

The Universities at Shady Grove
National Pollutant Discharge Elimination System
MS4 Phase II Annual Report - Year 6 (FY 2024)
General Discharge Permit #13-SF-5501



The Universities
AT SHADY GROVE

October 30, 2024

Maryland Department of the Environment, Water and Science Administration Sediment,
Stormwater, and Dam Safety Program
1800 Washington Boulevard, Suite 440, Baltimore, MD 21230-1708
Phone: 410-537-3543 FAX: 410-537-3553
Web Site: www.mde.maryland.gov
RE: NPDES/MS4 - Year 6 (FY '24) Progress Report for the Universities at Shady Grove

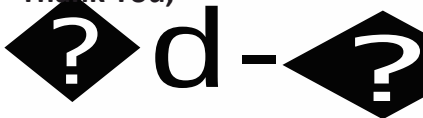
To whom it may concern:

This submission package contains the Universities at Shady Grove's Year Four NPDES Phase II Annual Reporting documents, in accordance with the NPDES/MS4 General Permit requirements. Although the BMP Database and Restoration Activity Schedule documents are included in this package, as pdf files, they are also being submitted as separate attachments, in Excel format, per the MS4 submission requirements.

It should be noted that USG (a USM institute) and IBBR (a University of Maryland at College Park institute) share the campus jointly; however, there are separate NOI's for USG and IBBR. This Year 6 progress report only covers the 34 acres that are managed by USG, as shown on the Site Map.

Feel free to contact me if there are any questions regarding this submission package.

Thank You,

The signature is a stylized graphic consisting of a black diamond shape containing a white question mark, followed by the lowercase letter 'd', a hyphen, and another black diamond shape containing a white question mark.

Jane A. Briggs
Dir. Of Facilities & Planning
The Universities at Shady Grove

Table of Contents

USG Campus Site Map

Section I. MDE Small Municipal MS4 Progress Report

A. MDE Appendix D Document

B. Impervious Area Restoration Reporting

C. MCM updated Report

Section II. USG's Action Item responses to MDE's 04/23/23

MS4 Year 4 Progress Report Review

Section III. Urban BMP Database

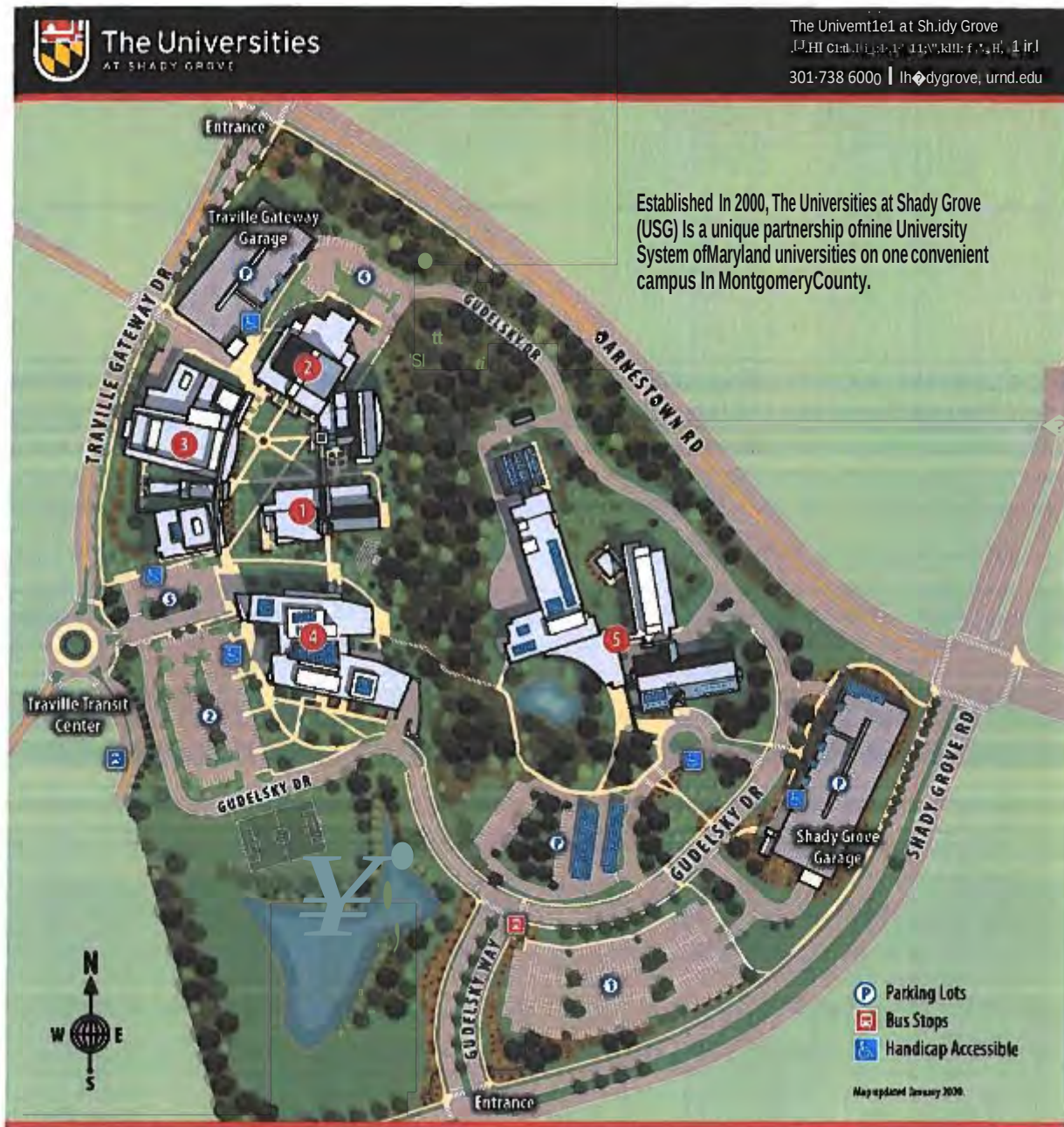
Section IV. Restoration Activity Schedule

Section V. Impervious Area Restoration Work Plan

Section VI. A. IDDE Plan (update 2024)

B. IDDE 2024 completed Outfall Inspection Form

USG Campus Site Map



0 BUILDING I 96406udtblrfDtw

Rooms 1-101 through 1-334
UMB Programs
Salisbury University Programs
Auditorium
Computer labs
Cyber Lounge

8 BUILDING II 96306udrhqDtw

Rooms II-1000 through 11-4102
Conference Center
Auxiliary Services Information
Multipurpose Rooms
UMCP Biological Science Program
UMB Programs

1 BUILDING III: CAMILLE KENDALL ACADEMIC CENTER 9636 Gud,blrfDrln

Rooms 111-1000 through 111-5500
Student Services & Missions Information
USG Administration
Shannon and Mitchell Priddy Library
Green Education Room
Bookstore and Green Grove (at)
Campus Recreation Center
Security and Computer labs

