Stormwater Pollution Prevention Plan

George Washington Memorial Parkway

Daingerfield Island

2700 George Washington Memorial Parkway
Arlington, VA 22202

Date: June 2018 (Amended June 2019)

1. Table of Contents

2. Certification

This plan was designed to assure that site operations at the George Washington Memorial Parkway Daingerfield Island are conducted in accordance with Virginia stormwater requirements and best management practices. Based on my knowledge of the site and the people responsible for implementing the plan, the information within this document is accurate. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Printed Name: _____

Date: _____

Job Title: _____

Telephone Number: _____

Note - This must be signed by a senior executive officer having responsibility for the overall operations of the facility described in this document.

3. Overview

3.1 General Facility Information

MS4 Permit Number:	MS4 General Permit No. VAR040111
GWMP Daingerfield Island Address:	National Park Service George Washington Memorial Parkway Daingerfield Island Marina Drive Alexandria, VA 22314
GWMP Headquarters Address:	National Park Service George Washington Memorial Parkway Turkey Run Park Mclean, VA 22101
Coordinates:	38"82'09.02"N 77" 04'05.32"W
Property Size:	107 acres
Receiving Water Body:	Potomac River
County:	N/ A - City of Alexandria, VA
Facility Owner:	National Park Service
Facility Operator:	National Park Service
SWP3 Contact:	GWMP Environmental Protection Specialist

3.2 Introduction

George Washington Memorial Parkway (GWMP) Is a unit of the National Park Service (NPS) with sites in Virginia, Maryland, and Washington, DC. GWMP is mainly a recreational, scenic driving route from Langley, Virginia, through Washington, DC, and to Mount Vernon, Virginia, but also Includes amenities and structures such as roads, hiking and bicycling trails, picnic areas, and several historic buildings.

This storm water pollution prevention plan (SWP3) describes best management practices (BMP)-which include a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices-to support the goal of preventing and reducing stormwater contamination from the site. The contents of this plan have been aligned with the MS4 General Permit No. VAR040111.

3.3 Objectives

The purpose of this plan is to reduce contamination to stormwater runoff. The objectives of this document are to:

1. Identify potential sources of pollution at the GWMP Daingerfield Island;
2. List BMPs that will be implemented at Daingerfield Island; and
3. Provide elements that will help the GWMP Daingerfield Island comply with the terms and conditions of the MS4 General Permit No. VAR040111.

4. Stormwater Pollution Prevention Team

The SWP3 Team leader Is responsible for ensuring that all stormwater requirements, including requirements of this SWP3, are met. A GWMP SWP3 Team has been established to assist the SWP3 Team Leader in developing, implementing, maintaining, revising, and ensuring compliance with the facility's SWP3.

The SWP3 Team roster is in Appendix A. The SWP3 Team is responsible for:

- Assisting the facility manager in developing and revising the facility's SWPPP;
- Implementing and maintaining control measures/BMPs; and
- Taking corrective actions where required.

Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of the MS4 General Permit No. VAR040111 and the Daingerfield Island SWPPP.

5. Physical Site Information

5.1 GWMP Daingerfield Island Activities

The GWMP Daingerfield Island maintenance activities consists of the following operations:

- Maintenance associated with Greenhouse and Nursery operations;
- Vehicle and equipment storage; and
- Bulk storage of materials such as wood chips and gravel used in park operations.

5.2 Structures

Physical structures at Daingerfield Island include:

- Parking spaces;
- Greenhouse; and
- Marina facilities. Note that marina, restroom facilities, store, and food operation facilities are managed by a private company under an NPS issued concessions contract.

5.3 General Location and Site Maps

GWMP is a driving route from Langley, Virginia, through Washington, DC, and to Mount Vernon, Virginia. The GWMP Daingerfield Island is in Alexandria, Virginia. Daingerfield Island, which operates primarily as the park's main greenhouse and nursery operations, fronts the Potomac shoreline. A marina managed by a concessionaire also is located at Daingerfield Island.

