AUBURN UNIVERSITY

DEPARTMENT OF RISK MANAGEMENT & SAFETY

Hand Delivered

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

Subject: Auburn University Municipal Separate Storm Sewer System (MS4)
Annual Report 2018/2019
Auburn University, Lee County (081) Alabama
ALR040030

Dear Ms. Smith:

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, 2018 through March 31, 2019 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

Storm Water Management Program Plan

Responsible Personnel Contact Information

Primary Point of Contact:	Tom McCauley, Environmental Programs Manager Risk Management & Safety, 334-844-4870
Executive Committee:	Dan King, Associate Vice President Facilities Management, 334-844-4810 Michael Kensler, Director Office of Sustainability, 334-844-7777 Dr. Puneet Srivastava, Director AU Water Resource Center, 334-844-4785
BMP#1 Public Education Public Involvement	Tom McCauley, 334-844-4870, Michael Kensler, 334-844-7777 Water Resource Center, 334-844-4785
BMP#2 Illicit Discharge Detection & Elimination	Tom McCauley, 334-844-4870 Ken Martin, 334-844-4810 Water Resource Center, 334-844-4785
BMP#3 Construction	Tom McCauley, 334-844-4870 Scott Fuller, 334-844-4810
BMP#4 Post Construction	Tom McCauley, 334-844-4870 Ben Burmester, 334-844-4810
BMP#5 Pollution Prevention Good Housekeeping	Tom McCauley, 334-844-4870 Ron Booth, 334-844-4810

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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT REPORTING PERIOD APRIL 1, 2018 – MARCH 31, 2019

Prepared by

AUBURN UNIVERSITY

STORM WATER MANAGEMENT COMMITTEE

Submitted May 2019

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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.

The purpose of this Annual Report is to describe the compliance efforts reflected in the University's Storm Water Management Program Plan (SWMPP). The Annual Report will identify the control measure specific efforts undertaken by Auburn University from April 1, 2018 through March 31, 2019 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 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. Daniel Ballard – City of Auburn Watershed Division
Mr. Nicholas Blair, Facilities Management – Design Services
Dr. David Blersch, Biosystems Engineering
Dr. Eve Brantley, Crop, Soil & Environmental Sciences, AL Cooperative Extension Services
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, 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
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

MS4 Description

Auburn University is a large teaching and research 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

Storm water management controls or Best Management Practices (BMPs) will be implemented to the MEP pollution in storm water discharges from Auburn University's main campus. AU has previously passed the Policy on Storm Water Management Compliance (Appendix B) which serves as the regulatory mechanism as required by the Permit. The Permit requires BMPs to be implemented to address five minimum control measures to be part of the SWMPP. 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.

Throughout this reporting period, Auburn University initiated activities consistent with the SWMPP as follow:

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 (May 2, 2018)

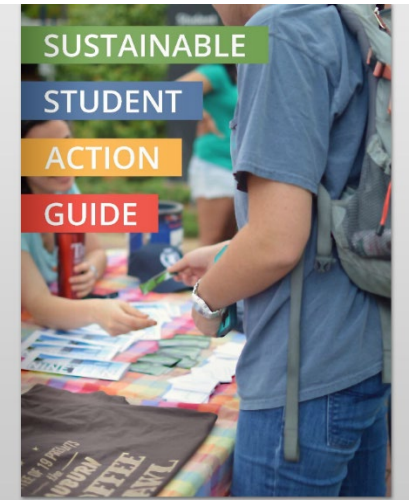
Almost 100 volunteers and 700 fifth graders from Lee County elementary schools participated in the fourteenth annual Lee County Water Festival. Representatives from Auburn, Lee County, Opelika, Auburn University and Smith Station along with the Alabama Agricultural Extension System, the Department of Agriculture's Natural Resources Conservation Service and Clean Water Partnership partnered together to educate children on the importance of water, conservation of natural resources and becoming better stewards of the environment.

Reimaging the Campus Green Infrastructure Experience (June 19, 2018)

An article on the green infrastructure board games designed by the AU students (LAND 7900 Interpretive Design—Redesigning the Visitor Experience class) was

accepted and published by American Society of Landscape Architects (ASLA Article) https://aub.ie/AU-LID-Board-Game The class led by Charlene M. LeBleu, FASLA, Associate Professor of Landscape Architecture, tasked the students to reimagine green infrastructure education in a different way. Designing and crafting a board game, the playing pieces, and a container to hold all pieces provided a fun and interesting creative challenge

Camp War Eagle (May-July 2018)



Camp War Eagle is a summer orientation experience for incoming freshman and their guest intended to familiarize incoming students with Auburn's campus, traditions and numerous student services and programs. 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 management practices.

Storm Water Symposium (May 9-10, 2018)

ALABAMA STORM WATER FORUM

Auburn University and Alabama Cooperative Extension System again hosted the annual Storm Water Forum highlighting use of green infrastructure technologies as an to storm water management, MS4 initiatives and regulatory assistance. This annual event was attended by nearly 100 participants including Phase I & II MS4 communities, researchers, professionals and students.

Campus BMP Tours (on-going)

Tours of campus storm water best management practices (BMPs) are often conducted as learning opportunities for various groups such as the above mentioned Storm Water Forum. These tours highlight the importance of these structures whether used during the construction phase or as permanent post construction BMPS.

Young Water Ambassadors (July 18, 2018)

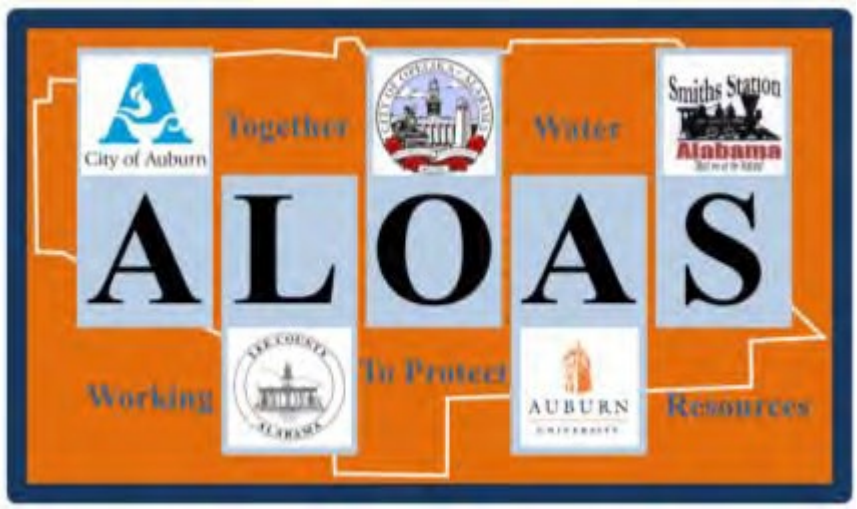
AU Water Resources Center Staff coordinated the annual Young Water Ambassadors (YWA) visit to Auburn University. YWA is a six-week long program run by the Birmingham Water Works that provides high school students with an in-depth and hands-on learning experience related to various aspects of water resources. Students must apply to participate in the competitive program. During their visit to AU, staff from AWW, the Arboretum, and AL Cooperative Extension System Water Resources provided 83 students with educational sessions related to pollution, storm water, low impact development, and watershed management.

Alabama Storm Water Association Sponsored Events & Activities (February 5, 2019)

Alabama Stormwater Association

Efforts to formalize the Alabama Storm Water Association (ASA) were completed during this reporting period. 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. The ASA sponsored a learning opportunity entitled “Tools for Construction Storm Water Runoff Control & Compliance” in February and was attended by approximately 74 attendees representing various types of organizations, many locations throughout Alabama, and different sectors of the professional storm water management community.

City of **A**uburn, **L**ee County, City of **O**pelika, **A**uburn University, City of **S**mith Station (ALOAS)



Auburn University is an active member of **ALOAS**, a citizen's advisory committee. The committee allows individuals from the community to interact with the ALOAS MS4 entities and provide and receive feedback related to storm water activities planned. This also promotes a positive forum for the community to participate. The committee has authority and direct input into regional storm water management efforts. Due to a variety of reasons, the ALOAS committee did not meet during this reporting period however, dialogue between the groups was maintained. It is the intent of the reestablish a quarterly meeting to promote and coordinate community activities related to storm water management.

Sustainability Picnic (August 22, 2018)

Coordinated by AU's Office of Sustainability, a zero-waste picnic attended by nearly 350 individuals was held. The annual picnic is designed to provide incoming Auburn University undergraduate students an opportunity to connect with sustainability activities, information, organizations, and suppliers for campus. This year over 35 organizations had a presence, representing a range of sustainability-related topics and door prizes promoting sustainable behaviors were awarded to lucky winners.

AU Green Game (September 29, 2018)

The annual Green Game at Auburn University was held as the Auburn Tigers faced off against the Southern Mississippi. The Green Game is an opportunity to celebrate the sustainability-related initiatives of the Athletics department, while encouraging fans to also participate in helping make Game days greener. A Green Game Video was aired during the game to help highlight some of the many initiatives AU undertakes.

Peers Network Gathering (January 2019)

Sponsored by the Office of Sustainability, a dozen employees and staff received a tour of the Environmental Health & Safety Building on campus to learn about hazardous waste management on Auburn's campus, including information on the sources, proper handling, and basic disposal/recycling procedures.

Skip the Straw Day (February 22, 2019)

Led by the Office of Sustainability, an estimated 200 student and AU employees were encouraged to skip the straw for their beverages. Participants learned about straw pollution, its consequences for aquatic/marine life, and received a paper straw to use. In addition, all Tiger Dining non-franchise locations removed the straws for the day and included informational signage about the negative impacts of straws where the straws would normally be dispensed.

