

05-25-2023

Cammie Ashmore
Stormwater Management Branch
Water Division
P.O. Box 301463
Montgomery, Al 36130-1463

Dear Ms. Ashmore:

Attached is the annual Stormwater report for The University of Alabama for the 2022 reporting period. If you need further information, feel free to contact me at 205-348-5905 or by email at jwthomas1@ua.edu.

Sincerely,

A handwritten signature in black ink, appearing to read 'Darren Moss', followed by a long horizontal line extending to the right.

Darren Moss
Director, Environmental Health & Safety

A handwritten signature in black ink, appearing to read 'J. W. Thomas', followed by a horizontal line.

Jay Thomas
Environmental Hazard Technician I

Stormwater Annual Report

Reporting Period

April 1, 2022 – March 31, 2023

DATE: May 25, 2023

PREPARED BY: Jay Thomas, Environmental Hazard Technician II

The University of Alabama Stormwater Management Plan provides steps taken to reduce pollutants. Best Management Practices (BMPs) are used for each control measure, including Public Education and Public Involvement on Storm Water Impacts, an Illicit Discharge Detection and Elimination (IDDE) Program, Construction Site Run Off Control, Post-Construction Storm Water Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations. When the University recognizes an inefficient or ineffective BMP, the BMP is revised to ensure effectiveness. Currently, the University of Alabama Municipal Separate Storm Sewer System (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). Additionally, as needed, the University interacts with the City of Tuscaloosa, which is an adjacent MS4, as well as Alabama Department of Transportation (ALDOT) and Alabama Southern Railroad, to address storm water concerns.

I. Public Education and Public Involvement

Environmental Health & Safety (EHS) developed a public education and public involvement program designed to inform and educate the campus and the community at large. The pollution impact of storm water discharges on local bodies of water can be significant if the public is not aware of the importance of protecting nature's most valuable resource.

EHS solicits public involvement in a number of ways including involvement in the Stormwater Management Program through the use of the Stormwater Committee. The Stormwater Committee is one method used to seek input from the public on the development, revision, and implementation of the Stormwater Management Plan and Program. Additionally, public involvement is encouraged further within the storm sewer marking program and the campus cleanup event.

1) Multi-Media Platforms – Public Education

- a. Public service advertisements are utilized. Notices and educational information are printed in regular intervals and included in the Crimson White newspaper, transit buses, and digital media platforms.
- b. EHS maintains a website which provides information, educational opportunities, and the written Storm Water Management Program at <http://ehs.ua.edu/operations/environmental-programs/stormwater-management-program/>
- c. Twitter (https://twitter.com/EHS_UA) is a platform for social media posts used to provide information to the community.

2) Training: Impacts and Prevention of Illegal Dumping, Water Quality Importance, Construction Regulations – Public Education

- a. Educating the campus community on the impact of illegal dumping and littering is an aspect of educational and public service materials.
- b. Training modules and information related to construction on campus are included on the EHS website. *Stormwater Pollution Prevention* is one course available online through Skillsoft Training Academy at <http://ehs.ua.edu/training/list-of-training-courses/> for employees of the University. Additionally, instructor-led training regarding stormwater is scheduled and offered routinely.



- c. Campus community education regarding the importance of storm water runoff is a priority of the public service and information provided by EHS.
- 3) Education of University and Construction Project Managers – Public Education
 - a. All construction project supervisors are required to complete training modules developed to detail elements of sediment, erosion control and other construction aspects related to stormwater management. This program is managed by Richard Powell P.E., Staff Civil Engineer with Construction Administration.
 - 4) Education of the Public through Signage – Public Education
 - a. Informing the public on the impact of illegal dumping and littering is an aspect of public education.
 - b. “No Littering - No Dumping” signage has been installed at key locations around campus. The signage features a QR code for access to the EHS Stormwater Management website.
 - 5) Stormwater Management Committee – Public Involvement

EHS is responsible for the oversight of this committee with the chair of the committee being Jay Thomas. The current members include:

Jay Thomas - Environmental Hazard Technician
 Joey Howell – Environmental Hazard Technician
 Tim Leopard – Senior Associate Vice President for Campus Development
 Isaac Falls - Director of Automotive Services
 Mark Bentley – Plumbing Shop Manager
 Randy Mathis - HVAC Manager
 Collin Sewell - Director of Facilities Maintenance
 Tony Johnson - Senior Executive Director Logistics & Support Services
 Chris D’Esposito – Director Transportation Services
 Julie Salter - Assistant Director of Student Media
 Richard Powell - Staff Civil Engineer, Construction Administration
 Al Willingham - University Surveyor, Construction Administration
 Lin Hendrix - University Recreation & Grounds Manager
 Brandon Sevedge - Director of Athletic Facilities
 Joe Cobb - Director of Construction Services
 Paul Wuebold - Senior Executive Director of Facilities and Grounds
 Beau Barnett - Director of Grounds
 Additional Representation for EHS (Director, Assistant Director for Environmental & Lab Safety, & Environmental Manager)

- 6) Storm Sewer Marking – Public Involvement

Approximately 53% of the storm sewer covers on campus have been marked with “No Dumping Drains to River” disc or new covers which are marked appropriately when manufactured.
- 7) Campus Clean-up Event – Public Involvement

On March 25, 2023, EHS organized and held a trash/recyclables clean-up event near Manderson Landing along the Black Warrior River. The public was invited through advertisements posted to multi-media platforms. There were 17 attendees. This event is planned to occur as an annual event to aid in the reduction of litter, floatables, and debris from entering the MS4 and the Black Warrior River.