Bowling State University Programs
TOMON University Programs
University of Baltimore Programs
UMB Program in Social Work
University of Maryland, Baltimore County Programs
University of Maryland, College Park Programs
University of Maryland and University College Programs

0 BIOMEDICAL SCIENCES AND ENGINEERING FACILITY HJ1 Gud,blrfDrift

0 UMD INSTITUTE
FOR BIOSCIENCE+
BIOTECHNOLOGY
RESEARCH
9600 Gud,blrfDrift

Section I - A

MDE Appendix D Documents

Maryland Department of the Environment (MOE)

**National Pollutant Discharge Elimination System (NPDES)
Small Municipal Separate Storm Sewer Systems (MS4) General Permit**

This Progress Report is required for those State and federal agencies covered under General Discharge Permit No. 13-SF-5501. Progress Reports must be submitted to:

Maryland Department of the Environment, Water and Science Administration
Sediment, Stormwater, and Dam Safety Program
1800 Washington Boulevard, Suite 440, Baltimore, MD 21230-1708
Phone: 410-537-3543 FAX: 410-537-3553
Web Site: www.mde.maryland.gov

Contact Information

Permittee Name:	J Universities at Shady Grove, Univ System of MD
Responsible Personnel:	J Ellen Herbst USM Vice Chancellor for Adm & Finance
Mailing Address:	J 3300 Metzert Road
	I Adelphi, MD 20783-1690
Phone Number(s):	301-445-1923
Email address:	eherbst@usmedu
Additional Contact(s):	Jane B. [redacted], USG Dir of Facilities &
Mailing Address:	9636 Gudelsky Dr.
Phone Number(s):	(301) 738-6111
Email address:	Jbriggs1 [redacted] umd.edu

Signature of Responsible Personnel

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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.

Ellen Herbst
Printed Name

Signature 

10/29/2024
Date

Reporting Period (State Fiscal Year):

Due Date: **Date of Submission:**

Type of Report Submitted:

Impervious Area Restoration Progress Report (Annual): ☒

Six Minimum Control Measures Progress (Years 2 and 4): ☐

Both: ☐

Permittee Information:

Renewal Permittee: ☐

New Permittee: ☒

Compliance with Reporting Requirements

Part VI of the Small MS4 General Discharge Permit (No. 13-SF-5501) specifies the reporting information that must be submitted to MDE to demonstrate compliance with permit conditions. The specific information required in this MS4 Progress Report includes:

1. Annual: Progress toward compliance with impervious area restoration requirements in accordance with Part V of the general permit. All requested information and supporting documentation must be submitted as specified in Section I of the Progress Report.
2. Years 2 and 4: Progress toward compliance with the six minimum control measures in accordance with Part IV of the general permit. All requested information and supporting documentation shall be reported as specified in Section II of the Progress Report. MOE may request more frequent reporting and/or a final report in year 5 if additional information is needed to demonstrate compliance with the permit.

Instructions for Completing Appendix D Reporting Forms

The reporting forms provided in Appendix D allow the user to electronically fill in answers to questions. Users may enter quantifiable information (e.g., number of outfalls inspected) in text boxes. When a more descriptive explanation is requested, the reporting forms will expand as the user types to allow as much information needed to fully answer the question. The permittee must indicate in the forms when attachments are included to provide sufficient information required in the MS4 Progress Report.

Section I - B

Impervious Area Restoration Reporting

Section I: Impervious Area Restoration Reportine

1. a. Was the impervious area baseline assessment submitted in year 1?

W Yes ☒ No

b. If No, describe the status of completing the required information and provide a date at which all information required by MDE will be submitted:

c. Has the baseline been adjusted since the previous reporting year?

☒ Yes ☐ No

2. Complete the information below based on the most recent data:

Total impervious acres of area covered under this permit:

13.71

Total impervious acres treated by stormwater water quality best management practices (BMPs):

9.28

Total impervious acres treated by BMPs providing partial water quality treatment (multiply acres treated by percent of water quality provided):

6.50

Total impervious acres treated by nonstructural practices (i.e., rooftop disconnections, non-rooftop disconnections, or vegetated swales):

10

Total impervious acres untreated:

4.43

Twenty percent of this total area (this is the restoration requirement):

0.89

Verify that all impervious area draining to BMPs with missing inspection records is not considered treated. Describe how this information was incorporated into the overall analysis:

Only BMPs in passing condition qualified for treatment of the baseline. All impervious draining to failing BMPs was included in the untreated impervious total.

3. Has an Impervious Area Restoration Work Plan been developed and submitted to MDE in accordance with Part V.B, Table I of the permit or other format?

☒ Yes ☐ No

Has MDE approved the work plan?

☒ Yes ☐ No

Section I: Impervious Area Restoration Report

If the answer to either question is No, describe the status of submitting (or resubmitting) the work plan to MDE and provide a date at which all outstanding information will be available:

Work Plan approved by MDE in Year 3 submission

Describe progress made toward restoration planning, design, and construction efforts and describe adaptive management strategies necessary to meet restoration requirements by the end of the permit term:

The four (4) BMP repairs in Parking Lot I have been completed and the sand filter has been brought back to its original condition.

4. Has a Restoration Schedule been completed and submitted to MOE in accordance with Part V.B, Table 2 of the permit?

P Yes ☒ No

In year 5, has a complete restoration schedule been submitted including a complete list of projects and implementation dates for all BMPs needed to meet the twenty percent restoration requirement?

P Yes ☒ No

Are the projected implementation years for completion of all BMPs no later than 2025?

P Yes ☒ No

Describe actions planned to provide a complete list of projects in order to achieve compliance by the end of the permit term:

This information has been provided in USG's Restoration Activity Schedule. All work has been completed.

Describe the progress of restoration efforts (attach examples and photos of proposed or completed projects when available):

The four (4) BMP repairs in Parking Lot I were completed and the sand filter has been brought back to its original condition.

5. Has the BMP database been submitted to MDE in Microsoft Excel format in accordance with Appendix B, Tables B.1.a, b, and c?

P Yes ☒ No

Is the database complete?

P Yes ☒ No

If either answer is No, describe efforts underway to complete all data fields, and a date that MDE will receive the required information:

Section I: Impervious Area Restoration Reporting

6. Provide a summary of impervious area restoration activities planned for the **next** reporting cycle (attach additional information if necessary):

USG completed all planned Restoration Activities required by year 5. USG intends to retain MES in the future for additional consulting services to set a goal to achieve an additional 10% restoration (0.04AC) by 2030 in future years. Currently part of Building II, Building I and Building III do not have treatment beyond Gudelsky Pond which provides 0.5" for untreated impervious on the campus. It will be investigated to see if any additional BMPs could be implemented to provide remaining treatment to treat at least 1" of runoff but property is limited. USG will also investigate areas for potential tree planting or impervious removal but this has been challenging since majority of campus is developed or already planted. If none of the above remain feasible, USG could investigate partnerships with other Phase II entities for credit sharing.

7. Describe coordination efforts with other agencies regarding the implementation of impervious area restoration activities:

USG had entered into an agreement with Maryland Environmental Service to assist with the design, planning and construction management of the restoration activities, as outlined on the Restoration Activity Schedule. No additional coordination effort has been done in FY24 due to limited funding available.

