AUBURN UNIVERSITY | DEPARTMENT OF RISK MANAGEMENT & SAFETY

March 30, 2012

Hand Delivered

Alabama Department of Environmental Management
MS4/ Stormwater Management Branch
Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059
Attention: Ms. Marla Smith

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

Dear Ms. Smith:

Auburn University is pleased to submit the annual report as required by the referenced general NPDES permit. Auburn University received the referenced finalized permit which became effective February 1, 2011 and throughout this reporting period, Auburn University begun adjusting the University's Stormwater Management Plan (SWMP) to meet the new requirements. This report is submitted consistent with the requirements outlined in Part V. C. of the referenced permit and covers the April 1, 2011 through March 31, 2012 reporting 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.

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 11-12
EC:

Executive Committee:

Mr. Dan King
Assistant Vice President
Facilities Management

3/29/2012
Date

Dr. Sam Fowler
Director
Water Resource Center

3/29/12
Date

Mr. Michael Kensler
Director
Campus Sustainability

3/29/12
Date

AUBURN

UNIVERSITY

MUNICIPAL STORM SEWER SYSTEM (MS4) ANNUAL REPORT
REPORTING PERIOD APRIL 1, 2011 – MARCH 31, 2012

Prepared by

AUBURN UNIVERSITY

STORMWATER MANAGEMENT COMMITTEE

Submitted March 30, 2012

This Annual Report 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 February 1, 2011.

The purpose of this Annual Report is to describe the compliance efforts reflected in the University's Stormwater Management Plan which was submitted to ADEM as required by August 2011. The Annual Report will identify the control measure specific efforts undertaken by Auburn University from April 1, 2011 through March 31, 2012 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 information contained within this Annual Report has been provided by the Stormwater Committee which 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:

Mr. Donny Addison, Facilities Management - Waste Management & Recycling
Dr. Eve Brantley, Alabama Cooperative Extension Services (ACES)
Ms. Kaye Christian, Agronomy & Soils
Mr. Jeffrey Dumars, Facilities Management - Office of Campus Planning & Space Management
Mr. Gregory Forthofer, Facilities Management - Design Services
Dr. Sam Fowler, Center of Water Resources
Mr. Steve Johnston, Facilities Management - Landscape Services
Mr. Mike Kensler, Office of Sustainability
Mr. Dan King, Facilities Management
Mr. Eric Kleypas, Athletic Department Field Management
Ms. Charlene Lebleu, School of Architecture, Planning & Landscape Architecture
Mr. Ken Martin, Facilities Management – Utilities & Energy
Mr. Tom McCauley, Risk Management & Safety
Mr. Buster Reese, Facilities Management, Construction Management
Mr. Ray Womack, Krebbs Engineering & Architecture

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 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

Stormwater management controls or Best Management Practices (BMPs) will be implemented to prevent pollution in stormwater discharges from Auburn University's main campus. State and federal regulations require BMPs addressing six minimum control measures to be part of the SWMP. Consistent with Part V.C. of the Permit, the Annual Report will describe the University's efforts performed during this reporting period to implement the BMPs (Public Education & Outreach, Public Involvement & Participation, Illicit Discharge Detection & Elimination, Construction Site Stormwater Runoff Control, Post Construction Stormwater Management in New and Redevelopments and Pollution Prevention / Good Housekeeping for Municipal Operations) per the established and will include:

1. The status of AU's compliance with Permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal for each of the minimum control measures.
2. Results of information collected and analyzed, if any, during this reporting period, including any monitoring data used to assess the success of the University at reducing discharge of pollutants to the MEP.
3. A summary of stormwater activities the University plans to undertake during the next reporting cycle.
4. Proposed changes to the University's SWMP if applicable.
5. All monitoring results collected during the reporting period in accordance with Part V. of the Permit.

Public Education and Outreach on Stormwater Impacts

Stormwater 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 Stormwater Management Plan (SWMP) 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 other areas surrounding campus typically but not limited to the cities of Auburn and Opelika which are governed by other municipal stormwater programs. The Public Education and Outreach BMPs serve to educate the targeted audiences about water resource management and Auburn University's stormwater program.

Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan as follow:

Presentations

Multiple presentations were offered by Auburn University throughout the course of this reporting period to include but not limited to the following:

The Department of Risk Management & Safety offered four presentations during this reporting period to discuss necessary revisions to Auburn University's Stormwater Management Plan. The SWMP was delivered to ADEM by August 2011 and incorporates the existing permit which became effective February 2011.

The Office of Sustainability offered a total of two presentations during this reporting period entitled "River Runway" and "Poisoned Waters & Discussion". These presentations offered attendees the opportunity to take a closer look at water on a local and global scale. Those in attendance learned of the challenges facing Parkerson Mill Creek (PMC) and discussed measures that each individual could take to help restore this natural resource. Over 2000 students and participated in these events.