8) Utilization of BMPs

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

BMPs

- Printed Materials – Education on Importance of Stormwater: Hard copy media material has been prepared for distribution throughout the University of Alabama campus. EHS has established an annual distribution goal of over 50 brochures, pamphlets, fliers, posters, etc. Actual number of disseminated documents will continue to be recorded in the chart labeled as *Public Education and Public Involvement*.
- Stormwater - Social Media (Twitter-@EHS_UA): EHS continues to post information pertaining to the University of Alabama Stormwater Management Program to social media using the twitter platform. EHS tracks the followers of this account. The *Public Education and Public Involvement* chart contains the number of followers of the EHS Twitter account.
- Public Service Advertisements: EHS continues to utilize The University of Alabama Crimson White newspaper, campus transit buses, and digital media to inform the campus of the Stormwater Program. This is notated as Yes/No in the chart, as well as the schedule of the publication.
- Impacts of Illegal Dumping and Littering - Training: EHS continues to document training efforts in the chart, as the number of individuals trained are noted as a number indicating those having received training in the chart labeled *Public Education and Public Involvement*.
- Education Concerning Construction Activities: EHS, in conjunction with Construction Administration, documents the number of individuals that have received training related to construction activities and stormwater in the *Public Education and Public Involvement* chart.
- Education of University and Contractor Personnel: EHS, in conjunction with Construction Administration, will continue to document the number of contractors that have received stormwater-related training in the chart labeled *Public Education and Public Involvement*.
- Education of the Public through Signage: EHS, in conjunction with The University of Alabama’s Transportation Services, has installed “No Littering – No Dumping” signage on campus in key locations. Documentation of the number of signs installed and maintained is provided in the chart labeled as *Public Education and Public Involvement*.
- Stormwater Management Committee: EHS holds at a minimum one Committee meeting annually. This is notated in the chart below labeled as *Public Education and Public Involvement* as Yes/No along with the date of the meeting.
- Storm Sewer Marking Campaign: EHS continues to collaborate with Construction Administration on the number of disks and/or storm sewer covers that have been installed, and document the percentage installed within the chart labeled *Public Education and Public Involvement*. Beginning in 2023, Construction Administration at The University of Alabama will begin installation of revised, more durable, storm sewer markers on all new



and existing storm sewer covers.

- Campus Clean-up Event: EHS will continue to organize and host this event annually. This will be noted in the charted below as a Yes/No along with the date of the event labeled in the chart *Public Education and Public Involvement*.

	FY-18	FY-19	FY-20	FY-21	FY-22
Printed Materials – Education on Importance of Stormwater <i>(Public Education)</i>	N/A Goal of 50 set for 2019	50	50	50	50
Stormwater - Social Media <i>(Public Education)</i>	629 followers	640 followers	628 followers	629 followers	635 followers
Public Service Advertisements <i>(Public Education)</i>	Yes Quarterly 2018	Yes Quarterly 2019	Yes Quarterly 2020	Yes Quarterly 2021	Yes Quarterly 2022
Illegal Dumping and Littering Training <i>(Public Education)</i>	105	93	19 Covid	79	99
Education Concerning Construction Activities <i>(Public Education)</i>	112	93	19 Covid	79	99
Education of University and Contractor Personnel <i>(Public Education)</i>	8	7	7	16	15
Education of the Public through Signage <i>(Public Education)</i>					Yes 7
Stormwater Management Committee <i>(Public Involvement)</i>	Yes 1-30-2018	Yes 4-11-2019	Yes 5-29-2020	Yes 9-28-2021	Yes 9-28-2022
Storm Sewer Marking Campaign <i>(Public Involvement)</i>	30%	+3%	+10%	+5%	+5%
Campus Clean-Up Event <i>(Public Involvement)</i>					Yes 3-25-2023

Public Education and Public Involvement

II. Illicit Discharge Detection and Elimination (IDDE) Program

This measure focuses on BMPs concerned with the detection and elimination of illicit discharges.

1) Stormwater Sewer System Map

Revisions were made to the stormwater sewer system map in 2018. Modifications and additions to this map are made as they are required or needed.



2) Stormwater Management Policy

EHS has developed a University-wide Stormwater Management Policy. This policy is currently under review; however, the policy specifically outlines escalating enforcement procedures and actions related to the immediate cessation of improper disposal practices. A copy of the Stormwater Management Policy (pending approval) is included for review in Appendix A.

3) Dry Weather Inspections

All dry weather screenings are scheduled to be completed annually. For 2022, 100% dry weather screenings are complete.

4) Employee Training

The number of UA personnel trained as part of Illicit Discharge Detection and Elimination BMP was 99. Personnel from EHS, Construction Administration, and UA Facilities & Grounds were included. Multiple instructor-led training classes occur once a quarter (January, April, July, and October) on the second Wednesday of the month. Online training occurs as needed throughout the year.

