



**DEPARTMENT OF THE ARMY**  
**US ARMY INSTALLATION MANAGEMENT COMMAND**  
**HEADQUARTERS, US ARMY GARRISON, FORT LEE**  
**DIRECTORATE OF PUBLIC WORKS**  
**825 19<sup>TH</sup> STREET**  
**FORT LEE, VIRGINIA 23801-1530**

September 30, 2021

Kyle Ivar Winter, P.E.  
Deputy Regional Director  
Department of Environmental Quality  
Piedmont Regional Office  
4949-A Cox Road  
Glen Allen VA 23060

Dear Mr. Winter:

I am enclosing the 2021 MS4 Annual Report for Fort Lee, Permit #VAR040007. Please direct any questions or requests for further information to Craig A. Norris, Compliance Team Lead at [craig.a.norris10.civ@mail.mil](mailto:craig.a.norris10.civ@mail.mil), (804) 734-3772. Alternatively, questions or requests can be directed to Daniel L. Ernesto, Environmental Engineer at [daniel.l.ernesto2.civ@mail.mil](mailto:daniel.l.ernesto2.civ@mail.mil), (804) 734-3760.

Sincerely,

A handwritten signature in black ink, appearing to read "D M Maimone", is located below the "Sincerely," text.

Diana M. Maimone  
Director,  
Directorate of Public Works

Enclosure

**US ARMY GARRISON FORT LEE  
ANNUAL MS4 REPORT**

**30 September 2021**

**Prepared by  
Directorate of Public Works  
Environmental Management Division  
825 19th Street  
Fort Lee, Virginia 23801**

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## **A. Background Information**

- 1) **Name and Permit Number of Program:** US Army Garrison – Fort Lee VAR040007
- 2) **Reporting Year:** 1 July 2020 – 30 June 2021
- 3) **Modifications to any operator’s department’s roles and responsibilities:** Mr. Douglas Ledford the former Director of Public Works, has transitioned to another role and Ms. Diana Maimone has been named Director.
- 4) **Number of new MS4 outfalls added:** None
- 5) **Signed Certification:** See Appendix A.

## **B. Status of Compliance with Permit Conditions**

During the reporting year 1 July 2020 through 30 June 2021, Fort Lee maintained compliance with its six identified Minimum Control Measures (MCM) and associated Best Management Practices (BMPs) – in the manner described below:

### **MCM 1 - Public Education and Outreach on Stormwater Impacts:**

#### **I. Permit Part I.E.1.g (1) – High Priority Stormwater Issues**

**Provide a list of at least three high-priority stormwater issues addressed in the public education and outreach plan.**

- i. Illicit Discharges Detection and Elimination
- ii. Elimination of releases of Petroleum, Oil and Lubricants (POL) and Hazardous Materials to the environment
- iii. Elimination of discharges to the storm sewer system from carwash operations
- iv. Elimination of Fats, Oils and Greases (FOGs) from entering the storm water system

#### **II. Permit Part I.E.1.g (2) – Strategies Used To Communicate High Priority Issues:**

**Provide a list of strategies used to communicate each high-priority stormwater issue.**

Fort Lee has implemented two strategies listed in Table 1 of the MS4 General Permit including 1) traditional written materials in the form of informational brochures, guides, and fact sheets, 2) media materials disseminated through informational articles in Fort Lee Newspaper “The Traveller” and Fort Lee Facebook. These strategies were used in order to educate the public to the high priority water quality issues listed above. Two articles were posted to “The Traveller.” 6 articles were posted to the U.S Army Garrison Fort Lee Facebook page, 18 Illicit Discharge brochures were distributed to the High Priority Facility Managers at Fort Lee. Table 1 below summarizes the outreach material used during this reporting period. Supporting documentation (newspaper articles, brochures, Facebook posts, etc.) are available upon request.

**Table 1: Education and Outreach Activities (July 1, 2020 – June 30, 2021)**

<b>Date Published</b>	<b>Strategy</b>	<b>Media</b>	<b>Article Title/Information</b>	<b>Focus Area</b>	<b>Audiences</b>	<b>Metric/Circulation</b>
5-Nov-20	Media Materials	Traveller/Newspaper Article	"Only rain down the storm drain"	Illicit Discharge	Fort Lee's Total Population = 20,000	20,000/20,000 = 100%
7-Jan-21	Media Materials	Traveller/Newspaper Article	"Recent fuel spills serve as reminder; should be alert at gas pumps"	Illicit Discharge, Petroleum, Oil & Lubricants and Hazardous Material	Fort Lee's Total Population = 20,000	20,000/20,000 = 100%
17-Jan-21	Traditional Written Materials	Informational Brochures/Fact Sheets	Illicit Discharge Information	Illicit Discharge, Petroleum, Oil & Lubricants and Hazardous Material	High Priority Facility Managers = 18	18/18=100%
5-Feb-21	Media Materials	Facebook Article	"Don't walk away when you are fueling!"	Illicit Discharge, Petroleum, Oil & Lubricants and Hazardous Material	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%
5-Apr-21	Media Materials	Facebook Article	Fort Lee Earth Day, Children Poster Competition and Family Clean-Up Competition"	Sustainability	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%
22-Apr-21	Media Materials	Facebook Article	"Happy Earth Day! Theme is: Restore Our Earth." Children Poster Competition announced.	Sustainability	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%
26-Apr-21	Media Materials	Facebook Article	"Earth Day Children Poster Competition winner announced." - Congratulations Amora.	Sustainability	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%
4/29/2021	Media Materials	Facebook Article	"Earth Day Family Clean-Up Competition winner announced." - Congratulation to the Withrow Family.	Sustainability	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%

6/22/2021	Media Materials	Facebook Article	Chesapeake Bay takes the brunt of harmful storm drain runoff	Illicit Discharge, Petroleum, Oil & Lubricants and Hazardous Material, Carwash Operations	Fort Lee's Facebook Followers = 67,673	67,673/67,673 = 100%
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**III. Review of MCM 1 Program Effectiveness**

For the reporting period, July 1, 2020 – June 30, 2021, Fort Lee Environmental Management Division (EMD) completed the following actions to maintain compliance with permit conditions.

