

UNIVERSITY OF NORTH ALABAMA
MS4¹ STORMWATER MANAGEMENT PROGRAM
ANNUAL REPORT

April 1, 2019 – March 31, 2020

NPDES Permit No. ALR040063

¹Municipal Separate Storm Sewer System

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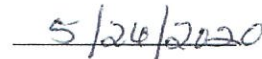
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Certification Statement

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Evan Thornton, CFO
Vice President,
Business and Financial Affairs



Date

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- I. Overall evaluation of the Stormwater Management Program developments and progress
 - a. Major accomplishments
 - i. One permitted construction project (Laura M. Harrison Hall) was in progress with no Alabama Department of Environmental Management findings or enforcement actions.
 - b. Overall program strengths/weaknesses
 - i. Strengths
 - UNA has motivated and dedicated leadership to ensure the overall success of the Stormwater Management Program Plan.
 - UNA works in collaboration with the City of Florence to support each other's Stormwater Management Programs.
 - UNA employs a Grounds crew and their duties include daily outdoor litter collection.
 - UNA employs a certified Ornamental & Turf Pest Control Supervisor (OTPS) to conduct and supervise the application of pesticides and herbicides.
 - UNA has a recycling program. Recycling containers are located in most campus buildings and are set up for large volume events like outdoor concerts and move-in days at the residence halls.
 - UNA utilizes general contractors with knowledge of construction and post-construction stormwater Best Management Practices.
 - UNA has an active Sustainability Program: the Sustainability Initiative: Project Earth.
 - ii. Weaknesses
 - UNA's Stormwater Management Program is new. Finding meaningful ways to communicate new topic elements to a large population is challenging.
 - c. Future direction of the program
 - i. The University of North Alabama is working with the Alabama Department of Environmental Management to refine/update our Stormwater Management Program Plan. Finding ways to involve more campus and community personnel is a priority.
 - d. Overall determination of the effectiveness of the Stormwater Management Program Plan regarding water quality/watershed improvements.
 - i. Dry Screen Monitoring, quarterly Municipal Facilities inspections, and regular weekly/monthly inspections indicate that the University of North Alabama's Stormwater Management Program Plan is effective. Sediment, litter, and oil are the top pollutants of concern. Although litter on campus was noted during some inspections, little was observed in campus conveyances.
 - e. Results of monitoring data evaluation.
 - i. Not applicable.

- II. Narrative report and assessment of all minimum control measures referenced in Part III.B of the Permit, including planned stormwater controls for the next reporting cycle. Parts a. through e. describe the five minimum control measures, goals, progress, an assessment of the progress, and controls planned for the next reporting cycle.

a. Public Education and Public Involvement of Stormwater Impacts

i. Develop and implement a public education and outreach program for campus personnel.

- A Stormwater Management Plan training program was delivered for campus personnel and community members. The content included the importance of pollution prevention, good housekeeping practices, the impact of illicit discharges, and how to report a stormwater concern. This training was provided to all new employees within the Grounds, Maintenance, and Project Management departments.
- Training on Standard Operating Procedures for tasks with potential to discharge pollutants via stormwater runoff was provided to Facilities Administration and Planning personnel (Grounds, Maintenance, and Project Managers).
- Stormwater Pollution Prevention posters and brochures were placed in various locations around campus including all residence halls.
- The 5th Annual Sustainability Conference included a section for Stormwater Management Plan training. This event was open to both UNA- and non-UNA personnel, with over 250 participants in attendance.
- Thirteen students enrolled in the Earth Science course titled, "Earth: Sustainability Resources (ES348) reviewed and discussed the Stormwater Management Plan brochure and training materials.

ii. Identify and implement a method to address the reduction of litter, floatables and debris, such as labeling storm drains.