5) Illegal Discharge/Dumping Detection and Reporting

Dry weather screenings have been developed to identify potential illegal discharges. Training has been provided regarding how to identify and report illicit discharges.

6) Utilization of BMPs

A chart is maintained documenting the annual review and update of the Storm Sewer Map, Stormwater Management Policy, Dry Weather Inspections, Employee Training, and to provide indication of Illicit Discharge/Dumping Detection Reporting.

BMPs

- Storm Sewer Map: EHS collaborates with Construction Administration to determine if the Storm Sewer Map has been updated and make any changes deemed appropriate. This is notated as Yes/No on the chart labeled *Illicit Discharge Detection and Elimination*.
- Stormwater Management Policy: EHS documents the status of the Stormwater Management Policy that serves as the ordinance or regulatory mechanism with the chart labeled *Illicit Discharge Detection and Elimination*.
- Dry Weather Inspections: EHS continues to perform the dry weather screenings for all (100%) outfall locations (14 in total) at least once annually in the dry season. This is notated as Yes/No in the chart labeled *Illicit Discharge Detection and Elimination*.
- Employee Training: EHS documents in the chart labeled *Illicit Discharge Detection and Elimination* the number of individuals throughout campus that have received training related to this BMP. In-person training occurs quarterly, while computer-based training is available as needed.



- Illegal Discharge/Dumping Detection and Reporting: EHS documents in the chart labeled *Illicit Discharge Detection and Elimination* if there was an Illicit Discharge that occurred.

	FY-18	FY-19	FY-20	FY-21	FY-22
Storm Sewer Map	Yes	Yes	Yes	Yes No Changes	Yes No Changes
Stormwater Management Policy					Yes Pending Approval
Dry Weather Inspections	Yes	Yes	Yes	Yes	Yes – 100% (14 of 14)
Employee Training	112	93	19 Covid	79	99
Illegal Discharge/Dumping Detection and Reporting	None Reported/Detected	1 Mechanical Failure NRC # 1274423 & 1274426	None Reported/ Detected	None Reported/ Detected	None Reported/ Detected

Illicit Discharge Detection and Elimination.

III. Construction Site Storm Water Runoff Control

This control measure consists of ways to reduce pollutants, to the maximum extent practicable, in runoff from qualifying construction sites. Sediments are of the greatest concern.

1) Stormwater Management Policy

EHS has developed a University-wide Stormwater Management Policy. This policy is currently under review; however, the policy serves as the ordinance or regulatory mechanism relating to campus stormwater. A copy of the Stormwater Management Policy (pending approval) is included for review in Appendix A.

2) Education

Training includes site management, reporting discharges and evaluation of inspection results. This training is provided to Project Supervisors and Construction Site Operators.

3) Construction Plan Review

All UA construction plans incorporate BMPs. Written sediment and erosion control plans are part of all applicable construction plans. All construction plans have been reviewed and approved for 2022.

4) Construction Site Inspections

Contractors and project managers are required to conduct construction site inspections. Most corrective actions in the past have involved silt fence maintenance. A list of all active construction sites within the MS4 during the 2022 reporting year are provided in Appendix E.



- 5) **Construction Site Problem Reporting**
There have been no public reports related to construction site problems, including construction site runoff complaints, reported by Construction Administration to EHS.

- 6) **Non-Compliant Construction Site Referrals and/or Enforcement Actions**
There have not been any non-compliant construction site referrals and/or enforcement actions reported to EHS by Construction Administration during the 2022 reporting period.

- 7) **Utilization of BMPs**
A chart is maintained documenting the presence of a stormwater management policy, education/training, construction plan review (if any changes), construction site inspections, and construction site problem reporting, and non-compliant construction site referrals and/or enforcement actions, if any.

BMPs

- **Stormwater Management Policy:** EHS documents the status of the Stormwater Management Policy that serves as the ordinance or regulatory mechanism with the chart labeled *Construction Site Storm Water Runoff Control*

- **Education:** EHS will continue to document in the chart labeled *Construction Site Storm Water Runoff Control* how many individuals throughout campus have received training. Additionally, MS4 staff/inspectors are documented in Appendix B as required by certification or attendance records.

- **Construction Plan Review:** EHS will continue to document in the chart labeled *Construction Site Storm Water Runoff Control* if any changes need to be made. This is notated as Yes/No along with a short description of changes necessary.

- **Construction Site Inspections:** EHS collaborates with Construction Administration on the number of inspections performed and, as well, provides a short description of any corrective actions taken. This is indicated in the chart labeled *Construction Site Storm Water Runoff Control* by the number of inspections and corrective actions during 2022.

- **Construction Site Problem Reporting:** EHS continues to collaborate with Construction Administration to determine if there were any reporting issues that needed to be investigated, including construction site runoff complaints. This is documented in the chart labeled *Construction Site Storm Water Runoff Control*.

