

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 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](#).

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, and it will expire September 30, 2026.

The Stormwater Management Plan

The SWMP has been developed and designed to manage the discharge of pollutants from The University 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 will be described in detail in the body of this document.

Minimum Control Measures

The minimum control measures outlined in the permit requirements are:

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

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



I. Public Education and Public Involvement

a. Introduction

EHS is implementing a public education and public involvement program that will 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 will distribute educational materials and information to the campus community and implement public involvement, which will create opportunities for the campus community to get involved in the SWMP and the reduction of litter that may impact local water bodies. Opportunities for involvement will be activities that directly benefit the environment and lead to improvements in overall water quality. EHS will notify the campus community of these opportunities by public notice of SWMP meetings and through campus electronic media sources. Notice of SWMP meetings will be published on Twitter and also on other University electronic media. These 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 involvement measure was 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 involvement program will communicate how to reduce stormwater pollution, explain how the campus community can become involved in the University's SWMP, identify the audience for the specified educational programs, and outline 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 may be targeted based upon specific goals or regulatory requirements. The goal of the public education and 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 grounds maintenance. Other pollutants may be included as conditions on campus change or other parameters are added. Evaluations of success of specific management practices will be determined by analysis of the goals for each BMP within the public education and outreach measure. EHS will establish a measurable goal for each BMP and will be able to document attainment of that goal.



d. BMP Summary

EHS will utilize 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 of a stormwater management website, dissemination of electronic and printed public service advertisements, as well as printed materials addressing the impacts of illegal disposal and littering. Additionally, steps will be taken to educate the University community on the importance of water quality and sediment control within university campus construction sites (specifically contractors and those working within campus construction sites). A Stormwater Management Committee, Storm Sewer Marking Campaign, and a Campus Cleanup Activity will be utilized to garner public involvement in the SWMP.

i. Printed Materials

EHS will develop and distribute brochures, fliers, and posters to educate the campus community on stormwater quality issues. EHS will edit, update, and modify as needed to ensure that communications conveyed are in concert with the public education and outreach program. EHS will preselect locations and will make available related literature and other materials related to stormwater quality. EHS will include 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. Information can be found [here](#).

ii. Stormwater Quality Website

EHS will designate a portion of its website (ehs.ua.edu) to educate the public and the campus community of water quality issues and provide a mechanism for feedback on stormwater or water quality issues. EHS will edit, update, and modify the information provided to ensure consistency with the public education and outreach program.

iii. Public Service Advertisements

EHS utilizes electronic and printed public service type advertisements. Printed media is utilized on the University's Crimson Ride bus service. Printed ads appear periodically in the University's student newspaper, The Crimson White. These advertisements will focus on the impact of stormwater runoff on local bodies of water and steps that can be taken to reduce stormwater pollution. EHS will review, edit, update, and modify the advertisements to ensure relevancy to current water quality issues. EHS will maintain records regarding the advertisements and will report the type and frequency in the annual report. Attached are the current ads [here](#).



iv. Impacts of Illegal Dumping and Littering

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

v. Education Concerning Construction Activities

The University maintains continuous construction and redevelopment activities. 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 will provide information regarding dissemination of construction activity communications as part of the annual report.

vi. Education of Importance of Water Quality

The education of the campus community on the importance of water quality is a vital priority for EHS. Students are a major focus group, and this group is likely to have a significant future impact on national, state, and local attitudes toward water quality issues. EHS will review, edit, and modify materials and programs to ensure relevancy to the University student population and current issues. EHS will provide information regarding education of the importance of water quality to our students as part of the annual report.

vii. 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, has developed educational programs and trainings to communicate related guidelines on these issues. EHS 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. EHS will provide information regarding education of construction supervisors as part of the annual report.

viii. Stormwater Management Committee

To oversee the implementation of the SWMP and provide advice and consultation, EHS created the Stormwater Management Committee. The Stormwater Management Committee is made up 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 will meet on an as needed basis, but at a minimum, once per year.