The diagrams below identify general site features, buildings and structures, and proximity to the nearest water body, the Potomac River. In Figure 1, the blue arrows on the map indicate general stormwater flow. Because the area is generally flat, most stormwater is sheet flow that absorbs into the ground. Some stormwater may sheet flow into the Potomac River directly to the east of the island, or some stormwater may enter the stormwater drains as identified in Figure 2. Figure 1 also shows the location of bulk storage of materials such wood chips and gravel used for park operations. These locations are noted by the orange triangles icons.

Additionally, in Figure 2, there are six (6) stormwater collection drains located near the visitor areas (marina, restrooms, store, food services) that drain directly to the Potomac River. These are noted by the bright green and orange color dots on the Figure 2 map. These drains discharge stormwater into the Potomac River as noted by the three (3) orange with black outline outfall discharge points on the map.

Figure 1 Map of Daingerfield Island

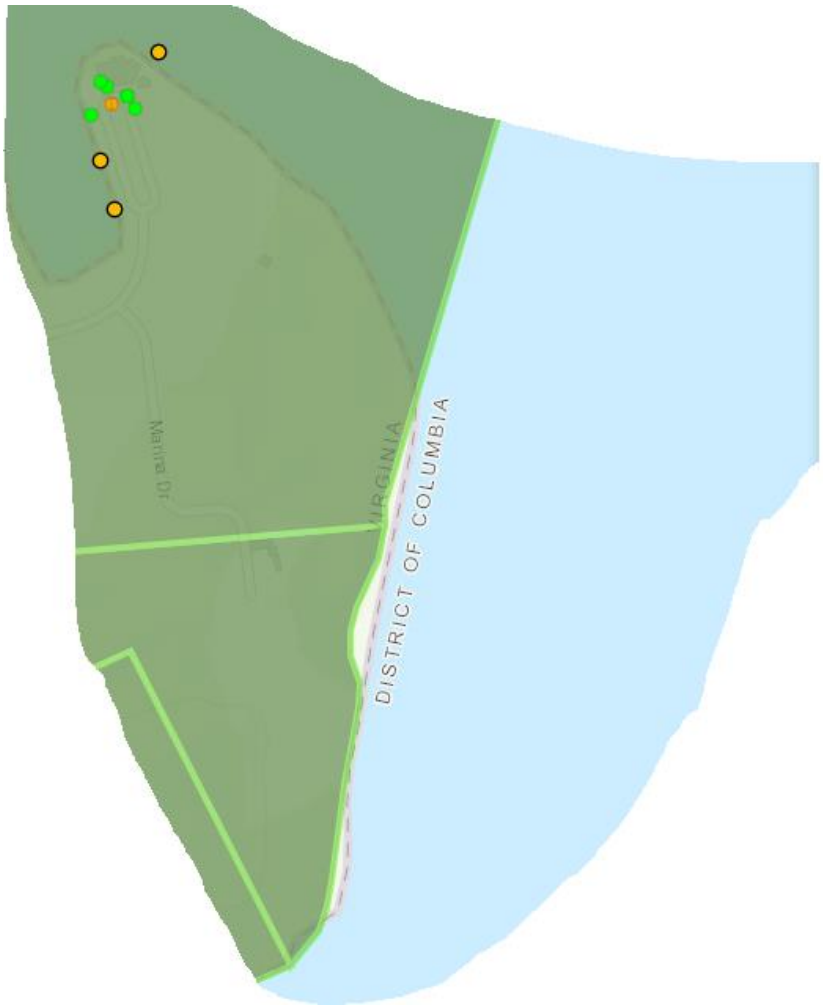

Figure 2 Daingerfield Island Stormwater Collection Drains and Discharges

6. Past Spills and Spill Reporting

6.1. Spill History

A spill or leak that requires reporting to the DEQ or the National Response Center (NRC) has not occurred at GWMP Daingerfield Island in more than three years.