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

	FY-18	FY-19	FY-20	FY-21	FY-22
Stormwater Management Policy					Yes Pending Approval



Education	112	93	19 Covid	79	99
Construction Plan Review	No No Changes	No No Changes	No No Changes	No No Changes	No No Changes
Construction Site Inspections	190 Inspections/ One Insufficient BMP Silt Fence	112 Inspections	82 Inspections	47 Inspections	239 Inspections
Construction Site Problem Reporting	None Reported	None Reported	None Reported	None Reported	None Reported
Non-Compliant Construction Site Referrals and/or Enforcement Actions					0 Reported

Construction Site Storm Water Runoff Control

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

1) Stormwater Management Policy

EHS has developed a University-wide Stormwater Management Policy. This policy is currently under review; however, the policy serves as the ordinance or regulatory mechanism relating to campus stormwater. A copy of the Stormwater Management Policy (pending approval) is included for review in Appendix A.

2) Post-Construction Structural Controls

A list of post-construction structural controls installed and inspected during the permit year is included in Appendix C, along with the updated inventory of post-construction structural controls noted by The University of Alabama.

3) Post-Construction Structural Control Inspections

Inspections are performed as required on post-construction structural controls recognized by the University. A copy of the SOP for post construction BMP inspections are included in Appendix F.

4) Enforcement Actions

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

5) Utilization of BMPs

A chart is maintained documenting the presence of a stormwater management policy and post-construction structural control inspections, along with any enforcement actions documented related to post-construction storm water management in new development and redevelopment. This information is maintained in the chart labeled *Post-Construction Storm Water Management in New Development and Redevelopment*.



BMPs

- Stormwater Management Policy: EHS documents the status of the Stormwater Management Policy that serves as the ordinance or regulatory mechanism with the chart labeled *Post-Construction Storm Water Management in New Development and Redevelopment*.
- Post – Construction Structural Control Inspections: EHS documents the number of inspections performed on post-construction structural controls in the chart labeled *Post-Construction Storm Water Management in New Development and Redevelopment*.
- Enforcement Actions: EHS documents any enforcement actions related to post-construction storm water management in new development and redevelopment by listing reference to the actual enforcement mechanism in the chart labeled *Post-Construction Storm Water Management in New Development and Redevelopment*.

	FY-18	FY-19	FY-20	FY-21	FY-22
Stormwater Management Policy					Yes Pending Approval
Post-Construction Structural Controls Inspections					3
Enforcement Actions					None

Post Construction Storm Water Management in New Development and Redevelopment

V. Pollution Prevention/Good Housekeeping for Municipal Operations

This control measure is designed to reduce and eliminate pollutants in stormwater that originates from operation and maintenance activities.

1) Municipal Facility Inventory

The University of Alabama maintains an active facility inventory. See Appendix D for a copy of the facility inventory.

2) Floatable Material

The University of Alabama maintains an estimated amount of floatable material collected from the MS4. This information is provided in the chart provided below.

3) Inspection Plan

The University of Alabama maintains an inspection plan to ensure specific standard operating procedures (SOPs), such as street sweeping, litter collection, herbicide application, vehicle maintenance, hazardous material management, and roadway maintenance, are maintained on campus. At present, there have not been any updates to the inspection plan. Documentation is provided below related to these specific SOPs. Additionally, various departmental inspections are conducted routinely throughout all University facilities, which include external review of the building and grounds, internal storage, use, and disposal of chemicals, including waste, and material storage. Any deficiencies



identified are noted within the inspection process, and appropriate steps are taken towards corrections.

a. Roadway Maintenance Projects

- Jefferson Avenue from Campus Drive to 200' south of Campus Drive
- Hillard Building Parking Lot
- Riverside Lane from Old Hackberry Lane to 280' West of Old Hackberry
- Rose Administration back parking lot
- 7th Avenue on east side of Student Center
- Campus Drive from 7th Avenue to McCorvey Drive
- Marrs Spring Road from 175' to 330' south Campus Drive West
- Warrior Drive from Flint River to Flint River
- Flint River Drive from Hurricane Creek Drive to 525' west of Warrior Drive
- Harper Court from 143' east of Kirkbride to 613' east of Kirkbride
- 4th Street from Fraternity Lane to Devotie Drive
- Facilities Administration Bldg./Facilities and Grounds Shop southeast parking lot
- Bureau of Mines 4/5 Parking Lot

b. Street Sweeping

The University dedicates 40-man hours per week to street sweeping roadways. All campus roads are included.

c. Litter Collection

Trash collection is a daily activity on campus. The locations of trash receptacles are periodically evaluated. Over 40-man hours per week are dedicated to trash and litter collection.

d. Herbicide Application

Landscaped areas, open spaces, athletic fields, and recreational areas are among the University Grounds which are regularly treated with herbicides. Approximately, 750 gallons of dilute end-product is applied per week during growth seasons.

e. Vehicle Maintenance

The University operates a full-service garage. Maintenance and service records are available for review at the UA garage.

f. Hazardous Material Management

EHS continues to operate a hazardous material management program. This includes an inventory system, audits, recycling, and disposal of hazardous materials.

4) Employee Training

University personnel have received training regarding pollution prevention and good housekeeping. These personnel are from EHS, Facilities & Grounds and other areas on campus.

5) Utilization of BMPs

Documentation of the above-referenced BMPs will be recorded in a chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations*.



