



AUBURN
UNIVERSITY

DEPARTMENT OF RISK MANAGEMENT & SAFETY

May 27, 2021

Hand Delivered

Alabama Department of Environmental Management
MS4/ Storm Water Management Branch
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059
Attention: Cammie Ashmore

RECEIVED
MAY 28 2021
ADEM
FRONT DESK

Subject: Auburn University Municipal Separate Storm Sewer System (MS4)
Annual Report 2020/2021
Auburn University, Lee County (081) Alabama
ALR040030

Dear Ms. Ashmore:

Auburn University is pleased to submit the Annual Report and current Storm Water Management Program Plan (SWMPP) as required by the referenced general NPDES permit. The report covers the April 1, 2020 through March 31, 2021 compliance period.

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

The implementation of the University's SWMPP is dependent upon multiple groups on campus. I serve to facilitate the progress towards the Plan's objectives and ADEM's primary point of contact for the referenced permit. Should you have any questions or require further clarification, please do not hesitate to contact the undersigned.

Very truly yours,



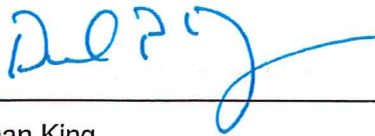
Tom P. McCauley, CHMM

Environmental Programs Manager

C: Phase II Annual Report + SWMPP May 2021

1 Hard Copy + 1 Electronic Copy

Executive Committee:



Mr. Dan King

Assistant Vice President

Facilities Management

05/27/21

Date



Dr. Eve Brantley

Director

Water Resource Center

5-25-21

Date



Mr. Michael Kensler

Director

Campus Sustainability

5/27/21

Date



AUBURN

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**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL
REPORT REPORTING PERIOD APRIL 1, 2020 – MARCH 31, 2021**

Prepared by
AUBURN UNIVERSITY

STORM WATER MANAGEMENT COMMITTEE

Submitted May 2021

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Introduction

This Annual Report was developed in accordance with the guidelines provided in Title 40 Code of Federal Regulations (CFR), Part 122.26(d) incorporated by reference in the Alabama Administrative Code 335-6 as administered by the Alabama Department of Environmental Management (ADEM) and NPDES ALR040030 Phase II General Permit effective October 1, 2016. During this reporting period, although COVID significantly impacted the implementation of many efforts geared to further promote and strengthen the storm water management program here on campus, a significant amount of work was performed to ensure that the MS4 requirements were successfully met.

The purpose of this Annual Report is to describe the compliance efforts reflected in the University's Storm Water Management Program Plan (SWMPP) found in **Appendix D**. The Annual Report will identify the control measure specific efforts undertaken by Auburn University from April 1, 2020 through March 31, 2021 to reduce the discharge of pollutants from Auburn University's main campus to the maximum extent practicable (MEP) to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act (CWA).

This Annual Report and the University Storm Water Management Program is a result of a collaborative approach from individuals that represent both academic and operational areas of campus. The multi-disciplinary effort continues to be strengthened by its diversity and includes the following individuals and their areas of responsibility or interest:

Dr. Chris Anderson, Forestry & Wildlife Sciences

Mr. Nicholas Blair, Facilities Management – Design Services

Dr. David Blersch, Biosystems Engineering

Dr. Eve Brantley, Director Water Resource Center

Mr. Ben Burmester, Facilities Management – Office of University Architect

Mr. Josh Conradson, Facilities Management – Construction Management

Ms. Mona Dominguez, Alabama Water Watch

Mr. Malcolm Dailey, Facilities Management – Utilities & Energy

Ms. Valerie Friedmann, Architecture Planning & Landscape Architecture

Ms. Joan Hicken, Facilities Management – Waste Reduction & Recycling

Dr. Thorsten Knappenberger, Crop, Soil & Environmental Sciences

Mr. Mike Kensler, Office of Sustainability

Mr. Dan King, Facilities Management

Mr. Eric Klypas, Athletics Department – Field Management

Mr. Judd Langham, Facilities Management – Office of University Architect

Ms. Charlene LeBleu, Architecture Planning & Landscape Architecture

Mr. Glenn Loughridge, Campus Dining
Mr. Tom McCauley, Risk Management & Safety
Dr. Chandana Mitra, Department of Geosciences
Ms. Wendy Peacock, Facilities Management – Construction Management
Mr. Buster Reese, Facilities Management, Design Services
Ms. Amy Strickland, Office of Sustainability
Mr. Justin Sutton, Facilities Management – Landscape Services
Mr. William Walker, Campus Dining
Dr. Amy Wright, Department of Horticulture

MS4 Description

Auburn University is a large teaching and research institution located in Auburn, Lee County, Alabama comprised of approximately 1841 acres of contiguous property, 427 buildings and 206 academic buildings. Auburn University is one of the major land grant/ liberal arts and science universities in the southeast. The area surrounding Auburn University consists of residential property to the east and southeast, agricultural property to the southwest and west and urban city property to the north and east.

Control Measures

Storm water management controls or Best Management Practices (BMPs) will be implemented to the MEP to minimize pollution in storm water discharges from Auburn University's main campus. AU's Policy on Storm Water Management Compliance (**Appendix B**) serves as the regulatory mechanism as required by the Permit. The Permit and SWMPP require BMPs to be implemented addressing five minimum control measures. As required by Part III.B. of the Permit, the Annual Report will describe the University's efforts performed during this reporting period to implement the established BMPs (Public Education & Public Involvement on Storm Water Impacts, Illicit Discharge Detection & Elimination, Construction Site Storm Water Runoff Control, Post Construction Storm Water Management in New and Redevelopments and Pollution Prevention / Good Housekeeping for Municipal Operations) and will include:

1. The status of AU's compliance with Permit conditions, an assessment of the appropriateness of the identified BMPs, and progress towards achieving the statutory goal for each of the minimum control measures.
2. Results of information collected and analyzed during this reporting period, including any monitoring data used to assess the success of the SWMPP at reducing discharge of pollutants to the MEP.

3. A summary of storm water activities the University plans to undertake during the next reporting cycle.
4. Proposed changes to the University's SWMPP.
5. All monitoring results collected during the reporting period in accordance with Part V. of the Permit.

BMP: Public Education & Public Involvement on Storm Water Impacts

Storm water pollution prevention education leads to an informed and knowledgeable campus community that is more likely to support and comply with the BMP provisions. The targeted "Public" audiences of the University's SWMPP are Auburn University faculty, staff, students, and visitors, which populate the campus on any given day. Within these populations, only students in residence housing live on campus. All other students, employees and visitors reside in the surrounding communities.

Due to the safety precautions surrounding the COVID pandemic, many of the educational hands-on learning opportunities were put on indefinite hold or postponed. The following activities were either planned or performed during the compliance period that were consistent with the intent of the SWMPP as follows:

Presentations and Events

Multiple presentations were offered by Auburn University throughout the course of this reporting period to promote water quality and storm water management principles. Presentations were offered by a variety of different AU entities and for diverse AU and non-AU audiences.

Lee County Water Festival (July 25, 2020) – **Cancelled Due to COVID**

The 15th annual Lee County Water Festival was originally scheduled for earlier in the year but was postponed until July 25th. Unfortunately, due to the continuance of the COVID pandemic precautions, the 2020 event was officially cancelled. The Lee County Water Festival committee consisting of representatives of the City of Auburn, Lee County, City of Opelika, Auburn University and Smith Station along with the Alabama Agricultural Extension System, the Department of Agriculture's Natural Resources Conservation Service and Clean Water Partnership is committed to the water festivals return and value it as a wonderful opportunity to educate Lee County youth (4th/5th graders) of the importance of water, conservation of natural resources and becoming better stewards of the environment.

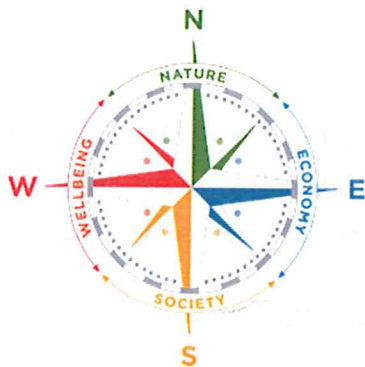
Camp War Eagle (May-July 2020)

Auburn University
Camp War Eagle



Every summer prior to the fall semester, Auburn University hosts Camp War Eagle (CWE) for incoming freshman. Through CWE, freshman students are provided an experience that promotes the academic, social, and personal opportunities incoming freshmen students can experience. We hope our website will provide all necessary information and instructions to prepare you for your orientation session and your first year at Auburn University. The Office of Sustainability provides information on sustainability at Auburn and hand out a [Sustainable Student Action Guide](#), which includes a section on “Saving Water” listing water conservation and water quality practices.

Academic Class Presentation (Multiple Sessions Throughout the Academic Year)



The Office of Sustainability provides lectures to undergraduate students on the general concepts of sustainability and Auburn University’s specific sustainability efforts, including reviewing stormwater best management practices found on campus. Multiple sessions are offered throughout the academic year and attendance varies from 12-100+ students per session.

Rendezvous to Reduce, Reuse & Recycle (August 19, 2020)

An Office of Sustainability event that strives to inform and educate the Auburn University students on managing waste on campus properly and getting them connected to key offices that can support their sustainability actions. Tiger Dining-Community Garden, the Waste Reduction & Recycling Department, and the Office of Sustainability all had tables that students could visit to learn more about the programs and



resources on campus, along with receiving a personal reusable utensil set. An estimated 50 students participated in the annual event.

Tree Planting (November 12, 2020)

An estimated 15 volunteers from the City of Auburn and Auburn University Facilities Management hosted a tree planting along the creek behind the District Energy Plant on campus. Volunteers helped plant approximately 90 trees within the riparian corridor after learning about the role trees play in our environment, especially along waterways, and how to properly plant a tree.

Utensil Giveaway Campaign (February-March 2021)

Tiger Dining and the Office of Sustainability partnered to promote the “No Utensils Needed” button for GrubHub orders for on-campus venues, which launched in late January 2021. Staff from the Office of Sustainability handed out over 1000 reusable personal utensil sets at three on-campus dining locations. Approximately 25% of orders at Saladworks and Sambazon opted out of the receiving disposable utensils.

Alabama Storm Water Association

Sponsored Events & Activities

(April 29, 2020, November 17, 2020 & March 23, 2021)



Alabama Storm Water Association

continued to grow during this reporting period and offered virtual learning opportunities on three occasions for those interested. In April 2020, Trutta Environmental Solutions provided a presentation entitled **High-Definition Surface Water Mapping** which detailed the unique efforts that have been developed to determine bank erosion hazard index and aid municipalities in making informed decisions to protect stream corridors. This virtual learning opportunity was attended by 69 registrants representing multiple MS4 entities, concerned citizens and regulator communities.

In November, the Alabama Stormwater Association offered another virtual learning opportunity entitled **COVID-19 Wastewater Surveillance** which highlighted the work water professionals are doing to fight the spread of COVID-19. In total 49 registrants participated in this learning opportunity.

Finally in March 2021, the Alabama Stormwater Association offered another virtual learning opportunity entitled **“Reissuance of the Construction General Permit: A Discussion with ADEM”**. A total of 123 individuals registered for the event to learn more of the changes to the

Construction General Permit. Auburn University has representation on the ASA Board, which established its mission to help protect and restore the quality of Alabama resources through storm water related connection. The vision of the ASA is to become an incubator and promoter of storm water innovation, collaboration, communication, and connection for the good of Alabama and for the protection and restoration of the waters within and beyond its borders.

Peers Network Battery Recycling Program (continual)

Sponsored by the Office of Sustainability, the Ambassadors are introduced to all the sustainability-related practices and policies at Auburn University, including the Storm Water Management Plan and practices on campus. The Battery Recycling initiative has located over 50 bin locations around campus to allow the campus community an easy way to recycle their used batteries rather than throwing them in the solid waste trash receptacle. During this reporting period, 7176 Lbs. of batteries were recycled.



The Alabama Cooperative Extension System (ACES) is the primary outreach and engagement organization for the land-grant mission of Alabama A&M University and Auburn University in cooperation with Tuskegee University. ACES provides research-based educational programs in agriculture; forestry, wildlife, and natural resources; family and consumer sciences; economic and community development; 4-H and youth development; and urban affairs. Programs, educational tools, and presentations include:



Alabama Water Steward is a science-based educational program from the Alabama Cooperative Extension System and ADEM designed for the public that promotes healthy watersheds, increases understanding of water pollution, and provides knowledge and tools to prevent and resolve local water quality problems.