During this permit cycle, EHS will request committee review of any education materials, inspection procedures, guidance information, and investigation methods detailed in the BMPs specified in the minimum control measures. EHS will provide notifications of committee meetings to the campus community through regular notice procedures. Public notices will be published on Twitter and will appear on the University electronic signage system. EHS will maintain records of committee meetings including, but not limited to, attendance records, minutes, and a copy of the agenda. The annual report will include 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 and campus cleanup provides a way for civic organizations and individuals to make a positive, hands on, impact on local water quality. EHS will provide storm sewer inlet discs which state, “No Dumping - Drains to River” and adhesive to attach discs. Additionally, EHS will oversee a campus cleanup 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 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 campus cleanup, and update procedures as needed. EHS will include information regarding the Storm Sewer Marking Campaign and Campus Cleanup as part of the annual report.

e. Utilization of BMPs

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

Printed Materials: Will be distributed throughout The University of Alabama Campus. EHS has established an annual goal of 50 brochures, fliers, posters, etc. The actual number of disseminated documents will be recorded in the chart.

Stormwater Quality Social Media (Twitter-EHS_UA): Documentation and announcements will be updated as needed, and EHS will track the followers in the chart.

Public Service Advertisements: EHS will utilize The University of Alabama Crimson White newspaper, digital media and campus transit buses to inform the campus of the stormwater quality, this will be notated as Yes/No in the chart.

Impacts of Illegal Dumping and Littering: EHS will document in the chart how many individuals throughout campus have received related training.



Education Concerning Construction Activities: EHS, in conjunction with Construction Administration, will document how many individuals throughout campus have received related training in the chart.

Education on Importance of Water Quality: EHS will document how many individuals throughout campus have received training and the number of materials/advertisements, etc. distributed to students.

Education of University and Contractor Personnel: EHS, in conjunction with Construction Administration, will document how many contractors have received said training in the chart.

Stormwater Management Committee: EHS will hold at minimum one Committee meeting annually.

Storm Sewer Marking Campaign: EHS will collaborate with Construction Administration on how many discs and/or Storm-Sewer covers will be installed and will document actuals within the chart.

Campus Cleanup: EHS will oversee a Campus Cleanup Activity, at least annually, and documentation will outline the date and number of attendees.

	FY-18	FY-19	FY-20	FY-21	FY-22
Printed Materials	N/A Goal of 50 set for 2019	50	50	50	
Stormwater Quality Social Media	629 Followers	640 Followers	628 Followers	629 Followers	
Public Service Advertisements	Yes Quarterly	Yes Quarterly	Yes Quarterly	Yes Quarterly	
Illegal Dumping and Littering	105	93	19 Covid	79	
Education of Construction Activities	112	93	19 Covid	79	
Education on Importance of Water Quality	N/A Goal of 50 set for 2019	50	50	50	
Education of University and Contractor Personnel	8	7	7	16	



Stormwater Management Committee	Yes 1/30/2018	Yes 4/11/2019	Yes 5/29/2020	Yes 9/28/21	
Storm-Sewer Marking Campaign	30%	+3%	+10%	+5%	
Campus Cleanup Activity					TBD New for FY 22

II. Illicit Discharge Detection and Elimination

a. Introduction

The Illicit Discharge Detection and Elimination (IDDE) 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 was selected by evaluating techniques utilized by other permitted entities, analyzing the effectiveness of previously utilized BMPs, 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 illicit discharge detection and elimination BMPs will be evaluated through analysis of each BMP goal within the IDDE measure. EHS will establish a measurable goal for each BMP and will be able to document attainment of that goal.

d. BMP Summary

EHS will utilize several BMPs to detect and eliminate illicit discharges. Among these are maintenance of the University storm sewer map, dry weather screening inspections, employee training, and illegal dumping detection and elimination.

i. Storm Sewer Map

The University maintains a storm sewer map, which details inlets, outlets, and lines on the University campus. To continue this process, the University will develop a consistent method for updating the storm sewer map. Outfalls



will be identified, and new data will be included as available. New outfall locations identified through this process will be included in the EHS annual report. EHS will collaborate 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

A document to govern/control all activity related to The University of Alabama Stormwater permit is pending approval. This will include escalating enforcement procedures and actions regarding illicit discharge minimization and removal. The EHS website will be updated to reflect the inclusion of the new University of Alabama Stormwater Management Policy upon acceptance and distribution to The University of Alabama Campus. Included is a [draft](#) copy of the policy under current review. Please note that the draft version is not likely to be the current version of the policy as review continues.