6.2. Spill Reporting

In the event that there is a release of hazardous materials such as fuel or oil into the environment, in accordance with this SWP3, the Facility Manager will:

a. Notify the National Response Center at (800) 424-8802 in accordance with the requirements of 40 CFR 117 and 40 CFR 302 respectively, as soon as there is knowledge of the discharge.
b. To report a hazardous spill in the DC metropolitan area, call the Emergency Management Agency (EMA) at (202) 727-6161.
c. During normal work hours, notify the Virginia Pollution Response Program, Northern Regional Office at (703) 583-3800. Nights, holidays, and weekends, notify the Virginia Department of Emergency Management at (800) 468-8892.
d. Follow the NPS National Capital Region Emergency Response Handbook directions, which include contacting all the following in the event of a non-emergency spill:
    a. US Park Police (USPP) Communications Center at 202-619-7300
    b. Local fire department at 911
e. Submit a Pollution Reporting Form to the DEQ, available at http://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/PollutionReportingForm.aspx.
f. Complete the GWMP Log of Reported Spills to include at a minimum the date of the incident, material discharged, released or spilled and the estimated quantity discharged, released or spilled. The Log is available on the GWMP Google drive at: https://docs.google.com/spreadsheets/d/10BoyAdJY0dS4_mea7x62iRYKp0pGp-c_-bebcufIYCM/edit?usp=sharing
g. Within 30 calendar days after the spill, leak, unauthorized discharge, or other release has occurred, management must review and revise this SWP3 as necessary to prevent a future spill from recurring. Be sure to review and update other plans as necessary and applicable.

7. Stormwater Control Measures

7.1 Common Stormwater Pollutants, Sources, and Impacts

Pollutants can degrade water quality and aquatic habitat, impair ecosystem functions, and harm human health. Understanding the sources of these pollutants and the impacts of each pollutant can help park staff understand the goals and objectives when managing stormwater. Table 1 summarizes common stormwater pollutants, their sources, and potential impacts. During self-audits, make sure to look for these potential sources of pollution.

Table 1: Common Stormwater Pollutants, Sources, and Impacts

Pollutants	Sources	Impacts
Sediment	Bulk material storage sites; eroding stream banks and lakeshores; winter sand and salt application; vehicle/boat washing; agricultural sites	Destruction of plant and fish habitat; transportation of attached oils, nutrients, and other pollutants; increased maintenance costs; flooding
Nutrients (phosphorus, nitrogen) .	Fertilizers; malfunctioning septic systems; livestock, bird, and pet waste; vehicle/boat washing; gray water; decaying grass and leaves; sewer overflows; leaking trash containers; leaking sewer lines	Increased potential for nuisance or toxic algal blooms; increased potential for hypoxia/anoxia (low levels of dissolved oxygen, which can kill aquatic organisms)
Hydrocarbons (petroleum compounds)	Vehicle and equipment leaks; vehicle and equipment emissions; fuel spills; improper fuel storage and disposal; equipment cleaning; pesticides	Toxic to human and aquatic life at low levels
Heavy metals	Vehicle brake and tire wear; vehicle/equipment exhaust; batteries; galvanized metal; paint and wood preservatives; fuels, pesticides, and cleaners	Toxic at low levels; drinking water contamination
Pathogens (bacteria)	Livestock, bird, and pet waste; malfunctioning septic systems; sewer overflows; damaged sanitary lines	Risk to human health, leading to closure of shellfish areas and swimming areas; drinking water contamination
Toxic chemicals	Pesticides; dioxins; polychlorinated biphenyl (PCBs); spills, Illegal discharges, and leaks	Toxic to human and aquatic life at low levels
Debris/Utter	Improper waste disposal and storage; fishing gear; leaking trash containers; cigarette butts; littering	Potential risk to human and aquatic life; aesthetically displeasing.

7.2 Good Housekeeping Practices

The lists below provide more information on measures that can help prevent pollution or improve surface water quality.