The goal of the program is to deeply engage Alabama's citizens with the role they can play as stewards of their local environments, and to provide people with the tools they need to make a meaningful impact in their own watershed.

The AWS program offers an education curriculum and hands on training. The educational curriculum is offered as both virtual week-long, self-paced course and a 1-day in person course. The curriculum uses a combination of video lectures, discussions, and resources, to introduce participants to the basics of watershed function, water quality parameters and watershed impairments, best management practices for improving water quality, the role of community leadership and watershed planning, and more. The program also consists of more in depth training opportunities, including workshops on how to install rain gardens, conduct local litter pickups, install rain barrels, and information for designers and engineers on installing other green infrastructure practices.

The Water Resource Center –
Alabama Water Watch

Alabama Water Watch (AWW) is a citizen volunteer, water quality monitoring program covering all the major river basins of the state. The mission of AWW is to improve

water quality and water policy through citizen monitoring and action. With a "data-to action" focus, AWW helps volunteers collect, analyze, and understand their water monitoring data to make positive impacts. Established in 1992, AWW is a national model for citizen involvement in watershed stewardship, largely because of its three interrelated components: citizen monitoring groups, a university-based program, and a non-profit association. AWW follows EPA-approved quality assurance monitoring plans with a community-based, science-based approach to train citizens to monitor water quality conditions and trends of their local waterbodies.

Despite the challenges presented by COVID, AWW was successful in furthering its mission. See the Alabama Water Watch Annual Report to learn of all the AUsome people and services provided this past year!

<http://wp.auburn.edu/aww/wp-content/uploads/2021/03/2020-AWW-Annual-Report.pdf>



PMC Stream Clean-up Efforts

Campus Location	Date	Participation	Participants
PMC @ Biggio (Live Staking)	02-26-2021	6	AU Staff, Faculty Students (AWS)
PMC @ Biggio to Lem Morrison	02-26-2021	14	AU Staff
PMC @ Biggio to Samford Ave	11-19-20	15	AU Staff, Students
Campus Wide	Continual	14 Groups/Individuals Adopt-A-Spot	AU Students, Staff & Faculty



Auburn Student Government Association's Big Event
(March 27, 2021)

Bouncing back from a COVID cancelled Big Event in 2020, the Big Event was a go in 2021. Hundreds of student volunteers provided community services to the surrounding community. The BIG Event gives thousands of Auburn students the opportunity to give back to the Auburn & Opelika community. As students go into the community to serve its homeowners through yard work or housework, the student body was able to make a positive impact.

Measure Specific Evaluation

Auburn University continued to be successful in providing a variety of information related to storm water management, water quality and water conservation to AU and non-AU entities. AU strives to engage all faculty, staff, and students through education to serve the community and to become more involved in making a positive impact. During this reporting period, AU continued to foster an open and collaborative relationship with the many different groups on and

off campus, through the continued pursuit of research initiatives and funding to improve and protect water resources as witnessed by the Auburn Water Resource Center, the innovative research being done by the many academic disciplines on campus and for the continued efforts by the Office of Sustainability and the SGA to engage the campus community.

Measure specific activities planned for the next reporting period

During this next reporting period, Auburn University plans to continue to promote the goals of the storm water program to include at a minimum:

1. Continue to sponsor multiple PMC campus clean up events.
2. Participate with ALOAS and other entities to offer the annual Lee County Water Festival (2021).
3. Continue to be an active ASA Board Member and assist in the development and delivery of multiple learning opportunities.
4. Continued promotion of Parkerson Mill Creek (PMC) and the PMC Watershed Management Plan.
5. Continue partnership with ALOAS to communicate local storm water challenges, opportunities and community concerns and strive towards returning to a regular schedule for meetings with the public.
6. Continue to promote sustainability initiatives to include storm water management best management practices.

BMP: Illicit Discharge Detection & Elimination

During this reporting period, Auburn University continued to utilize the storm water infrastructure engineering assessment to prioritize areas on campus requiring further assessment and/or repair along with field observations by AU Facilities Management – Utilities and Energy, Mechanical Shops, Water Resources and Risk Management & Safety to investigate sources of potential illicit discharges. An updated map is attached to this report and identifies the storm water



conveyance system maintained by the University.

Through continued educative efforts, an informed campus community is relied upon to relay observations of potential illicit discharges. These observations are communicated to AU Administration through multiple methods to include Facility Management's 24-hour Work Management System (844-HELP), the AU "Ask Facilities" web tool or communicating directly to Risk Management & Safety. Dry weather screening is performed on an annual basis on the outfalls identified on campus. Screening includes visual observations of flow, and infrastructure condition. Upon discovery or suspicion of a potential illicit discharge, further investigation is initiated. A variety of measures can be deployed to track the source of the illicit discharge and may involve multiple AU groups as well as the City of Auburn, as necessary. The listing of outfalls evaluated this reporting period and IDDE Details are included as **Appendix E** to this report.



Illicit Discharge Detection & Elimination (IDDE) training is provided annually and during this reporting period 59 individuals received Environmental Awareness training that covers storm water management and the elements of the IDDE program.

Measure Specific Evaluation

Despite the challenges presented by COVID, Auburn University continued IDDE efforts and address sources of pollutants from being introduced into the University's MS4.

Accomplishments and ongoing actions supporting this BMP included:

- Maintenance of the University's Policy on Storm Water Compliance continues to serve as the regulatory mechanism for this measure.
- COVID interfered with the delivery of the annual Environmental Awareness refresher training which includes IDDE components. During this reporting period, abbreviated training was provided to 59 individuals representing faculty and staff and students.
- Annual dry weather screening was successful in identifying two illicit discharges involving sanitary/storm cross connection into the University's MS4. Both events were thoroughly investigated, and sources of cross connection identified and ceased. Auburn University worked closely with the City of Auburn to resolve issues with one of these cross connections. AU Facilities Utilities and Energy map all utilities upon installation and are instrumental in recognizing and promoting suspect infrastructure.

- The continued evaluation of the infrastructure engineering assessment has given direction to Facilities Management to enable a prioritized approach to infrastructure management.

Measure specific activities planned for the next reporting period

Auburn University will continue the Illicit Discharge Detection and Elimination measures as defined in the University's SWMPP. During the next reporting period, the following activities are planned:

1. Provide annual IDDE training to University employee, students and visitors to increase community's level of awareness to pollution prevention.
2. Explore opportunities to improve stream corridor and infrastructure condition as needed through continual investigation.

BMP: Construction Site Storm Water Runoff Control

In accordance with Part III (B) (4) of NPDES Permit No ALR040030, Auburn University developed the Construction Site Storm Water Runoff Control Best Management Practice. Auburn University's Facilities Management is responsible for all construction projects on campus and implementation of this measure.

During this reporting period, a total of seventeen (17) qualifying construction sites were managed on campus that required storm water protection measures to be implemented and maintained. Details specific to these 17 sites to include the number of inspections, number of complaint notices and number of run off complaints can be viewed in **Appendix A** of this report.

Measure Specific Evaluation

Based on the requirements identified in Part III (B) (4) of NPDES Permit No ALR040030, Auburn University implemented Design Standards assist in meeting these requirements. The Design Standards establish a measurable performance standard to qualify the effectiveness of on-site controls. The inclusion of turbidity monitoring into specified projects has been an excellent measure to evaluate the implementation of the site-specific ESC Plan. The training events allowed for a collaborative exchange of information and developed a common understanding of expectations.

Measure specific activities planned for the next reporting period

Auburn University will continue implementing Construction Site Storm Water Runoff Control as defined in the University's SWMPP. During the next reporting period, the following activities are planned:

1. Provide annual training event to AU Project Managers and Design Engineers.
2. Investigate opportunities to collaborate with local governments to offer training event to the public.

BMP: Post Construction Storm Water Runoff Control

The Auburn University Board of Trustees approved the University's first Landscape Master Plan February 5, 2016 as an update to the Comprehensive Campus Master Plan. The Landscape Master Plan contains the Post-Construction Storm Water Manual, completed in 2013, that establishes principles, guidelines and standards for storm water management planning, design, and operation. As a component of the Auburn University Design and Construction Standards, the Post Construction Stormwater Manual provides the principles, guidelines, and standards for stormwater management design for new campus projects. By providing a set of comprehensive best management practices for stormwater management, future campus construction projects will protect and improve water quality, provide campus flood protection, and reduce stormwater flow rates to downstream waters. The Post Construction Stormwater Manual includes a stormwater management review checklist to review compliance with the University's design standards. Multiple projects were completed, are in construction, or are currently being designed during this reporting year. A listing of these projects along with images can be found below. Please see complete listing and inspection Appendix F for the updated BMPs along with inspection counts.



BioRetention at Auburn Research Park Building 5 (Research and Innovation Center - AU Project 18-236)



Retention pond at the Campus Recreation SportsPlex (AU Project 18-028)



Bioretention pond at the Campus Recreation SportsPlex (AU Project 18-028)



Detention Pond at Auburn Research Park Building 6 (EAMC Facility – AU Project 18-121)



Bioretention Cell at Advanced Structural Engineering Laboratory (AU Project 17-255)



Bioretention Cell at Advanced Structural Laboratory (AU Project 17-255)

Measure Specific Evaluation

During this reporting period, Auburn University continued efforts to strengthen this measure through education and increasing expectations. Utilizing an extensive plan review process, AU staff have been successful in promoting many storm water best management practices during this reporting period.

Measure specific activities planned for the next reporting period

Auburn University will continue implementation of Post Construction Storm Water Management in new development and redevelopment as defined in the University's SWMP. During the next reporting period, the following activities are planned:

1. Continue to provide training to University Design Leads on the Design Standards required for future University projects.
2. Continue to perform and document post construction BMP inspections to ensure they are being maintained and functioning as designed.
3. Continue to maintain an updated inventory of storm water BMPs (Appendix F)

BMP: Pollution Prevention / Good Housekeeping

Parking Lot, Parking Deck Cleaning Program

Facility Management's Landscape Services utilizes street sweepers daily to address the removal of accumulated debris (340 yd³) from parking lots, parking decks, streets, pedestrian walkways and sidewalks. Landscape Services provides daily inspections of streets, street drains and curbs. During fall and winter months, Landscape Services removes leaves and other debris daily throughout campus. Landscape Services also incorporates the use of a large vacuum that allows the landscape debris, which is harvested on campus grounds, to be removed before it is introduced into a storm drain system. Mowers with mulching equipment pulverize leaves, limbs and debris on site which reduces possible storm drain blockage. This process is reduced during the spring and summer months unless storms or high winds cause leaves, limbs, and debris to cover our campus grounds and streets; at that point we use the same procedures as the fall and winter removal. This system not only reduces the problem of storm drain blockage but allows AU to compost the harvested material and eventually incorporate it back into campus landscape.

Storm Water Conveyance System Cleaning Program

Auburn University Landscape Services inspects all storm water conveyance outfalls routinely throughout the year. This is done after each heavy rain or storm activity. If any large limbs, trees, or debris are blocking the area, the blockage is removed as quickly as possible.

Streamside maintenance to include invasive plant removal continues and allows better accessibility to Parkerson Mill Creek. On-going efforts to remove invasive vegetative species and replace with native species have further enhanced Parkerson Mill Creek. Throughout this reporting period, Landscape Services calculated the removal of approximately 768 yd³ of landscape debris.

Integrated Pest Management

All areas maintained on campus have a four-tiered management system, however all areas are not equal in tolerance and /or action thresholds. These thresholds are based on pedestrian traffic, tolerance thresholds set down by building occupants and historic importance of an area.