iii. Dry Weather Inspections

EHS has developed and implemented a dry weather screening process. Each outfall will be inspected at least annually. EHS will create and conduct a training program, which will target Construction Administration and Facility personnel. Training will specifically address the identification, reporting, documentation, and mitigation of illicit discharges. EHS will develop a system for tracking and reporting non-stormwater discharges. This system shall include incident specific activities including identification, reporting and mitigation actions. EHS will document 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 will develop a training program that focuses specifically on the dry weather screening process, identification, and reporting of illicit discharges. EHS will report the number of personnel trained in the annual report. EHS will conduct 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 major 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. Toward this end, EHS will include illegal dumping in the dry weather screening process, implement a system to track illegal dumping occurrences, include illegal dumping identification and reporting in the training for illicit discharges and dry weather screening, and



include the number of illegal dumping incidents in the annual report. In the event of an Illicit Discharge, The University has SOPs in place which can be found [here](#). The University will trace the contaminates back to its original inlet source and sample 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 or if it has come from an adjacent MS4. The University will provide sampling and testing analysis for all pathogens as deemed necessary. If further sampling is needed The University will utilize an accredited laboratory to perform the sampling and analysis.

e. Utilization of BMPs

A chart will be maintained documenting the annual review and update of the Storm Sewer Map, Dry Weather Inspections, Employee Training, Annual Policy Review and Illegal Dumping Detection and Reporting.

Storm Sewer Map: EHS will collaborate with Construction Administration to determine if the Storm-Sewer Map has been updated and make any changes deemed appropriate, this will be notated as Yes/No on the chart.

Dry Weather Inspections: EHS will perform the screenings for all (14) outfall locations once a year in the dry season, this will be notated as Yes/No on the chart.

Employee Training: EHS will document on the chart how many individuals throughout campus that have received related training.

Annual Policy Review: EHS will document on the chart annually if the policy has been reviewed and if there were any substantial changes required to the policy.

Illegal Dumping Detection and Reporting: EHS will document on the chart if there was an Illicit Discharge.

	FY-18	FY-19	FY-20	FY-21	FY-22
Storm Sewer Map Exists/ Were Changes Required	Yes	Yes	Yes	Yes/ No Changes	
Dry Weather Inspections	Yes	Yes	Yes	Yes	
Employee Training And Dates	112	93	19 Covid	79	



Annual Policy Review Completed and Changes				Policy Under Review for Initial Approval	Policy Under Review for Initial Approval
Illegal Dumping Detection and Reporting	None Reported/ Detected	1 Mechanical Failure NRC # on file at EHS	None Reported/ Detected	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 or 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 was selected by analyzing techniques utilized by other permitted entities, analyzing the effectiveness of previously utilized BMPs and consideration of selected BMP's applicability to permit provisions.

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 will be evaluated through analysis of each BMP goal. EHS will establish a measurable goal for each BMP and will be able to document attainment of that goal.

d. BMP Summary

The University will utilize several BMPs to control runoff from construction sites. Methods will 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. Education

Training must be developed and provided to University project supervisors and construction site operators. This training must include proper site management procedures, as well as protocols for reporting discharges and inspection results. To make sure personnel and contractors are properly trained EHS will ensure that training materials take advantage of new technologies for managing stormwater runoff on construction sites. Educational programs will be updated and modified as needed. EHS will include the number of individuals trained as part of the annual report. Documentation of training will be available for review through electronic means at EHS.

ii. 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 will be documented in an electronic format (e.g., Microsoft Teams).

iii. The University of Alabama Stormwater Management Policy

A document to govern/control all activity related to The University of Alabama Stormwater permit is pending approval as The University of Alabama Stormwater Management Policy. The EHS website will be updated to reflect the inclusion of the new University of Alabama Stormwater Management Policy upon acceptance and distribution to The University of Alabama campus. Included is a [draft](#) copy of the policy under current review.



Please note that the draft version is not likely to be the current version of the policy as review continues.

iv. Construction Site Inspections

The University's contract documents for construction requires the 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 make sure 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.

v. Construction Site Problem Reporting

The University will provide a mechanism for the campus community to report stormwater and water quality concerns related to construction projects. To this end, The University 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 will be maintained and included in the annual report. A link to the Construction Site Inspection Form will be available once approved.

e. Utilization of BMPs

A chart will be maintained documenting the education/training, construction plan reviews (if any changes), construction site inspections, and construction site problem reporting, if any.

Education: EHS will document in the chart how many individuals throughout campus that have received related training.