- Enclosure/containment of material or potential contamination sources
- Diversion of stormwater away from areas of potential contamination
- Installation of stormwater collection systems followed by storage and reuse where possible

- Provision of oil/water separators, sediment traps, or other treatment devices
- Erosion control using diversions, re-grading, revegetation, and use of rip-rap
- Use of drip pans or dry sweep material under leaking vehicles or equipment
- Use of absorbent devices to contain and reduce releases of liquids
- Moving industrial operations, storage areas, vehicle/equipment maintenance areas, etc., from outdoors to indoors
- Good housekeeping practices (see below for examples)
- Modification/labeling of storm drains or catch basins
- Implementation of a spill prevention and response program
- Employee training program
- Preventative maintenance program
- Covered roll-offs/dumpsters

Good Housekeeping Practices

- Frequent cleaning
- Proper disposal of trash, garbage, and other waste
- Proper storage and transfer of materials
- Frequent walkthroughs or Inspections of work areas for potential problems

Problems to Look For

- Uncovered/exposed materials and/or debris that has been carried off by stormwater
- Dirty or cluttered surfaces exposed to stormwater
- Oils, grease, or other chemicals on the ground
- Spots, stains, and discoloration
- Leaking equipment
- Poor chemical storage or transfer operations
- Floor drains or other conduits that toxic chemicals are likely to enter
- Suspicious-looking puddles

7.3 Spill Prevention and Response Procedures

GWMP Daingerfield Island staff follow an Emergency Action Plan (EAP) for responding to spills of hazardous materials. The EAP contains procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases.

Staff will be trained on the EAP when hired or when the plan changes, in accordance with Occupational Safety and Health Administration requirements. The training will include instruction on the types and volumes of materials staff may attempt to clean-up without additional support. The training will also include procedures for getting help in an emergency.

GWMP Daingerfield Island staff will conduct the following spill prevention and response actions to minimize stormwater exposure to contaminants.

- When refilling portable containers, placing containers first in a compatible plastic tub so spills are contained in the tub rather than spilled out onto the ground.
- Placing plastic tubs with oil-absorbent pads underneath outside vehicles and equipment that are unused for extended periods of time. Checking the condition of the plastic tubs and oil-absorbent pads on a regular basis. If vehicle and equipment fluids collect in tubs, disposing of them appropriately; also disposing of used oil- absorbent pads appropriately. If appropriate, draining oil, antifreeze, and fuel from unused vehicles and equipment to prevent leaks.
- When maintaining equipment, fixing all fluid leaks and wiping off fluid drips.
- Maintaining barriers between material storage and traffic areas.

7.4 Management of Runoff

GWMP Daingerfield Island staff will conduct the following actions to minimize stormwater runoff.

- Maintaining drain grates free of debris.

7.5 Employee Training

GWMP Daingerfield Island staff will conduct the following training actions to minimize stormwater exposure to contaminants.

Effective training and awareness on this SWP3 will be provided to all GWMP Daingerfield Island employees, including all members of the SWP3 Team. Employee training will serve to educate employees about general stormwater issues and the requirements of the SWP3. Training will include background information on the components and goals of the SWP3, BMPs, and inspection procedures. Training will cover specific control measures, monitoring, inspection, planning, reporting, and documentation requirements in the SWP3.

All new employees will be trained within sixty days of their start date. A record of this training will be kept in the personnel file in accordance with the GWMP environmental management system (EMS) documentation and recordkeeping system.

All employees will participate in annual refresher training. Attendance for training will be recorded and maintained with this plan for at least three years. A template training sign-in sheet is in Appendix f. This sheet is to be used to demonstrate that training took place and serves as the official training record.

The training program will be reviewed biennially by the SWP3 Team to determine its effectiveness and to make any necessary changes.

7.6 Waste, Garbage, and Floatable Debris

GWMP Daingerfield Island staff will conduct the following actions to minimize stormwater exposure to waste, garbage, and floatable debris.

- Placing trash and recyclables in appropriate containers and keeping outdoor containers closed at all times.
- Regularly sweeping all areas. Sweeping indoor dirt and debris into piles and disposing of those piles in the trash. Not sweeping indoor dirt and debris out the door.
- Maintaining drain grates free of debris.

8. Inspections and Monitoring

The SWP3 Team will monitor the grounds for SWP3 effectiveness on an ongoing basis, and will conduct formal routine (twice yearly) facility and visual inspections, as well as an annual comprehensive site compliance evaluation. Records of inspections and evaluations are kept for at least three years from the date they are performed.