8. List the total cost of developing and implementing impervious area restoration program during the permit term:

The total costs for developing and implementing this program during the 6 year permit term is \$212,278, which includes the consulting services, restoration and inspection cost to date

- Consulting & Design Services (MES): \$113,464.04
- BioSwale Repairs (Espina & Greenskeeper) : \$29,928 + \$11,760 = \$41,688
- Sand Filter (Greenskeeper) : \$20,955
- USG EHS Inspection activities: \$16,480
- UMCP EHS expenses to prepare for preparation of a Stormwater Pollution Prevention Plan, Illicit Discharge Detection and Elimination Plan and preparation of an updated Spill Prevention, Control & Countermeasure Plan and inspection materials: \$19,691

Section I - C

MCM Updated Report

MCM #1: Personnel Education and Outreach

1. Does the permittee maintain a process and phone number for the public and/or staff to report water quality complaints?

P' Yes ☒ No

Number of complaints received: | 0

Describe the actions taken to address the complaints:

2. Describe training to employees to reduce pollutants to the MS4:

Universities at Shady Grove Facilities staff have received training from University of Maryland, College Park, Department of Environmental Safety, Sustainability & Risk in regards to environmental awareness, practices, spill prevention and response. Trainings include:

- Initial Spill Control and Countermeasures
- MS4 Illicit Discharge Detection and Elimination
- Stormwater Pollution Prevention
- Follow-up Spill Control and Countermeasures.

Refreshers of these awareness training courses are available to employees annually and Facilities staff have taken them.

3. Describe the target audience(s):

The target audience is the campus constituents (students, faculty, visitors and staff) and the surrounding neighboring community.

4. Are examples of educational/training materials attached with this report?

P' Yes ☒ No

Provide the number and type of educational materials distributed:

Appendix H SWPPP Training materials were included in the SWPPP 2024 Plan and on page 41 of the SPCC Plan 2024 located on our web site

Appendix F IDDE Training Materials are included in the updated IDDE 2024 Plan attached and on our web site.

Staff = 10 total. Staff are from Facilities, Public Safety and Environmental Safety Departments. Training Records for Universities at Shady Grove Employees. Certificates of completion are available, except our safety management platform does not generate certificates for any Spill Prevention Control and Countermeasure Trainings that were completed.

MCM #1: Personnel Education and Outreach

Describe how the personnel education program is appropriate for the target audience(s):

The education program is targeted for the USG Facilities and Public Safety staff because they are the most invested in protecting the USG campus environment. Studies have shown that participation is greater and more receptive when received by people who are invested in their neighborhood and community. That said, training materials and the information on the USG website are such that most anyone (students and the surrounding community) can benefit and gain understanding of the environmental protection outcomes of what is contained within.

5. Describe how stormwater education materials were distributed to the public and/or staff (e.g., newsletters, website):

Staff that have a direct job responsibility managing the campus are entered into a safety management platform (SciShield) at the time of hiring. Based on the job responsibilities in their profile, the safety management platform generates environmental training requirements and frequency of refreshers.

In order to reach the broader campus community, or those that do not have a direct job responsibility managing the campus, environmental educational materials have been posted on the Environmental Health and Safety Unit website. This includes the Universities at Shady Grove Illicit Discharge Detection and Elimination Plan, Storm Water Pollution Prevention Plan, Spill Control and Countermeasures Plan, awareness materials for each plan, and educational resources in the greater Potomac River Watershed to find environmental conservation information and get involved.

For the broader campus community: USG continues to expand the EHS website, which includes topics such as Laboratory and Occupational Safety, Hazardous Waste Management and Environmental. Nestled under the Environmental heading is Stormwater Management, which contains all things MS4 related, including, but not limited to, NOI information, Annual Reports, Public Participation, IDDE Flyer, and Educational Resources. USG will continue to update the information on the website so that it is current and available to all who wish to peruse the website, which can be found here: <https://shadygrove.umd.edu/campus-resources/Facilities/EHS/environmental>

6. Describe how educational programs facilitated efforts to reduce pollutants in stormwater runoff:

All staff responsible for campus oversight receives training. Facilities staff are keenly aware to inspect and report if any pollutants are observed and support minimization and environmental efforts in their daily practices

7. Provide a summary of activities planned for the next reporting cycle:

Continue to post environmental information on USG's website, provide refresher training to staff and include them in materials provided while onboarding faculty/staff.

MCM #1: Personnel Education and Outreach

8. List the total cost of implementing this MCM over the permit term:

The cost has been \$0 since it has been managed in-house by USG staff.

MCM #2: Public or Personnel Involvement and Participation

1. Describe how the public or personnel involvement and participation program is appropriate for the target audience(s):

The public or personnel involvement and participation is appropriate for the target audience because the target audience is invested in the USG community. Studies have shown that participation is greater and more receptive when received by people who are invested in their neighborhood and community.

USG holds an annual campus clean-up effort that involves staff, faculty, students and the neighboring IBBR institutions in celebration of earth day. This event typically has 30+ participants and collects hundreds of pounds of trash and debris. The Earth Day event promotes togetherness, fosters a sense of community and underscores the reasoning that through participation, a positive impact is made towards conservation efforts on Earth. Items collected during the cleanup event are weighed and sent to waste management for further recycling and proper disposal.

USG Academic Partners also contribute to creating awareness and participation through curriculum, seminars and student organizations. An example is UMBC Social Work program holds a Climate and Environmental Justice Panel for the USG community.

2. Quantify and report public and/or staff involvement and participation efforts as shown below where applicable.

Number of participants at public and/or staff events:

38

Quantity of trash and debris removed at clean up events:

280 lbs

Number of employee volunteers participating in sponsored events:

14

Number of trees planted:

4

Length of stream cleaned (feet):

450 ft

Number of storm drains stenciled:

6

Number of public notices published to facilitate public and/or staff participation:

3

MCM #2: Public or Personnel Involvement and Participation

Number of public and/or staff meetings organized:

10+

Total number of attendees at all public and/or staff meetings:

100+

Describe the agenda, items discussed, and collaboration efforts with interested parties for public and/or staff meetings:

Facility staff meetings are held weekly and will discuss any campus activities concerning grounds, tree maintenance, pond inspections, etc. The campus also has regularly scheduled preventive maintenance tasks for sand filters, bio-retention, garage cleaning, inlet inspections, etc. in the work order system.

USG also hosts various groups for educational events on campus where the campus environmental features are highlighted through tours, sustainability green screens, brochures, and various presentations. USG provides a green brochure for distribution to visitors on campus.

USG continues to host multiple campus tours as part of our sustainability initiatives

USG annual Earth Day campus clean-up invites staff, faculty and students to participate as a collaborative event.

Describe how public and/or staff comments have been incorporated into the permittee's MS4 program, including water quality improvement projects to address impervious area restoration requirements:

Our department of environmental safety is continuously assisting with training and maintenance of our environmental policies.