Construction Plan Review: EHS will document 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 will collaborate with Construction Administration on how many inspections were performed.



Construction Site Problem Reporting: EHS will collaborate with Construction Administration to determine if there were any reporting issues that needed to be investigated, these will be notated as Yes/No on the chart.

	FY-18	FY-19	FY-20	FY-21	FY-22
Education	112	93	19 Covid	79	
Construction Plan Review	No Changes	No Changes	No Changes	No Changes	
Construction Site Inspections	190 Inspections/ One insufficient BMP Silt Fence	112 Inspections	82 Inspections	47 Inspections	
Construction Site Problem Reporting	None	None	None	None	

IV. Post-Construction Site Runoff

a. Introduction

The post-construction stormwater runoff 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.

b. Rationale

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

c. Summary

The post-construction site runoff measure will be 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 will also be developed. The success of the BMPs will be evaluated through analysis of each BMP goal. EHS will establish a measurable goal for each BMP and will be able to document attainment of that goal. Documentation of BMPs related to Facilities and Grounds will be incorporated into the management plan and updated accordingly.



d. BMP Summary

The University will utilize BMPs to minimize the water quality impact of post-construction site runoff. These BMPs will consider plan review, protection of sensitive and/or impaired water bodies and interaction with the City of Tuscaloosa to ensure coordination with their stormwater runoff efforts.

i. Plan Review

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 stormwater guidelines.

ii. Protection of Sensitive Waters

To facilitate the effective review of post-construction, BMPs are implemented on new and/or redevelopment projects. 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. Local Interaction

The University will continue to interact with the stormwater quality personnel of the City of Tuscaloosa, which is a permitted MS4. The purpose of this interaction is to make them aware of The University efforts, and to coordinate some stormwater quality issues.

iv. The University of Alabama Stormwater Management Policy

A document to govern/control all activity related to The University of Alabama Stormwater permit is pending approval. This will address post-construction runoff from qualifying new development. The EHS website will be updated to reflect the inclusion of the new University of Alabama Stormwater Management Policy upon acceptance and distribution to The University of Alabama campus. Included is a [draft](#) copy of the policy under current review. Please note that the draft version is not likely to be the current version of the policy as review continues.

v. Post-Construction Inspections

Post-Construction Inspections, occurring at a minimum of once a year, will be performed on qualifying construction sites to confirm that post-construction BMPs are functioning as designed. The inspection schedule will be based upon the completion of qualifying construction sites.



Documentation of the post-construction inspections will be available electronically at EHS. Any documentation regarding corrective actions related to poorly functioning or inadequately maintained post-construction BMPs will also be available for review at EHS.

e. Utilization of BMPs

A chart will capture the reviews and/or updates of the Plan Review, Protection of Sensitive Waters, Local Interaction, Annual Policy Review and Post-Construction Inspections as noted below.

Plan Review: EHS will document if changes need to be made, notated as Yes/No.

Protection of Sensitive Waters: EHS will collaborate with Construction Administration to determine if sensitive waters will be affected and make changes if needed, and notate as Yes/No.

Local Interaction: EHS will coordinate with The City of Tuscaloosa if the need arises, and notate as Yes/No.

Annual Policy Review: EHS will perform an annual review of The University of Alabama Stormwater Management Policy and notate Yes/No to indicate any substantial changes.

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

	FY-18	FY-19	FY-20	FY-21	FY-22
Plan Review	No Changes	No Changes	No Changes	No Changes	
Protection of Sensitive Waters	N/A	N/A	N/A	N/A	
Local Interaction	N/A	N/A	N/A	N/A	
Annual Policy Review				Policy Under Review for Initial Approval	Policy Under Review for Initial Approval
Post - Construction Inspections					TBD - Based upon Project Completion



V. Pollution Prevention and Good Housekeeping

a. Introduction

The pollution prevention and good housekeeping measure is made up of BMPs that focus on the reduction of pollutants in the stormwater runoff that originates from The University's operation and maintenance activities. The operations and maintenance activities include vehicle and 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.

b. 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.

c. Summary

The pollution prevention and 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 will be evaluated by analysis of each BMP goal. EHS will establish a measurable goal for each BMP and will be able to document attainment of that goal.