8.1 Ongoing Monitoring

On an ongoing basis, GWMP Daingerfield Island staff will observe the grounds for evidence of spills and leaks then identify equipment and practices that may be leaking liquids. Doing so will ensure that the BMPs identified in the SWP3 are being implemented and are effective in minimizing or reducing the threat of pollutant discharge. Any deficiencies in the implementation of the SWP3 that are found will be corrected as soon as practical.

8.2 Illicit Discharge Detection and Elimination (IDDE) Inspection

The flow of water from a storm drain system is not a routine event during dry weather periods and, therefore, can be an indicator of illicit discharges (e.g., illegal dumping and unauthorized connections to a MS4). However, dry weather flows from an MS4 can be from other non-stormwater discharges, that would not be considered an illicit discharge and are a normal event for some MS4 outfalls (depending on location). These non-stormwater discharges could include: groundwater infiltration into the storm sewer system, irrigation return flow, foundation drain discharges, etc.

Using the assumption that dry weather flows are not conclusive indicators of possible illicit discharges In the George Washington Memorial Parkway, outfall Inspections will be conducted focusing on visually conspicuous evidence of possible illicit discharges to the M54. Water quality sampling arid analyses will not be conducted. Park staff will follow the park's IDDE written procedures.

8.3 Twice Yearly Facility Inspection

The SWP3 Team will conduct facility inspection twice a year to evaluate and review the effectiveness of the SWP3, ensuring that BMPs identified in the SWP3 are being implemented and are effective in minimizing or reducing the threat of pollutant discharge. Inspections will be performed during periods when the facility is in operation. At least once each year, the inspection will be conducted during a period when a stormwater discharge is more likely to occur, that is, during a storm event. These inspections will be documented with a checklist (Appendix C) and performed by a designated SWP3 team member. The checklist will include a certification that the site is in compliance with the SWP3 and the permit. Deficiencies in the implementation of the SWP3 will be corrected within two weeks.

Records of each routine facility inspection will be maintained with the SWP3 and will be kept for at least three years from the date of the inspection.

A template log for tracking routine facility inspections is in Appendix E.

8.4 Twice Yearly Visual Monitoring

Twice a year during a precipitation event, the SWP3 Team will collect stormwater samples from each outfall to assess visually. The Team will conduct the assessment using the Visual Monitoring Form (located in Appendix D), considering suspended liquids, floatable debris, oil sheen, and any other obvious indicators of stormwater pollution. If a stormwater pollutant ls observed, the Team will locate the source of the pollutant and promptly address the source of the contamination. The Team will then determine whether additional BMPs should be implemented to prevent further stormwater contamination. These visual inspections will be conducted in conjunction with the twice-yearly facility inspections when possible.

A template log for tracking visual inspections is in Appendix E.

8.5 Annual Site Compliance Evaluation

Once a year, the SWP3 Team will complete a comprehensive site compliance evaluation. The purpose of this inspection is to:

- Confirm the accuracy of the description of potential pollution sources;

- Determine the effectiveness of the SWP3; and
- Assess compliance with terms and conditions of the MS4 General Permit No. VAR040111.

The evaluation will be conducted by a member of the SWP3 Team, using the Annual Site Evaluation Form (Appendix B). During the annual comprehensive site compliance evaluation, all potential pollution sources will be visually inspected for evidence of actual or potential discharges. Evaluations will include:

- All areas where industrial materials or activities are exposed to stormwater;
- Industrial materials, residue, or trash that may have or could meet stormwater;
- Leaks or spills from industrial equipment, drums, barrels, tanks or other containers that have occurred within the past three years;
- Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site;
- Evidence of, or the potential for, pollutants entering the drainage system;
- Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall, including flow dissipation measures to prevent scouring;
- Review of stormwater related training performed, inspections completed, maintenance performed, twice yearly visual examinations, analytical monitoring, and effective operation of control measures, including BMPs;
- Presence of unauthorized non-stormwater discharges.

Based on the results of the evaluation, the SWP3 will be modified as necessary within 30 days. If existing control measures need to be modified or If additional control measures are necessary, implementation will be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation.