Describe any additional events and activities if applicable:

USG continues to hold monthly inspections with the grounds contractor to insure the biofiltration and bioswales are properly maintained.

3. Provide a summary of activities planned for the next reporting cycle:

USG Earth Day activities will continue.

Continue to hold campus wide educational activities and campus tours to the broader community.

USG is undertaking a Facilities Master Plan update that will have include environmental features as well as climate mitigation strategies.

MCM #2: Public or Personnel Involvement and Participation

Re-establish a process for updating website and sending informational emails highlighting the campus sustainability initiatives and promote environmental stewardship.

4. List the total cost of implementing this MCM for the permit term:
The estimated total cost of completing this MCM for the permit term is \$500 to fund the earth day supplies and lunch provided to participants.

MCM #3: Illicit Discharge Detection and Elimination (IDDE)

1. Does the permittee maintain a map of the MS4 owned or operated by the permittee, including stormwater conveyances, outfalls, stormwater best management practices (BMPs), and waters of the U.S. receiving stormwater discharges?

P° Yes ☒ No

If Yes, attach the map to this report and provide a progress update on any features that are still being mapped. (If submitting a map would compromise the operational security of an agency, indicate that the map is available for MDE review on site.) If No, detail the current status of map development and provide an estimated date of submission to MDE:

The current stormwater maps are attached to the updated IDDE Plan 2024, Appendix B which is included with this submission.

2. Does the permittee have a policy, or other agency directive, that prohibits illicit discharges?

P° Yes ☒ No

If Yes, describe the policy utilized for enforcement by the permittee (alternatively, a link may be provided to the permittee's webpage where this information is available). If No, describe the permittee's plan, including approximate time frame, to establish a policy that prohibits illicit discharges into the storm sewer system:

Universities at Shady Grove has developed a campus specific policy that explicitly prohibits illicit discharges. The policy is included in the updated USG IDDE Plan 2024 in Appendix C.

3. Did the permittee submit to MOE standard operating procedures (SOPs) in accordance with Part IV.C of the permit?

P° Yes ☒ No

If No, provide a proposed date that SOPs will be submitted to MDE. MDE may require more frequent reports for delays in program development:

Did MDE approve the submitted SOPs?

P° Yes ☒ No

If No, describe the status of requested SOP revisions and approximate date of resubmission for MDE approval:

MCM #3: Illicit Discharge Detection and Elimination (IDDE)

4. Describe how the permittee prioritized screening locations in areas of high pollutant potential and identify the areas within which screenings were conducted during this reporting period:

The outfalls from Universities at Shady Grove were not prioritized individually. Instead 100% of the outfalls are inspected annually.

5. Answers to the following questions must reflect this two-year reporting period.

How many outfalls were identified on the map? | 14

How many outfalls were required to be screened for dry weather flows to meet the minimum numeric requirement based on property size? | 7

How many outfalls were screened for dry weather flows? | 14

Per the permittee's SOP, how frequently were outfalls required to be screened?

Annually

At what frequency were outfalls screened during the reporting period?

Annually

How many dry weather flows were observed? | 3

If dry weather flows were observed, how many were determined to be illicit discharges? | 0

Describe the investigation process to track and eliminate each suspected illicit discharge and report the status of resolution:

One of three flowing outfalls was determined to be building condensate based on a lack of water quality pollutant indicators, the size of the flow, and a general survey of the campus for sources. One of the three flowing outfalls was Piney Branch Stream where it flows into Gudelsky Pond. A walk of the stream indicated that this flow was passthrough and originated upstream from the property. One of the three flowing outfalls was the outflow from Gudelsky Pond and is expected to be a mixture of ground water and the other two flowing outfalls which empty into the pond.

6. Describe maintenance or corrective actions undertaken during this reporting period to address erosion, debris buildup, sediment accumulation, or blockage problems:

There were no corrective actions needed during this period. Regular maintenance is performed monthly by the Grounds Contractor.

MCM #3: Illicit Discharge Detection and Elimination (IDDE)

7. Is the permittee maintaining all IDDE inspection records and are they available to MDE during site inspections?

P Yes **r** No

8. If spills, illicit discharges, and illegal dumping occurred during this reporting period, describe the corrective actions taken, including enforcement activities, and indicate the status of resolution:

During this reporting period, there was an oil spill from a leak in a trash compactor hydraulic line. The leak was stopped and then immediate cleanup occurred using spill kits containing pads, socks and granular adsorbent material. Upon arrival, Waste Management determined that 1.5 gallons of oil had been spilled. The spill extended along an asphalt parking surface and curb to a storm drain. On the inside of the storm drain, the wall was stained with oil but not on the floor of the drain. This area was also cleaned with spill kit materials and a sock was placed around the bottom on the drain. The associated outfall with this drain was monitored following this event and no evidence of oil was observed. All MOE verbal and written reporting requirements were met. MOE Case Number 159679.

9. Attach to this report specific examples of educational materials distributed to the public and/or staff related to illicit discharge reporting, illegal dumping, and spill prevention. If these are not available, describe plans to develop public and/or staff education materials and submit examples with the next Progress Report:

Appendix F IDDE Training Materials in the attached IDDE 2024 updated Plan
Appendix H SWPPP Training Materials are included in the SWPPP 2022 Plan (previously submitted) and SPCC Training Materials are included in the SPCC 2022 Plan (previously submitted).

For the broader campus community: EHS Unit website link to stormwater management: <https://shadygrove.umd.edu/campus-resources/Facilities/EHS/environmental>

10. Specify the number of employees trained in illicit discharge detection and spill prevention: | 9

11. Provide examples of training materials. If not available, describe plans to develop employee training and submit examples with the next Progress Report:

Staff training is imbedded in the safety management platform through University of Maryland, College Park. Training content includes those materials contained in the Universities at Shady Grove IDDE Plan 2024, Appendix F.

MCM #3: Illicit Discharge Detection and Elimination (IDDE)

12. List the cost of implementing this MCM during this permit term:

The cost of implementing this MCM for this year is USG EHS Inspection activities for \$8,500.

MCM #4: Construction Site Stormwater Runoff Control

1. Does the pennittee have a process for receiving, investigating, and resolving complaints from interested parties related to construction activities and erosion and sediment control?

P Yes ☒ No

Describe the process:

Any stonnwater complaints related to construction activities and sediment control are routed from USG's hotline through campus security to the Facilities Department. The Facilities Department investigates and resolves the complaint. It should be noted that there is little to no construction on USG's campus.

Provide a list of all complaints and a summary of actions taken to resolve them:

There were no complaints during this reporting period.

2. Total number ofactive construction projects within the reporting period: 10

Provide a list of all construction projects and tabulate the total disturbed area:

3. Total number of violation notices issued by MDE related to this MCM on the agency's property: 10

Describe the status of enforcement activities:

Describe how the pennittee communicates and collaborates with MDE to maintain compliance with this MCM for all active construction projects on the agency's property:

Construction documents are submitted to MDE for approval prior to start of construction. MDE perfonns random inspections during construction. Any amendments to the plans during construction are submitted and approved by MDE. Final inspection, certifications and as-built drawing are submitted to MDE.