Beyond the Farm (March 28, 2019)

AU Agriculture Council along with the Office of Campus Dining and the Office of Sustainability are hosting Beyond the Farm on Thursday, March 28 from 11 am -2 pm on the Student Center Greenspace. Over 25 clubs/organizations were at the event that highlighted Agriculture and Auburn Foods and educated attendees about where their food comes from and what role agriculture plays in making sure their food is safe.

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. During this reporting period a few examples of these programs, educational tools and presentations included:

- Water Quality in Landscape (October 2018): Home and garden pesticides and fertilizers can pollute Alabama's waterways. Problems occur when garden chemicals are dumped down street or household drains and when chemical residues wash from paved surfaces into streams after a rain. Runoff from excess watering, or driveway cleaning with a garden hose can also carry unseen pollutants. LINK: ACES 10-18
- Rainwater Harvesting for Irrigation Water (November 2018): Water can be conserved through proper xeriscaping (landscaping) and by choosing the ideal native plants for desired locations. The collection of storm water from parking lots and other surfaces, storage in basins, swales or other watersheds, and distribution to plant beds by predesigned french drains, berms, curbs, spillways, depressions, micro-basins, and aprons will also conserve water and reduce runoff and its associated problems. LINK: ACES 11-18
- Drought Tolerant Landscapes for Alabama (January 2019): Thoughtfully planned, attractive landscapes are important because they provide environmental benefits and add value and beauty to homes. The environmental benefits include reducing soil erosion and storm water runoff, providing wildlife habitats, removing carbon dioxide and

pollutants from the atmosphere while adding oxygen, and keeping homes cooler in the summer and protecting them from cold winds in the winter. LINK: ACES 1-19

Inspiring Involvement. EcoStream 2018 Southeast Stream Restoration Conference, Asheville, North Carolina, August 13-16, 2018

Eve Brantley, PhD, Extension Specialist and Assoc. Professor
Department of Crop, Soil and Environmental Sciences
Auburn University

The Water Resource Center

Auburn University Water Resources Center mission is to facilitate successful collaboration among Auburn University faculty and staff on multi-disciplinary, water-related research, outreach, and teaching; and to facilitate the active involvement of private citizens in the stewardship of water resources.

To achieve its mission, vision, and objectives, the Auburn University Water Resources Center consists of interdisciplinary teams of research, teaching, and Extension outreach faculty and staff who address all types of water-related issues in Alabama, the Southeast, and around the globe. The outreach activities are done through the Alabama Cooperative Extension System and programs such as Alabama Water Watch and Global Water Watch.

The research activities are funded through the Alabama Water Resources Institute, the Alabama Agricultural Experiment Station and a wide variety of extramural sources. During this

reporting period, multiple research opportunities were made available and partnerships created to further the mission of the Water Resource Center.

Research Spotlight (on-going)

Storm water research on campus is a multidisciplinary and on-going effort. Advances being made at Auburn University are changing the way industry is addressing the various storm water challenges presented with increasing populations and urbanization.

Dr. Thorsten Knappenberger, PhD, Department of Crop, Soil & Environmental Sciences

Parkerson Mill Creek does not meet minimum water quality standards for its designated Fish and Wildlife water use classification. In 2008, ADEM listed Parkerson Mill Creek on the CWA Section 303(d) List of Impaired Waters as impaired for 6.85 miles from Chewacla Creek to its source. Parkerson Mill Creek's listing was based on a series of Auburn/Opelika Intensive Fecal Coliform Studies conducted in 2007. The cause of impairment was identified as pathogens from urban storm water runoff and storm sewer sources.

This project will help with addressing the components in the Parkerson Mill Creek Watershed Management Plan by installing low impact development best management practices (LID BMPs) to mitigate urban runoff quality and quantity on the Auburn University campus. Research shows that LID BMPs, such as roadside vegetated filter strips and bioswales, play an important role in urban watersheds in decreasing urban storm water runoff quantity and improving runoff quality. Furthermore, LID BMPs such as these are more cost effective as compared to conventional, hard-engineered storm water infrastructure. In spring and summer 2019, step pools will be constructed at the site to slow down storm water runoff and to facilitate storm water infiltration. Each step pool will be vegetated with native plants according to the Alabama Storm Water Manual. Before and after construction hydrology and pathogen loads are begin monitored.

Quantifying Thermal Characteristics of Stormwater through Low Impact Development Systems

Charlene LeBleu, Rui Wang, Jeisson Andres Orrjuela, Kaylee Britton, Landscape Architecture
Dr. Mark Dougherty, Department of Biosystems Engineering, Keith Rahn, Ryan Bowen, McWorter School of Building Sciences, Dr. Amy Wright, College of Agriculture

Urbanization causes alterations of the thermal regime (surface, air, and water) of the environment. Heated stormwater runoff flows into lakes, streams, bays and estuaries, which potentially increases the base temperature of the surface water. The amount of heat transferred and the degree of thermal pollution is of great importance to the ecological integrity of receiving waters. This research reports on a controlled laboratory LINK: Green Lab scale test to assess low impact development (LID) stormwater control measure impacts on the thermal characteristics of stormwater runoff.

Watershed Clean-Up Efforts

Auburn University performed a variety of community events including stream clean-ups, invasive floral species removal projects and live-staking within the watershed to further promote awareness and measures that can be taken to better protect our watershed. The following table provides a summary of the events that took place during this reporting period.

Campus Location	Date	Participation	Participants
PMC @ Biggio to Lem Morrison	11-27-18	9	AU Staff & Students and COA Staff
PMC @ Donahue to Samford	2-23-19	30	AU Staff, Alternative Student Breaks, CSES and COA Staff
Campus Wide	Continual	14 Groups/Individuals Adopt-A-Spot	AU Students, Staff & Faculty

<u>No Impact Week (March 25-April 1, 2019)</u>

Each year, Auburn University students, faculty, and staff are invited to conserve and reduce their impact on the environment as they participate in No Impact Week. No Impact Week is an international initiative designed to promote sustainability by challenging people to live lifestyles that are better for them and for the environment. This week-long challenge is hosted by the College of Liberal Arts' Community and Civic Engagement Initiative, co-sponsored by International Paper, and in collaboration with the AU Academic Sustainability Programs. The themes for each day were Trash, Transportation, Consumption, Food, Water, Energy, Giving Back and Eco Sabbath.

THE BIG EVENT
AUBURN UNIVERSITY

<u>Auburn Student Government Association's Big Event (March 23, 2019)</u>

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 continued and exhaustive efforts of the Alabama Water Watch to engage and to train a local and global volunteer water monitoring network spanning all generations 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. Sponsor multiple PMC clean up events (American Chemical Society April 27, 2019 …)
2. Participate with ALOAS and others entities to offer the annual Lee County Water Festival (May 2019).
3. Host Urban Stream Restoration Assessment & Restoration Workshop (May 2019)
4. Sponsor the Alabama Water Resource Conference set for September 2019.
5. Continued promotion of Parkerson Mill Creek (PMC) and the PMC Watershed Management Plan.
6. Continue partnership with ALOAS to communicate local storm water challenges, opportunities and community concerns.
7. 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 is included as an Appendix E to this report.

Illicit Discharge Detection & Elimination (IDDE) training is provided annually and during this reporting period 216 individuals received Environmental Awareness training that covers storm water management and the elements of the IDDE program.

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 SWMP. Accomplishments and ongoing actions supporting this BMP included:

- Maintenance of the University's Policy on Storm Water Compliance (Appendix B) continues to serve as the regulatory mechanism for this measure.

- Community involvement and dry weather screening were successful in identifying multiple illicit discharges that were investigated and ceased as quickly as possible. These efforts compliment the goals of the Program and addressed activities that were introducing pollutants from entering the MS4.

- 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. Improve upon the dry weather screening efforts by utilizing the engineering assessment and inspection software utilized by AU Facilities Management for the management of University assets.

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.

Facilities Management implement Design and Construction Standards meant to strengthen the storm water management efforts on all University construction sites.

During this reporting period, a total of eleven (11) qualifying construction sites were managed on campus that required storm water protection measures to be implemented and maintained. Details specific to these 11 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 utilization of Rain Wave a precipitation monitoring service continues to enable the AU Project Manager, AU Engineer of Record to have real-time precipitation data. 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. Evaluate BMP following established AU environmental audit initiative.
3. 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. Incorporated into the Design and Construction Standards, the Landscape Master Plan puts in place a set of comprehensive best management practices for storm water management so future campus construction projects protect and improve water quality, provide campus flood protection, and reduce storm water flow rates to downstream waters. Additionally, projects are reviewed using the storm water management project review checklist in the Post-Construction storm water manual to document compliance with the University's storm water project requirements.

As a component of the Auburn University Design and Construction Standards, the Post Construction Storm Water Manual provides the principles, guidelines and standards for storm water management design for new campus projects. By providing a set of comprehensive best management practices for storm water management, future campus construction projects will protect and improve water quality, provide campus flood protection, and reduce storm water flow rates to downstream waters. The Post Construction Storm Water Manual includes a storm

water 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 period. A listing of projects reviewed during this reporting period are included in the table below:

Project No.	Project Name	Stormwater Best Management Practices (BMPs)					
		Detention or Retention	Subsurface Detention	Bioretention	Pervious Paving	Green Roof	Stream Restoration
15-034	Academic Classroom and Laboratory Complex	No	Yes	No	No	No	No
16-370	Rane Culinary Science Building	No	Yes	No	Yes	Yes	No
17-089	Parkerson Mill Creek by Rugby Field	No	No	No	No	No	Yes
17-197	Moore Softball Complex Player Development Building	No	Yes	No	No	No	No
17-255	Advanced Structural Testing Laboratory	No	No	Yes	Yes	No	No
17-350	Hemlock Substation Additional Transformer	Yes	No	No	No	No	No
18-028	Lem Morrison Dr - Recreation Field Expansion	Yes	Yes	Yes	No	No	Yes
18-071	South College Street Parking Deck	No	Yes	No	Yes	No	No
18-121	Auburn Research Park Childcare Facility	Yes	No	No	No	No	No
18-236	Auburn Research Park Building 5	Yes	No	Yes	No	No	No
19-037	Campus Parking Expansion – West Campus and Hayfields	Yes	Yes	Yes	No	No	No

Multiple projects also were completed that added permanent post-construction storm water best management practices to the campus inventory. A highlight of these recently added BMPs can be seen in the images below. Please see Appendix F for the campus inventory of post construction BMPs along with inspection counts.