- Fifty storm drains are labeled with storm drain markers provided by the City of Florence. During the quarterly Municipal Facilities Inspections, they are inspected to ensure that they are still in place. None were replaced in this reporting cycle.
- During the quarterly Municipal Facilities inspections, campus is checked for litter.
- A daily duty of all Grounds Department personnel is to pick up litter in their areas.

iii. Create a Stormwater Program website - A folder on the Facilities Administration and Planning webpage was created and relevant materials were posted including the Stormwater Management Program Plan and 2018 Annual Report (<https://www.una.edu/facilities/stormwater/index.html>). There is also a link for reporting illicit discharges (<https://www.una.edu/facilities/stormwater/report-a-storm-water-concern.html>). Since its launch, there were 224 visits to the page and 18 visits to the illicit discharge link.

iv. Stormwater Management Committee – A group composed of the following department functions met as needed to discuss open action items and methods for continuous

improvement: The Assistant Vice President of Facilities Administration and Planning, Director of Facilities Administration and Planning, Maintenance Supervisor, Grounds Team Leader, and the Director of Environmental Health and Safety.

- v. Sponsor and/or participate in pollution prevention events - The University of North Alabama sponsored and participated in several community activities which are listed below:

- The City of Florence's annual *Citywide Clean-Up Day* –



Several campus organizations and departments provided personnel to participate in removing litter primarily around the campus perimeter and the unnamed tributary to Cypress Creek. These 37 participants included representatives from the Sustainability Initiative: Project Earth, Alpha Tau Omega Fraternity, faculty and students from the Science and Engineering Technology department, Physics and Earth Science, and the Environmental Health and Safety Department.

- Electronics Recycling Event, hosted by the Sustainability Initiative: Project Earth. Campus personnel dropped off electronics for recycling, diverting 50 pounds from the landfill.
 - UNA hosted a Litter-Free concert during the W.C. Handy Festival. It is estimated that 555 pounds of recyclables were collected.
 - The annual *Tennessee River Litter Tournament* – There were 81 registered participants, 25 from UNA service organizations, who provided personnel to pick up litter along the Tennessee River.
 - The campus Director of Environmental Health and Safety serves on the *Keep the Shoals Beautiful* Board of Directors.
- vi. Provide an opportunity for campus personnel to provide input to the development of the Stormwater Management Program Plan. The Assistant Vice President of Facilities routed the Stormwater Management Program Plan prior to submission to the Alabama Department of Environmental Management. In addition, the ability to provide input was communicated. Suggestions included additional outreach and education opportunities, ways to reduce litter,

and ways to increase recycling. During Stormwater outreach and training, suggestions are solicited from participants. An example of action taken based on input is the new practice of requesting that confetti not be used during photo sessions at Harrison Fountain. Plastic confetti can remain on the ground and end up in stormwater. Photography participants are encouraged to use alternates such as flower petals, plant or bird seed, or “vanishing” confetti. This is expected to reduce litter and the potential for negative effects to water quality and wildlife in Cypress Creek.

Assessment of the Control: This minimum control measure was determined to be effective. It allowed for frequent and meaningful face-to-face conversations regarding the University of North Alabama’s Stormwater Management Program Plan and provided discussion opportunities regarding continuous improvement. We believe that we increased the level of awareness and engagement regarding this program element.

- vii. Stormwater controls planned for next reporting cycle. The University of North Alabama will continue to seek new ways to engage in educational opportunities that support Public Education and Involvement in Stormwater Impacts. At a minimum, we plan to:

- Identify and communicate with additional groups and individuals on campus. Examples include the Campus Sustainability Initiative: Project Earth, Science classes (Sustainability and Biology), and Kilby School.
- Monitor storm drains and install drain markers as needed.
- Participate in the *City Wide Clean Up* and *Tennessee River Litter Tournament*.

b. Illicit Discharge Detection and Elimination (IDDE)

- i. Develop a Storm Sewer Map – The map is contained within the Stormwater Management Program Plan which is posted on the Stormwater webpage (<https://www.una.edu/facilities/stormwater/docs/UNA%20SWMPP%20May%202019.pdf>).
- ii. Develop a dry weather screening program. The University of North Alabama conducted dry weather screening at all (4) outfalls, each with a discharge to Unnamed Tributary to Cypress Creek; no priority areas are involved:
 - Grounds/Custodial Services (1), Parking Lot W, Cedar St. (1), East Campus (2).
 - Dry Weather Screening indicates that no pollutants were observed being discharged at the outfalls. Screening was conducted for:

○ Floatables	○ Sediment
○ Odor	○ Oil/Sheen
○ Suds	○ Trash
- iii. Implement an inspection and enforcement program for illicit discharges. Regularly occurring inspections provide opportunities to inspect for illicit discharges. There were no reported/investigated illicit discharges during this reporting cycle.
- iv. Create a regulatory mechanism for illicit discharges. The regulatory mechanism for illicit discharge detection and elimination was approved and in effect May 13, 2020.