Web Resources

Information related to water quality and stormwater management continues to be provided from a wide variety of Auburn University web sites. These sites include information related to the Phase II regulatory responsibilities and the best management practices and research that can assist in meeting them. University websites include the Alabama Cooperative Extension

System, Alabama Water Watch Association, Building Sciences, Engineering, Environmental Institute, Fisheries and Allied Aquaculture, Natural Resource Management Development Institute and the Office of Sustainability. The Department of Risk Management and Safety provides the central resource specific to the Stormwater Management Plan and the requirements of the Phase II General Permit NPDES ALR040030.

Throughout this reporting period an enormous amount of information was offered from these sites to include: information research relative to stormwater management and water quality, water conservation and specific information relative to campus activities and regulatory responsibilities. As information continues to be developed on campus, these sites will continue to evolve to provide this valuable and current information.

Education and Outreach Event	Date	Attendance	Audience
EarthSmart Learning Community	9/22/2011	5	Students
Environmental Awareness Org H2Ownership	Oct 2011	40	Students
Water Resources in AL	11/30/2011	30	Stakeholders
Tallapoosa River Basin Clean Water Steering Committee PMC Watershed Management Plan update	2/16/2012	15	Stakeholders
Impacts of Municipal Operations	6/30/2011	12	City of Auburn
SWMP Development Meetings (4)	May-Aug 2011	43	Faculty/ Staff
EarthSmart Learning Community	Feb 2012	9	Students
Streamside Protection Workshop	Feb 2012	50	Students/ Stakeholders
River Runway / Poisoned Waters	Feb 2012	2000	Students

Throughout this reporting period, Auburn University employees, staff and students were involved in numerous Parkerson Mill Creek (PMC) clean-up efforts. These clean-up efforts focused on the removal of accumulated debris and invasive species

PMC Clean-Up / Location	Date	Participation	Audience
PMC Campus Wide	Spring 2011	120	AU Students
Shug Jordan to behind Swine Unit	9/18/11	9	AU Staff & Students
PMC Campus Wide	Fall 2011	120	AU Students
Samford Ave to Lem Morrison	11/6/11	11	AU Staff & Students
Samford Ave/Wire Rd to Lem Morrison	3/10/12	5	AU Staff & Students

Measure Specific Evaluation: Auburn University has been successful in providing a multitude of research and information related to stormwater management. This information has been integrated into a variety of course curriculums offered by Auburn University. These academic curriculums have demonstrated to be vital in developing new technologies and methods for stormwater management and are used in developing new educational materials. The University strives to engage all students to serve the community and to become more involved in making an impact. This effort has been assisted greatly by the creation of Learning Communities that promote collaboration among the student body namely the freshman class with others sharing similar interests. The EarthSmart Learning community is just one of many Learning Communities available to incoming freshman. The EarthSmart Learning Community provides incoming freshman an opportunity to learn more about environmental issues.

Measure specific activities planned for the next reporting period: Auburn University will seek to continue the Public Education & Outreach measure as defined in the University's Stormwater Management Plan. Several opportunities have already been identified including but not limited to: participation in the Water World Days planned for April 2012; a series of Low Impact Development (LID) workshops planned for May 2012; and a series of Rain Barrel/Rain Garden workshops planned for the next reporting period. Efforts to engage AU faculty, staff and students to participate in PMC clean-up events will continue throughout this next reporting period as well.

Public Involvement & Participation

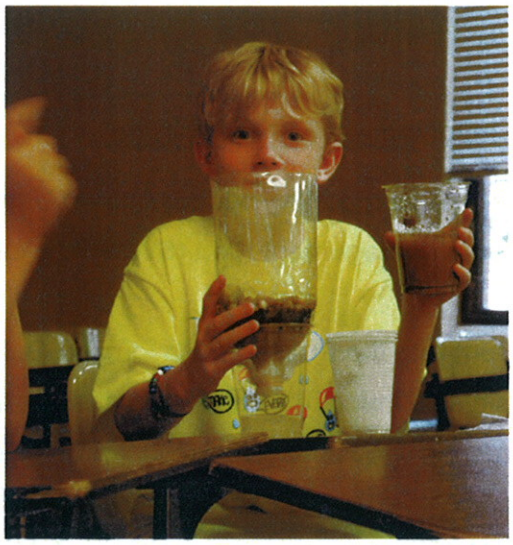
Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan (SWMP) as follow:

Consistent with the Public Education and Outreach measures previously identified, Auburn University continued to involve others within the University community to become better aware of the responsibilities and activities associated with stormwater management.