Are erosion and sediment control inspection records retained and available to MDE during field review ofthe agency MS4 program?

P Yes ☒ No

IfNo, explain:

MCM #4: Construction Site Stormwater Runoff Control

4. Number of staff trained in MDE's Responsible Personnel Certification:	1
5. Describe the coordination with other entities regarding implementation of this MCM: If needed, the University employs onsite construction inspectors to oversee and inspect daily activities to make sure contractors are complying.	
6. List the total cost of implementing this MCM over the permit term: No cost of implementing this MCM since no activity.	

MCM #5: Post Construction Stormwater Management

1. Has an Urban BMP database been submitted in accordance with the database structure in Appendix B, Tables B.1.a, b, and c as a Microsoft Excel file?

P Yes **r** No

Describe the status of the database, efforts to complete all data fields, and provide a date as to when the required information will be submitted to MDE:

BMP Database has been updated and included in this report.

2. Total number of plans submitted to MDE for review and approval: 1 0

Total number of as-built plans submitted to MDE: 1 0

Number of submitted as-built plans approved by MDE: 1 0

3. Total number of BMPs located on each property covered under the general permit (list individual property, and total BMPs for that property - provide separate attachment if necessary):

There are 34 BMP's shown on updated BMP database attached

Does the permittee perform inspections for all structural BMPs in accordance with the Dam Inspection Checklist in Maryland Pond Code 378 at least once every three years?

P Yes **r** No

If No, describe efforts to train staff and develop a program to perform these required inspections on a triennial basis:

Are BMP inspection records retained and available to MDE during field review of local programs?

P Yes **r** No

4. Provide a summary of routine maintenance activities for all BMPs:

USG has included in our landscape contract requirements to inspect the BMPs while services being provided. USG has provided an inspection report template that lists the required fields to be filled out. USG requires the completed inspection reports to be submitted with the invoices in order to be paid.

MCM #5: Post Construction Stormwater Management

Are BMP maintenance procedures consistent with maintenance requirements on MOE approved plans?

P' Yes ☒ No

Are completed BMP maintenance checklists available to MDE during field review of local programs?

P' Yes ☒ No

If either answer is No, describe planned actions to implement maintenance checklists and procedures and provide formal documentation of these activities:

Describe all problems discovered during routine maintenance operations and repair work performed to restore the function of the BMP(s) (attach photos and additional documentation as needed):

The majority of findings that require repair were loss in mulch depth and invasive weeds. Weeds are removed when observed. Mulch depth is adjusted during bi-annual maintenance. An occasional washout may be observed that they will re-stabilize as needed.

5. Number of staff trained in proper BMP design, performance, inspection, and routine maintenance: 1

6. Provide a summary of activities planned for the next reporting cycle:
Continue inspection and maintenance of the BMPs. Continue facility staff training activities to remind awareness to the importance of proper maintenance.

7. List the total cost of implementing this MCM over the permit term:
The cost of implementing this MCM so far has been minimum since they are continuously maintained.

MCM #6: Pollution Prevention and Good Housekeepm2

1. Provide a list of topics covered during the last training session related to pollution prevention and good housekeeping, and attach to this report specific examples of training materials:

A green housekeeping plan was established as part of the LEED certification for the campus. This plan is included in the contract for the 3rd party housekeeping contract.

Garage cleaning protocols have been established requiring green cleaning products and any power washing runoff to be collected or diverted to the sanitary sewer to protect the storm water systems.

Trainings is also provided for:

- Initial Spill Control and Countermeasures
- MS4 Illicit Discharge Detection and Elimination
- Stormwater Pollution Prevention
- Follow-up Spill Control and Countermeasures.

List all training dates within this two-year reporting period:

On line training dates vary based on when the individuals complete the trainings

Number of staff attended: 10

2. Are the good housekeeping plan and inspection records at each property retained and available to MOE during field review of the local program? P' Yes P' No

If No, explain:

Provide details of all discharges, releases, leaks, or spills that occurred in the past reporting period using the following format (attach additional sheets if necessary).

NIA

Property Name:

Date:

Describe observations:

Describe permittee's response:

3. Quantify and report property management efforts as shown below, where applicable (attach additional sheets if necessary).

No streets or inlets have been cleaned

MCM #6: Pollution Prevention and Good Housekeeping

Number of miles swept:

Amount of debris collected from sweeping (indicate units):

If roads and streets are swept, describe the strategy the permittee has implemented to maximize efficiency and target high priority areas:

Number of inlets cleaned:

Amount of debris collected from inlet cleaning (indicate units):

Describe how trash and hazardous waste materials are disposed of at permittee owned and operated property(ies), including debris collected from street sweeping and inlet cleaning:

Trash is collected and placed in the campus compactor, single stream recycle material is collected and placed in designated dumpsters. Containers are disposed based on usage via service contracts.

Hazardous waste is collected and stored in hazardous storage closet within the buildings. Collection is scheduled, performed, tracked and reported through local vendors, on-site EHS unit and by UMCP-ESSR on behalf of USG.

Does the permittee have a current State of Maryland public agency permit to apply pesticides?

☒ Yes ☐ No

If No, explain (e.g., contractor applies pesticides):

Contractor applies any pesticides on campus if required.

Does the permittee employ at least one individual certified in pesticide application?

☒ Yes ☐ No

If Yes, list name(s):

If the permittee applied pesticides during the reporting year, describe good housekeeping methods (e.g., integrated pest management, alternative materials/techniques):

Grounds contractor is required to attempt, when reasonably possible, to resolve insect and disease concerns by removing insects, removing infested plant parts, and pruning prior to applying chemicals and to the maximum extent practical, they should use

MCM #6: Pollution Prevention and Good Housekeepin2

"environmentally friendly" pesticides and herbicides. Weeds are required to be controlled by hand and approved mechanical methods. Chemical treatments that are "environmentally friendly" are permitted as a last option when other methods prove ineffective or impractical. If used, pre-emergent and post-emergent herbicides are applied sparingly and discretely.

All chemical applications are required to conform to current county, state, and federal laws, utilizing EPA registered materials and application methods. Any spraying associated with insect or disease control utilizing high pressure or high volume sprayers shall be done between 11:00 p.m. and 8:00 am. Pesticide application with single nozzle low-pressure fan or cone jet nozzles shall be allowed during other times. Chemical sensitive individuals will be contacted prior to all applications.

USG also has an integrated pest management plan that was created as part of the LEED certification for the new BSE facility recently completed. USG uses an external contractor for routine pest management inspection and control within the facilities. USG does not apply pesticides unless a situation is observed. If required, contractor submits MSDS sheets and proposed application measures for review and approved prior to application.

If the permittee applied fertilizer during the reporting year, describe good housekeeping methods (e.g., application methods, chemical storage, native or low maintenance species, training):

No fertilizers are stored on campus as USG's external Contractor assumes this responsibility.