- v. Present education for the campus community about the hazards associated with illicit discharges and improper disposal of waste. During the campus training program, the hazards associated with illicit discharges and improper disposal of waste are discussed. The process for reporting illicit discharges is also defined. The concerned person can either call Facilities Administration and Planning or send an email by clicking on the link shown below on the Stormwater page on the University of North Alabama website.



Assessment of the Control: This minimum control measure was determined to be effective. The University of North Alabama also provided training on the management of several types of solid waste including:

- o Hazardous Waste Training
- o Universal Waste Training
- o EHS-17: Guide to Laboratory Sink/Sewer Disposal of Wastes
- o EHS-20: Battery Disposal Requirements
- o EHS-21: Fluorescent Lamp Crushing Process
- o EHS-22: Aerosol Can Disposal
- o EHS-24: Lamp Disposal Requirements

We believe that by approving and communicating the referenced regulatory mechanism for Illicit Discharge Detection and Elimination, the level of understanding will increase in the campus community and result in additional ways to continuously improve our Stormwater Management Program Plan.

Stormwater controls planned for next reporting cycle.

- o Seek additional modes of illicit discharge training.

c. Construction Site Stormwater Runoff Control

- i. Create a regulatory mechanism to require erosion and sediment controls and sanctions to ensure compliance. Because the University of North Alabama utilized State funding for construction projects, the Alabama Building Commission form C-8, August 2001 was used for specification packages (<http://bc.alabama.gov/C-8%20Gen%20Cond%20%20August%20%202001.pdf>). The sections related to the Regulatory Mechanism are found in Articles 14, 26, and 27.
- ii. Train project managers and site inspection staff in the identification of appropriate construction. One project manager currently has Qualified Credentialed Inspector qualifications. Third party consultants with Qualified Credentialed Inspector credentials were used for qualified project inspections and development of Construction Best Management Practices Plans.

- iii. Review and evaluate current practices and policies for review of construction plans to determine if they take into consideration the potential water quality impacts. Third party consultants with Qualified Credentialed Inspector credentials are used for the development of Construction Best Management Practices Plans.
 - iv. If the current practices and policies referenced above are lacking, develop improved practices and policies. A review of current practices and policies indicate that they are satisfactory.
 - v. Develop and implement procedures for periodic inspection of construction sites. Construction sites are inspected on a regular basis by the Qualified Credentialed Inspector and by the Department of Environmental Health and Safety as specified in the project's Construction Best Management Practices Plan. Spot checks are also conducted as needed based on project development and weather changes.
 - vi. Develop a procedure to notify the Alabama Department of Environmental Management if non-permitted construction or ineffective Best Management Practices are discovered. After review of this goal, it was decided that a formal procedure did not need to be developed. If the situation arises, the existing regulatory mechanism will be utilized.
 - vii. Create a mechanism for the public to report complaints regarding discharges from qualifying construction sites. A section was added to the Stormwater page on the University of North Alabama website (<https://www.una.edu/facilities/stormwater/index.html>). The process for reporting a stormwater concern is discussed during campus training.
- Active construction sites during the reporting period:

	Permit #/(Termination Date, if applicable)	# of construction site inspections	# of non-compliant construction site referrals/ enforcement actions	# of construction site runoff complaints received	# of MS4 ² staff/ inspectors trained
Laura M. Harrison Hall	ALR10BCB1	ADEM ¹ -0 QCI- 12 UNA-63	0	0	0 – None required per CBMPP ³

¹ADEM – Alabama Department of Environmental Management

² Municipal Separate Storm Sewer System

³ CBMPP – Construction Best Management Practices Plan

Assessment of the Control: This minimum control measure was determined to be effective. Through the process of regular inspections and use of trained staff and contractors, the University of North Alabama experienced no enforcement actions.