Auburn University is an active member of **ALOA**, a citizen's advisory committee comprised of representatives from the City of **A**uburn, **L**ee County Governments, the City of **O**pelika and **A**uburn University. The committee is committed to fostering the growth of the organization. The committee allows individuals from the community to interact with the ALOA entities and provide and receive feedback related to stormwater activities planned. This also promotes a positive forum for the community to participate in the developments of the committee. The committee has authority and direct input into regional stormwater management efforts. As previously stated, the **ALOA** citizen's advisory committee has been responsible for creating this open discussion and continued to meet on a quarterly basis throughout this reporting period to discuss issues and coordinate community activities related to stormwater management and maintains a cooperative working relationship throughout the year.

Throughout this reporting period, Auburn University continued to be an active member in local watershed improvement and protection organizations known as Save our Saugahatchee (SOS) and the "The Friends of the Chewacla Creek and the Uphapee Watershed". The organizations are dedicated to the restoration, preservation and enhancement of the quality of environment of the watershed to include Parkerson Mill Creek. This involvement has proven to be beneficial as ideas and observations are commonly shared related to watershed preservation and protection.

On May 12-13, 2011 Auburn University continued its commitment to host and provide support of the 8th Annual Lee County Water Festival. During this successful event, over 2000 fourth graders from all Lee County elementary schools were engaged in fun, educational activities to learn about water conservation and environmental stewardship.

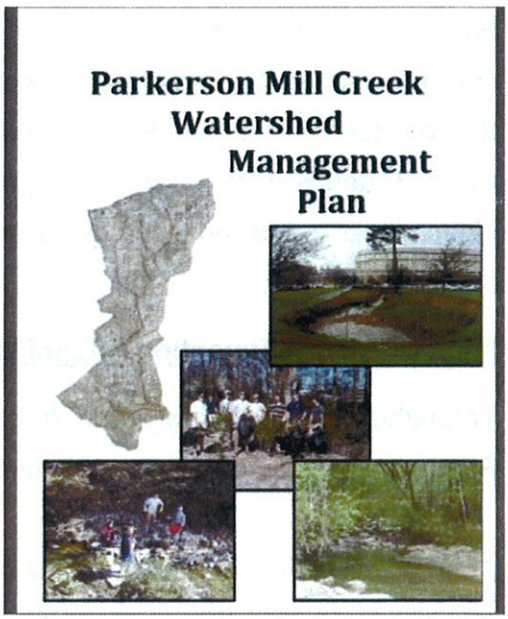


Instruction provided to students on how to build a mini water filter and its importance for clean water

On July 18-19, 2011, Auburn University, the Alabama Cooperative Extension System and the Alabama Agricultural Experiment Station sponsored and hosted a two day event targeting over 100 high school juniors and seniors representing over 20 different schools from the Birmingham area. The objective of the program known as the Birmingham Young Water Ambassadors is to increase the awareness of water quality, conservation and pollution. During this event, 15 faculty, staff and students from the College of Agriculture, College of Science and Mathematics and Risk Management & Safety provided educational sessions on a variety of water-related topics including water quality, wetlands, stream assessments, water harvesting, conservation, fish population sampling and aquaculture.

Birmingham Young Water Ambassadors at AU's E.W. Shell Research Center

The Parkerson Mill Creek Watershed Project is a cooperative effort between ADEM, Auburn University, the City of Auburn, the Alabama Cooperative Extension System at Auburn University, the Auburn University Water Resources Center, and other local stakeholders. During this reporting period, ADEM presented Auburn University a check in the amount of $179,810 of federal funding to be matched by $120,558 in local and in-kind funding. The funding will support the implementation of best management practices targeting pathogens and improving water quality and habitat for aquatic organisms in the Parkerson Mill Creek Watershed. The project will also provide education/outreach opportunities for local citizens and Auburn University students to learn about the importance of protecting water quality.



ADEM awards Auburn University with federal funding to support the PMC Project

The Parkerson Mill Creek Watershed Plan is a comprehensive plan to restore, improve, and protect water quality through the integration of current scientific data and existing plans in cooperation with a multi-sectorial group of stakeholders. This watershed management plan is a long-term effort, with the ultimate goal of attaining the TMDL for Parkerson Mill Creek and restoring the stream to its fish and wildlife use status. Throughout this reporting period, Auburn University performed a variety of community events to promote awareness of the watershed management plan and it objectives.

Measure Specific Evaluation: Throughout this reporting period, Auburn University sought and accomplished a great deal with regards to the Stormwater Management Program. Through efforts to create an open and collaborative relationship with the many different groups on and off campus, the objectives of the Program were strengthened. Capitalizing on the relationships that have been created with different University groups, the City of Auburn and other government agencies including ADEM, Auburn University has been able to use the knowledge and skills it creates to benefit the environment of Alabama and beyond. Auburn University is very proud to have been honored recently by the distinguished Carnegie Foundation and the President's Higher Education Community Service Honor Roll at the highest designations for our community outreach, civic engagement, and service learning and volunteering.