The SWP3 Team will write a report summarizing the scope of the evaluation, name(s) of personnel making the evaluation, the date of the evaluation, and all observations relating to the implementation of the SWP3. The report will identify any incidents of noncompliance observed or contain a certification of compliance. Observations in the report will include such things as:

- Location(s) of discharges of pollutants from the site;
- Location(s) of previously unidentified sources of pollutants;
- Location(s) of control measures that need to be maintained or repaired;
- Location(s) off failed control measures that need replacement; and
- Location(s) where additional control measures are needed.

Comprehensive site compliance evaluation records will be maintained for at least three years after the date of the evaluation. A template log for tracking annual site compliance evaluations is in Appendix E.

8.6 SWP3 Monitoring Schedule

The table below lists the timeline for SWP3 monitoring actions.

Type of Monitoring	Frequency	Responsible Party	Associated Records
Casual	Ongoing	Anyone at the facility	Keep comments with inspection logs.
Visual (during a stormwater event)	Twice a year	SWP3 Team	Visual Monitoring form
Facility Inspection	Twice a year	SWP3 Team	Facility Inspection form
Comprehensive Site Compliance Evaluation	At least annually	SWP3 Team	Annual Site Evaluation Form
Administrative changes to the SWP3	Within two weeks of identifying the issue	SWP3 Team	Updated and dated SWP3.
Procedural changes to the SWP3	Within 12 weeks of completing Comprehensive Site Compliance Evaluation	SWP3 Team	Updated and dated SWP3.

Type of Monitoring	Frequency	Responsible Party	Associated Records
Employee training on SWP3	Within 60 days of start date then annually thereafter	An individual familiar with the SWP3 and Permit and BMPs	Keep training logs for at least three years.

9. Appendices

Appendix A. SWP3 Team Member Roster

Team Leader

Title:	Chief of Maintenance
Name:	Anthony Migliaccio
Office Phone:	703-419-6412
Responsibilities:	Main SWP3 contact, responsible for development and revision of the facility's SWP3

Team Members

Title:	Maintenance Mechanic Supervisor
Name:	Daryl Leftwood
Office Phone:	703-419-6416
Responsibilities:	Ensuring that BMPs are carried out as scheduled

Title:	Maintenance Mechanic
Name:	Richard Howes
Office Phone:	703-405-3991
Responsibilities:	Carrying out twice yearly and annual inspections

Title:	GWMP Environmental Protection Specialist
Name:	Robert Mocko
Office Phone:	703-289-2540
Responsibilities:	Ensuring related MS4 permit requirements are met.

Last updated: June 2019

Appendix B. Annual Site Evaluation Form

Photocopy this document and complete to validate that annual inspections are being performed.

This form is used to assess conditions at GWMP Daingerfield Island that could impact stormwater quality and the effectiveness of the BMPs chosen to be implemented. Evaluations must include: all BMPs identified in this SWP3 to ensure they are functioning correctly; and a visual inspection of areas where materials or activities are exposed to stormwater as identified in the SWP3. Results of visual evaluations conducted during the year must be taken into consideration during the evaluation.

During the review the evaluator should ask:

1. Is the area free of debris or residue that could be washed away by stormwater? If No, what are those materials and where did they come from?	Yes	No
1. Are all pollution sources identified in the SWP3? If No, what additional areas should be included in the SWP3?	Yes	No
2. Are the BMPs identified and implemented in the SWP3 sufficient and effective? If No, why and what changes should be made?	Yes	No
3. Are all BMPs identified and implemented in the SWP3 sufficient to prevent or minimize polluted stormwater discharge? If No, what additional BMPs should be identified and implemented?	Yes	No
4. Were past twice-yearly visual evaluation records reviewed as part of this Annual Comprehensive Site Compliance Evaluation?	Yes	No
5. If a major leak or spill of hazardous materials occurred in the past three years, was the area evaluated for the potential for future spills and leaks?	Yes	No

Once the evaluation has been completed, the results should be shared with the entire SWP3 Team, and the SWP3 and training schedule should be updated as necessary.

GWMP Daingerfield Island is in compliance with this SWP3.

Name:		Date:	
Signature:			

Appendix C. Twice Yearly Facility Inspection Form

Photocopy this document and complete to validate that routine site inspections are being performed.