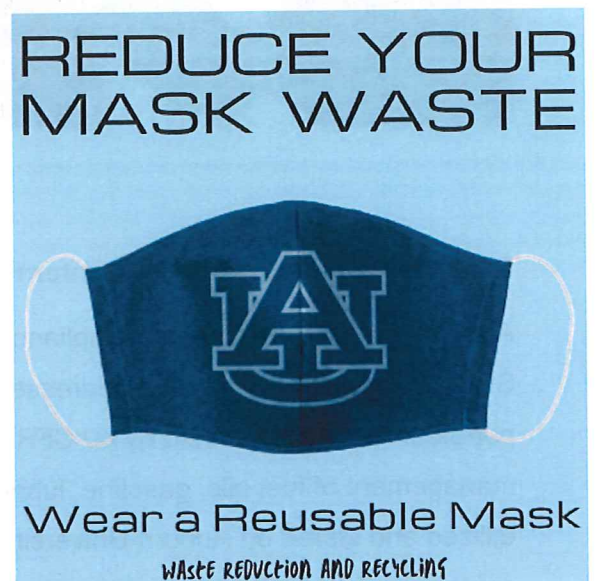
Understanding that over application of chemicals to control pests on campus landscapes can have a detrimental effect to the environment, Facility Management's Landscape Services objective is to survey/monitor selected areas on campus and determine if the threshold of a pest warrants chemical applications. Incorporation of best management practices such as aeration, fertilization and proper irrigation promote healthy trees, shrubs and turf while reducing the unnecessary level of chemicals applied to the environment.

An estimated 235 acres of AU main campus's premium areas (turf, trees, shrubs, and hardscapes) receives targeted IPM application. Leaves on turf and turf clippings are mulched and/or recycled to reuse on campus. It is estimated that 4050 cubic yards of grass clippings are beneficially reused on campus each year.

Waste Reduction & Recycling

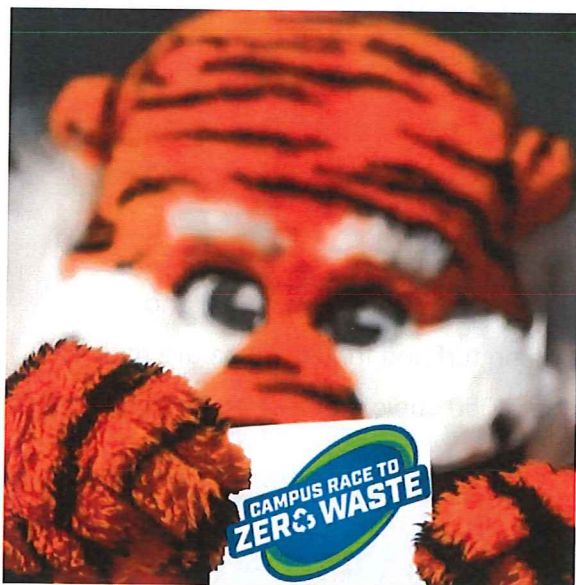
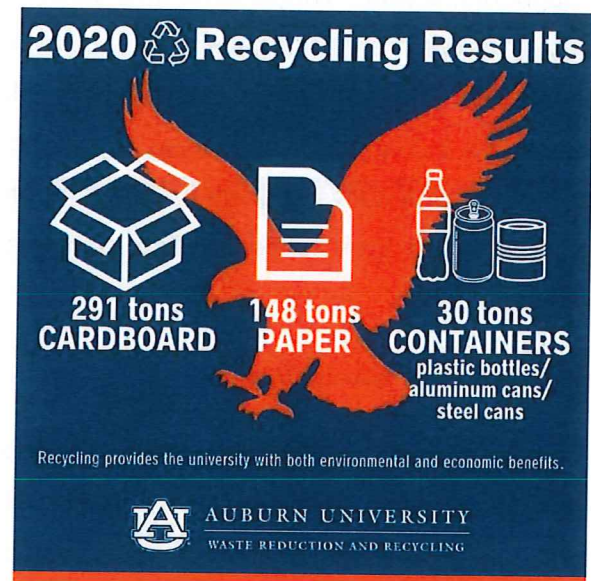
The Waste Reduction and Recycling Department (WRRD) manages all waste contracts on campus and works with faculty, staff, and students daily to provide easy and convenient recycling to Auburn University.

WRRD manages the Campus Building Recycling program, Game Day Recycling, Recycle Mania, office clean-outs, toner and ink cartridge recycling, indoor/outdoor event trash and recycling bins, and secure document shredding services. WRRD



promotes initiatives to divert waste from being managed to a landfill. Diverted wastes include construction demolition waste, paper, cardboard, aluminum cans, plastics, steel cans, metals and toner/ink cartridges.

WRRD promoted America Recycles Day (celebrated annually on or around Nov. 15th), educating people about the importance of recycling to our economy and environmental well-being, and encouraging individuals to commit to learn more about recycling in their community, to recycle consistently and correctly, and to buy products made from recycled content.



Waste reduction and recycling initiatives are also promoted through education and outreach on campus and in the surrounding community. Outreach initiatives encompass events, including Earth Day Extravaganza, Campus Race to Zero Waste, Recycle Mania Tournaments, and community partnerships, such as the East Alabama Recycling Partnership.

Spill Prevention Control & Countermeasure (SPCC) Program

Auburn University maintains compliance efforts consistent with 40 CFR 112 and the University's SPCC Plan. The SPCC Plan addresses the University's program to manage oil and other petroleum products defined by 40 CFR 112.7(2) and 40 CFR 112.7(4). This includes the management of fuel oils, gasoline, lubricating oils, hydraulic and dielectric fluids as they are utilized and stored on Auburn University's main campus. The University inspects all applicable containers (fuel tanks, generators, elevators, and drums) monthly and all transformers annually.

These routine inspections evaluate the condition of the containers to ensure proper functionality and management to prevent releases to the environment.

Applicable SPCC containers	Number of Inspections	Volume of SPCC applicable oil (gallons)
Tanks, Generators, Drums	720	145120
Elevators	1332	17380
Pad Mount Transformers	244	58707
Satellite Equipment	17	3769

Used Oil Recycling Program

Auburn University’s Department of Risk Management & Safety and Facilities Management routinely collects and recycles used oil from campus operations. Throughout this reporting period, AU retained the services of Universal Environmental Services, LLC based out of Peachtree City Georgia for removal and recycling of campus generated used oil. Throughout this reporting period, Universal Environmental Services collected 2125 gallons of used oil from campus operations for recycling.

Used Cooking Oil Recycling Program

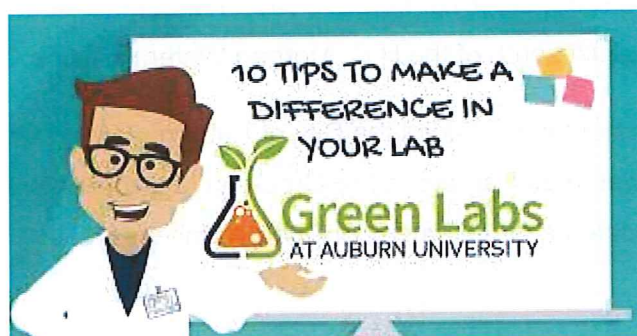
Auburn University’s Dining Services collects and recycles all used cooking oil generated from the University’s dining facilities. During this reporting period, approximately 2247 gallons of used cooking oil was collected under contract with Green Earth Options Bio-Fuel.

Regulated Waste Management

Risk Management & Safety promotes proper regulated waste management throughout all campus operations. Regulated waste includes RCRA hazardous waste, universal waste lamps, batteries, pesticides, mercury-containing equipment, and electronic waste. Through reoccurring training events, consultations and other marketing strategies, proper management of these items are promoted. Disposal of these items via solid waste or sanitary sewer is prohibited. Proper container management by the generator is critical to ensure compliance with regulatory requirements and to prevent releases of harmful chemicals to the environment. During this reporting period, AU properly managed 10990 individual containers of hazardous waste, 19573 Lbs. of medical waste and 387803 Lbs. of pathological waste.

Green Labs Program

Laboratory spaces foster innovation, research, and student learning across Auburn’s campus. Yet, the impacts



they have on our health, budget, and environmental footprint can be some of the most intense of campus facilities. A [Green Labs Program](#) proactively addresses negative impacts often associated with labs, so the primary focus can remain on educating and innovating for our future.

A variety of stakeholders on Auburn's campus have come together to begin the process of developing an Auburn-specific Green Labs Program. Currently, in the research phase of program development, the long-term goal is to create a Green Labs Program that fits Auburn's culture, improves research efficiency, enhances lab safety, reduces energy and water consumption, minimizes waste, and supports the university's sustainability policy and goals.

Measure Specific Evaluation

Throughout this reporting period, the on-going preventative measures taken by multiple groups on campus have removed items that could have been ultimately destined to our local landfill, groundwater and or surface waters. The University promotes waste minimization efforts to include regulated hazardous and non-hazardous wastes, e-waste and construction and demolition waste through reuse and recycling. The University has developed sound practices to manage equipment and operations to minimize releases to the environment and provides training to University and contractual employees on these best management practices. Per the newly issued permit, AU began efforts to inventory "municipal facilities".

Measure specific activities planned for the next reporting period

Auburn University will continue to perform and promote sound pollution prevention good housekeeping management practices.

1. Continue to provide pollution prevention environmental awareness training to campus.
2. Maintain an updated municipal facility inventory.
3. Seek opportunities to promote Green Lab Initiatives geared towards reducing our laboratory footprint.

Monitoring Plan for Pathogen Impairment

The Parkerson Mill Creek Watershed is in Lee County; the watershed is part of the Chewacla Watershed, in the lower Tallapoosa River Basin. The 9.3 square mile (5,981 acres) watershed contains 21,000 meters (68,500 ft.) of main stem perennial stream and approximately 86,000 meters (282,152 ft.) of tributary stream length. The stream network empties into Chewacla Creek, just south of the H.C. Morgan Water Pollution Control Facility

The watershed includes the City of Auburn, Auburn University, and the surrounding areas. The headwaters of Parkerson Mill Creek are approximately 3,000 meters (9,845.5 ft.) in length and are located on the campus of Auburn University.

In 2007, ADEM listed Parkerson Mill Creek as impaired on Alabama's 303(d) List of Impaired Waters for pathogens from point source and non-point sources, primarily urban runoff, and storm sewer connections. As such, Auburn University monitors Parkerson Mill Creek by performing bacteriological analysis through the AU Water Resource Center's Alabama Water Watch (AWW) program. The results of the monitoring effort for this reporting period are contained in **Appendix C** of this Annual Report.

Appendix A

Construction Site Details

April 1, 2020 through March 31, 2021

Appendix A
 Construction Site Details
 April 1, 2020 to March 31, 2021

Project #	Project Name	Design Lead	Const. Lead	Architect	Civil Engineer	General Contractor	Civil Contractor	# of Inspections	# of Non-compliant notices	# of Site Runoff Complaints	Sub Comp	Notes
16-370	Rane Culinary Science Center - New Building	Sarah Smith	Andrew Spurlin	Cooper Carry	LBYD	Bailey Harris	Joe Mims Construction	13	0	0	4/29/2022	
18-481	Northeast Campus - Utility Expansion (Includes 19-567)	Benjamin Burmester	Andrew Spurlin	Cooper Carry	LBYD	Russo Corporation	Russo Corporation	10	0	2	7/13/2020	
19-321	Samford Park - Soil & Sod Restoration Of Main Lawn (Phase II)	Judd Langham	Andrew Spurlin	HNP Site Planning	HNP	Sur-Line	N/A	1	0	1	5/29/2020	
19-567	College St & Thach Av - Streetscape Improvements & New Traffic Signal System	Benjamin Burmester	Andrew Spurlin	Cooper Carry	LBYD	Russo Corporation	Russo Corporation	0	0	0	7/13/2020	
19-579	Campus Green - Soil & Sod Restoration	Judd Langham	Andrew Spurlin	HNP Site Planning	NHP	Sur-Line	N/A	1	0	0	7/3/2020	
17-197	Moore Softball Complex - New Player Development Building	David Bess	David Johnson	TVS	LBYD	JA Lett	Adams Construction	0	0	0	10/30/2020	
18-028	Lem Morrison Dr - Recreation Field Expansion	Benjamin Burmester	David Johnson	Barge Design	LBYD	Bailey Harris	D&J Enterprises	11	0	0	5/15/2020	
18-200	Plainsman Park - New Player Development Center	Gregory Forthofer	David Johnson	Gensler	LBYD	Nearen	Nearen	0	0	0	1/11/2021	
19-016	Auburn Research Park - Infrastructure Expansion	Benjamin Burmester	David Johnson	GMC	GMC	D&J Enterprises	D&J Enterprises	44	0	0	3/1/2021	
19-249	Biggio Drive - Shared-Use Pathway & Intramural Field House Parking Lot Repairs	Benjamin Burmester	David Johnson	N/A	LBYD	JA Lett	JA Lett	0	0	0	7/7/2020	
19-441	Football Performance Center	David Bess	David Johnson	GMC	LBYD	Batson-Cook	Evergreen	14	0	0	2/28/2021	
17-399	Lem Morrison Drive - Woods Restoration & Cleanup Of Former Coal Yard	George Reese	Jonathan Tucker	Kemron	Contineo	KAM Environmental	KAM Environmental	3	0	0	5/18/2020	
15-034	Academic Classroom & Laboratory Complex (AACL) - New Facility	Bradley Prater	Nicholas Nowlin	Perkins Will	LBYD	Rabren General Contractors	D&J Enterprises	24	24	1	4/11/2022	Site runoff complaint was due to tracking in the street. The contractor refreshed the construction exits and swept the road.
17-049	Central Dining Facility - New Building	Bradley Prater	Nicholas Nowlin	Perkins Will	LBYD	Rabren General Contractors	Joe Mims Construction	24	24	1	5/21/2021	Site runoff complaint was due to tracking in the street. The contractor refreshed the construction exits and swept the road.
17-255	Advanced Structural Testing Laboratory - New Facility	Simon Yendle	Scott Crosby	Chambless King	LBYD	Rabren General Contractors	Joe Mims Construction	25	0	0	11/6/2020	
19-537	Coliseum Parking Lot Pavement Repairs	Benjamin Burmester	Nicholas Blair	N/A	LBYD	D&J Enterprises	D&J Enterprises	5	0	0	7/29/2020	
18-444	Chilled Water System Expansion - New CW Plant At South Campus	George Reese	George Reese	LBYD	LBYD	Bailey Harris	JLD	3	0	0	4/20/2022	