Measure specific activities planned for the next reporting period: Auburn University will seek to continue the Public Involvement & Participation measure as defined in the University's Stormwater Management Plan. Assisted by the recently received funding, the Parkerson Mill Creek Watershed Management Program will continue to seek opportunities to address the objectives of improving water quality in Parkerson Mill Creek.

Illicit Discharge Detection & Elimination

Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan as follow:

Auburn University performed mapping and modeling of campus stormwater conveyances as required by Section III(b)(i) of the Permit. The effort was and continues to be performed by Auburn University's Facilities Management Utilities and Energy Division and contractually by Krebs Engineering and Architecture, Inc. An updated map is attached to this report and identifies the current stormwater conveyance system maintained by Auburn University.

The purpose of the project was to review the condition and capacity of the stormwater system on Auburn University's main campus to include the College of Veterinary Medicine.

The scope of the project involved the condition assessment of approximately 2400 manholes, inlets, outlets and their associated piping. Each storm structure on campus was surveyed in order to acquire the data required for modeling. The computer program used in the development of the network model is StormNET which is an Autodesk product; the program is an extensively employed analysis tool in evaluating storm and sanitary sewer systems. StormNET will allow Auburn University to create a graphical interface as an overlay to a referenced AutoCAD drawing. The condition assessment was completed during this reporting period.

In addition, a hotline was designated to serve as a reporting mechanism for University employees, students and visitors. This 844-HELP hotline will allow for the timely receipt and response of University personnel to potential illicit discharges identified on campus. In addition the on-line reporting mechanism is located on University webpages for Facilities Management and the Department of Risk Management and Safety.

Also, during this reporting period, The Alabama Water Resources Research Institute, a university–based interdisciplinary, problem oriented research and technology center, approved $24168.00 to identify the specific animal sources for fecal related bacteria in PMC. This project began on March 1, 2012, and will end on in February 2013.

Measure Specific Evaluation: Throughout this reporting period, Auburn University was successful in meeting the objectives of the Illicit Discharge Detection Elimination measure as defined in the University's Stormwater Management Plan. The extensive efforts undertaken by the University's Facilities Management to assess the condition of the University's storm system will enable prioritization of system maintenance and repair needs.

Measure specific activities planned for the next reporting period: Throughout the next reporting period, Auburn University will incorporate ground contour data in relation to Auburn University buildings to allow for a comprehensive model to be utilized identifying areas that are most in need of improvement as the system ages and expands. Also, by next year's Annual Report, Auburn University should be able to convey the research findings in the identification of animal sources of fecal bacteria in PMC.

Construction Stormwater Runoff Control

Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan as follows:

Auburn University's Facilities Management is responsible for all construction projects on campus. Throughout this reporting period, routine and required inspections of our construction sites were performed to ensure compliance and implementation of best management practices. Every construction project is assigned a Facilities Project Manager responsible for overseeing the project in its entirety and to hold the contractor accountable for compliance with NPDES Permit No. ALR100000 as administered by ADEM.

Consistent with the objectives of the University's Stormwater Management Plan, Facilities Management initiated significant evaluation and considerations to the University's Design Standards and Construction Specifications. These considerations sought to incorporate a more comprehensive program to ensure that all sites install and maintain erosion and sediment control measures from pre-construction design through the construction phase. These core documents are the foundation for all construction projects on campus regardless of size and ADEM Permitting responsibilities. The University's Stormwater Management Plan recognizes the importance of developing a strong and site specific Construction Best Management Practices Plan (CBMPP) and will require all sites to implement the latest advances in erosion and sediment control as identified by the latest update to the Alabama Handbook for Erosion Control and Stormwater Management on Construction Sites and Urban Areas.

Additionally, during this reporting period, multiple training session's specific to stormwater management responsibilities were provided to University Facilities Management. These training sessions discussed the University's regulatory responsibilities associated with construction site runoff control, erosion and sediment control measures. University personnel also attended the annual Erosion and Sediment Control Workshop sponsored by the City of Auburn to learn more of these requirements.

Measure Specific Evaluation: Auburn University made significant advances during this reporting period to re-evaluate the existing Design Standards and Construction Specifications. Facilities Management has committed to strengthen these documents and will ensure through project management that all sites on campus are held to a high standard for stormwater management.

Measure specific activities planned for the next reporting period: Consistent with the MS4 Phase II General Permit, Auburn University will by January 31, 2013, develop, implement and enforce a program to reduce, to the maximum extent practicable, pollutants in any stormwater runoff from construction activities on campus.