If the permittee applied materials for snow and ice control during the reporting year, describe good housekeeping methods (e.g., pre-treatment, truck calibration and storage, salt domes):

USG subcontracts out snow removal and ice control. Subcontractor occasional may store salt bags under cover in one of the parking garages but primarily will bring the product with them during the snow event. USG policy and contract requires to treat ice with sand and either magnesium chloride or calcium chloride ice melt mixture. Sodium chloride is not permitted for use. Contractor assumes this responsibility for calibration of truck and hand spreaders.

Describe good housekeeping BMP alternatives not listed above:

4. If applicable, provide a status update for permittee owned or operated properties regarding coverage under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity or an individual industrial surface water discharge permit:

MCM #6: Pollution Prevention and Good Housekeeping

5. List the total cost of implementing this MCM over the permit term:

The cost of implementing this MCM is unknown. However, the cost of magnesium or calcium chloride products applied is 3x the cost of sodium chloride products so depending on the amount and number of snow and ice events in a season this can become a substantial cost impact.

Section II

USG's responses to MDE's 04/1/24 MS4 Year 5
Progress Report review

The responses below represent USG's formal submission to MDE's comments.

Section I: Impervious Area restoration Reporting

1. **Restoration Target: Please correct the RAS to reflect the restoration target of 0.89 as reported in Appendix D.**

Answer: USG corrected the restoration target RAS in Appendix D

2. **Restoration Completed between 2018-2025: Please enter the Impervious Acres Treated for the repair of the sand filter USG19BMP00002 in the RAS.**

Answer: USG corrected the treated are reported in the RAS

3. **BMP Database: The repair of Building 2 Sand Filter (USG19BMP00002) must be reflected in the BMP database and RAS to show that USG is in compliance with its restoration requirement. The report also states under MCM#S that there are 41 BMPs on campus, yet the database shows a total of 34 BMPs. Please be sure information reported in MCM#S accurately reflects the BMP database.**

Answer: USG corrected the restoration requirement that are reported in the BMP Database and in the RAS to indicate compliance. Total number of BMP's has been corrected to indicate 34 in the MCM update.

Section II: Minimum Control Measures (MCM's)

1. **MCM #3 Illicit Discharge Detection and Elimination (IDDE): As mentioned in the FY 22 review, Appendix C IDDE Policies of the IDDE SOP references quoted text from an expired permit that USG is not covered under. This quote must be corrected to reflect wording that is in the current general permit. The response to comments noted that the language has been updated in the IDDE plan, yet this is not reflected in the IDDE SOP posted on USG's website.**

Answer: IDDE Plan has been corrected (attached} and has been updated on the web site.

Section III

Urban BMP Database

.....

Not: Thi, followffl ,,,,,,,,,, n. bHM Of If(Ifit MOPhaw It NPOIS :bu, **r** **Q** **I** **n** **c** **.** **Q** **I** **f** **t** **f** **-** **h** DtfllNilonl of **-h** column^{-1m} dIU .**f** **m** **f** **f** **t** **s** CItI bt, found₁ tIw lIvI'C' **Q** **I** **J** **I** **I** **O** **I** **f** **f** **.** **h** **t** **b** **.**
 Not: **Q** **.** **a** **I** **E** **x** **a** **Q** **8** **M** **P** **Y** **.** **N** **Q** **b** **f** **f** **n** **I** **C** **o** **r** **p** **o** **,** **a** **t** **N** **o** **t** **h** **o** **t** **'** **l** **p** **c** **h** **t** **a** **y** **t** **M** **M** **W** **'** **I** **r** **u** **t** **h** **.** **.**

¹ (., B.,,kkfflllPd ,d-iktbtP:l:.'ldmakhllMP_O.S.t. '""""tll'"" ? ,.,.,.,. Bl b.(WSlltJCTlll'Al'""""llt ,.ablel.le NteNUW- llw"1

¹ NorthHfCand (.ntinc+++ pot,aptik/llllnt1;UM'ftokKM+ llMPI, MloryIM>d r-lf'S-'uunt:5U+PiM NAD13....t'n fol ...oar...lc location. You 111,+G+phlc Inform.t., S'Si"" (GIS)or otMI' C.- Pf09'...toPfovide ttwwcoordinatn.



Table B.1.b. Reporting Requirements for ESD and Structural Practices

More specific data related to ESD and structural BMPs is populated in this table

BMP ID	NUM_BMPs	ON/OFF	STRUCTURAL	DIAPHRAGM	BMP_ORIG_AREA	IMP_ACRES ¹	PE_CD	APPR_DATE	BUILT_DATE	COMMENTS
USG19BMPD0001	1	ON	ACT		1.05	0.73	0	11/11/2008	1/1/2009	pre-treatment only Plans show excessive sand and filter cloth, recommend reconstruction.
USG19BMP00002	1	ON	ACT		2.91	1.93	0	4/12/1995	6/30/1997	Reconstruction completed
USG19BMP00008	1	ON	ACT		0.19	0.19	1	2/16/2004	1/1/2007	
USG19BMP00009	1	ON	ACT		0.22	0.1S	0	2/16/2004	1/1/2007	pre-treatment only
USG19BMP00010	1	ON	ACT		0.51	0.40	1	5/13/2016	11/7/2019	
USG19BMP00012	1	ON	ACT		0.44	0.1S	1	1/1/2015	4/1/2016	Filter media depth determined from overflow inlet inverts
USG19BMP00013	1	ON	ACT		0.43	0.33	0.65	1/1/2015	4/1/2016	Treatment filter depth assumed from Typical MOE Desi1ns STD
USG19BMP00014	1	ON	ACT		0.43	0.29	1	1/1/2015	4/1/2016	Treatment filter depth assumed from Typical MOE Desi1ns STD
USG19BMP00015	1	ON	ACT		0.45	0.29	1	1/1/2015	4/1/2016	Filter media depth determined from overflow inlet inverts
USG19BMP00017	1	ON	ACT		0.44	0.36	0.71	1/1/2015	4/1/2016	Filter media depth determined from overflow inlet inverts
USG19BMP00018	1	ON	ACT		0.18	0.06	0.39	8/1/2004	1/1/2006	
USG19BMP00019	1	ON	ACT		0.37	0.31	1	8/1/2004	1/1/2006	
USG19BMPD00020	1	ON	ACT		0.50	0.35	0.88	8/1/2004	1/1/2006	
USG19BMP00021	1	ON	ACT		0.47	0.43	0.34	8/1/2004	1/1/2006	
USG19BMP00022	1	ON	ACT		0.69	0.47	0.54	8/1/2004	1/1/2006	
USG19BMPD00023	1	ON	ACT		0.58	0.18	0.93	10/16/2014	7/1/2016	
USG19BMP00024	1	ON	ACT		0.47	0.26	0.9	10/16/2014	7/1/2016	
USG19BMP00025	1	ON	ACT		0.49	0.29	0.64	10/16/2014	7/1/2016	Drainage area modified to reflect new installed inlet
USG19BMPD00026	1	ON	ACT		94.63	13.71	0.5	5/1/1986	1/1/1988	DA Digitized using Gudulstcy plans and New Entry Plans
USG19BMPD00027	1	On	ACT		0.17	0.06	2.6	5/13/2016	11/7/2019	
USG19BMP00028	1	On	ACT		0.23	0.12	1.4	5/13/2016	11/7/2019	
USG19BMPD00029	1	On	ACT		0.15	0.09	1.4	5/13/2016	11/7/2019	
USG19BMPD00030	1	On	ACT		0.19	0.11	1.3	5/13/2016	11/7/2019	
USG19BMP00031	1	On	ACT		0.21	0.14	1	5/13/2016	11/7/2019	
USG19BMP00032	1	On	ACT		0.75	0.75	1	5/13/2016	11/7/2019	
USG19BMP00033	1	On	ACT		0.11	0.11	2.6	5/13/2016	11/7/2019	
USG19BMPD00034	1	On	ACT		0.42	0.12	1	5/13/2016	11/7/2019	
USG19BMP00035	1	On	ACT		0.11	0.07	1.4	5/13/2016	11/7/2019	
USG19BMP00036	1	On	ACT		0.10	0.06	1.4	5/13/2016	11/7/2019	
USG19BMP00037	1	On	ACT		0.20	0.12	1	5/13/2016	11/7/2019	
USG19BMP00038	1	On	ACT		0.06	0.02	1	5/13/2016	11/7/2019	
USG19BMP00039	1	On	ACT		0.18	0.12	1.3	5/13/2016	11/7/2019	
USG19BMP00040	1	On	ACT		0.33	0.19	1	5/13/2016	11/7/2019	
USG19BMP00041	1	On	ACT		0.12	0.04	2.6	5/13/2016	11/7/2019	