Off Campus Locations

Project #	Project Name	Design Lead	Const. Lead	Architect	Civil Engineer	General Contractor	Civil Contractor	# of Inspections	# of Non-compliant notices	# of Site Runoff Complaints	Sub Comp	Notes
17-023	NCAT Test Track - New Autonomous Vehicle Research Facility	Philip Johnson	Jonathan Tucker	Chambless King	LBYD	WB Construction	WB Construction	8	0	0	1/8/2021	
17-302	Miller Poultry Center - Poultry Farm Relocation Project (Phases III-VI)	David Bess	Jonathan Tucker	Ghafari	LBYD	Bailey Harris	Howell	2	0	0	10/18/2020	

Auburn Research Trust Foundation Developments (on campus)

Project #	Project Name	Design Lead	Const. Lead	Architect	Civil Engineer	General Contractor	Civil Contractor	# of Inspections	# of Non-compliant notices	# of Site Runoff Complaints	Sub Comp	Notes
	ARTF - EAMC (Building 6)		Phil Dunlap			Rabren General		21	0	0		
	ARTF - Infrastructure		Phil Dunlap			D&J		13	0	0		
	ARTF - Research & Innovation Center (Building 5)		Phil Dunlap			Brassfield & Gorrie		21	0	2		site slopes needed to be stabilized. GC addressed as appropriate in each instance

Appendix B

Policy on Storm Water Management Compliance

April 1, 2020 through March 31, 2021

POLICY ON STORMWATER MANAGEMENT COMPLIANCE

I. POLICY STATEMENT

Auburn University ("The University") shall manage its stormwater in compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit ALR040030 ("The Permit"), or subsequent permits, and the University's Stormwater Management Plan.

II. POLICY PRINCIPLES

A. The University's "Policy on Stormwater Management Compliance" governs 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).

B. Regulatory Background:

1. The United States Environmental Protection Agency (EPA) and ADEM have designated the University as an owner/operator of a Phase II municipal separate storm sewer system (MS4). The EPA's Clean Water Act Phase II Stormwater Regulations (implemented March 2003) require operators of regulated Phase II MS4s to obtain an NPDES permit and to develop a stormwater management program designed to protect water quality and to prevent harmful pollutants in stormwater runoff from being discharged into the MS4.

2. The intent of the Clean Water Act Phase II regulations is to reduce adverse impacts to water quality and aquatic habitat by instituting the use of best management practices on sources of stormwater discharges not regulated by other measures. In order to comply with the Clean Water Act Phase II regulations, the University must satisfy six "minimum control measures," including:

- a. Public Education and Outreach
- b. Public Participation/Involvement
- c. Illicit Discharge Detection and Elimination
- d. Construction Site Runoff Control
- e. Post-Construction Stormwater Management
- f. Pollution Prevention/Good Housekeeping

3. Parkerson Mill Creek was determined to be "Impaired Water" and consequently placed on the ADEM 303(d) list of impaired and threatened waters ("303(d) list") in 2008 and 2010. Known water quality concerns have been identified as pathogens resulting likely from urban runoff and sewer cross connections. A Total Daily Maximum Load (TMDL) for Parkerson Mill Creek was issued by ADEM in September 2011. Implementation of this stormwater TMDL was addressed in the Permit.

- C. A University Stormwater Management Plan (SWMP) has been created and annually updated since 2009. The SWMP was created in compliance with EPA and ADEM requirements as identified in the Permit and in concert with the Campus Master Plan, the Landscape Master Plan and the Policy for Natural Resource Management. The SWMP details the measures that are to be taken to meet the six minimum control measures identified above, identifies the University entity(s) having responsibility towards each measure and the metrics to evaluate their effectiveness.
- D. It is University policy that all stormwater shall be managed in accordance with the SWMP and that all University organizations and non-University organizations operating on University's main campus shall conduct their operations and activities in compliance with this plan.

III. EFFECTIVE DATE

This policy is in affect as of June 15, 2016.

IV. APPLICABILITY

This policy applies to all University organizations, as well as all University operations, construction projects, and other campus activities.

V. POLICY MANAGEMENT

Responsible Office: Auburn University Facilities Management

Responsible Executive: Executive Vice President, Auburn University

Responsible Officer: Associate Vice President, Facilities

VI. DEFINITIONS

303(d) List: List of impaired and threatened waters (stream/river segments, lakes) that the Clean Water Act requires all states to submit for EPA approval every two years on even-numbered years. States identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards, and establish priorities for development of TMDLs based on the severity of the pollution and the sensitivity of the uses to be made of the waters, among other factors. States then provide a long-term plan for completing TMDLs within 8 to 13 years from first listing.

ADEM: Alabama Department of Environmental Management, 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 and improve the quality of stormwater runoff. BMP include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Campus Master Plan: As stipulated in the University's "Campus and Capital Projects Planning Policy," the Campus Master Plan "is a physical plan and comprehensive set of policy directives that together provide long-range strategies for the growth and development of the Auburn University campus." The Campus Master Plan is updated periodically, as required, and the Board of Trustees reviews and approves all changes.

Campus Master Plan Land Use Element: The chapter of the Campus Master Plan that establishes formal Land Use Categories and Land Use Area boundaries that define permitted uses for all University Land.

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.

Executive Facilities Committee: Appointed by the President, a senior group of University Administrators, representing major facility stakeholders, that considers and formulates recommendations for the President, regarding campus facility plans and programs.

Landscape Master Plan (LMP): Developed as a component, or sub-plan, of the Campus Master Plan, the LMP provides prescriptive requirements of a design approach that will guide the University toward implementation and realization of the landscape vision for the Auburn campus. The LMP document aids in defining the project scope of each campus project that affects Auburn University exterior facilities and provides tools designed to ensure that each project is viewed within its larger campus context and contributes to the success of the larger campus landscape.

Master Plan Committee: A representative committee appointed by the President that provides input regarding facilities, planning, transportation planning, land planning, infrastructure, and site development activities. The Committee also provides input on the continuing administration, maintenance, implementation, change, and updating of the Campus Master Plan.

Municipal Separate Storm Sewer System (MS4): is a conveyance or system of conveyances owned by a state, city, town, village or other public entity that discharges to waters of the U.S.

Natural Resource Management Area (NR): The Campus Master Plan Land Use Category and Land Use Area, identified on the Campus Master Plan as "NR," that identifies areas of the campus that are designated for natural resource protection and enhancement with limited development potential. NR areas include land located on either side of Parkerson Mill Creek and Town Creek and their tributaries, FEMA 100- year floodplains, wetlands, streams, steep slopes, and critical buffer zones.

NPDES: National Pollutant Discharge Elimination System. The national program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits and for imposing and enforcing pretreatment requirements under sections 307, 318, 402, and 405 of the Clean Water Act (CWA).

Parkerson Mill Creek: One of two principal stream systems, including all tributaries and main channel streams, that flows on the University main campus (see appendix 1); a tributary of Chewacla Creek, which flows into the Tallapoosa River.

Parkerson Mill Creek Watershed: Area of land on the University main campus that drains the tributaries, main channel, stream banks, and floodplain of Parkerson Mill Creek (see appendix 1).

Pathogens: Microorganisms that can cause disease in other organisms or in humans, animals, and plants. They may be bacteria, viruses, or parasites and are found in sewage, in runoff from animal farms or rural areas populated with domestic and/or wild animals, and in water used for swimming. Fish and shellfish contaminated by pathogens, or the contaminated water itself, can cause serious illnesses.

Permit: The National Pollutant Discharge Elimination System (NPDES) General Permit ALR040030 issued to Auburn University.

Policy for Natural Resource Management: University policy that implements the Campus Master Plan Land Use Element as it relates to University Land designated as natural resource protection and enhancement areas with limited development potential, including the protection, enhancement, and restoration of Parkerson Mill Creek, Town Creek, and the tributaries within their watersheds on the main campus.

Stormwater: Runoff occurring when precipitation flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater runoff from naturally soaking into the ground. These discharges often contain pollutants in quantities that could adversely affect water quality. Federal regulations require permits for stormwater discharges associated with industrial activity, construction projects (disturbing one or more acre of land) and MS4s. These permits require controls to reduce the transport of pollutants in storm water to waters of the United States.

Stormwater Management Plan (SWMP): University plan developed for the implementation of NPDES permit requirements.

Stormwater Management Program: University plans, procedures and practices required by EPA and ADEM to obtain NPDES MS4 permit and NPDES construction stormwater permits for construction projects (disturbing one or more acre of land).

Stormwater Pollutant: Chemicals, sediment, trash, disease-carrying organisms, and other contaminants picked up by stormwater as it runs off roofs and roads into rivers, streams and other water bodies. Studies show that stormwater pollution rivals sewage plants and large factories as a source of damaging pollutants in drinking water and at water bodies.

TMDL: Total Maximum Daily Load designates the calculated maximum amount of pollutant that a body of water can receive and still safely meet water quality standards. TMDL= Wasteload Allocation (NPS) + Load Allocation (PS) + Margin of Safety.

Town Creek: One of two principal stream systems, including all tributaries and main channel streams that flow on the University main campus (see appendix 1); a tributary of Chewacla Creek, which flows into the Tallapoosa River.

Town Creek Watershed: Area of land on the Auburn University main campus that drains the tributaries, main channel, stream banks, and floodplain of Town Creek (see appendix 1).

University Land: All land owned or leased by Auburn University.

VI POLICY PROCEDURES

- A. Auburn University Facilities Management ("Facilities Management") will administer this policy on behalf of the University.

- B. The University's Department of Risk Management and Safety is primarily responsible for reporting the University's compliance efforts, maintaining the University's SWMP and facilitating progress with other University groups that have responsibility towards the Permit's overall objective
- C. Facilities Management shall establish a Stormwater Management Committee (SWMC) as a subcommittee of the Master Plan Committee. The SWMC shall:
 - 1. Develop, implement, and maintain a Stormwater Management Program to, comply with the Permit, at a minimum, with a goal to have Parkerson Mill Creek removed from the 303(d) list between 2016 and 2021 consistent with 303d list guidelines;
 - 2. Review and update the SWMP as needed;
 - 3. Develop a checklist to ensure compliance with this policy and the management plans described herein.
- D. The SWMC will include members from the Master Plan Committee as well as additional ad hoc representatives, to include, but not limited to, the Alabama Cooperative Extension System; Athletics Department; Campus Planning; College of Agriculture; College of Sciences and Mathematics; Design and Construction; Housing & Residence Life; Landscape Services; the Office of Risk Management and Safety; the Office of Sustainability; the School of Forestry; and Division of Student Affairs.

VI. SANCTIONS

This Policy serves as the regulatory mechanism to prohibit activities on University Land that would be non-compliant with either the Permit or the Stormwater Program.