Post Construction Stormwater Runoff Control

Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan as follow:

In collaboration with Facilities Management, the Department of Risk Management & Safety, the Office of Sustainability and other campus wide constituents, the Campus Landscape Master Plan shall develop systematic controls for the University to prevent and/or minimize post construction water quality impacts. During this reporting period, Auburn University has submitted a Request for Qualifications and Requests for Proposals from qualified consultants to assist in this effort. This consultant will work with Facilities Management and the Department of Risk Management & Safety to develop the following:

1. Stormwater Management Existing Conditions – Existing conditions on the main campus for stormwater management will be analyzed and documented and will include stormwater characteristics, drainage areas and condition, volume control for water quality and channel bank protection, conveyance capacity, flooding, detention capacity and campus stream conditions and opportunities.
2. Stormwater Strategies – Strategies shall be developed, including the combination of structural and non-structural best management practices (BMP), designed to ensure that volume and velocity of pre-construction runoff is not significantly exceeded. A design rainfall with intensity up to a 1-year/ 24-hour storm event shall be the basis for the design and implementation of post construction BMPs.

3. Stormwater Regulatory Mechanism - A stormwater regulatory mechanism shall be considered and developed as possible to address post construction runoff from new development and redevelopment projects.
4. Implementation and Maintenance Plan – to ensure long term operation and maintenance of landscape stormwater management BMPs.

Throughout this reporting period, Auburn University continued to evaluate opportunities to implement "green technology" or "Low Impact Development" stormwater management strategies wherever possible on campus. Evidence of the University's pursuit of such strategies as bioretention swales, pervious pavement, filter garden grids, subsurface stormwater catchments and green roofs can be seen on campus projects initiated, completed, planned or used for training purposes during this reporting period to include, the Auburn Research Park, MRI Research Facility, the Multi Sport Practice Facility, the Donald E. Davis Arboretum and the Center for Advance Science Innovation Center.

MRI Research Facility Low Impact Development Implementation (Bio-Retention Cells)

2011 Rain Garden Installation at Donald E. Davis Arboretum

Pervious Pavement project Donald E. Davis Arboretum

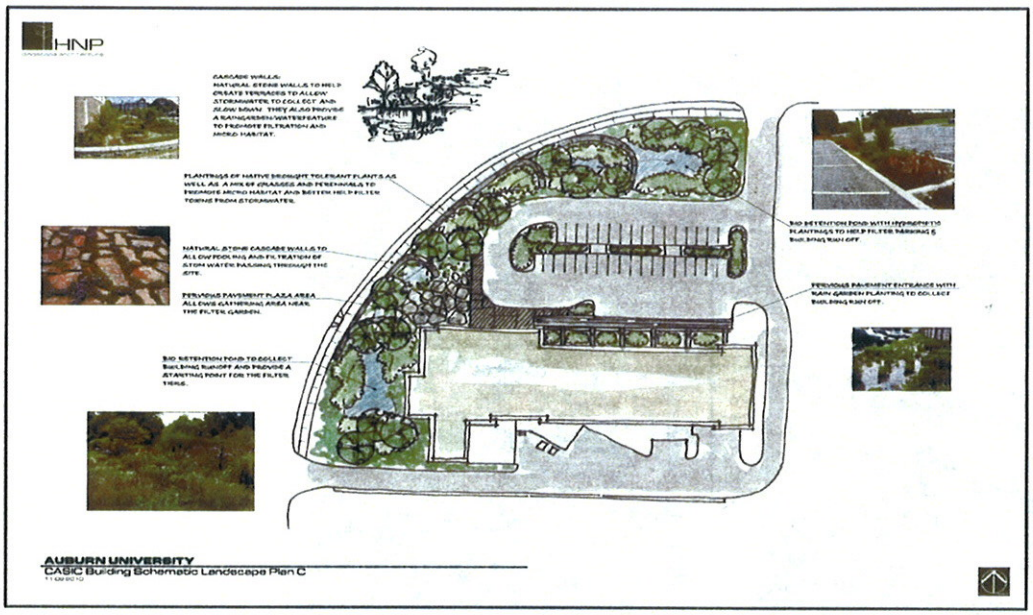
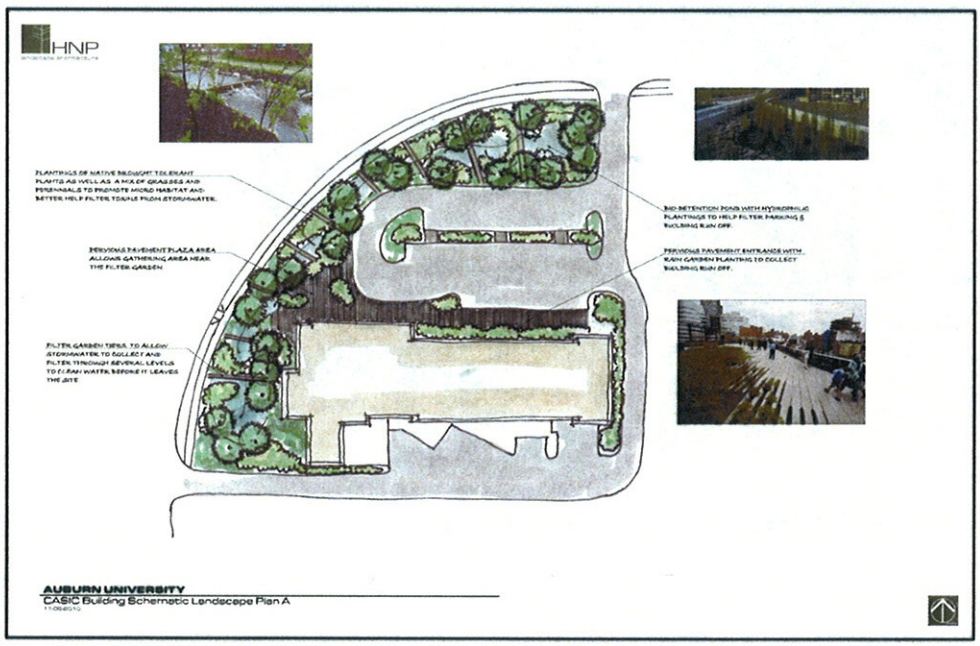