Twice yearly routine site inspections are required for all potential pollutant discharge and exposure areas specified in this SWP3. The goal of these inspections is to make sure that the BMPs identified in the SWP3 are being implemented and are effective in minimizing or reducing the threat of pollutant discharge. Deficiencies in the implementation of the SWP3 must be corrected within two weeks. These records must be maintained with the SWP3 and must be kept for at least three years from the date of the inspection.

Instructions: Complete the log below to track the completion of inspections. If any deficiencies are identified please explain on a separate page then document and attach the follow-up procedures.

1. Are the grounds clear of spills and leaks?	Yes	No
2. Are the grounds free of debris such as solid waste, trash and litter?	Yes	No
3. Is the ground below vehicles and equipment free of oil that has leaked from above?	Yes	No
4. Are vehicles and equipment that is stored for extended periods of time drained of fluids, or are absorbent rags or tubs placed below that equipment and regularly maintained?	Yes	No
5. Are all containers of hazardous materials stored inside?	Yes	No
6. Are universal wastes (if applicable) covered and stored in secondary containment?	Yes	No
7. Are dumpsters (if applicable) maintained in a closed position?	Yes	No
8. Are dumpsters and trash barrels (if applicable) present in sufficient quantity to contain all the bags of solid waste?	Yes	No
9. Has any evidence of spills or leakage been reported or cleaned since the last inspection?	No	Yes
10. Since the last inspection, has any SWP3 Team member observed color, odor, floating solids, foam, oil sheen or other indicators of water pollution in stormwater run-off?	No	Yes
11. Have new employees been trained on the SWP3 within 60 days of their start date?	Yes	No
12. Have measures to address erosion been maintained? Do the measures used to address erosion appear effective?	Yes	No

Inspector's Name:		Inspection Date:	
Signature:			
Specific areas inspected (including outfalls):			

Appendix D. Twice Yearly Visual Monitoring Form

Sample Location					
Quarter / Year:		**Date / Time Collected:**		**Date / Time Examined:**	
Qualifying Storm Event?	Yes No	**Runoff Source:**		Rainfall Snowmelt	
Collector's Name & Title					
Examiner's Name & Title					

Parameter	Parameter Description	Parameter Characteristics
1. Color	Does the stormwater appear to have any color? **Yes** **No (Clear)**	If Yes, describe: *Yellow Brown Red Gray Other:*
2. Clarity	Is the stormwater clear? **Yes** **No**	If not clear, which of the following best describes the clarity of the stormwater? *Suspended Solids Milky/Cloudy Opaque Other:*
3. Oil Sheen	Can you see a rainbow effect or sheen on the water surface? **Yes** **No**	Which best describes the sheen? *Rainbow sheet Floating oil globules Other:*
4. Odor	Does the sample have an odor? **Yes** **No**	If Yes, describe: *Chemical Musty Rotten Eggs Sewage Sour Milk Oil/Petroleum Other:*
5. Floating Solids	Is there anything on the surface of the sample? **Yes** **No**	If Yes, describe: *Suds Oily Film Garbage Sewage Water Fowl Excrement Other:*
6. Suspended Solids	Is there anything suspended in the sample? **Yes** **No**	Describe:
******Leave sample undisturbed for 30 minutes.******		
7. Settled Solids	Is there anything settled on the bottom of the sample? **Yes** **No**	Describe: (*note type, size and material after sample is not disturbed for 30 minutes)*
8. Foam	Does foam or material form on the top of the sample surface if you shake it? **Yes** **No**	Describe:

9. If there are any visible indicators of pollution identify (1) where the pollution may come from and (2) any corrective actions taken.

Stormwater Collector's Signature and Date:

Stormwater Examiner's Signature and Date:

Note – Sample should be collected and analyzed in a colorless glass or plastic bottle.

Instructions for Completing the Visual Monitoring Form

Per PART V. INSPECTIONS, MONITORING, AND REPORTING, you must collect a stormwater sample from each outfall once each quarter for the entire permit term and conduct a visual assessment of each sample. You must follow the monitoring procedures outlined in Part V.C. These samples should be collected in such a manner that they are representative of the stormwater discharge from that outfall. Each assessment must be kept onsite with your SWPPP and available for inspection and review by the Department at anytime.