d. BMP Summary

The University will utilize several BMPs which are designed to minimize pollution related to operations and maintenance. Among these are street operations and management, litter control, 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 significant potential to contribute to pollution runoff. To minimize potential impact from street maintenance, The University will evaluate existing activities to determine if modifications would benefit stormwater quality. The University will seek to identify alternative procedures or materials that would reduce the potential of maintenance activities which contribute to polluted runoff. Specifications and SOPs will be revised according to identified alternative practices. The University will maintain records of road maintenance activities and alternative practices, including this information 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 will identify roadways that are to be swept. The University will further establish schedules for sweeping of identified roadways. The University will maintain records of street sweeping including man hours involved and roadways. This will be included in the annual report.

iii. Litter Collection/Recycling

The University's Facilities and Grounds Department is the responsible party for litter collection throughout campus. The University will continue to promote anti-littering campaigns on campus. Several procedures will be utilized to reduce the discharge of floatable materials into local bodies of water. The University 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. In conjunction to litter collection, The University has an in-house recycling facility which recycled approximately 1,086 tons of recyclable materials including paper, cardboard, metal, aluminum, wood, electronics, plastic, cooking oil and ink toner. Logistics and Support Services (within Facilities and Grounds) 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 on 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 will review all areas with herbicidal use and determine alternatives where possible. The University will ensure compliance with herbicide application regulations. The amount of herbicide applied, and locations will be 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 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 will review and update the inventory of The University owned vehicles and equipment. The University will conduct routine maintenance of owned vehicles and shall inspect vehicles for the presence of fluid leaks during routine maintenance. The University will schedule repairs for vehicles determined to have leaks. Maintenance records shall be 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. EHS will continue to operate the hazardous material program and will continue to perform environmental audits in laboratories and facilities on campus. More information can be obtained [here](#).

vii. Employee Training

EHS is the responsible party for The University's training that focuses on pollution prevention and good housekeeping measures. EHS will identify The University personnel who will be required to attend training and will maintain records related to this training. Training materials will focus on vehicle and building maintenance, herbicides, and hazardous material management, to name a few. Training information including employee attendance shall be part of the annual report.

e. Utilization of BMPs

Documentation of the above-referenced BMPs will be recorded in a chart.

Roadway Maintenance: EHS will collaborate with Construction Administration to list in the chart the total roadway construction/maintenance performed yearly.

Street Sweeping: EHS will collaborate with Facilities and Grounds to document in the chart street sweeping, and notate as Yes/No.

Litter Collection/Recycling: EHS will collaborate with Facilities and Grounds to record litter collection and notate as Yes/No in the chart.

Herbicide Application (Vegetation Control): EHS will collaborate with Facilities and Grounds to be certain all necessary precautions are utilized to ensure no chemicals enter the storm drain, and notate in the chart as Yes/No, and gallons used.



Vehicle Maintenance (Washing): EHS will collaborate with Facilities and Grounds (Automotive Services) and will determine if any corrective actions need to be made to reduce potential storm drain pollution, and notate in the chart as Yes/No.

Hazardous Materials Management: EHS will document if any Hazardous Materials have the potential to impact the Storm Sewer system, and will notate in the chart as Yes/No.

Employee Training: EHS will conduct annual and quarterly training on the importance of water quality and stormwater and will notate within the chart the total number of individuals that received the referenced training.

	FY-18	FY-19	FY-20	FY-21	FY-22
Roadway Maintenance	4-No Issues Noted	8-No Issues Noted	4-No Issues Noted	9-No Issues Noted	
Street Sweeping	40- man hours per week	40- man hours per week	40- man hours per week	40- man hours per week	
Litter Collection/Recycling	40- man hours per week	40- man hours per week	40- man hours per week	40- man hours per week	
Herbicide Application	Yes/750 Gallons Dilute	Yes/750 Gallons Dilute	Yes/650 Gallons Dilute	Yes/750 Gallons Dilute	
Vehicle Maintenance	No Action	No Action	No Action	No Action	
Hazardous Material Management	No Action	No Action	No Action	No Action	
Employee Training	112	93	19 Covid	79	

VI. Enforcement

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



the acceptance of The University of Alabama Stormwater Management Policy, currently under university review.

Should any Enforcement actions be taken, they will be noted in the Chart below with a Yes/No.

	FY-18	FY-19	FY-20	FY-21	FY-22
Enforcement	No Action	No Action	No Action	No Action	