Figure 4: Landscape Scheme C: Native plants, pervious paving, bio-detention, rain garden

Center for Advanced Research Innovation Center designed plans being considered to include filter gardens, pervious pavement plaza area, filter garden tiers, bio-detention pond, bio retention pond.



Measure Specific Evaluation: During this reporting period, Auburn University was successful in initiating the activities necessary to incorporate the requirements of this measure into the Landscape Master Plans objectives. The University recognizes the importance of post construction stormwater management principles to ensure long term operability and functionality of on-site measures in an effort to prevent and/or minimize post-construction water quality impacts.

Measure specific activities planned for the next reporting period: By January 31, 2013, Auburn University intends to select the qualified consultant to guide the implementation of the Landscape Master Plan through completion of the above mentioned measure specific objectives.

Pollution Prevention / Good Housekeeping

Throughout this reporting period, Auburn University initiated activities consistent with the Stormwater Management Plan (SWMP) as follow:

Parking Lot, Parking Deck Cleaning Program

Auburn University utilizes street sweepers on a daily basis to address the removal of accumulated parking lot and street debris and for debris removal from pedestrian walkways and sidewalks. Debris removed consists primarily of leaves, dirt, grass, sand and small gravel particles. These vehicles can also be pulled off their normal schedules to address emergency clean up needs as they arise. Auburn University utilizes litter vacuum machines for areas inaccessible by the sweepers to remove similar debris as well as improperly disposed of solid wastes such as cans, bottles, paper products etc. Collected debris is disposed of as solid waste.

Stormwater Conveyance System Cleaning Program

During this reporting period, Auburn University acquired a pull behind leaf vacuum. This vacuum is utilized in vegetated areas, ditches, culverts, storm inlets and outlets to remove leaves and small woody debris. Visual inspection of these areas is conducted weekly. The vegetated and woody debris is removed and shredded into compostable mulch to be utilized elsewhere on campus.

Facilities Management – Fleet Maintenance Facilities

Auburn University Department of Risk Management & Safety developed a series of fact sheets to be utilized by Facilities Management operational and maintenance areas. The fact sheets were developed to educate employees in areas such as the fleet fueling center, fleet service areas and chemical storage areas to provide proper management measures to prevent accidental release of pollutants. The fact sheets developed during this reporting period addressed used oil and battery management responsibilities, identifies the regulatory responsibility for the management of these type materials and identify the proper measures to be taken in the event of their accidental release.

Solid Waste / Recycling Collection and Processing Areas

Auburn University Facility Management's Waste Reduction and Recycling Division provides training for both Auburn University and contracted waste and recycling staff on litter prevention and clean-up. Annual training is conducted for all university and contracted waste and recycling operational staff on the proper procedures for cleaning up hydraulic spills on campus. This training outlines the steps that both university and contracted staff will use to prevent and clean-up hydraulic oil spills.

Educational guidelines for both the municipal solid waste and recycling disposal are being established for the Auburn University campus and will be posted on the Waste Reduction and Recycling Department website by August of 2012. These guidelines will review where certain types of waste can be disposed of and how. These guidelines will list contact information for departments on campus that are responsible for different types of specialty waste such as universal waste (batteries), electronics, chemicals and bio-hazard waste.

Auburn University currently has the following types of equipment on campus that collect solid waste and recycled materials that are next to or near (within 100 feet) of a storm drain:

Trash Containers:

- Self-contained compactors - 7
- Stationary Compactors - 2
- Roll-off Containers - 14
- Front End Load (FEL) Trash Dumpsters - 128
- Hand Pick-up Trash Bins (30 & 45 gallon) - 300
- Towable 6 cubic yard Trash Carts - 11
- Solar Trash Compactors – 6

Recycling Containers:

- FEL Cardboard Dumpsters - 59
- 95 gallon roll-carts for recycling - 275
- Hand Pick-up Recycling Bins (36 & 45 gallon) - 112
- Towable 6 cubic yard Cardboard Carts – 7

During this reporting period, Auburn University performed the inspection of the following equipment:

- Self-contained Trash Compactors
- Stationary Trash Compactors
- Vertical 8 cubic yard Trash Compactors
- Vertical Cardboard Balers

Equipment listed above is inspected periodically for the following:

- Does the container have any leaks or holes in which material or liquids could be released?
- Are there any leaks in the hydraulic hoses?
- Are all of the lids and doors on each piece of equipment working properly?
- Other comments and observations?