BMPs

- Municipal Facility Inventory: The University maintains an active facility inventory. A copy of this current inventory is included in Appendix D for review as noted by a Yes/No in the chart provided labeled *Pollution Prevention/Good Housekeeping for Municipal Operations*.
- Floatable Material: An estimate of the floatable material collected from the MS4 is included in the table provided and labeled as *Pollution Prevention/Good Housekeeping for Municipal Operations*.
- Inspection Plan and Inspections Conducted: Provided in the chart below as indicated by a Yes/No is documentation of any changes to the inspection plan related to Pollution Prevention/Good Housekeeping for Municipal Operations, along with the number of inspections completed.
- Roadway Maintenance Projects: EHS collaborates with Construction Administration to list in the chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations* the total number of roadway construction/maintenance projects performed during the reporting year.
- Street Sweeping: EHS collaborates with Facilities and Grounds to document in the chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations* street sweeping, and document hours spent weekly.
- Litter Collection/Recycling: EHS collaborates with Facilities and Grounds to record litter collection and document hours spent weekly.
- Herbicide Application: EHS collaborates with Facilities and Grounds to be certain all necessary precautions are utilized to ensure no chemicals enter the storm drain, as notated in the chart as Yes/No, along with gallons of dilute product used. This information is found in the chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations*.
- Vehicle Maintenance: EHS collaborates with Automotive Services to determine if any corrective actions are needed to reduce potential storm drain pollution as possible from scheduled vehicle maintenance. This review is notated in the chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations* as any actions required or taken.
- Hazardous Materials Management: EHS documents any Hazardous Materials that could have potentially impacted the storm sewer system. Any required actions related to hazardous materials impacting the storm sewer system are noted in the *Pollution Prevention/Good Housekeeping for Municipal Operations* chart by the actions taken.
- Employee Training: EHS conducts routine training on the importance of water quality and stormwater. EHS will notate within the chart labeled *Pollution Prevention/Good Housekeeping for Municipal Operations* the total number of individuals that received training.



	FY-18	FY-19	FY-20	FY-21	FY-22
Municipal Facility Inventory					Yes Appendix D
Floatable Material					83,800 lbs.
Inspection Plan and Inspections Conducted					No - 3,373 Inspections Conducted by EHS Departments Addressing Housekeeping Concern
Roadway Maintenance Projects	4 - No Issues Noted	8 - No Issues Noted	4 - No Issues Noted	9- No Issues Noted	13-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	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	40, man hours per week
Herbicide Application	Yes/750 Gallons Dilute	Yes/750 Gallons Dilute	Yes/650 Gallons Dilute	Yes/750 Gallons Dilute	Yes/750 Gallons Dilute
Vehicle Maintenance	No Action	No Action	No Action	No Action	No Action
Hazardous Material Management	No Action	No Action	No Action	No Action	No Action
Employee Training	112	93	19 Covid	79	99

Pollution Prevention/Good Housekeeping for Municipal Operations

VI. Summary

The University of Alabama Stormwater Management Program has greatly increased its presence on campus during the 2022 reporting year. Efforts continue to improve public involvement and education within the program. A primary strength of the Stormwater Management Program includes campus partner involvement. EHS continues to partner with University Construction Administration and multiple campus constituents, including, but not limited to, Facilities and Grounds, to further increase stormwater management. For a list of contacts and responsible parties of those who had input and are responsible for the preparation of the annual report, see Appendix G.



Appendix A

Stormwater Management Policy



Purpose

The purpose of this policy is to ensure The University of Alabama ("University") manages its stormwater runoff in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit ALR040000 ("Permit"), or subsequent permits, and the [University's Stormwater Management Plan](#). The University's Stormwater Management Policy will govern the [University's Stormwater Management Program](#). This Policy guides the University in administering the requirements and procedures of the Permit as required of the University and as administered by the Alabama Department of Environmental Management (ADEM). This policy is to provide for and promote compliance by the University with federal, state, and local laws governing the discharge of pollutants from the Municipal Separate Storm Sewer System (MS4) and to provide for and promote compliance with the NPDES stormwater program and the University's related permit(s). Ultimately, it is the responsibility of all members of the University to protect our waterways, including without limitation, protection of our MS4 and campus stormwater.

Policy

The United States Environmental Protection Agency (EPA) and ADEM have designated the University as an owner/operator of a Phase II MS4, as the University is an educational entity with a small stormwater system separate from the City of Tuscaloosa. As such, the NPDES permit associated with the MS4 requires development of a stormwater management program. The goal of the University's Stormwater Management Program is to protect water quality and prevent harmful pollutants from being discharged into the MS4 and our waterways to the maximum extent practical, including without limitation, the Black Warrior River.

To accomplish this goal, Environmental Health & Safety (EHS) develops an annual Stormwater Management Plan (SWMP) in concert with the UA Campus Master Plan as well as Campus Development and Construction Policies. The SWMP, in compliance with EPA and ADEM requirements, recommends methods for the protection of the MS4 and to reduce adverse impacts to water quality and aquatic habitats, including best management practices (BMPs). BMPs are divided into six categories: 1) public education and public involvement, 2) illicit discharge detection and elimination (IDDE), 3) construction site runoff control, 4) post-construction stormwater management, 5) pollution prevention and good housekeeping, and 6) enforcement measures. Within the SWMP, details related to each BMP are outlined, along with the University entities responsible for measuring the effectiveness of BMPs. This information is reported annually to ADEM to verify the steps taken by the University to protect the MS4. For more information related to each BMP, refer to the [EHS website](#).