Note: Several Example BMPs have been incorporated to help display the new structure.

¹ Every BMP Identified In this table should correspond to "BMP" sheet.

² If BMP Class is Structural ("S") then this column will always= 1, if BMP Class is ESO to MEP ("E") then you can report the number of BMPs in a system.

³ If Impervious acres treated is unknown, model credit may still be gained, but no permit credit will be earned.

Section IV

Restoration Activity Schedule

Phase II MS4 Restoration Activity Schedule									
TotalAcreage (29,44);ImperviousAcre Baseline (13.71); ZOK Restoration Target (0.89 acres)									
Type of Restoration Project	8MPCocle ¹	BMPID (Optional)	Cost (\$K) ¹	Imperv Acres Treated	ImpervAcre Target and Balance	Project Status ¹	YearComplete or Projected Implementation Year (by 2025)	MD Grid Coordinates (Northing/Easting)	
					0.89				
BSE ESD-8	MMBR	USG19BMP00010	50	0.11	0.78	C	2019	158280.78	382623.897
BSE ESD-13	MMBR	USG19BMP00027	50	0.02	0.76	C	2019	158412.69	382639.586
BSE ESD-9	MMBR	USG19BMP00028	50	0.04	0.72	C	2019	158284.48	382564.141
BSE ESD-10	MMBR	USG19BMP00029	5	0.03	0.69	C	2019	158303.32	382552.917
BSE ESD-5	MMBR	USG19BMP00030	50	0.04	0.65	C	2019	158296.73	382588.309
BSE ESD-3	MMBR	USG19BMP00031	10	0.04	0.61	C	2019	158331.54	382572.24
BSE Cistem #1	MRWH	USG19BMP00032	5	0.22	0.39	C	2019	158383.88	382580.817
BSE Cistem #2	MRWH	USG19BMP00033	50	0.04	0.35	C	2019	158329.8	382662.018
BSE ESD-6	MMBR	USG19BMP00034	10	0.04	0.31	C	2019	158314.09	382632.465
BSE ESD-12	MMBR	USG19BMP00035	5	0.02	0.29	C	2019	158343.42	382541.06
BSE ESD-11	MMBR	USG19BMP00036	10	0.02	0.27	C	2019	158322.78	382547.057
BSE ESD-2	MMBR	USG19BMP00037	50	0.04	0.23	C	2019	158351.98	382566.45
BSE ESD-1	MMBR	USG19BMP00038	5	0.01	0.22	C	2019	158371.75	382559.154
BSE ESD-4	MMBR	USG19BMP00039	10	0.04	0.18	C	2019	158310.11	382580.589
BSE ESD-7	MMBR	USG19BMP00040	10	0.06	0.12	C	2019	158318.7	382647.06
BSE ESD-14	MIBR	USG19BMP00041	50	0.02	0.10	C	2019	158365.5	382660.551
Sand Fitter	FSND	USG19BMP00002	10	0.10	0.00	C	2023	158507.82	382664.18

Since the sand filter has been restored, the treatment credit provided by Gudelsky should be reduced to 4.43 acres. This is due to Gudelsky only receiving treatment credit for impervious on USG's property not being treated by other BMPs since these are nested drainage areas. Taking this reduction into consideration along with the now provided treatment from the sand filter, USG's baseline credit will increase to 9.76 acres of existing impervious area treatment. Thus, reducing their restoration goal to 0.79 acres. Therefore, with a current restoration credit of 0.79 acres, USG will satisfy their 20% restoration requirement.

USG is responsible for a total of 13.71 acres of impervious under their MS4 permit. MES determined 9.28 acres of the USG impervious area is being treated. This treatment resulted in a 20% restoration goal of 0.89 acres. Through redevelopment projects, USG has earned 0.79 acres of restoration credit, reducing their 20% restoration requirement to 0.10 acres. USG restored the failing sand filter, which is estimated to increase their baseline treatment to 9.76 acres of existing impervious area treatment. This will reduce their target restoration goal to 0.79 acres, which USG will be met by their 0.79 acres of restoration credit.

Section VI

Impervious Area Restoration Work Plan

Impervious Area Restoration Work Plan

Timeline	Restoration Planning, Management and Goals
Year 1 (FY 2019)	• Submit the Year One Progress Report, noting there is no Restoration Requirement (based on USG's understanding of the data, metrics and other information at the time).
Year 2 (FY 2020)	• In response to MDE's position of USG having a Restoration Requirement, submit follow up information to MDE for approval of USG's Impervious Area Baseline and Restoration Requirement. • Begin identifying restoration activities in anticipation of a Restoration Requirement.
Year 3 (FY 2021)	• Confirm USG's Restoration Requirement with MDE. • Once the Restoration Requirement has been approved, confirm the Restoration Activities and Adaptive Management Strategies that will meet and/or exceed USG's Restoration Requirement. • Develop scopes of work, budget estimates and project timeframes for completion of the Restoration Activities.
Year 4 (FY 2022)	• Bid, award, and complete restoration of (4) failed BMP's in parking lot • Identify funding sources to be used for the Restoration Activities of the sand filter.
Year 5 (FY 2023)	• Complete Sand filter Restoration Activities. • Continue to identify water quality improvement projects as part of USG's Stormwater Management long-term planning strategy.
Year 6 (FY 2024)	• USG will plan for restoration implementation beyond 2025 and will pursue the Department recommendation that permittees plan for additional restoration to treat 10% of the current baseline by 2030. USG's current baseline of 4.4 acres will remain unchanged, and 10% of this number will represent the 2030 restoration target of 0.4 acres.