In the event of non-compliant activity by an organizational unit of the University, the appropriate chain of command will be used to bring the activity back into compliance or cause it to stop. In the event of intentional non-compliant activity by a student(s), the Code of Student Discipline may apply. For intentional non-compliant activities by a University employee(s), progressive discipline measures may apply. For intentional or negligent non-compliant activities resulting from a University Contractor, work stoppage, formal project review, and appropriate corrective actions may apply.

IX. EXCEPTIONS

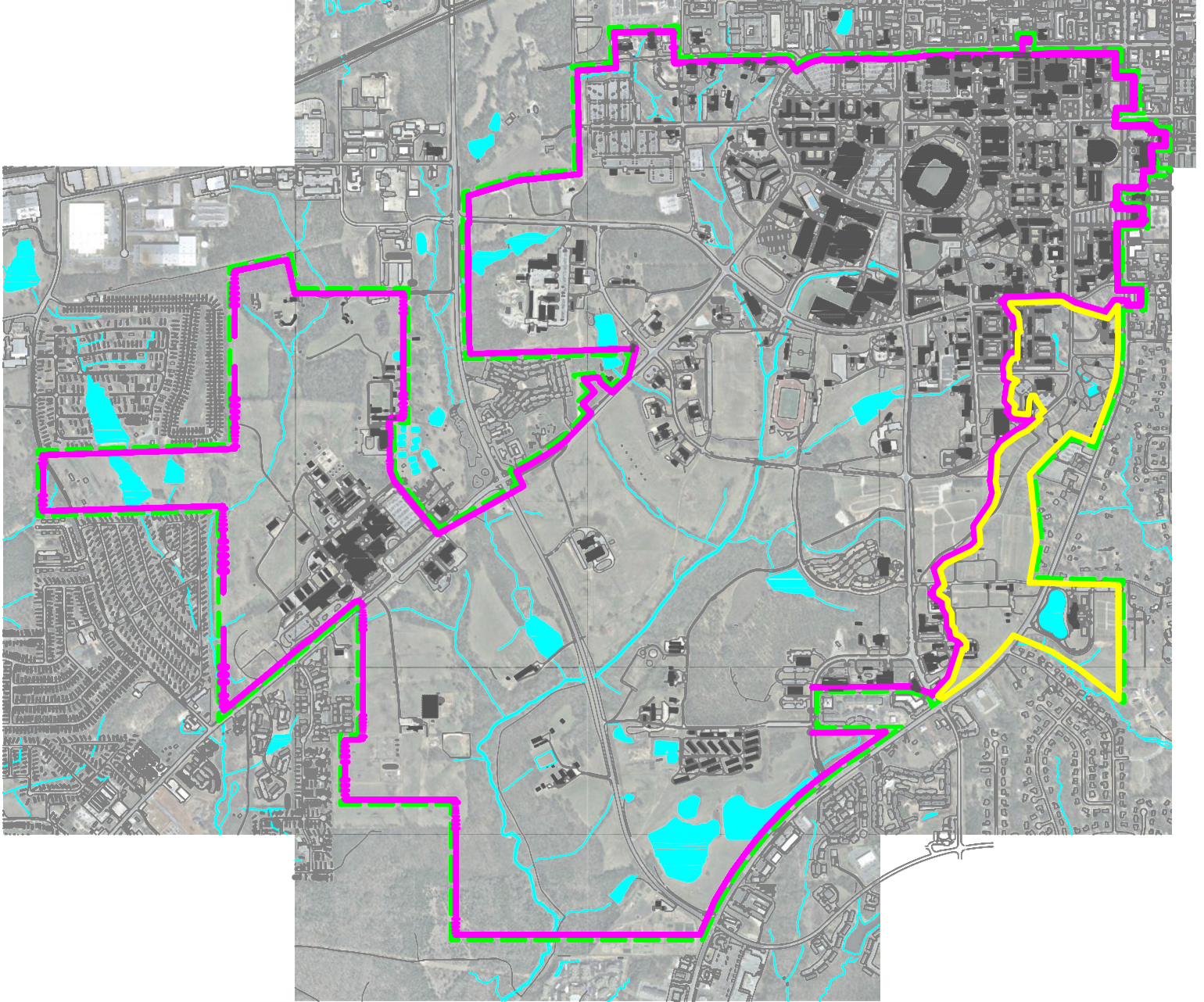
This policy applies to the Auburn University main campus. All other University Land is exempt.

X. INTERPRETATION

The Responsible Officer is authorized to interpret questions and issues regarding the requirements and applicability of this policy.

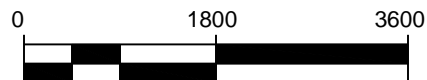
ADOPTED: June 15, 2016

APPENDIX 1



LEGEND

-  AUBURN UNIVERSITY
MAIN CAMPUS BOUNDARY
-  PARKERSON MILL
CREEK WATERSHED
-  TOWN CREEK
WATERSHED



SCALE: 1:1800

Appendix C

Water Monitoring Data

April 1, 2020 through March 31, 2021

Appendix C
 Water Monitoring Data
 April 1, 2020 through March 31, 2021

AWW Site Code	7018002	AWW Site Code	7011035
Location Description:	Shug Jordan	Location Description	Extension Loop
Sample Date	Calc Mean cfu/100mL	Sample Date	Calc Mean cfu/100 mL
25-Apr-20	267	25-Apr-20	700
20-May-20	367	20-May-20	233
29-Jun-20	333	29-Jun-20	67
14-Jul-20	300	14-Jul-20	700
18-Aug-20	600	22-Sep-20	67
22-Sep-20	167	13-Oct-20	33
13-Oct-20	233	17-Nov-20	156
17-Nov-20	700	30-Dec-20	611
30-Dec-20	1100	14-Jan-21	467
15-Mar-21	422	23-Feb-21	311
		23-Mar-21	400
AWW Site Code	7014007	AWW Site Code	7005012
Location Description	Thach Ave/ Farmhouse	Location Description	Thach Ave
Sample Date	Calc Mean cfu/100 mL	Sample Date	Calc Mean cfu/100 mL
13-Feb-21	267	23-Feb-21	222
3/15, 2021	211	15-Mar-21	600
AWW Site Code	7007009	AWW Site Code	7014005
Location Description	Wire Road @ Webster	Location Description	Rugby/Tennis Court
Sample Date	Calc Mean cfu/100 mL	Sample Date	Calc Mean cfu/100 mL
20-Aug-20	2567	23-Feb-21	578
14-Sep-20	33	4-Mar-21	700
16-Mar-21	9333	15-Mar-21	222
AWW Site Code	7021007	AWW Site Code	7005004
Location Description	Ag Heritage Park Pond	Location Description	VCOM Pond
Sample Date	Calc Mean cfu/100 mL	Sample Date	Calc Mean cfu/100 mL
15-Mar-21	433	15-Mar-21	122
AWW Site Code	7014006	AWW Site Code	7016013
Location Description	Hemlock	Location Description	Arboretum Pond
Sample Date	Calc Mean cfu/100 mL	Sample Date	Calc Mean cfu/100 mL
23-Feb-21	211	23-Feb-21	78
15-Mar-21	122	15-Mar-21	256
AWW Site Code	7007010	AWW Site Code	7005011
Location Description	Wire & Samford	Location Description	Raptor Center Gate
Sample Date	Calc Mean cfu/100 mL	Sample Date	Calc Mean cfu/100 mL
16-Aug-21	67	23-Feb-21	189
22-Sep-20	33	15-Mar-21	311
16-Mar-21	2800		
18-Apr-21	400		

Appendix D

Storm Water Management Program Plan (SWMPP) & Campus Map

April 1, 2020 through March 31, 2021



AUBURN

UNIVERSITY

STORM WATER MANAGEMENT PROGRAM PLAN

Prepared by
AUBURN UNIVERSITY

STORM WATER MANAGEMENT COMMITTEE

May 2021

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INTRODUCTION

This Storm Water Management Program Plan (SWMPP) was developed in general accordance with the guidelines provided in Title 40 Code of Federal Regulations (CFR), Part 122.26(d) incorporated by reference in the Alabama Administrative Code 335-6 as administered by the Alabama Department of Environmental Management (ADEM) and NPDES ALR040030 Phase II General Permit effective October 1, 2016.

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

The Storm Water Committee formed to develop this SWMPP is comprised of individuals from both academic and operational areas of campus. The collaborative effort was strengthened by its diversity and includes the following individuals and their areas of responsibility or interest:

Dr. Chris Anderson, Forestry & Wildlife Sciences

Mr. Nicholas Blair, Facilities Management – Design Services

Dr. David Blersch, Biosystems Engineering

Dr. Eve Brantley, AU CSES, ACES

Mr. Ben Burmester, Facilities Management – Office of University Architect

Ms. Mona Dominguez, Alabama Water Watch

Mr. Malcolm Dailey, Facilities Management – Utilities & Energy

Ms. Valerie Friedmann, Architecture Planning & Landscape Architecture

Ms. Joan Hicken, Facilities Management – Waste Reduction & Recycling

Dr. Thorsten Knappenberger, AU CSES

Mr. Mike Kensler, Office of Sustainability

Mr. Dan King, Facilities Management

Mr. Eric Klypas, Athletics Department – Field Management

Mr. Judd Langham, Facilities Management – Office of University Architect

Ms. Charlene LeBleu, Architecture Planning & Landscape Architecture

Mr. Glenn Loughridge, Campus Dining

Mr. Tom McCauley, Risk Management & Safety
Dr. Chandana Mitra, Department of Geosciences
Ms. Wendy Peacock, Facilities Management – Construction Management
Mr. Buster Reese, Facilities Management, Design Services
Dr. Puneet Srivastava, Water Resource Center
Ms. Amy Strickland, Office of Sustainability
Mr. Justin Sutton, Facilities Management – Landscape Services
Mr. William Walker, Campus Dining
Dr. Amy Wright, Department of Horticulture

Objective

The primary goal of the developed SWMPP is to improve the quality of surface waters at Auburn University by reducing the amount pollutants contained in storm water runoff to a maximum extent practicable (MEP). Auburn University will seek to reduce the pollutants from entering storm water runoff through the implementation of best management practices. The SWMPP will describe the minimum best management practices to be implemented by Auburn University and as required by ADEM General Permit ALR040030 (effective date October 1, 2016).

1.1 MS4 Description

Auburn University is a large land grant educational institution located in Auburn, Lee County, Alabama comprised of approximately 1800 acres of contiguous property. Auburn University is one of the major liberal arts and science universities in the southeast. The area surrounding Auburn University consists of residential property to the east and southeast, agricultural property to the southwest and west and urban city property to the north and east.

1.2 Definitions

ADEM: Alabama Department of Environmental Management responsible for enforcing environmental regulations in the State of Alabama.

Best Management Practices (BMP): may include schedule of activities, prohibition of

practices, maintenance procedures or other management practices to prevent or reduce the pollution of Waters of the State. BMPs also include treatment requirements, operating procedures and practices both structural and non-structural designed to control runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

Clean Water Act (CWA): The Clean Water Act is an Act passed by U.S. Congress to control water pollution. It is formally referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972.

Code of Federal Regulations (CFR): A codification of the final rules published daily in the Federal Register. Title 40 of the CFR contains the environmental regulations.

Composite Sample: A sample collected with consideration giving towards flow and time.

Control Measure: any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to Waters of the State.

Discharge: when used without a qualifier, refers to “discharge of pollutant” as defined as ADEM Admin Code 335-6-6-.02(m)

EPA: Environmental Protection Agency

Grab Sample: A sample that is taken on a one-time basis without consideration of the flow rate of the sampling media and without consideration of time.

Green Infrastructure: refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspiration (the return of water to the atmosphere either through evaporation or by plants), or reuse storm water or runoff on the site where it is generated.

Illicit Connection: any man made conveyance connecting an illicit discharge directly to municipal separate storm sewer (MS4)

Illicit Discharge: defined at 40 CFR 122.26(b)(2) and refers to any discharge to a

municipal separate storm sewer (MS4) that is not entirely composed of storm water, except those discharges authorized or excluded under an NPDES permit.

Low Impact Development (LID): an approach to land development (or redevelopment) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product.

Maximum Extent Practicable (MEP): the technology based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by the Clean Water Act (CWA) Section 402(p). A discussion of MEP as it applies to small MS4s like Auburn University is found at 40 CFR 122.34

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm ditches) owned or operated by a state, city, town or other public body having jurisdiction over the collection and conveyance of storm water which is not a combined sewer and which is not part of a publicly owned treatment works.