The following controls must be incorporated into the University's Stormwater Management Program to protect water quality in our waterways and to prevent harmful pollutants from entering stormwater runoff. This includes, without limitation:

- Use of BMPs on the University campus, including construction sites;
- Inspection of construction sites to verify the use and proper maintenance of appropriated BMPs;
- Use of erosion and sediment control practices consistent with the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas;
- Installation of storm sewer access covers on all new construction projects including storm sewer markers with unique identifiers;
- Strategic development and use of structural and/or non-structural BMPs (combinations) designed to ensure, to the maximum extent practical, that post-construction runoff mimics pre-construction hydrology. A design rainfall event with an intensity of up to that of a 2-year, 24-hour storm event will, at minimum, be the basis for the design and implementation of post-construction BMPs;
- Review and incorporation of Low Impact Development (LID)/Green Infrastructure (GI) options during the design of projects/construction, where feasible, as a design approach for managing stormwater runoff. LID/GI emphasizes conservation and use of on-site natural features to protect water quality, such as practices to preserve, restore, and create green space using soils, vegetation, and rainwater harvest techniques;
- Post-construction inspection of LID/GI and detention ponds to assure continued existence and function of any LID/GI or detention pond used in the construction that impacts stormwater runoff (e.g., permeable pavement or other surfaces or substrates, land conservation efforts to protect acres of open space, rows of trees along a major street, protection of large open natural spaces, use of bioswales or rain gardens placed in long narrow spaces such as the space between the sidewalk and the curb, or urban tree canopy to soak up stormwater and provide cooling shade);
- Training and education for the public, University employees, and construction site personnel on the importance of water quality, and efforts required to maintain water quality and reduce/eliminate illegal dumping and littering. Training for construction project managers and contractors emphasizes the selection, design, implementation, and maintenance of erosion and sediment control mechanisms;
- Opportunities for public involvement (e.g., attendance at the stormwater committee meetings or storm sewer marking program).

Construction sites may be subject to additional stormwater requirements as specified within the contract documents. Contract documents are specific for each site and can be reviewed by contacting Construction Administration.



In addition to applicable legal requirements, it is the policy of the University that all stormwaters shall be managed in accordance with the SWMP, and every person and entity operating on the University campus shall conduct its operations and/or activities in compliance with the SWMP, including, without limitation, adherence to required stormwater related signage prohibiting littering and illegal dumping, erosion and sediment controls, training, development, inspection, and use of BMPs as provided and referenced in the SWMP and related permit(s). The spilling, dumping, disposal, or discharge of materials other than stormwater causing illicit discharge of pollutants to the MS4 is prohibited. For more information on stormwater discharge, refer to the EHS website or contact EHS directly.

Finally, as the University is located within the Tuscaloosa City limits, stormwater ordinances outlined by the City of Tuscaloosa are also applicable. For more information related to Tuscaloosa NPDES Stormwater Compliance and related ordinances, see Chapter 21 Article IX of the City of Tuscaloosa Code of Ordinances, stating, in part, that “[a]ny person, firm, corporation, or agent, who shall violate a provision chapter or fails to comply therewith or with any of the provisions thereof, or who fails to maintain any low impact development/green infrastructure element or detention pond, shall be guilty of a misdemeanor[,] [and] the violation of or the noncompliance with each individual requirement, rule or regulation, and each day’s continuation thereof, shall constitute a separate and distinct offense.”

Enforcement

Failure to comply with the requirements specified in this policy may expose the University and those persons and/or entities involved to fines and other penalties. In addition, the University may impose fines and other penalties against any person or entity failing to comply with this policy, and may impose disciplinary actions, up to and including termination, against employees failing to comply with this policy. Every effort shall be made to resolve isolated violations of this policy. Repeated or gross violations of this policy, or those violations that cannot be successfully resolved, may be treated as a violation and potentially punishable in accordance with Code of Alabama, 1975, § 11-45-9 or other applicable laws or regulations. University employees with knowledge of a violation of this policy shall contact EHS at 205-348-5905. Individuals who observe any action or situation that could potentially be a violation of this policy or the University’s Stormwater Permit are also encouraged to contact EHS.

Definitions

- **Alabama Department of Environmental Management (ADEM):** The governing body responsible for enforcing environmental regulations in the State of Alabama.
- **Best Management Practices (BMP):** Activities or structural improvements that help reduce the quantity of stormwater runoff (e.g., treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage).
- **Clean Water Act (CWA):** Act passed by the United States Congress to control water pollution, formally called the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972.