Pervious paving at the Harbert Family Recruiting Center (AU Project 16-324)

Bio-retention at the Mell Concourse Center (AU Project 15-311)

Stream Restoration at Parkerson mill Creek Rugby Field Site
(AU Project 17-089)

Pervious paving at the Mell Concourse Center (AU Project 15-311)

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. Further develop and document post construction BMP inspections to ensure they are being maintained and functioning as designed.

BMP: Pollution Prevention / Good Housekeeping

Parking Lot, Parking Deck Cleaning Program

Facility Management's Landscape Services utilizes street sweepers on a daily basis to address the removal of accumulated debris (850 yd ^{3}) 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 on a daily basis 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 325 yd ^{3}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.

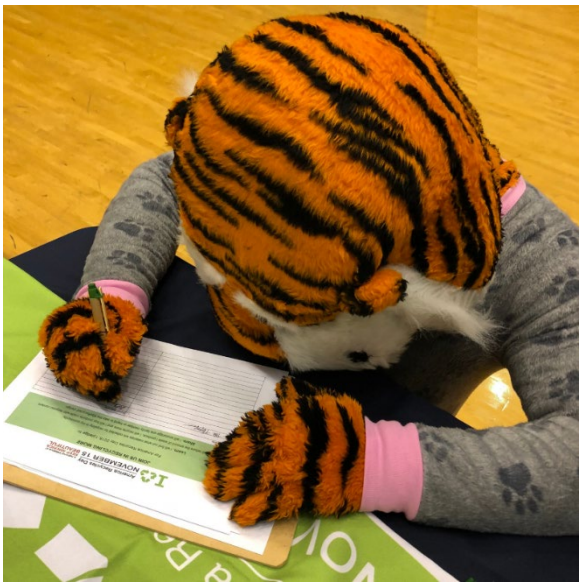
Understanding that over application of chemicals to control pests on campus landscapes can have a detrimental effect to the environment, Facility Management's Landscape Services objective is to survey/monitor selected areas on campus and determine if the thresholds of a pest warrants chemical applications. 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 6500 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 on a daily basis 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. During this reporting period, AU diverted 30% of waste collected from disposal at a landfill. Waste diverted included C/D 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

consistently and correctly recycle, 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 America Recycles Day, and community partnerships, such as the East Alabama Recycling Partnership.

WRRD maintained a contract with Waste Management (WM). WRRD and WM operational staffs attended an annual training on litter prevention, spill clean-up and storm water management. WRRD will continue to conduct this annual training each year for all university and contracted waste and recycling operational staff. This training outlines the steps that both University and contracted staff use to prevent and clean-up hydraulic oil spills.

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	576	99173
Elevators	1488	19445
Pad Mount Transformers	244	58707
Satellite Equipment	17	3769

Annual training is provided to oil handling personnel employed by Auburn University to 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, 216 employees were trained.

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 2687.5 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 2592 gallons of used cooking oil was collected under contract with Birmingham Hide & Tallow.

Chemical Waste Management

Risk Management & Safety has developed and promote programs for the proper management of chemical waste routinely generated on campus. All hazardous waste is managed to the university's central accumulation area managed by RMS. Sink disposal of hazardous waste 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. Throughout this reporting period, multiple promotional materials were developed and distributed throughout campus.

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. Provide pollution prevention environmental awareness training to municipal facility personnel.
2. Develop metrics to quantify the amount of floatable materials collected as a result of successful implementation of BMPs at municipal facilities.
3. Revise and update “municipal facility” inventory.

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 (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, 2018 through March 31, 2019

Appendix A
Construction Site Details for permit year:
April 1, 2018 to March 31, 2019

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
16-475	Lem Morrison Dr - New Horticulture Teaching & Demonstration Gardens	Benjamin Burmester	David Johnson	Hillworks	N/A	Ag Lands	ALRM	38	0	0	5/18/2018	
17-310	Biggio Drive - Pavement Rehabilitation & Resurfacing	George Reese	David Johnson	N/A	LBYD	D&J	D&J	11	0	0	8/20/2018	
18-028	Lem Morrison Dr - Recreation Field Expansion	Benjamin Burmester	David Johnson	Barge Design	LBYD	Bailey Harris	D&J	28	0	1	11/14/2019	
14-044	Graduate Business Building - New Facility	William Maffett	James Walley	Williams Blackstock	LBYD	Rabren General Contractors	Joe Mims Construction	15	0	0	6/14/2019	per emial from Bruce Ward on 4-23-19
18-071	South College Street - New Parking Deck	William Maffett	James Walley	Cooper Carry	LBYD	Rabren General Contractors	Joe Mims Construction	8	0	1	5/30/2019	There was one site runoff that was immediately addressed with a new waddle at a storm inlet, due to the old one deteriorating.
15-079	Beard Handball Demo	Amy Bingham	David Johnson	LBYD	LBYD	Virginia Wrecking	D&J	8	0	0	5/18/2018	
15-158	Gogue Performing Arts - New Building BP#2	David Bess	Joshua Conradson	WBA	LBYD	Rabren General Contractors	D&J Enterprises	46	0	0	8/14/2019	Permit incorporates 15-158, 18-112, and 18-411.
18-112	Gogue Performing Arts Center - Woodfield Parking Lot Expansion	Joshua Conradson	Joshua Conradson	WBA	LBYD	Rabren General Contractors	D&J Enterprises	*	*	*	8/14/2019	Included in 15-158 permit
18-411	College St - Streetscape Improvements Adjacent To Gogue Performing Arts Center	David Bess	Joshua Conradson	WBA	LBYD	Rabren General Contractors	D&J Enterprises	*	*	*	8/14/2019	Included in 15-158 permit
15-157	Brown-Kopel Engineering Student Achievement Center - New Building	Simon Yendle	Steve Haney	Smith Group JJR	Foresite	Rabren General Contractors	D&J Enterprises	31	0	0	6/9/2019	
15-208	Leach Science Ctr - Building Expansion & Partial Renovation	Bradley Prater	Steve Haney	Perkins Will	LBYD	Rabren General Contractors	Joe Mims Construction	20	0	0	5/1/2019	
ARP -647	Early Learning & Design Development Center	Big Blue Marble Academy	Cary Chandler	Mark Lamas	James Stoddard	Tri-South construction	JDL	21	0	0	on-going	

Appendix B

Policy on Storm Water Management Compliance

April 1, 2018 through March 31, 2019

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.

VIII. 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

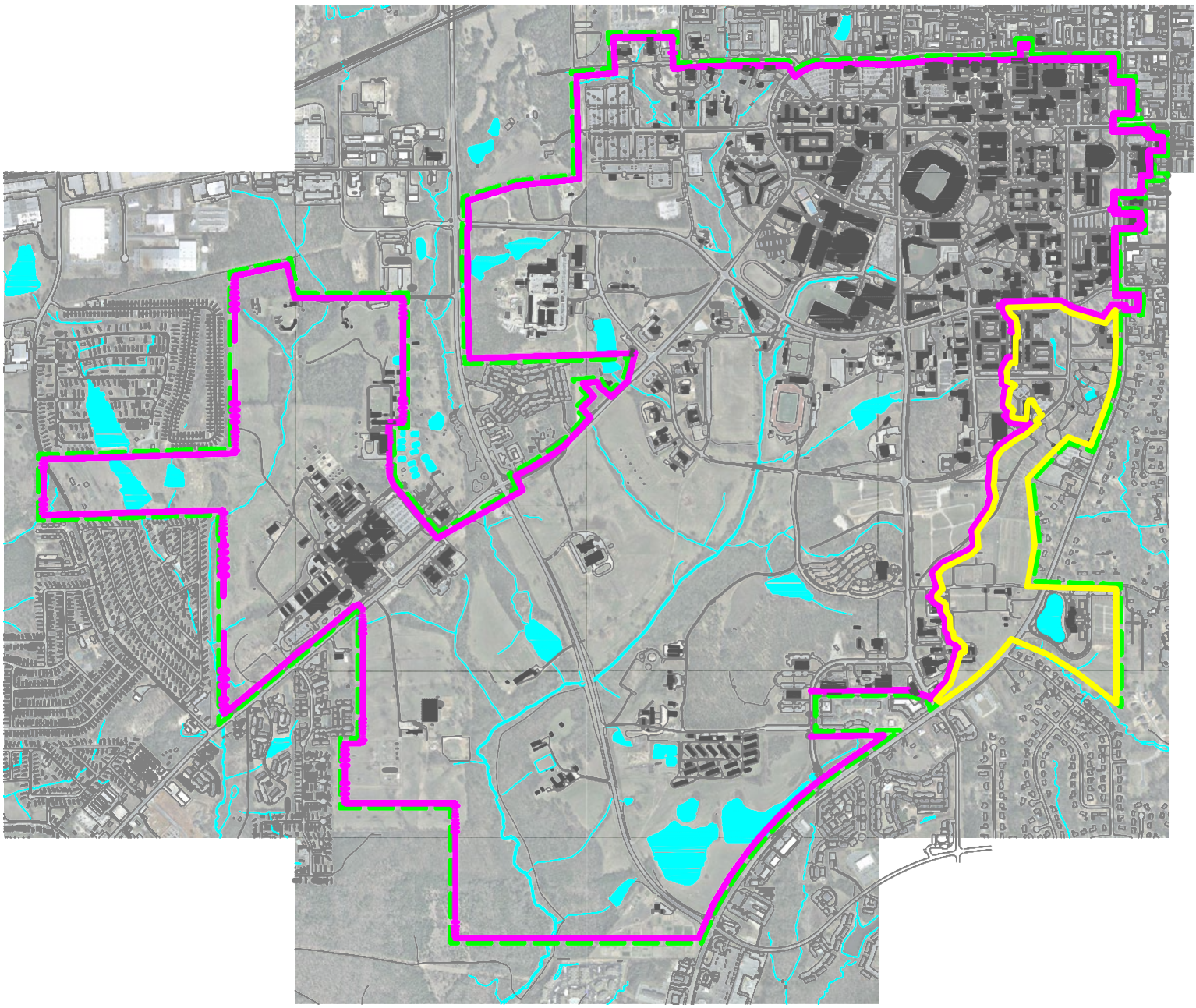
This policy applies to the Auburn University main campus. All other University Land is exempt.