Notice of Intent (NOI): the mechanism used to “register” for coverage under a General Permit.

National Pollutant Discharge Elimination System (NPDES): The national program for issuing, modifying , revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under Section 307, 318, 402 and 405 of the CWA.

Permit: NPDES ALR040030 issued to Auburn University & became effective October 1, 2016.

Permittee: Auburn University

Priority Construction Site: any qualifying construction site in an area where the MS4 discharges to a waterbody which is listed on the most recently approved 303d list of impaired waters for turbidity, siltation or sedimentation, any waterbody for which a TMDL has been finalized or approved by EPA for turbidity , siltation or sedimentation, any waterbody assigned the Outstanding Alabama Water use classification in accordance with ADEM Admin Code 335-6-10-.09 and any waterbody assigned a special designation in accordance with 335-6-10-.10

Storm water: defined at 40 CFR 122.26(b)(13) storm water runoff, surface runoff and drainage

Storm Water Management Program Plan (SWMPP): A plan developed for implementation of NPDES permit requirements.

Waters of the State: All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce. Waters of the State include but are not limited to all interstate waters and interstate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, play lakes or natural ponds.

REGULATORY MECHANISM

Auburn University utilizes the Policy on Storm Water Management Compliance as the regulatory mechanism to prohibit activities on University Land that would be non-compliant with either the Permit or the SWMPP. Auburn University Facilities Management is the responsible for administering the Policy on behalf of the University.

[Policy on Storm Water Management Compliance](#)

CONTROL MEASURES

Storm water management controls or BMPs will be implemented to prevent pollution in storm water discharges from Auburn University's main campus. The Permit requires BMPs addressing five minimum control measures to be part of the SWMPP. These BMPs

are described in the remaining subsections of this section with applicable measurable goals and scheduled implementation dates for each BMP.

The five control measures addressed by this SWMPP include:

- 2.1 Public Education and Public Involvement on Storm Water Impacts
- 2.2 Illicit Discharge Detection and Elimination
- 2.3 Construction Site Storm Water Runoff Control
- 2.4 Post Construction Storm Water Management in New and Redevelopment
- 2.5 Pollution Prevention / Good Housekeeping for Municipal Operations

2.1 Public Education and Public Involvement on Storm Water Impacts

An informed and knowledgeable “community” at Auburn University will be an important factor in the success of this SWMPP to reach its goal of reducing the discharge of pollutants associated with storm water runoff. The effective implementation of this measure will help Auburn University to ensure:

- 1) Greater awareness to the University community of the importance of managing discharges to local receiving waters;
- 2) Greater support from the University community for the storm water management program; and
- 3) Greater compliance with the requirements of the General NPDES Permit.

The Public Education and Public Involvement on Storm Water Impacts control measure consists of BMPs that focus on the development of educational materials and efforts designed to inform the public about the impacts that storm water discharges have on local water bodies and to foster community partnerships that provide opportunities for stakeholders to learn more about storm water practices and policies, demonstration projects and assessments of local water quality.

Educational materials, activities and partnerships will be designed to engage the public to better understand the impacts of storm water pollution, local MS4 efforts as well as to highlight and support measures to reduce the introduction of pollutants in storm water. The measure is expected to reach the constituents within the MS4s permitted boundary

(Auburn University's main campus). An emphasis of these outreach efforts will be towards the removal of known pollutants from storm water to include floatables, pathogens and sediment.

A plan for effectively engaging in Public Education and Public Involvement on Storm Water Impacts is presented below as required by the Permit.

Target Audience

Auburn University has a unique opportunity to reach several distinct target audiences throughout the year. These audiences include Auburn University faculty and staff, students, parents of students, visitors, contractors on campus, and surrounding community stakeholders.

Pollutants of Concern

Primary storm water pollutants of concern for Auburn University include pathogens as listed on the 2010 303(d) list for Parkerson Mill Creek, floatables i.e. litter from improper trash disposal, and sediment from land disturbing activities and in-stream erosion processes.

Communication Mechanisms

Communication of storm water pollution prevention principles will include the following mechanisms AU web sites, interactive campus storm water BMP tour, AU Daily electronic bulletin that reaches the entire student body and all Auburn University employees, representation at quarterly ALOAS meetings, inclusion of storm water and stream information on signage in strategic locations on campus, presentations to student and watershed organizations, continued participation in university-led activities such as Earth Day, Arboretum Game Day events, Adopt a Spot clean up events, student service events (i.e. Big Event, IMPACT) and various social medial platforms such as Facebook and Twitter.

Responsible Parties

The Public Education and Outreach measure development and implementation will be overseen by a partnership between the University Water Resources Center, the Office of Sustainability and the Department of Risk Management and Safety (RMS).

Measurable Outcomes and Evaluation

Effectiveness of the activities related to this measure will be measured through:

1. Number of presentations delivered – various AU programs will provide at a minimum of four presentations specific to storm water management annually.
2. RMS maintains the central electronic resource (webpage) to serve as primary reference site for the updated University SWMPP. [RMS-Stormwater](#)
3. Quantify the number of individuals reached through University led activities throughout each reporting cycle. Audience includes students, staff, employees and visitors to Auburn University and is targeted at 2500 individuals each reporting cycle.
4. Number of University led PMC cleanup efforts. AU aims to promote 3-4 cleanup events throughout each reporting cycle.
5. Documented attendance to quarterly ALOAS/ASA meetings and/or programs.
6. Continued attendance, partnership, or participation in Alabama Water Watch monitoring workshops.
7. Continued installation of storm drain markers on inlets located on campus.

2.2 Illicit Discharge Detection and Elimination

Per the Permit, an Illicit discharge is defined at 40 CFR Part 122.26(b)(2) and refers to “any discharge to an MS4 (municipal separate storm sewer system) that is not composed entirely of storm water ...” Exceptions include NPDES permitted discharges and discharges resulting from fire-fighting activities. Some examples of illicit discharges include: sanitary wastewater, effluent from septic tanks, car wash wastewaters, improper oil disposal, and radiator flushing disposal, laundry wastewaters, and spills from roadway accidents, and swimming pool discharges (that have not been de-chlorinated). These illicit discharges can enter a storm drain system either through a direct connection (e.g., a pipe connected directly to the storm drain) or indirectly (e.g., spills, dumped chemicals, cracks in sanitary sewers). As a result, inadequately treated wastes containing high

levels of pollutants, such as heavy metals, oil and grease, toxics, viruses, and bacteria, are discharged to receiving waters. The next subsections describe Auburn University's current program to detect and eliminate both direct and indirect illicit discharges into the storm drain system and associated plans for the permit term.

Regulations require identification and elimination of all non-storm water discharges and appropriate responses to protect the campus community and the environment. Auburn University relies upon multiple methods to identify illicit discharges as quickly as possible. All potential illicit discharges should be reported to Auburn University Risk Management and Safety upon discovery. Discovery and reporting methods include reports conveyed from the campus community to the University's Facilities Division by dialing 844-HELP, by utilizing the electronic reporting feature known as "Ask Facilities" or by contacting RMS at 844-4870. Reports might originate from faculty, staff, students, or campus visitors. In particular, AU staff with specific training on illicit discharge identification will increase the probability of proper and timely reporting.

Investigation of illicit discharges will commence as soon as practicable but always within 5 working days of the initial discovery or report. Investigation and mitigation measures are implemented upon detection to identify possible source(s) of illicit discharges and to either prevent or reduce adverse impacts to storm water runoff and the environment. A written report will be prepared to document each illicit discharge investigation. Reports will include the nature of the discharge, possible sources, mitigation or cleanup measures implemented, any steps taken to prevent similar discharges in the future, and documentation of any ADEM reporting required.

Target Audience

Auburn University has a unique opportunity to reach several distinct target audiences throughout the year. These audiences include Auburn University faculty and staff, students, parents of students, visitors, contractors on campus, and surrounding community stakeholders.

Responsible Parties

The Illicit Discharge Detection & Elimination measure development and implementation will be overseen by a partnership between the Auburn University Facilities Management Facility Operations, RMS and the University Water Resource Center.

Measurable Outcomes and Evaluation

1. Update map of all campus storm water outfalls. As required by Section III(b)(i) of the Permit, Auburn University will provide annual updates of the map to ADEM by May 31st each year.
2. Promote illicit discharge detection and elimination program in annual training efforts. A minimum of four presentations to include principles of the IDDE program will be provided to campus entities annually.
3. Continue bacteriological monitoring to identify possible sources of impairment.
4. Perform and document routine outfall field inspections. Evaluate all outfalls to PMC annually.
5. Continue to investigate and prioritize repair or replacement of suspect infrastructure.
6. Evaluate IDDE Standard Operating Procedure (SOP).

Auburn University

Illicit Discharge Detection and Elimination Standard Operating Procedure

1. Purpose of Standard Operating Procedure:
 - A. To improve the quality of surface water and ground water within the watershed areas owned and maintained by Auburn University by preventing illicit discharges and illicit connections.
 - B. To prevent the discharge of contaminated storm water runoff from Auburn University properties and operations into the storm drainage system and Parkerson Mill Creek.
 - C. To comply with the requirements of Auburn University storm water permit.

D. To comply with all United States Environmental Protection Agency and State laws applicable to storm water discharges.

2. Definitions

An Illicit Discharge is the discharge of pollutants or non-storm water materials to the storm drainage system via overland flow or direct dumping of materials into a catch basin or inlet. Examples of illicit discharges include overland drainage from car washing or cleaning paint brushes in or around a catch basin.

An Illicit Connection is the discharge of pollutants or non-storm water materials into the storm drainage system via a pipe or other direct connection. Sources of illicit connections may include sanitary sewer taps, wash water from laundry facilities, wash water from sinks, or other similar sources.

3. Illicit Discharges

No University employee, student, visitor, contractor, department, or unit shall cause or allow discharges into the Auburn University storm drainage system which are not composed entirely of storm water, except for the allowed discharges listed in Section 5.

Prohibited discharges include but are not limited to: oil, anti-freeze, grease, chemicals, wash water, paint, animal waste, garbage, and litter.

4. Illicit Connections

The following connections are prohibited, except as provided in Section 5 below: Any drain or conveyance, whether on the surface or subsurface, which allows any non-storm water discharge, including but not limited to sewage, process water, wastewater, or wash water, to enter the storm water drainage system, and any connections to the storm drain system from indoor drains or sinks.

5. Allowed Discharges

The following discharges to the storm drainage system are allowed:

A. Discharges that are specifically permitted under a State or federal storm water program.

B. Incidental non-storm water discharges which do not significantly contribute to the pollution of Auburn University surface waters and are limited to the following:

- Water line flushing
- Reclaimed water line flushing
- Landscape irrigation, including but not limited to reclaimed water
- Diverted stream flows

- Rising groundwater
- Uncontaminated groundwater infiltration
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate (that does not contain biocide)
- Springs
- Water from crawl space pumps
- Footing drains
- Flows from riparian buffers and wetlands
- De-chlorinated swimming pool discharges
- Flows from emergency firefighting
- Building wash water without detergents, cleaners, or corrosive additives.

C. In the event that Auburn University determines that any of the above discharges contribute to pollution of campus streams or other surface waters or is notified by a State or federal government agency, such as the Alabama Department of Environmental Management, that the discharge must cease, Auburn University will instruct the responsible person to cease the discharge.

D. When instructed to cease the discharge, the discharger of substances newly classified as pollutants shall cease the discharge immediately and be given reasonable time to make corrections so that the discharge will not continue into the future.

E. Nothing in this SOP shall affect a discharger's responsibilities under federal or State law.

6. Enforcement and Penalties

A. Whenever Auburn University finds that a violation of this SOP has occurred; Auburn University may order compliance by written notice to the responsible person. Such notice may require without limitation:

- i. The performance of monitoring, analyses, and reporting;
- ii. The elimination of prohibited discharges or connections;
- iii. Cessation of any violating discharges, practices, or operations;

- iv. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- v. Payment of any fee, penalty, or fine assessed against Auburn University to cover remediation cost;
- vi. The implementation of new storm water management practices; and
- vii. Disciplinary action up to and including dismissal, where appropriate.

B. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of these violation(s). Said notice may further advise that, if applicable, should the violator fail to take the required action within the established deadline, then Auburn University Department of Risk Management & Safety will initiate work orders for the appropriate corrective actions and the individual or University department will be charged for the cost.