- **Environmental Protection Agency (EPA):** United States agency responsible for protecting human health and the environment.
- **Green Infrastructure (GI):** The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspiration of stormwater and reduce flows to sewer systems or surface waters (e.g., bioswales, rain gardens, permeable pavements, and green parking).
- **Illicit Discharge Detection and Elimination (IDDE):** A measure that 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 (e.g., gasoline, diesel, motor oil, hydraulic fluid, or paint).
- **Municipal Separate Storm Sewer System (MS4):** A conveyance or system of conveyances owned by a state, city, town, village, or other public entity that discharges to waters of the United States.
- **National Pollutant Discharge Elimination System (NPDES):** The national program for issuing, modifying, revoking, reissuing, terminating, monitoring, enforcing permits, and or imposing and enforcing pretreatment requirements under sections 307, 318, 402, and 405 of the Clean Water Act (CWA).
- **Permit:** The National Pollutant Discharge Elimination System (NPDES) General Permit ALR040000 issued to the University of Alabama.
- **Stormwater:** Runoff occurring when precipitation flows over the ground, particularly impervious surfaces such as driveways, sidewalks, and streets that prevent stormwater runoff from naturally soaking into the ground.
- **Stormwater Management Plan (SWMP):** University plan developed for the implementation of NPDES permit requirements.
- **Stormwater Management Program:** University plans, procedures, and practices required by the EPA and ADEM to obtain an NPDES MS4 permit and NPDES construction stormwater permits for construction projects (disturbing one or more acres of land).
- **Stormwater Pollutant:** Chemicals, sediment, trash, disease-carrying organisms, and other contaminants picked up by stormwater as it runs off roofs, roads, etc. into rivers, streams, and other surface waters.

References

National Pollutant Discharge Elimination System General Permit, The State of Alabama, Permit Number ALR040000

Scope

This policy applies to all employees, students, contractors, and guests on The University of Alabama campus.



Appendix B

Training Documentation for MS4 Staff Inspectors





HOME BUILDERS
ASSOCIATION OF ALABAMA
EDUCATION PORTAL

YOUR BLUEPRINT TO SUCCESS



HBAA

Certified Credits Transcript

Transcript Created: May 16, 2023

Jay Thomas
jwthomas@fa.ua.edu

TOTAL CREDITS AWARDED FROM 08/07/19 TO 05/16/23

Credit Type	Total
CEU	12.0

QCI CE Course Completion
2023 (QCI) Qualified Credential Inspector CE

Award Date:
11/11/22

CREDITS	CEU	4.0
----------------	-----	-----

2022 QCI CE Course Completion
2022 (QCI) Qualified Credential Inspector CE

Award Date:
11/09/21

CREDITS	CEU	4.0
----------------	-----	-----

2020 QCI Course Completion
2020 (QCI) Qualified Credential Inspector CE

Award Date:
10/15/20

CREDITS	CEU	4.0
----------------	-----	-----

This certifies that

William Diltz of the University of Alabama

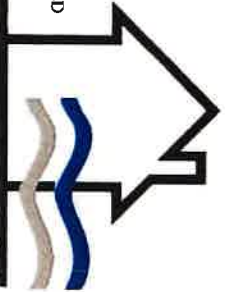
has successfully completed the

**QUALIFIED CREDENTIALLED INSPECTOR TRAINING
FOR CONSTRUCTION SITE STORMWATER MANAGEMENT**

offered by the

HOME BUILDERS ASSOCIATION OF ALABAMA

QUALIFIED CREDENTIALLED
INSPECTOR



Protecting our environment through stormwater management
HOME BUILDERS ASSOCIATION OF ALABAMA

JMBrown

11/23/2022

Signature

Date

QC1 NUMBER 95660
VALID THROUGH NOVEMBER 10, 2023

This certifies that

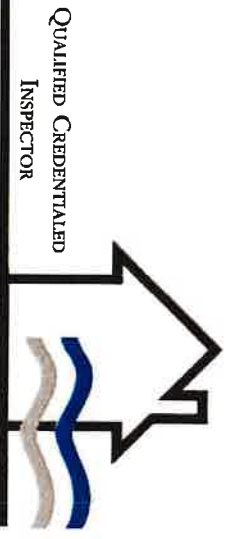
Joey Howell of the University of Alabama

has successfully completed the

**QUALIFIED CREDENTIALLED INSPECTOR TRAINING
FOR CONSTRUCTION SITE STORMWATER MANAGEMENT**

offered by the

HOME BUILDERS ASSOCIATION OF ALABAMA



Protecting our environment through stormwater management
HOME BUILDERS ASSOCIATION OF ALABAMA

JMBrown

Signature

11/23/2022

Date

QC# NUMBER 95740
VALID THROUGH NOVEMBER 10, 2023

This certifies that

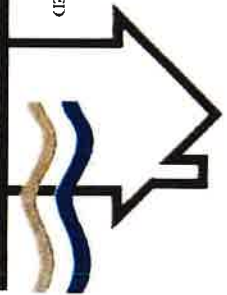
Marcus Patterson of the University of Alabama

has successfully completed the

**QUALIFIED CREDENTIALLED INSPECTOR TRAINING
FOR CONSTRUCTION SITE STORMWATER MANAGEMENT**

offered by the

HOME BUILDERS ASSOCIATION OF ALABAMA



QUALIFIED CREDENTIALLED
INSPECTOR

Protecting our environment through stormwater management
HOME BUILDERS ASSOCIATION OF ALABAMA