X. INTERPRETATION

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

ADOPTED: June 15, 2016

APPENDIX1



LEGEND

AUBURNUNIVERSITY MAINCAMPUSBOUNDARY

PARKERSONMILL CREEKWATERSHED

TOWNCREEK WATERSHED

AUBURN UNIVERSITY

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Appendix C

Parkerson Mill Creek Monitoring Data

April 1, 2018 through March 31, 2019

Parkerson Mill Creek Water Quality Monitoring
April 1, 2018 through March 31, 2019

AWW Site Code No Code
Location Description Wellness Kitchen T07-14

Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
21-Sep-18	4	3	3	333
5-Oct-18	0	3	1	133
17-Oct-18	3	9	4	533
16-Jan-19	11	8	7	867
15-Feb-19	1	1	3	167
20-Feb-19	7	9	11	900
5-Mar-19	5	3	7	500
15-Mar-19	13	10	9	1067
20-Mar-19	4	3	4	367
28-Mar-19	7	9	4	667
12-Apr-19	2	0	0	67
27-Apr-19	3	3	0	200

AWW Site Code 7011036
Location Description Biggio Drive near Coliseum

Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
21-Sep-18	21	13	19	1767
5-Oct-18	10	9	14	1100
17-Oct-18	6	11	9	867
16-Jan-19	1	5	4	333
15-Feb-19	79	88	103	9000
20-Feb-19	16	22	13	1700
5-Mar-19	11	8	11	1000
15-Mar-19	16	18	11	1500
20-Mar-19	174	150	154	15933
28-Mar-19	0	1	1	67
12-Apr-19	13	10	13	1200
27-Apr-19	9	11	6	867

AWW Site Code	No Code			
Location Description	Farm House			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
21-Sep-18	6	2	5	433
5-Oct-18	2	1	1	133
17-Oct-18	7	4	7	600
16-Jan-19	1	0	0	33
15-Feb-19	12	8	7	900
20-Feb-19	2	9	5	533
5-Mar-19	11	13	9	1100
15-Mar-19	3	2	6	367
20-Mar-19	11	6	11	933
28-Mar-19	3	0	1	133
12-Apr-19	14	11	21	1533
27-Apr-19	3	2	2	233

AWW Site Code	7011035			
Location Description	Thach Ave near Rugby Field			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
21-Sep-18	6	6	5	567
5-Oct-18	13	8	11	1067
17-Oct-18	7	6	11	800
16-Jan-19	21	19	22	2067
15-Feb-19	4	6	1	367
20-Feb-19	1	4	2	233
5-Mar-19	8	5	8	700
15-Mar-19	4	6	7	567
20-Mar-19	3	7	5	500
28-Mar-19	14	8	8	1000
4-Apr-19	64	52	83	6633
12-Apr-19	1	0	2	100
27-Apr-19	2	2	0	133

AWW Site Code	No Code			
Location Description	Hot Water Plant III			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
21-Sep-18	17	13	15	1500
5-Oct-18	6	6	5	567
17-Oct-18	4	1	2	233
16-Jan-19	0	3	5	267
15-Feb-19	10	13	13	1200
20-Feb-19	5	7	4	533
5-Mar-19	2	2	0	133
15-Mar-19	7	13	9	967
20-Mar-19	1	1	2	133
28-Mar-19	10	26	13	1633
12-Apr-19	6	7	3	533
27-Apr-19	11	9	7	900

AWW Site Code	7007010			
Location Description	Wire Road and Samford Avenue			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
12-Sep-18	NR	NR	NR	1200
15-Feb-19	13	13	20	1533
20-Feb-19	0	5	8	433
28-Mar-19	19	16	20	1833

AWW Site Code	No Code			
Location Description	DEP East			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
4-Apr-19	24	20	21	2167
12-Apr-19	224	239	244	23567

AWW Site Code	No Code			
Location Description	DEP North			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
4-Apr-19	0	0	0	0

AWW Site Code	No Code			
Location Description	Campus Condos			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
4-Apr-19	76	113	83	9067
12-Apr-19	0	0	2	67

AWW Site Code	No Code			
Location Description	West Magnolia			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
12-Apr-19	0	0	0	0

AWW Site Code	7007009			
Location Description	Wire Rd @ Webster Rd			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc Mean
20-Apr-18	NR	NR	NR	733
16-May-18	NR	NR	NR	9900
17-Jun-18	NR	NR	NR	4500
26-Jul-18	NR	NR	NR	367
26-Aug-18	NR	NR	NR	200
23-Sep-18	NR	NR	NR	133
30-Oct-18	NR	NR	NR	233
19-Jan-19	NR	NR	NR	167
20-Feb-19	NR	NR	NR	33
AWW Site Code	7021007			
Location Description	Pond at Ag Heritage Park			
17-Apr-18	NR	NR	NR	33
15-May-18	NR	NR	NR	100
14-Aug-18	NR	NR	NR	33

AWW Site Code	7012004			
Location Description	Bridge on Samford Ave near Women's Soccer			
Sample Date	E-coli (1)	E-coli (2)	E-coli(3)	Calc Mean
12-Sep-18	NR	NR	NR	3233
AWW Site Code	7018002			
Location Description	Shug Jordan near AU Beef Unit			
Sample Date	E-coli (1)	E-coli (2)	E-coli (3)	Calc. Mean
20-Apr-18	NR	NR	NR	733
15-May-18	NR	NR	NR	267
12-Jun-18	NR	NR	NR	167
17-Jul-18	NR	NR	NR	333
14-Aug-18	NR	NR	NR	467
12-Sep-18	NR	NR	NR	2267
19-Sep-18	NR	NR	NR	433
2-Oct-18	NR	NR	NR	33
17-Oct-18	NR	NR	NR	2567
14-Nov-18	NR	NR	NR	867
28-Nov-18	NR	NR	NR	233
12-Dec-18	NR	NR	NR	467

Appendix D

Storm Water Management Program Plan (SWMPP)

April 1, 2018 through March 31, 2019

AUBURN

UNIVERSITY

STORM WATER MANAGEMENT PROGRAM PLAN

Prepared by

AUBURN UNIVERSITY

STORM WATER MANAGEMENT COMMITTEE

May 2019

Table of Contents

INTRODUCTION

This Storm Water Management Program Pan (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. Daniel Ballard – City of Auburn Watershed Division
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 bat are not limited to all interstate waters and interstate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, play lakes or naturals 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 measureable 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 strategical 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 citizen advisory meetings.
6. Continued attendance, partnership, or participation in Alabama Water Watch monitoring workshops.
7. Continued installation of storm drain markers on all inlets located on campus.

2.2 Illicit Discharge Detection and Elimination

Per the Permit, an Illicit discharges 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. The following discharges are not considered illicit and are not regulated under this minimum control measure:

A. Water line flushing (including fire hydrant testing)
B. Landscape irrigation
C. Diverted stream flows
D. Rising ground waters
E. Uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connection and foundation drains, from the ground through such means as defective pipes, sewer service connections or manholes.)
F. Uncontaminated pumped ground water
G. Discharges from potable water sources
H. Foundation drains
I. Air conditioning condensation
J. Springs
K. Water from crawl space pumps
L. Footing drains
M. Flows from riparian habitats and wetlands
N. De-chlorinated swimming pool discharges
O. Street wash water
P. Discharges or flows from fire fighting

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 evaluate recently completed storm water system model and develop a prioritized schedule for repairs and maintenance.
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, waste water, 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;
- dechlorinated swimming pool discharges;
- flows from emergency firefighting; and
- 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.

Inventory of Municipal Operations

Facilities Management HQ	Chilled Water Plant 1	Chilled Water Plant 2	District Energy Plant
Chilled Water Plant 3	Hot Water Plant 1	Hot Water Plant 2	Satellite Steam Plant
Coliseum Steam Plant	44kV Substation	115 kV Substation	Plainsman Park
Equestrian Center	Jordan Hare Stadium	Soccer Complex	Jane B. Moore Field
Hutsell-Rosen Track	Student Ctr. Dinning	Auburn Arena	Intramural Rec Fields
Terrell Dining	Foy Union Dining	Village Dining	Environmental Health & Safety Facility
Housing & Residence Life HQ	Campus Parking Lots / Decks	Campus Roads	Co-fired Combustor

Measureable Outcomes & Evaluation:

1. Quantify the amount of floatable materials collected as a result of the successful implementation of the BMPs at these municipal facilities.
2. Quantify the number of “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. Development of SOP for municipal facilities by March 31, 2020. SOP will include inspection frequencies and documentation mechanism.