First, fill out all information on the top of the visual monitoring form. A qualifying storm event is any storm where there is a measurable discharge. Then, take a grab sample in a clear container. Evaluate the sample in a well-lit area for the following parameters:

1. **Color**: Record the best description of the sample color in the appropriate space on the form.
2. **Clarity**: This parameter refers to how cloudy the sample is. It is *usually* an indication of fewer pollutants in the water if the sample is clear or transparent. If the clarity has changed since the last sample, try to identify what might have caused this to happen.
   - **Clear** – Sample doesn't block any light; can be seen through regardless of color.
   - **Cloudy** – Sample blocks some light; objects not clear but can be identified looking through the sample.
   - **Very Cloudy** – Sample blocks most light; objects cannot be identified looking through the sample.
   - **Opaque** – Sample blocks all light; objects cannot be seen when looking through the sample.
3. **Oil Sheen**: Record whether or not an oil sheen is present. If a film of iridescent color is noted on the surface of the sample or a rainbow effect appears to be floating on the surface of the water, this usually indicates oil is present.
4. **Odor**: If sample has no odor other than natural rainwater or snowmelt, write "NO" on the visual monitoring form. Note the presence of any of the following odors if detected, such as gasoline, diesel, oil, solvents (WD-40, other petroleum products, etc.), garbage, fishy, sweet/sugary, any other unusual odors not normally present in clean runoff from the area sampled.
5. **Floating Solids**: A contaminated flow may contain solids or liquids floating on the surface. Identifying floatables can aid in finding the source of the contamination. Examples of floatables are spoiled food products, oils, plant parts, solvents, sawdust, foams and fuel. Give a general description of the type of floating solids present (wood chips, leaf debris, algae, etc) in the general comments section for each sample. Identify amount of floating solids as described below.
   - **High** – More than 20% of the surface of the sample is covered with floating solids.
   - **Moderate** – Less than 20% of the surface of the sample is covered with floating solids.
   - **Slight** – Only a few floating particles observed on the surface of the sample.
   - **None** – No floating solids present on the surface of the sample.
6. **Suspended solids**: Record whether or not suspended solids are present in the sample. Suspended solids are particles floating inside the column of water, not on top, and may contribute to changes in water color or clarity. Cracked or deteriorated concrete or peeling surface paint at an outfall usually indicates the presence of severely contaminated discharges. Contaminants causing this type of damage are usually very acidic or basic.

---------- **WAIT 30 MINUTES** ----------

Leave the sample undisturbed for 30 minutes to allow the water and anything in it to settle.

7. **Settled Solids**: After 30 minutes has passed, give a general description of the type of settled solids present (sand, decayed plant matter, rust particles, etc.) in the general comments section.
8. **Foam**: After completing #7, shake the bottle gently. Record foam results on the form as they most closely match one of the descriptions listed below.
   - **None** – Most bubbles break down within ten (10) seconds of shaking; only a few large bubbles persist longer than ten (10) seconds.
   - **Moderate** – Many small bubbles are present but these bubbles persist for less than two (minutes) after shaking.
   - **High** – Many small bubbles are present and they persist longer than two (2) minutes after shaking.
9. Detail any concerns, corrective actions taken and any other indicators of pollution present in the sample. This should include the identified source if there are visible indicators present in the sample. The person performing test must sign and date each form.

Appendix E. Twice Yearly/Annual Facility Inspection Log

Use this or a similar form to track and maintain a schedule of twice yearly/annual facility inspections.

Date and Time of Inspection				
Type of Inspection				
Area of Inspection				
Weather Information				
Discharges Occurring at Time of Inspection				
Previously Unidentified Discharges				
Control Measures Needing Maintenance or Repairs				
Failed Control Measures				
Incidents of Noncompliance Observed				
Additional Control Measures Needed				
Employee's Name				
Employee's Signature				

Appendix F. Annual Employee Training Recordkeeping Form

Use this or a similar form to track attendance of annual employee SWP3 training.

Description and scope of training:

Date	Employee's Name	Employee's Signature