenting the number of roadway projects is included in the chart.

Street Sweeping: EHS collaborates with Facilities and Grounds to document in the chart street sweeping efforts, by indicating the number of man hours set aside weekly for this measure.

Litter Collection/Recycling: EHS collaborates with Facilities and Grounds, and Logistics to record floatable material collected, along with the number of man hours set aside weekly to ensure adequate litter collection on campus.

Herbicide Application: EHS collaborates with Facilities and Grounds to ensure all necessary precautions are taken to prevent chemicals from entering the storm drains from herbicide applications. Landscaped areas, open spaces, athletic fields, and recreational areas are among the University grounds which are treated regularly with herbicides. Specifics related to the amount of herbicide utilized on campus is documented in the chart.

Vehicle Maintenance: EHS, in collaboration with Transportation Services, documents any corrective actions that are needed to reduce potential storm water pollutants related to vehicle maintenance efforts. Additionally, Transportation Services maintains maintenance and service records for UA serviced vehicles.

Hazardous Materials Management: EHS operates the hazardous material management program, which includes an inventory system, audits, recycling, and proper disposal of hazardous materials. EHS documents within the chart if any known hazardous materials have the potential to impact the storm sewer system and require action.

Employee Training: EHS conducts routine training (on a quarterly basis) on the importance of water quality and stormwater. The total number of individuals that received the referenced training is provided in the chart.

	FY-22	FY-23	FY-24	FY-25	FY-26
Municipal Facility Inventory (Provided within Annual Report)	Yes Current List Available upon Request				
Floatable Material	83,800 lbs.				
Inspection Plan and Inspections Conducted	No – 3,373 Inspections Conducted				
Roadway Maintenance Projects	13-No Issues Noted				
Street Sweeping	40-man hours per week				

Litter Collection/Recycling	40-man hours per week 1,224 tons annually				
Herbicide Application	Yes/750 Gallons Dilute				
Vehicle Maintenance	No Action				
Hazardous Material Management	No Action				
Employee Training	99				

VI. Summary

The University of Alabama Stormwater Management Program has greatly increased its presence on campus. Efforts continue to improve public involvement and education within the program. EHS continues to partner with multiple campus constituents to further increase stormwater management.