Responsible Department:

Auburn University RMS & Facilities Management

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 located 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 to 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, 2018 through March 31, 2019

2016 Illicit Discharge Detection & Elimination

Date	Location	Observation	Contaminant	Samples Y/N	Corrective Measures Taken
9/24/2016	Swingle Hall	litter disposed of in storm sewer	tailgate trash (cans, bottles paper)	No	9/25/16 AU Landscape Services removed waste from inlet
10/23/2016	Sigma Nu Fraternity	a visitor on campus was observed disposing of ashes into storm sewer	Charcoal Ashes	No	10/24/16 AU removed ashes from drain. 11/2/16 AU Campus Safety & Security relayed observations to Sigma Nu and IFC to prevent reoccurance. 11/4/16 a followup opportunity was presented during the next home football game and the same individual was issued a miranda warning for littering by APD.
10/15/2016	SC Loading Area	Carpet wash water dumped into storm drain	dirty wash water no cleaner	No	Informed building manager to cease practice and to utilize mop sinks found in janitorial closets which are plumbed to sanitary sewer.
11/22/2016	Haley Ctr Loading Dock	line to hydraulic press appears to have slow leak	hydraulic oil	No	Advised WRRD repaired line and applied oil dry to affected area

2017 Illicit Discharge Detection & Elimination

Date	Location	Observation	Contaminant /Source Activity	Samples Y/N	Corrective Measures Taken
1/27/2017	Biggio Drive near Intramural fields	sanitary waste in the ditchway behind fraternity's aalong Biggio Drive at intramural fields	sanitary waste	N	grease built up within sanitary line caused a backup and overflow into the ditchway. Waste was contained in the long ditchway and did not make it to conveyance that would lead to creek. Overflow was reported to ADEM per SSO Hotline.
2/15/2017	Ginn Concourse	dried oil stain originating near bus terminal on Magnolia and running to Athletics facility at stadium.	oil	N	Oil was determined to leak from a utility cart operated by AU Athletics. Facilities Management applied tide detergent to denature oil and to aid in its removal
3/28/2017	T07-17 Wellness Kitchen	milky white water	Pressure washing (no chemicals) of sidewalk South Donahue Housing	N	none
4/14/2017	JH Stadium Gate 1	Tractor leaking oil to pavement	oil	N	11/14/17 AU Athletics and RMS applied oil dry to affected area and vehicle was placed out of order until repairs could be made to prevent further release.
5/19/2017	stadium parking deck	ashes into storm sewer during baseball game	charcoal ashes	N	Ashes were removed urinal over storm sewer at baseball
7/21/2017	VCOM pond	Over a dozen turtles were discovered in the pond located behind VCOM	unknown --> ranovirus	Yes	In colaboration with VCOM, Facilities Management, COSAM Herpetology and TBS State Lab, it was determined that the die off was due to a naturally occurring virus affecting only turtles. VCOM evaluated outsourced landscape services and determined that all applications were done in accordance with manufacturers recommendations.
9/29/2017	T07-17 Wellness Kitchen	milky white water	concrete mortar	Yes	12/6/17 it was determined that MW smith contractors were washing out wheelbarrow containing concrete mortar into the storm drain within the site's boundaries. 12/6/17, AU Project Manager was informed and relayed the observtion to site contractors and told to cease the practice immediately.
10/11/2017	Haley/Thach concourse	grease stains from mobile food venders	oil/grease	N	10/11/17 Meeting with AU Dinning - AU Dinning met with mobile food venders and could be assessed as much as $500 per incident. Food trucks now are required to maintain equipment in good working condition and must maintain oil absorbent on each truck and respond to incidental spills daily.
11/7/2017	Lem Morrison Parking Deck	excessive and repeditive release of oil from one particular motorcycle using the parking deck.	oil	N	11/7/17 oil dry applied to affected area. The individual has a valid AU Parking Permit so vehicle cannont be impounded for leaking oil. Parking Services rewriting new Rules for 2018 which could include measures to address this type of repeditive occurance.
11/17/2017	Quad Residence Hall	visitor to campus during a home football game weekend erected a portable tent over storm drain for use as a bathroom	urine	N	Individual was asked to remove the tent upon observation.
12/6/2017	Woodfield Drive	Track out from Performing Arts	sediment	N	RMS -> FM Project Manager Josh Conradson. Street sweeps

2018-2019 Illicit Discharge Detection & Elimination

Date	Location	Observation	Contaminant	Samples Y/N	Corrective Measures Taken
5/14/2018	Aubie Hall SW	oil spill	oil	N	oil dry and tide application same day. Spill was ontained to immediate area and disd not migrate to nearby storm sewer
8/8/2018	Thach Concourse (Cater)	oil from contractor's vehicle	oil	N	oil dry applied to immediate area. Spill did not migrate to near by storm sewer.
8/23/2018	Thach & Haley Concourse	oily stains near mobile food trucks	cooking oil	N	Contacted Campus Dining to have vender clean up spilled material. Spill did not migrate beyond the immediate area.
9/6/2018	Shug Jordan @ Raptor Center Entrance Drive	Sanitary sewer overflow identified by AU U&E. Line is maintained by COA	sewage	N	Notified City, AU Facilities Management & Juoe Lewis of CVM. The City ceased discharge, treated area and were to begin post SSO sampling procedure.
9/14/2018	Magnolia Ave @ Subway	Sanitary Sewer Overflow	sewage	N	City responded to an overflow of sewage. Manhole is in the middle of the road in front of the Subway restaurtant. The line is maintained by the COA.
9/14/2018	Lem Morrison	Sanitary Sewer Overflow	sewage	N	Discharge was ceased. RMS reported SSO to ADEM. Precautionary signage placed at open coveyance along Lem Morrison in advance of the weekend football game. Bacteria sampling was initiated same day and continued until concentrations were acceptable.
9/15/2018	Quad Dorms	Portable tent placed on top of grate inlet at quad by tailgaters	urine in storm sewer	N	CSS informed and relayed to City of Auburn Public Safety. Area to be patrolled and tents to be removed if it returns.
9/21/2018	CVM	Dry creek bed behind CVM had a pocket of sewage from previously identified COA SSO at Raptor Center	sewage	N	COA deployed vacuum truck to removed the estimated ~350 gallons of sewage from the druy creek bed
9/21/2018	FWS / HWP#1	leaking hydraulic fluid onto concrete	rental vehicle operated by Convergent	N	oil dry applied to area and CSS noitified as Convergent is under their contract.
9/22/2018	Quad Dorms	Portable tent placed on top of grate inlet at quad by tailgaters	urine in storm sewer	N	CSS informed and relayed to City of Auburn Public Safety. Area to be patrolled and tents to be removed if it returns. COA Police spoke to the responsible party and asked that they remove the tent and cease the practice. No citation was issued
10/3/2018	Magnolia Ave @ Subway	Sanitary Sewer Overflow	sewage	N	City reported an overflow of sewage. City personnel were responding to address.
10/9/2018	Property Surplus Pumphrey Ave	~ 5 gallons of hydraulic fluid released onto pavement from the Scrap Metal rolloff container.	hydraulic fluid	N	oil dry and absorbant matting used to clean up spill and prevent migration to the MS4.
10/13/2018	Donahue Drive / Wallace Hall	Following the AU vs UT game, on Monday 10-15, AU Utilities identified a storm sdrain was used for the disposal of what appeared to be food scraps and grease/oil.	food scraps and cooking grease/oil presumed generated from a tailgate	N	investigation has been initiated to determine if it was a registered tailgate that would allow for a discussion. Chris Davis of Fox Sport South confirmed that no grease is used in the managed tailgates in that area most food catered. Chris communicated with his team and learned that the suspect tailgate is likely private. Chris's team will report any potential illicit activities observed during the final two home football games. A drain marker was placed on the storm drain on 10/31 in advance of the weekend's game/tailgating.
11/5/2018	wellness kitchen	sediment laden water in creek	sediment	N	FUI Mitch Walley 11/6/18. Investigation determined the source of sediment to originate from a bore contractor inside the COA jurisdiction.
2/20/2019	Wilmore East loading area	milky substance found near storm drain.	unknown	N	Undetermined milky substance following rain event
2/27/2019	PMC near Shug	busted sanitary line	sewage	N	During a wetland study in the area of PMC and Shug Jordan, a pvc sanitary line which crosses PMC was observed to be busted. No release was occurring at the time of the discovery however, there was evidence that past discharges likely have occurred. Teh Sanitary line was repaired later that same day. This line was determined to serve teh Beef Teaching Unit.

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N04-09
Today's date: 10/13/10	Time (Military): 0915
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: South of Rugby Field

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 72"x96"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☑ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

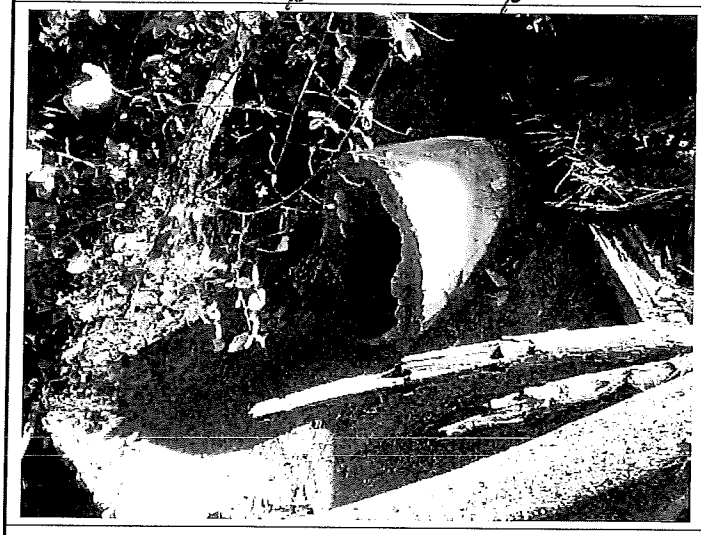
1. Sample for the lab?	☐ Yes	☑ No		
2. If yes, collected from:	☐ Flow	☐ Pool		
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM	☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)? trash including glass, cans etc heavy in this area.