Facilities Management Waste Reduction and Recycling Division has operational responsibility for the management of these containers and equipment. Any observed malfunctions or releases are addressed upon discovery mitigated and tracked to ensure that they are fully functional and operationally compliant.

The Waste Reduction and Recycling Division maintains a map of all campus trash and recycling collection points. This map is updated annually during June of each year.

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, jet fuel, 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 container; to ensure proper functionality and management to prevent releases to the environment. During this reporting period, no releases of oil were reported.

Applicable SPCC containers	Number of Inspections	Volume of SPCC applicable oil (gallons)
Tanks, Generators, Drums	480	86253
Elevators	1140	12615
Pad Mount Transformers	215	52555
Satellite Equipment	27	4256

Annual training is provided to oil handling personnel employed by Auburn University to further promote the objectives of the SPCC Plan, the regulatory responsibility associated with these regulated materials and to address in-house procedures necessary to respond to spills or releases from them. During this reporting period, 70 AU employees were trained.

Used Oil Recycling Program

Auburn University's Department of Risk Management & Safety routinely collects and recycles used oil from campus operations. Currently, the Department of Risk Management & Safety uses Metro Environmental based out of Sylacauga AL for removal and recycling of campus generated used oil. Throughout this reporting period, the Department of Risk Management & Safety collected 330 gallons of used oil from campus operations.

Pesticide, Herbicide and Fertilizer Management and Use

In collaboration with Auburn University Facilities Management and Athletics Department, a standard operating procedure (SOP) was created to assist the University in the management of pesticides, herbicides and fertilizers. Auburn University understands the importance of proper management of these materials and follows the manufacturer's recommendations and State guidelines for their use. The use of this SOP is designed to ensure that all applicable regulatory responsibilities are being met, to create a safer environment for the personnel working with these materials while also protecting the environment. Periodic and routine evaluations are performed by managers in these areas to promote the understanding and conformance with these best management practices.

Measure Specific Evaluation: The street sweeping activities on campus have been an effective and efficient means of removing accumulated debris from these areas. The acquisition of the new leaf vacuum during this reporting period has enabled effective and efficient removal of debris that would have been otherwise been washed further into the storm sewer conveyance and/or Parkerson Mill Creek and its unnamed tributaries. Educative efforts like the developed fact sheets and on-site training, improves the management of regulated materials that if released could create cause significant impact to the personnel working with them and environment. Auburn University continues to be successful in the collection of regulated waste from campus to include used oil and the management of SPCC applicable containers located on campus. Auburn University was successful during this reporting period in evaluating the operations and processes on campus relative to materials management and its role towards stormwater management and pollution prevention and is committed to the proper management of these materials and operations to ensure all local, state and federal requirements are met.

Measure specific activities planned for the next reporting period: Auburn University plans to continue the use of equipment to retrieve debris otherwise destined for the storm sewer conveyances and Parkerson Mill Creek. For larger debris identified in these areas, Auburn University will develop a plan for removal using in-house personnel and equipment or will seek assistance from a qualified contractor on an as needed basis. A baseline quantity of removed debris will be measured annually with the hope that through the continued implementation of green technologies and Low Impact Development strategies, the amount of accumulated debris from these areas will be reduced.

A successful materials management program depends on the acknowledgement and cooperation from all on campus. Auburn University will continue to promote proper materials management responsibilities campus wide. Auburn University intends to maintain the objectives for this measure throughout the next reporting period and will seek other opportunities for advancing the program to the benefit of the environment.

Monitoring Plan for Pathogen Impairment

The Parkerson Mill Creek Watershed is located in Lee County, The watershed is part of the Chewacla Watershed, in the lower Tallapoosa River Basin. The 9.3 square mile (5981 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

(Southside WPCF). The watershed includes the City of Auburn, Auburn University and the surrounding areas. The headwaters of Parkerson Mill Creek are approximately 3000 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 based on a series of Auburn/Opelika Intensive Fecal Coliform Studies. The listed impairment is for pathogens from point source and non-point sources, primarily urban runoff and storm sewer connections. As such, Auburn University periodically evaluates PMC by performing bacteriological analysis through the Alabama Water Watch (AWW) program's laboratory contained on the main campus. The results of the monitoring effort for this reporting period are contained in Appendix A of this Annual Report.