Stormwater controls planned for next reporting cycle.

- Through regular inspections and spot checks, continue to ensure that Best Management Practices follow the elements outlined in the *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas* (<https://www.dot.state.al.us/dsweb/divPed/Stormwater/pdf/AlabamaHandbookforErosionControl.pdf>) and/or project-based Construction Best Management Practices Plan.
- Continue to ensure Qualified Credentialed Inspector-qualified consultants and project managers are utilized.

d. Post Construction Stormwater Management in New and Redevelopment

- i. Create a regulatory mechanism to address post-construction runoff. Because the University of North Alabama utilized State funding for construction projects, the Alabama Building Commission form C-8, August 2001 was used for specification packages (<http://bc.alabama.gov/C-8%20Gen%20Cond%20%20August%20%202001.pdf>). The sections related to the Regulatory Mechanism are found in Articles 14, 26, and 27.
- ii. Develop and implement strategies to ensure pre-construction stormwater runoff is not significantly exceeded. Post-construction and 1-year after construction inspections are conducted by the Qualified Credentialed Inspector and Project Team. This requirement is outlined in the Alabama Building Commission guidelines.
- iii. Develop procedures for the site plan review and approval process when post-construction controls are needed. Site plan review and approval requirements are outlined in the Alabama Building Commission guidelines (<http://www.bc.state.al.us/table%20of%20contents.htm>).
- iv. Develop procedures to demonstrate post-construction stormwater measure have been installed per design specifications. Post-construction and 1-year after construction inspections are conducted by the Qualified Credentialed Inspector and Project Team. This is outlined in the Alabama Building Commission guidelines (<http://www.bc.state.al.us/table%20of%20contents.htm>).
- v. Develop options that require long-term operation and maintenance of BMPs utilized the options outlined in part B. 4. iv. 1-4 of the Stormwater Permit. Adherence to the Alabama Building Commission's guidelines (<http://www.bc.state.al.us/table%20of%20contents.htm>) ensures that the long-term operation and maintenance of post-construction controls are achieved.
- vi. Develop an inspection and maintenance program of structural controls. Structural controls are inspected as required per the Construction Permit, Construction Best Management Practices Plan requirements, and/or manufacturer's requirements. When appropriate, a Preventive Maintenance (PM) inspection is established in the University of North Alabama's

work order system, TMA, such as the monthly PM for inspecting Parking Lot OO's inlet screens and the twice per year inspection for sediment in the subsurface detention chamber.

- A list of post-construction controls installed and/or inspected during the year:
 1. Subsurface detention chamber, Parking Lot OO, Circular Rd.

Assessment of the Control: This minimum control measure was determined to be effective. The active construction project during the reporting cycle adhered to all elements outline in the Alabama Building Commission guidelines (<http://www.bc.state.al.us/table%20of%20contents.htm>). Inspection results indicated that structural controls were effective.

Stormwater controls planned for next reporting cycle.

- Continue to develop and document the inventory of post-construction structural controls.
- Ensure that a process exists for regular inspection and maintenance of post-construction structural controls as defined by the manufacturer.

e. Pollution Prevention/Good Housekeeping for Municipal Operations

- i. Review and evaluate current practices for major campus physical operations with pollution potential. Stormwater Management Plan training and Standard Operating Procedure training was conducted for personnel in Maintenance, Grounds, and Project Management. 100% of the target was completed.
- ii. Develop Standard Operating Procedures for tasks when potential exists to discharge pollutants via stormwater runoff. Ten Standard Operating Procedures were developed in 2018 for the topics listed below. During the annual review, it was decided to combine the ten documents into one document with ten sections, titled *Good Housekeeping Standard Operating Procedures*. This was done to ease the annual review and update process. The annual review also recommended the addition of some clarifying details.
 1. Fuel and Oil Handling and Receiving
 2. Maintenance of Buildings, Facilities and Fixed Structures
 3. Vehicle Fueling
 4. Outdoor Material Storage
 5. Management of Pesticides, Herbicides and Fertilizers
 6. Equipment Maintenance
 7. Landscaping and Ground Maintenance
 8. Vehicle Maintenance
 9. Vehicle Washing
 10. Street Sweeping
- iii. Develop an inspection program to evaluate Municipal Facilities Operations. An inspection form was created and inspections occur quarterly over twenty-one areas of campus. Four

inspections were conducted during the reporting cycle. Litter was the main pollutant observed, especially in the Parking Deck. Additional trash cans were added to each of the eight levels. Grounds Crew personnel estimate that there was a 75% reduction in the amount of trash on the ground since the new trash cans were added.