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N04-10
Today's date: 10/13/18	Time (Military): 0910
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: Tmc



General Location: Extension Loop closest to utility barn

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

An Report 17-089 to evaluate & repair stream bank & structures
PIF 3/9/17

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☑	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	pipe being eroded
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

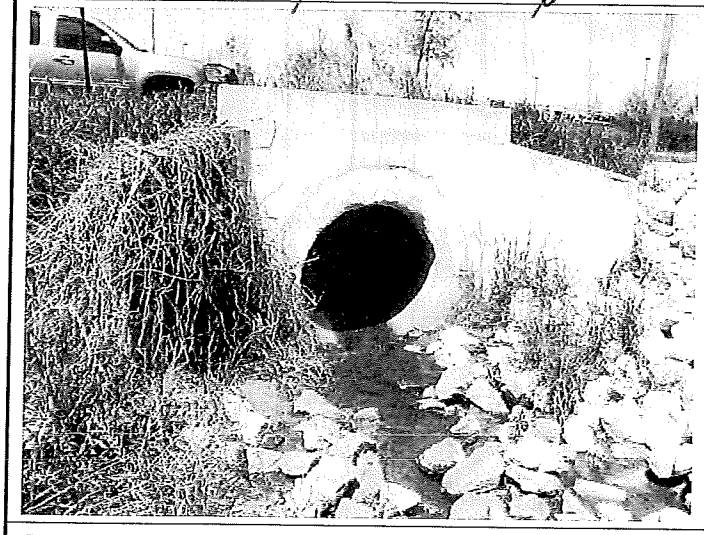
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N05-08
Today's date: 10/13/18	Time (Military): 0919
Rainfall (in.): Last 24 hours: 0" Last 48 hours: 0	Form completed by: TMC



General Location: Hemlock from Band Practice Field

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 48"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☑ Orange ☐ Green ☐ Other:	IRON BACTERIA

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N05-09
Today's date: 10/13/18	Time (Military): 0925
Rainfall (in.): Last 24 hours: Ø Last 48 hours: Ø	Form completed by: TMC

General Location: Extension Loop 3rd in line from utility barn (Replace w/ NEW pic)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	outfall Replaced
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Section of stream corridor to be evaluated for repair

Outfall Reconnaissance Inventory Field Sheet

AV Project No. 17-089

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N05-10
Today's date: 10/13/18	Time (Military): 0932
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Extension Loop 2nd in line from utility barn

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N05-13
Today's date: 10/15/18	Time (Military): 0952
Rainfall (in.): Last 24 hours: 0" Last 48 hours: 0	Form completed by: DVL

General Location: Hemlock next to RFL monitoring well 104

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☑ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

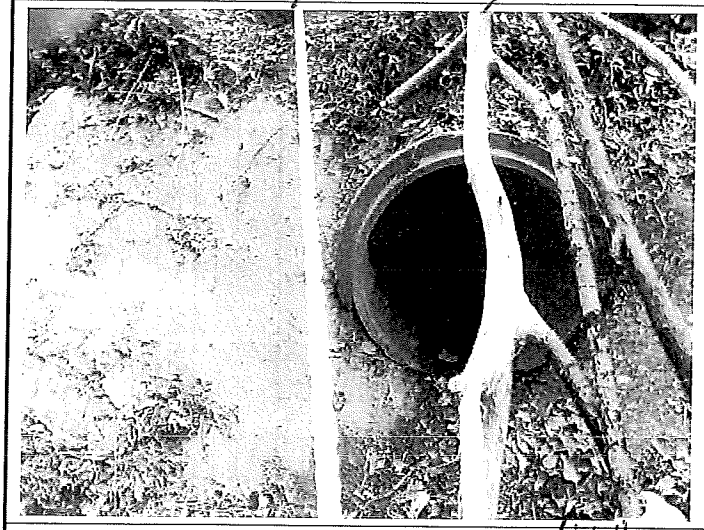
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N06-02
Today's date: 10/13/18	Time (Military): 0928
Rainfall (in.): Last 24 hours: Ø Last 48 hours: Ø	Form completed by: TMC



General Location: Extension Loop 4th & last from utility barn (Yellow Box)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 21"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	Erosion under apron
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: N07-05
Today's date: 10/13/14	Time (Military): 1012
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Satellite Uplink near Samford Ave

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☑ Moderate ☐ Substantial				

Mouth of a conveyance crossing under Stamford. Consider removing

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P4-30
Today's date: 10/13/18	Time (Military): 0830
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMc

General Location: Thach across from Farm House Frat

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 58"x38"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial Stagnant flow				

flow up Rainn

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☑	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	Stagnant
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P04-31
Today's date: 10/13/10	Time (Military): 0835
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: West of DEP below sluice gate (Generally DRY)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 36"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

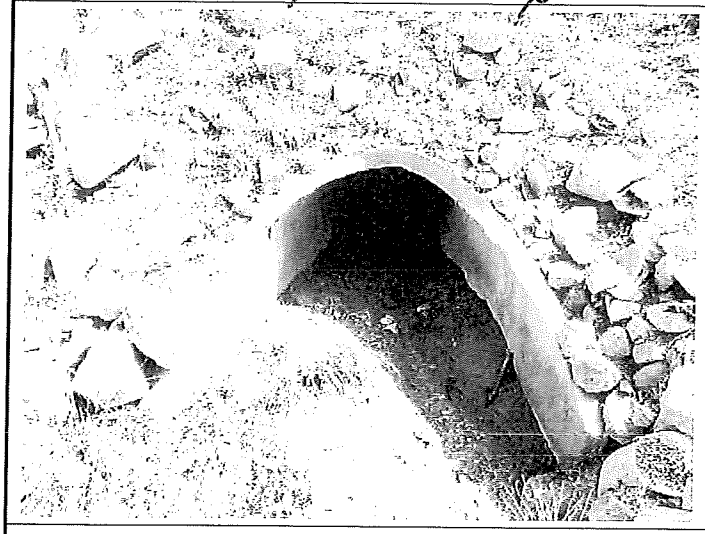
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P04-32
Today's date: 10/17/18	Time (Military): 0852
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: West of DEP

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 48"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

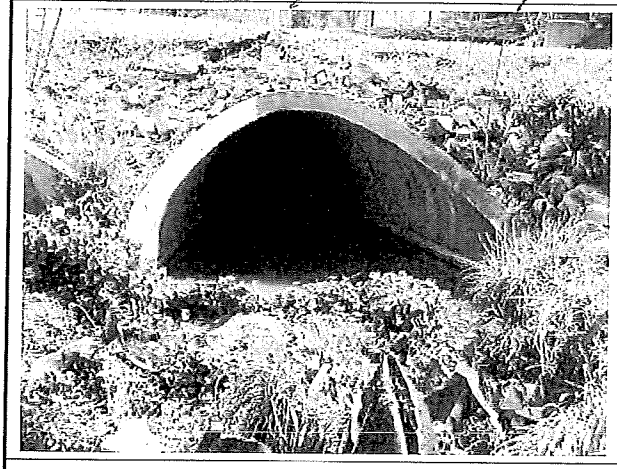
1. Sample for the lab?	☐ Yes	☐ No		
2. If yes, collected from:	☐ Flow	☐ Pool		
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM	☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P0-4-37
Today's date: 10/13/18	Time (Military): 0832
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



Thach @ Farm House

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 60"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☑ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☑	☑ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	STAGNANT pool flow
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☐ Unlikely ☑ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

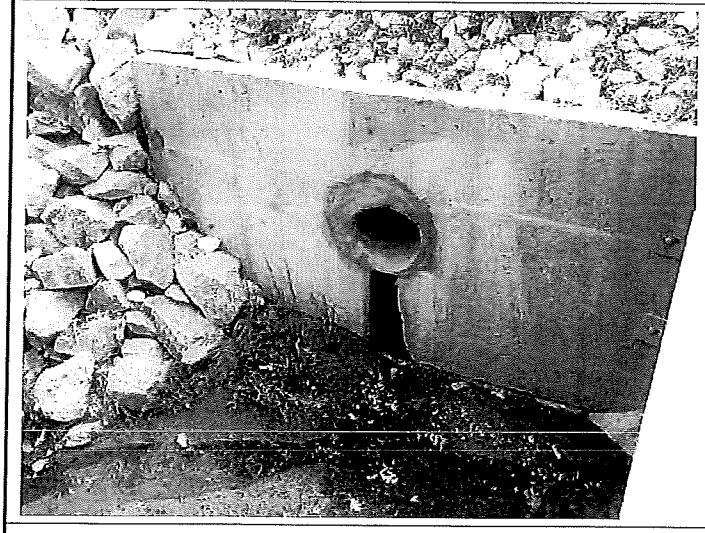
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P07-16
Today's date: 10/13/19	Time (Military): 1300
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: PMC



General Location: NE Corner of Wire and Samford

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

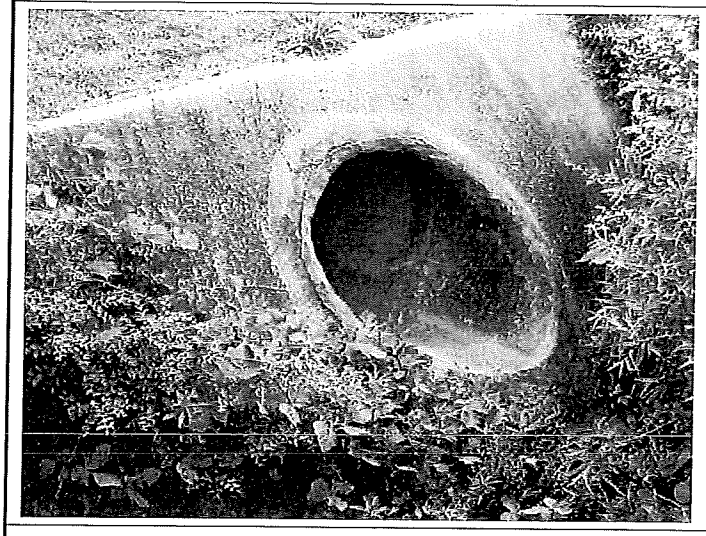
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P07-18
Today's date: 10/13/19	Time (Military): 1255
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: NE Corner of Wire and Samford Ave