Appendix A

Parkerson Mill Creek
Water Quality Monitoring
April 1, 2011 through March 31, 2012

AWW Site Code 7011035
Location Description Thach Ave near Rugby Field / Farmhouse Fraternity

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
15-Apr-11	25	19	3	3	4	333.33
12-May-11	28	23	3	2	1	200.00
1-Jun-11	31.5	25.5	1	1	1	100.00
29-Jun-11	24.5	22.5	17	26	24	2233.33
19-Jul-11	27.5	24	17	22	17	1866.67
31-Aug-11	24	24.5	0	0	1	33.33
26-Oct-11	24	18	0	0	0	0.00
6-Dec-11	21	16.5	4	4	6	466.67
31-Jan-12	13	12.5	3	8	4	500.00
22-Feb-12	14	15	4	4	10	600.00
28-Feb-12	16	15	10	3	5	600.00

AWW Site Code 7007010
Location Description Wire Road and Samford Avenue

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
15-Apr-11	25	19.8	1	1	4	200.00
12-May-11	32	25	3	1	1	166.67
1-Jun-11	31	24	0	0	1	33.33
29-Jun-11	25	23	3	4	3	333.33
19-Jul-11	26.5	23.5	250	250	250	25000.00
31-Aug-11	25	25	5	24	37	2200.00
26-Oct-11	24	18	2	3	3	266.67
6-Dec-11	19	15.5	1	2	1	133.33
31-Jan-12	17.5	13	1	4	0	166.67
22-Feb-12	11.5	12	15	11	5	1033.33
28-Feb-12	16	14	2	2	5	300.00

AWW Site Code	7021002
Location Description	Biggio Drive

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
12-Apr-11	23	19.5	1	7	2	333.33
12-May-11	30	24	5	10	9	800.00
1-Jun-11	37	26	12	49	6	2233.33
8-Jun-11	-	-	1	4	1	200.00
29-Jun-11	28	23.5	5	2	1	266.67
19-Jul-11	30	24	2	1	6	300.00
31-Aug-11	24	25	8	8	28	1466.67
26-Oct-11	24.5	21	0	0	0	0.00
22-Feb-12	14	15	1	0	1	66.67

AWW Site Code	7012004
Location Description	Bridge on Samford Ave near Women's Soccer Field

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
15-Apr-11	23.8	19.5	1	7	2	333.33
12-May-11	31	24	3	2	6	366.67
1-Jun-11	28.5	22	13	43	51	3566.67
29-Jun-11	26	22	4	2	6	400.00
19-Jul-11	26.5	23.5	26	30	29	2833.33
31-Aug-11	24	24	0	1	0	33.33
4-Sep-11	24	25	79	67	84	7666.67
26-Oct-11	23	18	2	0	1	100.00
6-Dec-11	18.5	18	2	2	3	233.33
31-Jan-12	17	13	1	2	0	100.00
22-Feb-12	12	14.5	2	2	1	166.67

AWW Site Code	7007008
Location Description	Lem Morrison Bridge

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
12-Apr-11	19	18	7	14	12	1100.00
12-May-11	26	25	7	5	5	566.67
23-May-11	-	-	1	8	4	433.33
29-Jun-11	24	22.5	1	6	2	300.00
19-Jul-11	26.5	23.5	9	7	16	1066.67
31-Aug-11	24	24	2	1	0	100.00
26-Oct-11	25	17.5	2	2	2	200.00
31-Jan-12	16	14.5	1	0	0	33.33
28-Feb-12	16	15	3	2	0	166.67

AWW Site Code 7018002
Location Description Shug Jordan near AU Beef Unit

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
12-Apr-11	26.5	19	15	14	13	1400.00
12-May-11	30	23.5	1	0	1	66.67
1-Jun-11	33	23	5	5	11	700.00
29-Jun-11	27	23	2	8	2	400.00
19-Jul-11	24.5	23.5	1	1	0	66.67
31-Aug-11	25	24	0	0	1	33.33
28-Sep-11	22	22	53	46	74	5766.67
26-Oct-11	23.5	15.5	0	1	0	33.33
6-Dec-11	19	15	1	0	1	66.67
31-Jan-12	21	11.5	1	0	0	33.33
22-Feb-12	12.5	12	1	1	1	100.00

AWW Site Code No Code
Location Description Sigma Nu Fraternity on Magnolia
Elevated e-coli concentrations identified were refferred to the City of Auburn

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
28-Mar-11	-	-	44	42	40	4200.00
26-Apr-11	-	-	28	29	32	2967.00
20-Sep-11	-	-	35	41	37	3766.67
28-Feb-12	-	-	14	14	11	1300.00

AWW Site Code No Code
Location Description Textile Building / MagnoliA Ave
Elevated e-coli concentrations identified were refferred to the City of Auburn

Sample Date	air temp	water temp	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
8-Jun-11	-	-	250	250	250	25000.00