Section VI - A

IDDE Plan (Update October 2024)

Section VI - B

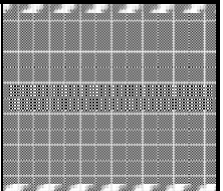
IDDE 2024 Outfall Inspection Form

IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01	
Today's date: 10/08/2024		Time (Military): 10:44	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 59	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 33" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Single ☐ Elliptical ☒ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>60 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☒ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☒ Flow #2	Flow depth	0.5	In	Tape measure
	Flow width	_____ ' 13 _____ "	Ft, In	Tape measure
	Measured length	4 _____ ' _____ "	Ft, In	Tape measure
	Time of travel	5	S	Stop watch
Temperature		66.7	°F	Thermometer
pH		6	pH Units	Test strip/Probe
Ammonia		0	mg/L	Test strip
Chlorine		FCI = 0.5, TCI = 0.0	mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

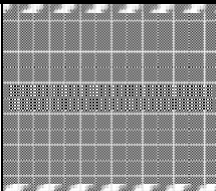


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01A	
Today's date: 10/08/2024		Time (Military): 9:29	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 55	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 42" N	Longitude: 77 deg 12' 1" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01A-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>24 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None



IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01B	
Today's date: 10/08/2024		Time (Military): 9:35	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 55	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 41" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01B-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☒ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>8 inches</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None



IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01C	
Today's date: 10/08/2024		Time (Military): 9:39	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 55	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 39" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01C-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☒ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: 6 inches 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None



IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01D	
Today's date: 10/08/2024		Time (Military): 9:42	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 55	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 37" N	Longitude: 77 deg 12' 3" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01D-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☒ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>4 inch</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

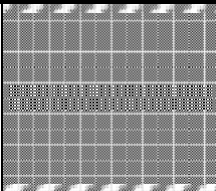


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01E	
Today's date: 10/08/2024		Time (Military): 9:52	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 56	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 33" N	Longitude: 77 deg 12' 3" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01E-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>36 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth	2	In	Tape measure
	Flow width	____' 17"	Ft, In	Tape measure
	Measured length	4____' ____"	Ft, In	Tape measure
	Time of travel	90	S	Stop watch
Temperature		64.7	°F	Thermometer
pH		6	pH Units	Test strip/Probe
Ammonia		0	mg/L	Test strip
Chlorine		FCI = 0.0, TCI = 0.0	mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

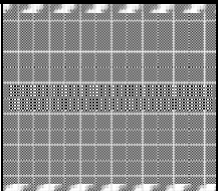


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01F	
Today's date: 10/08/2024		Time (Military): 10:06	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 56	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 33" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01F-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>12 inches</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

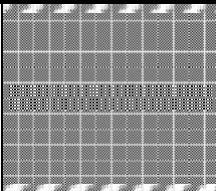


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01G	
Today's date: 10/08/2024		Time (Military): 10:10	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 57	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 33" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01G-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☒ Institutional	
☐ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☒ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>24 inches</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

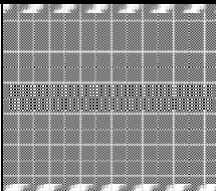


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OH-01H	
Today's date: 10/08/2024		Time (Military): 10:13	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 57	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitude: 39 deg 5' 33" N	Longitude: 77 deg 12' 2" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01H-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial		☐ Open Space	
☐ Ultra-Urban Residential		☒ Institutional	
☐ Suburban Residential		Other: _____	
☐ Commercial		Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>36 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

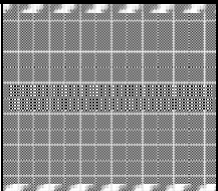


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-011	
Today's date: 10/08/2024		Time (Military): 10:17	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 58	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 32" N	Longitude: 77 deg 12' 1" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-011-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>66 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☒ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth	0.75	In	Tape measure
	Flow width	_____ ' 10 _____ "	Ft, In	Tape measure
	Measured length	4 _____ ' _____ "	Ft, In	Tape measure
	Time of travel	6	S	Stop watch
Temperature		65.9	°F	Thermometer
pH		6	pH Units	Test strip/Probe
Ammonia		0	mg/L	Test strip
Chlorine		FCI = 0.0, TCI = 0.0	mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

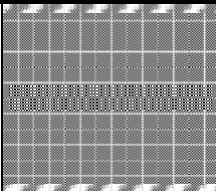


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01J	
Today's date: 10/08/2024		Time (Military): 10:20	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 58	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 38 deg 5' 32" N	Longitude: 77 deg 12' 1" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01J-01	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☒ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>15 inches</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

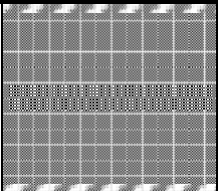


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01K	
Today's date: 10/08/2024		Time (Military): 10:26	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 59	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 39 deg 5' 30" N	Longitude: 77 deg 12' 0" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01K-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>30 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

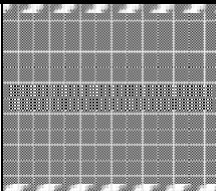


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01L	
Today's date: 10/08/2024		Time (Military): 10:27	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 59	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 30 deg 5' 30" W	Longitude: 77 deg 12' 0" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01L-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other: _____ ☐ Other: _____	Diameter/Dimensions: <u>15 inches</u>	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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

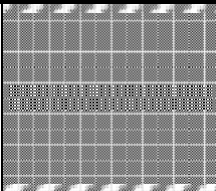


IDDE OUTFALL INSPECTION FORM

Section 1: Background Data

Subwatershed: Piney Branch		Outfall ID: OF-01M	
Today's date: 10/08/2024		Time (Military): 10:35	
Investigators: Jonathan Robertson		Form completed by: J. Robertson	
Temperature (°F): 59	Rainfall (in.): Last 24 hours: Last 48 hours: None		
Latitude: 30 deg 5' 30" W	Longitude: 77 deg 12' 0" W	GPS Unit:	GPS LMK #:
Camera: iPhone		Photo #: OF-01M-01, 02	
Land Use in Drainage Area (Check all that apply):			
☐ Industrial ☐ Ultra-Urban Residential ☐ Suburban Residential ☐ Commercial		☐ Open Space ☒ Institutional Other: _____ Known Industries: _____	
Notes (e.g., origin of outfall, if known):			

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☒ Elliptical ☐ Box ☐ Other: _____	☒ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: <u>15 inches</u> 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 <i>If No, Skip to Section 5</i>			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		RESULT	UNIT	EQUIPMENT
☐ Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐ Flow #2	Flow depth		In	Tape measure
	Flow width	____' ____"	Ft, In	Tape measure
	Measured length	____' ____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip
Chlorine			mg/L	Probe

IDDE OUTFALL INSPECTION FORM

Section 4: 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 5: 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 6: Overall Outfall Characterization

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

Section 7: 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 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

None