7. Dry weather outfall inspection and monitoring

Auburn University shall, at a minimum, visually inspect PMC outfalls annually during dry weather conditions. Flows suspected of containing illicit discharges due to the presence of odors, colors or sheens shall be investigated.

Investigation may include water chemistry field testing and/or bacteriological sampling and will be dependent upon the characteristics of the observed discharge. Investigations will involve Facilities Management Utility & Energy resources to trace source of suspect illicit discharge. Upon source discovery, measures will be implemented to cease discharge immediately as possible. Should immediate cessation not be practicable, a schedule will be developed. Should the source of discharge be determined to originate off campus, the MS4 community having jurisdiction will be notified within 24 hours as well as the Department. The physical condition of the outfall shall also be noted during the inspections. Compromised outfall structures requiring maintenance will be documented with a work order to correct noted deficiency submitted within 24 hours of its discovery.

8. Promote Illicit Discharge Detection & Elimination SOP

Promotion of this SOP shall be presented to Auburn University community via multiple methods to include but not limited to personnel training and web media.

2.3 Construction Site Storm Water Runoff Control

In accordance with Part III (B) (4) of NPDES Permit No ALR040030, Auburn University developed the Construction Site Storm Water Runoff Control Best Management Practice.

Target Audience

The Construction Site Runoff Control Program was developed for the contractors performing construction activities on campus and to assist AU Facilities Management personnel responsible for managing development on campus. Auburn University has a unique opportunity to reach several distinct target audiences throughout the year. These audiences include Auburn University faculty and staff, students, parents of students, visitors, contractors on campus, and surrounding community stakeholders.

Responsible Parties

Auburn University's Facilities Management is responsible for all construction projects on campus and implementation of this measure.

Auburn University Design and Construction Standards serve as the University's regulatory mechanism for the Construction Storm Water Control Program and were recently revised to strengthen the storm water management efforts on all University construction sites including the following sections.

Section G10 – Site Preparation

<http://www.auburn.edu/administration/facilities/contractors/design-const-standards.html>

Section G10 of the Design and Construction Standards was modified to provide the Contractor a contractual responsibility to meet the objectives of the General NPDES Permit. This section requires that the Contractor:

- Meet the requirements outlined in the Alabama Handbook for Erosion and Sediment Control and Storm Water Management of Construction Sites and Urban Areas and the ALOA developed Erosion and Sediment Control Policy.
- Demonstrate compliance with the ADEM registration requirements prior to initiating any earthwork at the site.

- Require turbidity monitoring at specified construction sites to ensure that site runoff not result in an increase of 50 NTU turbidity standards.

Auburn University will conduct routine turbidity monitoring at specified sites to determine the effectiveness of the on-site controls design, installation and maintenance. Construction contracts administered by Facilities Management further identify the procedures that will be taken by the Auburn University should NPDES non-compliance be identified to include withholding payment and notification to ADEM.

Measurable Outcomes and Evaluation

1. Continue turbidity monitoring program for new projects.
2. Perform annual training for contractors, designers and project managers to better understand the G10 requirements.

2.5 Post Construction Runoff Control

The post construction runoff control measure is designed to ensure that new construction designs do not result in increased storm water pollution.

Development can alter landscapes by increasing impervious areas (i.e. roofs, driveways, parking lots) and changing drainage patterns, thereby increasing the storm water rate, volume and velocity of runoff from a site. This can lead to degradation of receiving waters and increases in the occurrence of flooding. Storm water from developed impervious areas can also contain a variety of pollutants that are detrimental to water quality, such as sediment, nutrients, heavy metals, pathogenic bacteria, and petroleum hydrocarbons.

The goal of post-construction storm water management is “to reduce runoff volume and improve water quality by replicating the natural hydrology and water balance of the site, based on historical conditions and undeveloped ecosystems in the region.” LEED v4 Our intention is to develop storm water management designs in a manner best replicating natural site hydrology processes. New projects on campus shall address water quality and

quantity impacts early in the design process to provide long-term water quality benefits. The implementation of Green infrastructure BMP designs that reduce impervious surfaces, provide water filtering services and encourage infiltration is preferred. New projects offer many opportunities to reduce storm water runoff from the site.

To meet the requirements of Part III B5 of the Permit, Auburn University developed a Campus Landscape Master Plan (CLMP) as part of the overall Comprehensive Campus Master Plan. The Master Plan is approved by the Board of Trustees and serves as the mechanism to ensure that the objectives of the CLMP are achieved. The CLMP embraces a sustainable environment, including an emphasis on Low Impact Development and Green Infrastructure approaches to storm water management that incorporate best management practices for maintenance and implementation schedules, as well as campus watershed restoration opportunities.

The Design and Construction Standards performance requirements state a project is to not increase peak storm water flows for the 2, 5, 10, and 25 year storm events as well as provide water quality treatment for the first 1.2 inches of rainfall with an 80 percent Total Suspended Solids (TSS) reduction goal. Projects are also encouraged to reduce overall storm water runoff volume by reducing impervious cover campus wide and promotion of infiltration.

Responsible Parties

Auburn University's Facilities Management is responsible for the implementation of the CLMP and implementation of this measure.

Measurable Outcomes and Evaluation

1. Provide training to AU Design Leads, maintenance personnel, and others on AU storm water management preferences, updated Design Standards / Post Construction Storm Water Manual.
2. All new and redeveloped AU properties shall develop a storm water management plan to comply with the Design and Construction Standards. A report documenting the implementation or consideration of Low Impact

Development and Green Infrastructure shall be reviewed per the Post Construction Storm Water Manual by Facilities Management.

2.6 Pollution Prevention / Good Housekeeping for Municipal Operations

Efforts to survey University activities and facilities will continue. These surveys focus on the storage of materials at the variety of areas managed by Facilities Management, Auxiliary Operations, various academic departments and AU Athletic Department.

Part III.B.5.a. of the Permit requires Auburn University to inventory “municipal facilities” including municipal facilities that have a potential to discharge pollutants via storm water runoff, develop strategies to reduce litter, floatables and debris from entering the storm sewer system from these facilities, develop SOPs detailing good housekeeping practices to be employed at the appropriate municipal facilities, develop an inspection program to evaluate these operations and to develop a good housekeeping training program for municipal facility staff as outlined in the SOP.

Standard Operating Procedure

Municipal Facilities have been inventoried and are listed below. Due to the activities conducted at these facilities and because of the potential to introduce pollutants to the University’s MS4, have been identified as “Municipal Facilities” and fall subject to this SOP. Implementation requires inspection of the municipal facility by the responsible AU entity. All discharges will cease upon discovery as possible. The responsible AU entity Supervisor will be notified of all discharges upon discovery. All discharge(s) and/or potential discharge(s) and the subsequent corrective measures taken will be documented be documented, and recommended corrective measures taken immediately. Record of inspection will be maintained by AU for a period of three years and will be made available for internal and external audit.

Inventory of Municipal Facilities

Facilities Management	Athletics
Auto/Small Engine Shop	Plainsman Park
Fleet Fueling Station	Jordan Hare Stadium
Materials Management	Soccer Complex
Landscape Services	Jane B. Moore Softball Complex
Facilities Management Yard	Hutsell Rosen Track
Chilled Water Plant I	Auburn Arena
Chilled Water Plant II	Watson Field House
Chilled Water Plant III	Football Performance Facility (under construction)
District Energy Plant	
Hot Water Plant I	Risk Management & Safety
Hot Water Plant II	Environmental Health & Safety I
Satellite Steam Plant	Environmental Health & Safety II
44 kV Substation	Environmental Health & Safety III
115 kV Substation	Pathological Waste Incinerator
Student Affairs	
Foy Dining (CD)	
Village Dining (CD)	
Student Center (CD)	
Terrell Hall Dining (CD)	
Wellness Kitchen (CD)	
SportsPlex (CR)	
Intramural Field House/Equipment Pole Barn (CR)	

CD: Campus Dining

CR: Campus Recreation

GL: Greek Life

Measureable Outcomes & Evaluation:

1. Quantify floatable materials collected as a result of the successful implementation of the BMPs at these municipal facilities.
2. Quantify “municipal facility” inspections performed.
3. Provide pollution prevention annual training to municipal facility personnel.
4. Revise and update “municipal facility” inventory annually.

BMP Development & Implementation Schedule:

1. Implement Standard Operating Procedure (SOP) for municipal facilities by March 31, 2022. SOP includes annual inspection checklist.

Responsible Department:

Auburn University RMS, Facilities Management, Office of Student Affairs and Athletics

Spill Prevention Control and Countermeasure (SPCC) Program

AU RMS has developed and maintains the campus SPCC Plan. The Plan calls for the proper storage and management of oil containing equipment. The SPCC Plan identifies the procedures to be followed to regularly (monthly) inspect applicable containers and instructs “oil handling personnel” on the appropriate measures to take in the event of a spill.

Measurable Outcomes and Evaluation:

1. Document the number of inspections performed on regulated storage units on an annual basis (SPCC).
2. Document the number of preventive maintenance procedures performed on tanks, valves, pumps, pipes, and other equipment.
3. Document the number of training presentations performed and the number of employees trained annually.
4. Document the annual volume of used oil managed by AU.

Responsible Department:

AU RMS & Facilities Management

Monitoring Plan for Pathogen Impairment

In accordance with Part V of the Permit, AU will continue to evaluate Parkerson Mill Creek (PMC) Watershed for its pathogen impairment. PMC is in Lee County; the watershed is part of the Chewacla Watershed, in the lower Tallapoosa River Basin. The 9.3 square mile (5,981 acres) watershed contains 21,000 meters (68,500 ft.) of main stem perennial stream and approximately 86,000 meters (282,152 ft.) of tributary stream length. The stream network empties into Chewacla Creek, just south of the H.C. Morgan Water Pollution Control Facility

The watershed includes the City of Auburn, Auburn University and the surrounding areas. The headwaters of PMC are approximately 3,000 meters (9,845.5 ft.) in length and are located on the campus of Auburn University. In 2007, ADEM listed PMC as impaired on Alabama's 303(d) List of Impaired Waters for pathogens from point source and non-point sources, primarily urban runoff and storm sewer connections. As such, AU monitors PMC by performing bacteriological analysis through the AU Water Resource Center's Alabama Water Watch (AWW) program. The results of the monitoring effort will be reported with the submission of the annual report. Collaboration with the City of Auburn will continue as both entities contain and have influence on this watershed.

REVIEW AND UPDATING SWMPP

AU will review the SWMPP annually in conjunction with the preparation of the annual report required under Part IV, Section B of the General Permit.

The annual report will be submitted to the ADEM for each year of the permit term. Reports are due to ADEM by May 31st of each year and will cover activities for the previous reporting period (April 1- March 31).

The reports consist of:

- Compliance status including:
 - Assessment of the appropriateness of the BMPs
 - Progress towards achieving statutory goals of reducing the discharge of pollutants and protecting water quality.
 - Measurable goals for each of the minimum control measures
- Results of information collected and analyzed, if any, during the reporting period.
- Any changes made to the SWMPP since the last annual report and a summary of the storm water activities AU plans to initiate during the next reporting cycle.
- Proposed changes to the SWMPP
- Description and schedule for implementation of additional BMPs that may be necessary based on monitoring results.
- Monitoring data

Annual reports are signed by Mr. Tom McCauley, Environmental Programs Manager Department of Risk Management and Safety and the Storm Water Executive Committee.