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 42"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P08-08
Today's date: 10/13/18	Time (Military): 1315
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: South of McWorter Center

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 15"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

UNKNOWN black corrugated ? No flow, likely field damage

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: P09-02
Today's date: 10/13/18	Time (Military): 1323
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: East of Softball Field

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☑ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

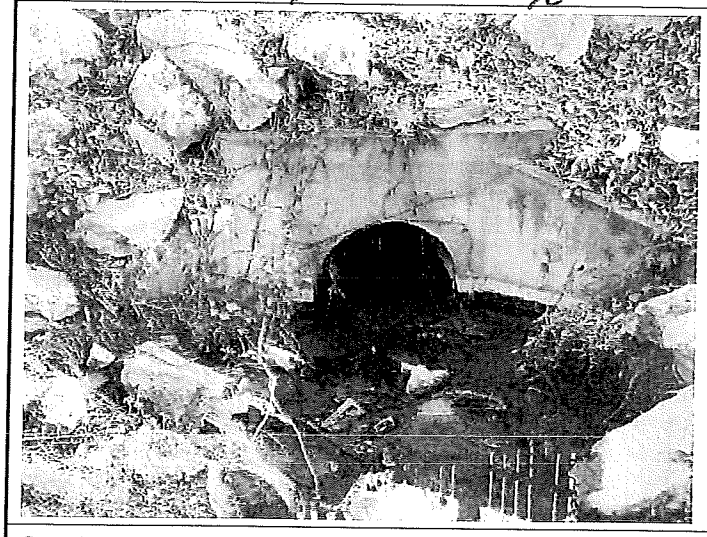
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: Q3-30
Today's date: 10-13-18	Time (Military): 0825
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMc



General Location: Sigma Nu Frat

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 30"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial				

Continual flow yr round

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☑	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	STAGNANT WATER, poor flow
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

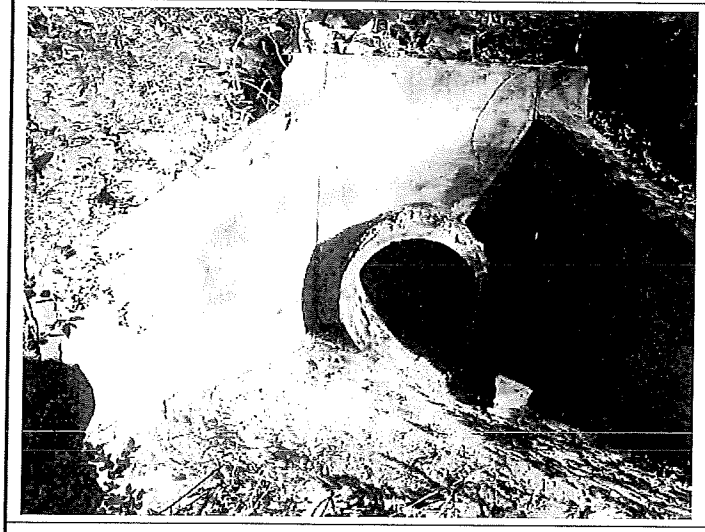
1. Sample for the lab?	☐ Yes	☒ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: Q07-19
Today's date: 10/13/18	Time (Military): 1410
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: East of Hutsell Track

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

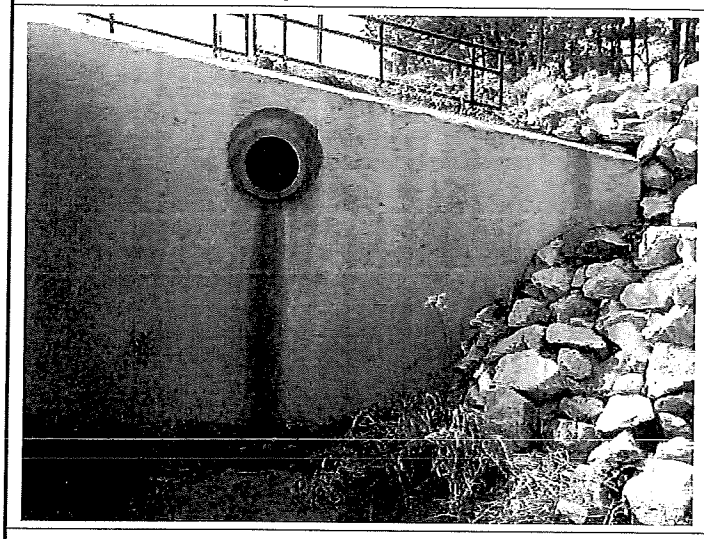
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: Q08-07
Today's date: 10/13/18	Time (Military): 1425
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: NE corner of Samford and Biggio

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

Some staining on walls

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☑ Flow Line ☐ Paint ☐ Other:	Road wash
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: R07-13
Today's date: 10/13/18	Time (Military): 1437
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Biggio South of Martins Aquatic center

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 36"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: R07-14
Today's date: 10/3/18	Time (Military): 1448
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: PMC

General Location: Biggio South of Martins Aquatic Center (street runoff)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

SEDIMENT at Aerbury

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

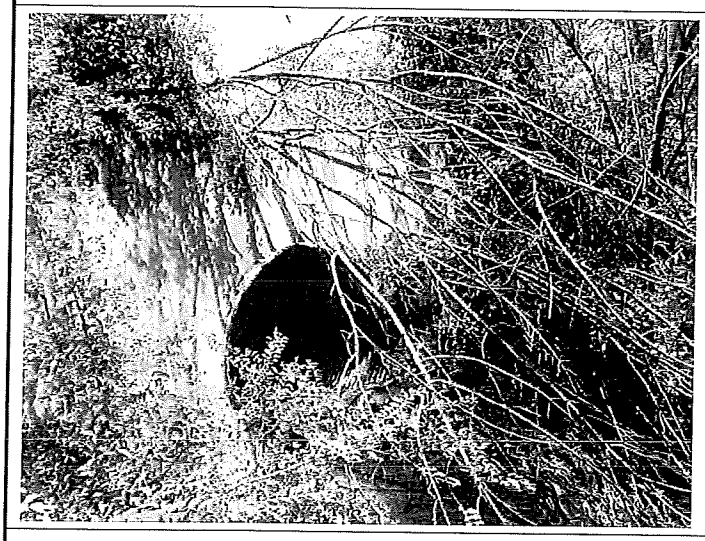
Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

(yr round flow)

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: R07-15
Today's date: 10/13/18	Time (Military): 1456
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: PMC



General Location: Biggio South of Martins Aquatic Center

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 72"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☑ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

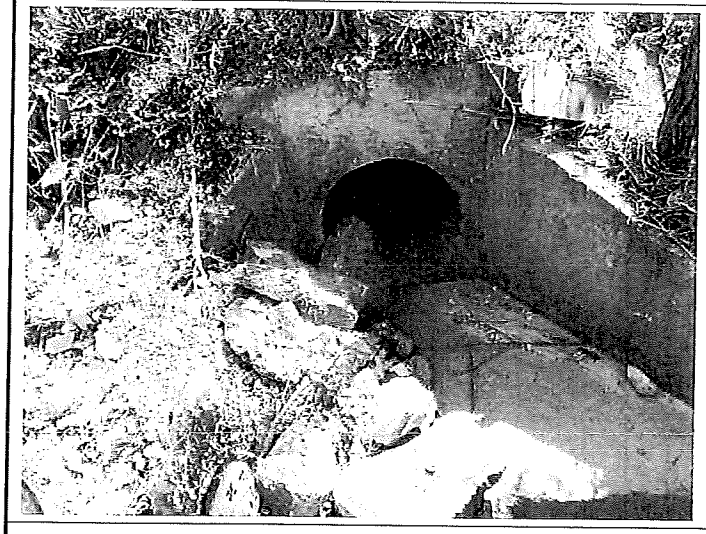
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: R07-16
Today's date: 10/13/18	Time (Military): 1512
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: North of indoor football field

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

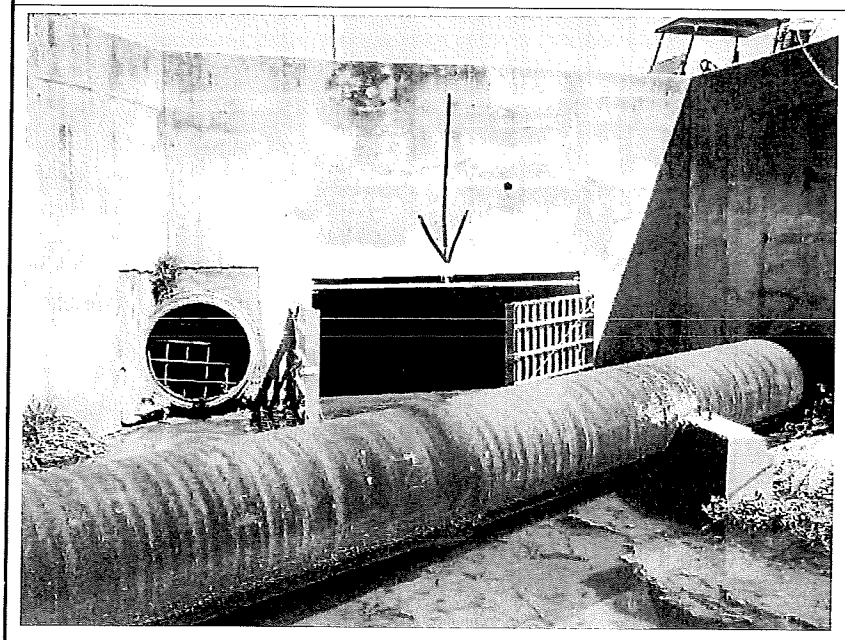
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET (yr round flow)