Two new facility inspections were included to the Quarterly Municipal Facility Inspections (Collins Building and McKinney Building).

List of Municipal Facilities

- | | |
|---------------------------------------|-------------------------------------|
| 1. Cooling Tower-Bibb Graves | 11. Fuel Pumps |
| 2. Cooling Tower-Collier Library | 12. Grounds Dept. Equipment Storage |
| 3. Cooling Tower-Computer Room | 13. Intramural Field |
| 4. Cooling Tower-Flowers Hall | 14. Parking Deck and Lots |
| 5. Cooling Tower-Gulliot Univ. Center | 15. SET Mechanical Room |
| 6. Cooling Tower-Kilby School | 16. Soccer Field |
| 7. Cooling Tower-LaGrange Hall | 17. Softball Complex |
| 8. Cooling Tower-Rice/Rivers Hall | 18. Steam Plant |
| 9. Cooling Tower-Wesleyan Hall | 19. Vehicle Maintenance |
| 10. Cooling Tower-Bibb Graves | 20. McKinney Building |
| | 21. Collins Building |

- iv. Develop and implement a public education and outreach program for campus personnel covering good housekeeping. This goal and narrative are similar to II.a.i of this Annual Report. A Stormwater Management Plan training program was developed and conducted for campus personnel. Stormwater Management posters and brochures were placed in public areas including residence halls, and were distributed at Community events.
- Estimated amount of floatable material collected from the Municipal Separate Storm Sewer System – 8,352 pounds. Floatables are defined as litter that floats on the water surface. Floatables include many plastics, grocery bags, empty beverage containers (Styrofoam, plastic and aluminum), and motor oil containers. This amount is based on the weight of trash and recyclables collected during the reporting cycle. Since not all trash and recyclables are floatable, a portion of the total weight was used to estimate this amount.

Recycling containers are located campus-wide in most buildings and the contents are picked up by the City of Florence Recycling Center on a weekly basis.



Assessment of the Control: This minimum control measure was determined to be effective. Based on regularly occurring and spot check inspections, the need for additional trash containers in certain areas was identified and addressed.

Stormwater controls planned for next reporting cycle.

- o Review and revise the municipal facility inventory and inspection process as the campus changes to ensure sources of pollution are regularly reviewed.
- o Continue to work with the Campus Sustainability Initiative: Project Earth on ways to improve campus sustainability initiatives.
- o Regularly review the 303(d) list to determine if UNA is a possible source of pollutants; document findings.
- o Ensure all new Municipal Operations personnel are trained on Stormwater Standard Operating Procedures.

III. Additional Information Required for the Annual Report.

- a. Summary table of the stormwater controls that are planned/scheduled for the next reporting cycle.
 - i. None are currently planned.
- b. Results of information collected and analyzed, if any, during the reporting period.
 - ii. Although mercury in Cypress Creek is identified as a 303(d)* pollutant on the Environmental Protection Agency's list of impaired waterways, it is atmospherically deposited by other regional sources. The University of North Alabama is not a contributor. We will continue to monitor future 303(d) lists to determine if the University of North Alabama is a possible source for other pollutants.
- c. Notice of reliance on another entity to satisfy some of your permit obligations
 - iii. Not applicable
- d. Results of monitoring collected during the previous year in accordance with Part V, if applicable.
 - iv. Not applicable

University of North Alabama-
Stormwater Outfalls and
Structural Best Management
Practices

Cypress Creek

Outfall #	Latitude	Longitude
1	34.821785	-87.657552
2	34.819957	-87.661001
3	34.804628	-87.683243
4	34.806306	-87.685872

A	Subsurface Detention Chamber, Under Parking Lot OO, Circular Rd.
B	Detention Pond, Northwest of Parking Lot W, Cedar St.