Appendix E

Illicit Discharge Detection & Elimination Details

Dry Weather Screening ORI Field Sheets

April 1, 2020 through March 31, 2021

2020-2021 Illicit Discharge Detection & Elimination

Date	Location	Observation	Contaminant	Samples Y/N	Corrective Measures Taken	Date
4.7.20	Martin Aquatics	3 drums of Hydrochloric Acid stored outdoors exposed to elements	HCL	N	Notified AU Athletics and had drums moved indoors	4.7.20
4.9.20	Advanced Structural Engineering Lab	Sediment track out onto Samford Ave.	sediment	N	AU Project Manager informed and street was swept same day.	4.9.20
4.9.20	ARTF - EAMC	temporary seeding and stabilization measures needed	sediment	N	Met with AU/ARTF Project Manager and site personnel to discuss needed improvements	4.10.20
4.16.20	PMC Greenway	culvert & outlet structure require stabilization	sediment	N	Communicated with AU Project Manager	4.18.20
5.19.20	CVM Equine Isolation	bagged bedding stored out of carts exposed to elements	animal bedding	N	Reinforced proper storage using carts with lids for bedding	5.22.20
7.10.20	Biggio Drive	sediment tracked onto roads	sediment	N	Contacted AU Project Manager to reinforce need for daily controls.	7.14.20
7.29.20	Heisman Dr.	Tiger Transit Bus had a oil leak while on Heisman Dr.	motor oil	N	First Transit crew responded immediately. RMS provided backup	7.29.20
8.30.20	Biggio/Samford	sediment being lost to stormsewer from Football Performance Center	sediment	N	Contacted AU Project Manager and had a crew to remove sediment and strengthen on-site controls	8.30.20
9.22.20	CVM- Greene Hall	FedEx delivered a broken container of formalin to the steps of Greene Hall	formalin	N	RMS responded with neutralizing chemical	9.22.20
10.2.20	Football Performance Center	sediment track out onto Wire Road	sediment	N	Notified AU Project Manager to refresh CEP and have road swept	10.2.20

10.9.20	Football Performance Center	Following substantial rain sediment loss to PMC	sediment	N	Notified AU Project Manger to have site personnel address once rain stops	10.12.20
12.4.20	Football Performance Center	Following substantial rain event, sediment was seen on Biggio Dr.	sediment	N	Notified Project Manager to have site personnel address on-site controls and off-site impacts as soon as rain ceased.	12.7.20
1.12.21	PMC at Wellness Kitchen	sanitary waste in PMC	sewage	Y	Notified AU Utilities and Energy & City of Auburn to investigate. Cross Connection discovered off campus	1.13.21
2.10.21	Wire and Lem	sanitary waste from lift station overflow	sewage	N	Was notified by AU Utilities & Energy. Fraternity responded with a repair to a motor next day	2.11.20
2.24.21	Cary Hall/ Donahue	sanitary waste due to blockage was causing a release of sewage to the surface	sewage	N	Was notified by AU Utilities & Energy upon discovery. Plumbing shop cleared blockage same day. Extensive preventative repairs scheduled for May 2021	2.24.21
3.3.21	CVM - Webster Road	sanitary sewer overflow from Webster Crossing Mobile Home Park caused sanitary waste to discharge to the surface and into the CVM pond/PMC	sewage	Y	RMS was notified by CVM. RMS notified the City of Auburn, Lee Co Health Department and ADEM	3.5.21
3.26.21	ARTF - EAMC	site is substantially complete however permanent stabilization has not been achieved.	sediment	N	Notified Facilities and ARTF of the deficiencies and the need for measures to be taken	4.5.21

Appendix F

Updated Campus Post Construction BMP Inventory

April 1, 2020 through March 31, 2021

Appendix F
 Post Construction BMP Inventory & Inspection Counts
 April 1, 2020 – March 31, 2021

Current Post-Construction Stormwater Controls – New BMPs are shown in **bold**

ID	Type	Description	Northing	Easting	Inspections
BB-01	Bioretention Basin	West Campus Basin 1	758225.419	765956.388	20
BB-02	Bioretention Basin	West Campus Basin 2	758376.003	765958.313	20
BB-03	Bioretention Basin	West Campus Basin 3	758517.978	765955.846	20
BB-04	Bioretention Basin	West Campus Basin 4	758228.842	765747.198	20
BB-05	Bioretention Basin	West Campus Basin 5	758381.564	765755.314	20
BB-06	Bioretention Basin	West Campus Basin 6	758529.441	765736.857	20
BB-07	Bioretention Basin	West Campus Basin 7	758238.465	765327.734	20
BB-08	Bioretention Basin	West Campus Basin 8	758535.185	765377.05	20
BB-09	Bioretention Basin	West Campus Basin 9	758722.087	765190.263	20
BB-10	Bioretention Basin	Pharmacy Research Basin 1	761430.634	761020.487	20
BB-11	Bioretention Basin	Pharmacy Research Basin 2	761569.458	761003.542	20
BB-12	Bioretention Basin	Nursing Basin 1	761516.602	761229.13	20
BB-13	Bioretention Basin	Nursing Basin 2	761729.258	761170.238	20
BB-14	Bioretention Basin	Nursing Basin 3	761727.261	761080.608	20
BB-15	Bioretention Basin	ASEL Basin 1	756581.31	764471.00	2
BB-16	Bioretention Basin	ASEL Basin 2	753348.15	764569.33	2
BB-17	Bioretention Basin	ASEL Basin 3	756580.54	764695.46	2
BB-18	Bioretention Basin	ASEL Basin 4	757134.44	764537.44	2
BRC-01	Bioretention Cell	Foy Hall Bioretention Cell	763407.054	765682.977	20
BRC-02	Bioretention Cell	Campus Safety Bioretention Cell	761066.411	766090.049	20
BRC-03	Bioretention Cell	CASIC Bioretention Cell	761055.331	758997.308	20
BRC-04	Bioretention Cell	Corley Bioretention Cell 1	763663.773	764042.59	26
BRC-05	Bioretention Cell	Corley Bioretention Cell 2	763622.125	763959.864	26
BRC-06	Bioretention Cell	Mell Bioretention Cell 1	763790.009	765433.314	26
BRC-07	Bioretention Cell	Mell Bioretention Cell 2	763789.971	765283.68	26
BRC-08	Bioretention Cell	Mell Bioretention Cell 3	763790.137	765086.417	26
BRC-09	Bioretention Cell	Horton Hardgrave Bioretention Cell	761835.117	765912.691	20
BRC-10	Bioretention Cell	West Campus Bioretention Cell 1	758024.941	765700.549	10
BRC-11	Bioretention Cell	West Campus Bioretention Cell 2	758036.911	765234.281	10
BRC-12	Bioretention Cell	SportsPlex Bioretention Cell	759862.77	761349.2	20
BRM-01	Berm	Arboretum Berm 1	763882.906	762201.25	0
BRM-02	Berm	Arboretum Berm 2	764243.147	762607.741	0
BRM-03	Berm	Arboretum Berm 3	764042.345	762607.442	0
BRM-04	Outlet Berm	Woodfield Drive Berm 1	761589.811	759935.15	12
BRM-05	Outlet Berm	Woodfield Drive Berm 2	761156.332	759871.907	12

ID	Type	Description	Northing	Easting	Inspections
BRM-06	Outlet Berm	Woodfield Drive Berm 3	760609.706	760131.388	12
CI-01	Cistern	Dudley Hall Cistern	763242.478	763743.599	26
CI-02	Cistern	Arboretum Cistern 1	763825.449	762159.585	26
CI-03	Cistern	Arboretum Cistern 2	764116.722	762653.166	26
DDET-01	Dry Detention Basin	VCOM Pond	760575.328	760287.361	26
DDET-02	Dry Detention Basin	West Campus Pond	759043.656	764976.252	20
DDET-03	Dry Detention Basin	Medical Clinic Pond	762266.136	761383.546	20
DDET-04	Dry Detention Basin	Facilities Pond	758241.439	763286.672	50
DDET-05	Dry Detention Basin	District Energy Pond	759762.452	765460.951	20
DDET-06	Dry Detention Basin	Theta Chi Pond	758965.981	762250.575	
DDET-07	Dry Detention Basin	Delta Tau Delta Pond	759107.307	762263.753	
DDET-08	Dry Detention Basin	Health Sciences Sector Pond	761256.191	760834.644	10
DDET-09	Dry Detention Basin	Risk Management Pond	758014.508	762998.407	20
DDET-10	Dry Detention Basin	SportsPlex Pond	759600.49	760600.15	20
DDET-11	Dry Detention Basin	ARTF Building 5 Pond	761046.13	759557.86	2
DDET-12	Dry Detention Basin	ARTF Building 6 Pond	758363.7	758244.42	2
GS-01	Grassed Swale	Ag Heritage Park Swale	761629.387	762567.204	20
GS-02	Grassed Swale	Medical Clinic Swale	762390.435	761711.035	24
GS-03	Grassed Swale	VCOM Swale 1	760757.545	760229.729	26
GS-04	Grassed Swale	VCOM Swale 2	760827.756	760138.269	26
GS-05	Grassed Swale	VCOM Swale 3	761002.268	760082.434	26
GS-06	Grassed Swale	ARTF MRI Swale 1	760412.176	758902.844	20
GS-07	Grassed Swale	Lem Morrison Swale	762148.543	761268.924	20
GS-08	Grassed Swale	Arboretum Swale	764187.037	762438.012	0
GS-09	Grassed Swale	CASIC Swale	760781.495	758817.433	20
GS-10	Grassed Swale	Research Park Swale	760420.934	758571.334	20
GR-01	Green Roof	Rec and Wellness Green Roof 1	761331.297	764472.702	
GR-02	Green Roof	Rec and Wellness Green Roof 2	760861.839	764507.581	
GR-03	Green Roof	Nursing Green Roof	761066.4107	766090.049	15
GR-04	Green Roof	Brown Kopel Green Roof	763237.807	766187.963	15
PA-01	Porous Asphalt	VCOM Pond Path Paving	760551.855	760217.067	20
PP-01	Permeable Pavers	Samford Park Pavers	764362.438	766341.376	50
PP-02	Permeable Pavers	Foy Hall Pavers	763596.195	765666.497	20
PP-03	Permeable Pavers	CASIC Pavers	760878.493	758911.607	20
PP-04	Permeable Pavers	Garden of Memory Pavers	763724.679	763100.491	20
PP-05	Permeable Pavers	Upper Quad Pavers	763490.318	765221.041	26
PP-06	Permeable Pavers	Mell Concourse Pavers	763790.097	765180.741	26
PP-07	Permeable Pavers	Harbert Recruiting Pavers	761812.016	764587.966	26
PP-08	Permeable Pavers	South College Street Parking Deck	764485.587	764822.946	15
PC-01	Pervious Concrete	Arboretum Sidewalk 1	764345.564	762557.87	104

ID	Type	Description	Northing	Easting	Inspections
PC-02	Pervious Concrete	Arboretum Sidewalk 2	760293.139	765729.32	104
PC-03	Pervious Concrete	Arboretum Sidewalk 3	764101.068	762450.098	104
PC-04	Pervious Concrete	Arboretum Sidewalk 4	764139.101	762311.241	104
PC-05	Pervious Concrete	Arboretum Sidewalk 5	763884.964	762418.462	104
PC-06	Pervious Concrete	Arboretum Sidewalk 6	764157.322	762296.021	104
RB-01	Rain Barrel	Arboretum Rain Barrel	763863.384	762143.701	104
RB-02	Rain Barrel	Dudley Rain Barrel	763242.478	763743.6	12
RG-01	Rain Garden	Gorrie Rain Garden 1	763564.53	763583.842	20
RG-02	Rain Garden	Gorrie Rain Garden 2	763512.559	763748.121	20
RG-03	Rain Garden	Plant Sciences Rain Garden 1	762252.404	759917.278	18
RG-04	Rain Garden	Plant Sciences Rain Garden 2	762211.743	759918.238	18
RG-05	Rain Garden	Dudley Rain Garden	763242.478	763743.599	12
RG-06	Rain Garden	Turfgrass Rain Garden	758786.644	756180.294	52
RG-07	Rain Garden	Arboretum Rain Garden	764321.374	762515.223	52
RG-08	Rain Garden	Arboretum Rain Garden	764142.166	762315.617	52
RG-09	Rain Garden	Arboretum Rain Garden	763760.969	762192.845	52
RG-10	Rain Garden	Arboretum Rain Garden	763969.332	762611.932	52
RG-11	Rain Garden	Arboretum Rain Garden	763780.984	762194.366	52
RG-12	Rain Garden	Arboretum Rain Garden	763801.71	762166.783	52
RG-13	Rain Garden	Arboretum Rain Garden	763850.045	762078.895	52
SB-01	Sediment Basin	Petrie Subsurface Sediment Basin	762337.303	765368.054	20
UD-01	Underground Detention	Lowder Underground Detention	762322.269	766015.625	
UD-02	Underground Detention	Shelby Underground Detention	763024.758	766285.682	
UD-03	Underground Detention	Indoor Practice Underground Detention	760649.251	763280.439	
UD-04	Underground Detention	President's Underground Detention	764157.322	762296.021	
WDET-01	Wet Detention Basin	Gogue Performing Arts Center Pond	763013.75	759497.73	20
WDET-02	Wet Detention Basin	Campus Recreation SportsPlex	759778.94	760914.97	20