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-12
Today's date: 10/13/18	Time (Military): 1532
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: Coliseum (smaller round pipe on the left)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 48"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☑ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☑	See severity	☑ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☐ Unlikely ☑ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

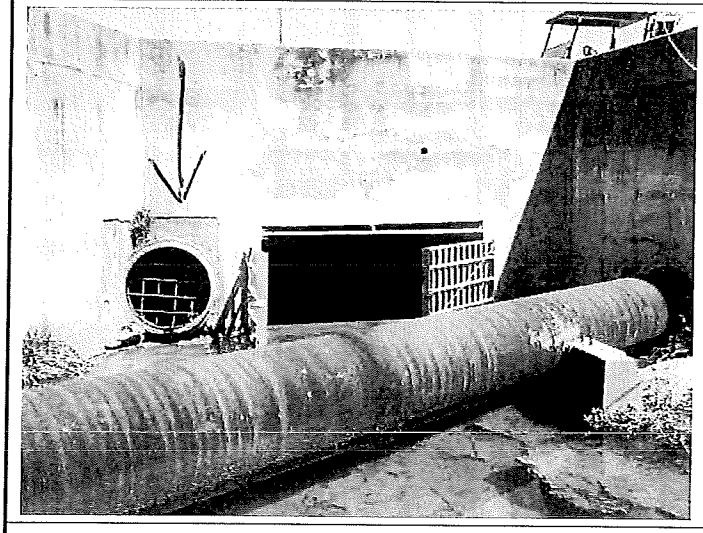
1. Sample for the lab?	☐ Yes	☒ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-13
Today's date: 10/13/18	Time (Military): 1533
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: pmc



General Location: Coliseum (larger right pipe)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 96"x72"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

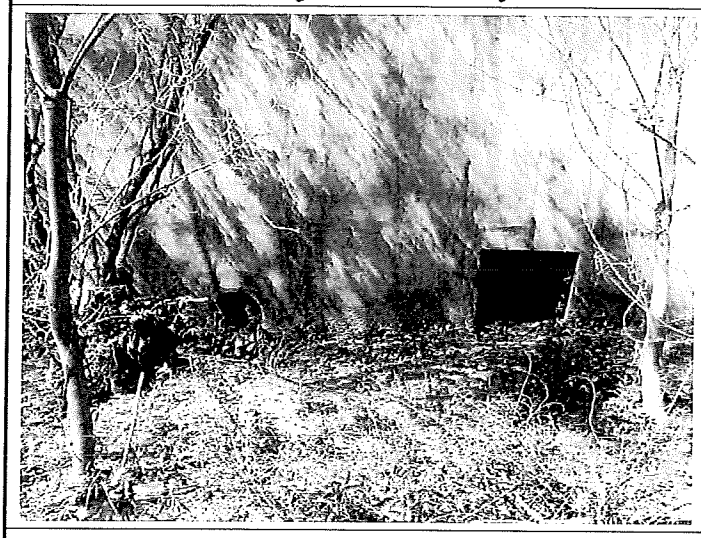
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-16
Today's date: 10/12/18	Time (Military): 1542
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: Biggio North of Field House (smaller circular pipe on left)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 18"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

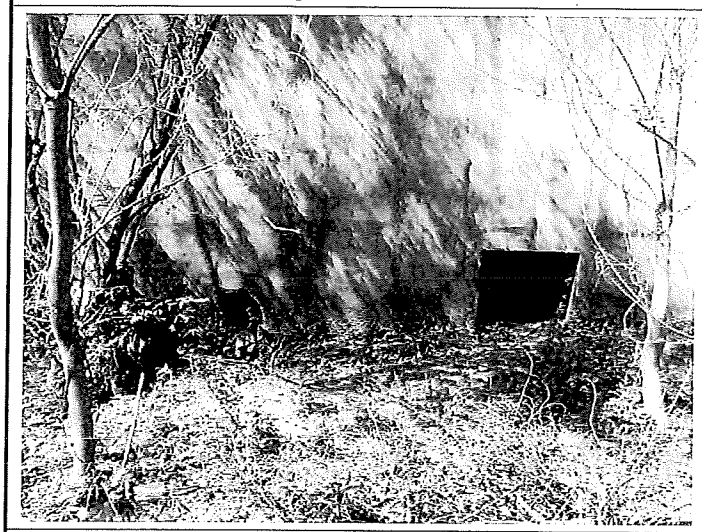
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-17
Today's date: 10/13/18	Time (Military): 1543
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: PMC



General Location: Biggio North of Field House (larger opening on the right circular pipe in box)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-18
Today's date: 10/13/18	Time (Military): 1550
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Biggio North of Field House (outfall on left)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 37"25"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-19
Today's date: 10/13/18	Time (Military): 1551
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: PMC

General Location: Biggio North of Field House (circular outfall on right)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY FIELD SHEET

Section 1: Background Data

Subwatershed: PMC	Outfall ID: S07-20
Today's date: 10/13/18	Time (Military): 1556
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Biggio Dr. across from Coliseum loading dock

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ **Closed Pipe**	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 36"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☑ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

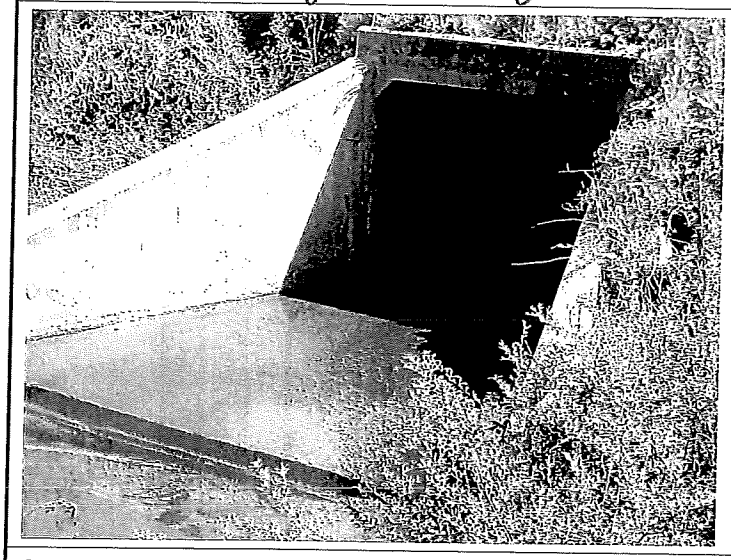
1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet (yr round flow)

Section 1: Background Data

Subwatershed: PMC	Outfall ID: T07-14
Today's date: 10/13/18	Time (Military): 1605
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC



General Location: Donahue @ Wellness Kitchen

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Eliptical ☒ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 72"x96"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☑ Yes ☐ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☑ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☑ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☐ Unlikely ☑ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1. Sample for the lab?	☐ Yes	☑ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Outfall Reconnaissance Inventory Field Sheet

Section 1: Background Data

Subwatershed: PMC	Outfall ID: T07-17
Today's date: 10/13/18	Time (Military): 1610
Rainfall (in.): Last 24 hours: 0 Last 48 hours: 0	Form completed by: TMC

General Location: Donahue @ Wellness Kitchen (small pipe on right)

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Eliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 24"	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ Open drainage	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ In-Stream	(applicable when collecting samples)				
Flow Present?	☐ Yes ☑ No *If No, Skip to Section 5*				
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Outfall Reconnaissance Inventory Field Sheet

Section 3: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☑ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 5: Overall Outfall Characterization

☑ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 6: Data Collection

1.	Sample for the lab?	☐ Yes	☑ No
2.	If yes, collected from:	☐ Flow	☐ Pool
3.	Intermittent flow trap set?	☐ Yes ☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 7: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Appendix F

Post Construction (Campus-wide Inventory + Inspection Record)

April 1, 2018 through March 31, 2019

Annual Storm Water Report 18-19
Post Construction (Campus-Wide Inventory)
Appendix F

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	761229.130	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
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	764042.590	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**	**765283.680**	**26**
BRC-08	**Bioretention Cell**	**Mell Bioretention Cell 3**	**763790.137**	**765086.417**	**26**
BRM-01	Berm	Arboretum Berm 1	763882.906	762201.25	60
BRM-02	Berm	Arboretum Berm 2	764243.147	762607.741	60
BRM-03	Berm	Arboretum Berm 3	764042.345	762607.442	60
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
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	20
CI-03	Cistern	Arboretum Cistern 2	764116.722	762653.166	20
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
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	106
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	766090.0492	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	26
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**
PC-01	Pervious Concrete	Arboretum Sidewalk 1	764345.564	762557.87	106
PC-02	Pervious Concrete	Arboretum Sidewalk 2	760293.139	765729.32	106
PC-03	Pervious Concrete	Arboretum Sidewalk 3	764101.068	762450.098	106
PC-04	Pervious Concrete	Arboretum Sidewalk 4	764139.101	762311.241	106
PC-05	Pervious Concrete	Arboretum Sidewalk 5	763884.964	762418.462	106
PC-06	Pervious Concrete	Arboretum Sidewalk 6	764157.322	762296.021	106
RB-01	Rain Barrel	Arboretum Rain Barrel	763863.384	762143.701	150
RB-02	Rain Barrel	Dudley Rain Barrel	763242.478	763743.600	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	
RG-07	Rain Garden	Arboretum Rain Garden	764321.374	762515.223	70
RG-08	Rain Garden	Arboretum Rain Garden	764142.166	762315.617	70
RG-09	Rain Garden	Arboretum Rain Garden	763760.969	762192.845	70
RG-10	Rain Garden	Arboretum Rain Garden	763969.332	762611.932	70
RG-11	Rain Garden	Arboretum Rain Garden	763780.984	762194.366	70
RG-12	Rain Garden	Arboretum Rain Garden	763801.71	762166.783	70
RG-13	Rain Garden	Arboretum Rain Garden	763850.045	762078.895	70
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	

- **Bolded** items were added to inventory during this reporting period