JMBrown

11/23/2022

Signature

Date

DCI NUMBER 95741
VALID THROUGH NOVEMBER 10, 2023

Appendix C

Post-Construction Structural Controls Installations and Inspections



Post-Construction Structural Controls at UA

1. Dry Detention Basin/Pond
2. Wet pond/Water Quality Pond/Retention Pond
3. Infiltration Basin
4. Grassed, Wet, and Dry Swales
5. Catch Basin with Manufactured System
6. Gross Solid Removal Devices
7. Oil/Water Separators
8. Infiltration Drainfields

Post-Construction Structural Controls Inspected by UA

1. Dry Detention Basin/Pond: Bryce Hospital, Entrance to USC, Behind First Transit, Near Bryce Lawn Apartments and Facilities and Grounds
2. Wet Pond/Water Quality Pond/Retention Pond: Marrs Spring and Palmer Lake
3. Infiltration Basin: Tutwiler
4. Grassed, Wet, and Dry Swales: Tutwiler
5. Catch Basin and Manufactured System: Tutwiler and Triangle Lot
6. Gross Solid Removal Devices: Storm Drain Grates, Several Sub Surface Sumps Throughout Campus
7. Oil/Water Separators: First Transit, Fleet Services and Grounds Maintenance
8. Infiltration Drainfields: Tutwiler



Appendix D
Facility Inventory



AVAILABLE UPON REQUEST



Appendix E

**Active Construction Sites from
2022 Reporting Year**



Active Construction Sites

April 1, 2022 – March 31, 2023

- Smart Communities and Innovation Building
- Peter Bryce Main Renovation
- Bryce Lawn Community Safe Room
- Campus Energy Delivery Optimization and Efficiency Plan
- New Tutwiler Residence Hall
- Existing Tutwiler Demolition and Site Redevelopment (North Site Development)
- Harris Hall and Former Alpha Gamma Delta House Demolition
- Drummond Lyon Hall
- Water Distribution System Enhancements
- Gorgas Library Core Support
- University Services Campus Community Safe Room
- Drainage Improvements by the Law School
- Student Center North Parking Lot Enhancements
- University Boulevard Lot Stormwater Improvements
- UA Flint River Drive Parking Lot Improvements



Appendix F

SOP for Post-Construction BMP



STORM-WATER MANAGEMENT PROGRAM

With Accordance of The Environmental Protection Agency Clean Water Act of (1972)
33 U.S.C. §1251 et seq. (1972)

Standard Operating Procedure (SOP)/Best Management Practices (BMP) for Reducing Sediments/Contaminates from Entering U.S. Waterways.

SOP For: Post-Construction Site

SOP Prepared By: _____ Date: _____

SOP Review and Update: _____

Purpose of SOP: To establish procedures for Post-Construction Site Storm Water Runoff Control.

Location of SOP: _____

Standard Operating Procedures

- Post-Construction Sites must reduce, to the maximum extent practicable, the pollutants in any storm water runoff.
- All University of Alabama field coordinators must have Qualified Credentialed Inspector (QCI) Certification so that they can properly identify appropriate construction Best Management Practices (BMP's).
- Make appropriate "periodic inspections" to verify the use of appropriate erosion and sediment control practices that are consistent with Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas. The frequency of inspection activities shall be documented in the Storm Water Management Program Plan (SWMPP).
- Notify University of Alabama Construction Staff Civil Engineer of any sites that have ineffective BMP's that are discovered during inspections. The notification must contain, at a minimum, the specific location of the project, the name and contact information of the contractor's Project Manager and a summary of the site deficiencies. All noted deficiencies must be tracked and recorded. Items to be recorded are:
 1. Name of Contractor
 2. Location of Project
 3. Description of violations
 4. Required Schedule for returning to compliance
 5. Description of enforcement response used, including escalated responses if repeat violations occur, or violations are not resolved in a timely manner
 6. Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violation, etc.)
 7. Any referrals to different departments or agencies, and
 8. Date violation was resolved.

Training

- Employees should receive annual QCI training.

Appendix G

Contacts



University of Alabama Stormwater Management Contacts

Department	Name	Phone Number	Address	Email Address
Environmental Health & Safety (EH&S)	Darren Moss	205-348-5905	1500 Warrior Drive, Tuscaloosa, AL 35404	drmoss@ua.edu
Environmental Health & Safety (EH&S)	Christy Herron	205-348-5905	1500 Warrior Drive, Tuscaloosa, AL 35404	cherron@ua.edu
Environmental Health & Safety (EH&S)	BJ Diltz	205-348-5905	1500 Warrior Drive, Tuscaloosa, AL 35404	wjdiltz@ua.edu
Environmental Health & Safety (EH&S)	Jay Thomas	205-348-5905	1500 Warrior Drive, Tuscaloosa, AL 35404	jwthomas1@ua.edu
Construction Administration	Richard C. Powell, P.E.	205-348-1392	1054 Campus Management and Design Building, Tuscaloosa, AL 35404	Repowell2@ua.edu
Assistant Vice President for Finance and Operations	Cheryl Mowdy, Responsible Official	205-348-4530	271 Rose Administration Box 870142, Tuscaloosa, AL 35487	Cmowdy1@ua.edu