- Four (4) high priority water quality issues have been identified and why they are important. For the following reporting year, Fort Lee will include new high priority stormwater issues if any as they are identified. During this reporting period one new issue included is the elimination of discharges to the storm sewer system associated with fats, oil, and grease (FOG) from dining facilities.
- Provided methods for the public to contact the MS4 program for information, comments or to report illicit discharge on the Fort Lee Environmental Management Division page.
- Utilized two strategies listed in Permit Part I.E.1.d to educate the public on the issues and what can be done to reduce stormwater pollution, meeting the required 2 strategies by using traditional and electronic media materials.
- All the BMPs (1-6) of MCM 1 from the MS4 Program Plan were executed to educate Fort Lee civilians, contractors, residents, and military personnel the high priority issues.

**MCM 2- Public Involvement/Participation:**

**I. Part I.E.2.f (1) – Public Input:**

**Provide a summary of any public input on the MS4 Program received (including stormwater complaints) and the permit holder responses.**

The MS4 Stormwater Program did not receive any comments on the MS4 Program Plan. All stormwater complaints received from the public are managed under the IDDE program discussed in MCM #3. Nine stormwater complaints were reported to Environmental Management Division staff during the reporting period. A detailed summary of each illicit discharge incident can be found in Part I.E.3.e (3) (a-f).

**II. Part I.E.2.f (2) – Webpage:**

**Provide a webpage address to the MS4 Program Plan and Stormwater Website. The MS4 Program Plan and the Annual Report can be found at:**

A copy of the MS4 Program Plan and Annual Report can be found on the Fort Lee website: <https://home.army.mil/lee/index.php/about/Garrison/directorate-public-works/environmental-management/documents-review>

**III. Part I.E.2.f (3) – Public Involvement Activities:**

**Provide a Description of the Public Involvement Activities implemented during the reporting period. A minimum of four activities per year from two or more categories listed in Table 2 of the MS4 General Permit.**

A total of 7 public involvement activities were conducted during the reporting period July 1, 2020 – June 30, 2021. Four different categories were implemented from Table 2 of the MS4 General Permit: restoration, educational and collection and disposal. Three clean-up activities occurred during the reporting period. A fall and spring clean-up occurred in which all military personnel participated installation-wide. A housing clean-up event was sponsored by both DPW-EMD and Hunt Housing Inc. where residents of Fort Lee participated to clean-up Jackson Circle Neighborhood, Harrison Villa Neighborhood and Monroe Manor Neighborhood. Table 2 below shows the activities and metrics.

<b>Table 2: Public Participation Events (July 1, 2020 – June 30, 2021)</b>				
<b>Public Participation (min. 4 activities)</b>				
<b>Date(s)</b>	<b>Activity (from Table)</b>	<b>Event</b>	<b>High Priority Issue Addressed</b>	<b>Metric</b>
11/30/2020 - 12/04/2020	Restoration	Fall 2020 Clean-up	Pollution Prevention/Illicit Discharge	3836 Participants/181 Tons of Trash, Tree limbs, ...etc.
1/27/2021	Educational Event	High Priority Facilities Train-the-Trainer	Stormwater/Illicit Discharges/ Pollution Prevention/FOG	18 HPF Facility Managers

10/2/2020-4/22/2021	Disposal or Collection Events	Household hazardous chemicals collection, vehicle fluids collection...etc.	Stormwater/Illicit Discharges/ Pollution Prevention/POL	16,775 lb.
February 2021	Restoration	Spring 2021 Clean-up	Pollution Prevention/Illicit Discharge	3836 Participants/186 Tons of Trash, Tree Leaves and Branches
4/19/2021-4/22/2021	Restoration	Community Cleanup Competition	Illicit Discharge/Pollution Prevention	30 Participants 30 Bags of Trash
4/16/2021	Educational Event	Earth Day Poster Competition	Pollution Prevention/Illicit Discharge Management.	10 Fort Lee Children (Pre-K to 6 Grade), 10 Creative Posters
7/1/2020-6/30/2021	Pollution Prevention	Street Sweeping	Pollution Prevention/Illicit Discharge	133 Miles of Roads/887 Acres of Parking Lot

**IV. Part I.E.2.f (4) – Report of Metric for each Activity:**

**Provide a report of the metrics used to define effectiveness for each activity and an evaluation as to whether or not the activities is beneficial to improving water quality.**

All cleanup events immediate results through the removal of trash already affecting water quality in streams. Community Cleanup Competition and Earth Day Poster Competition both provided a passive and active methods of communication and education to the general public concerning issues related to illicit discharge elimination. The table above shows some of the activities and metrics used in determining effectiveness for the public involvement activities that were conducted.

**V. Part I.E.2.f (4) – Name of Collaborators:**

**Provide the names of other MS4 permittees with whom collaboration with public involvement activities occurred within the reporting period.**

Fort Lee collaborates with Crater District Planning Commission (CDPC) in many areas of environmental management including storm water quality and community outreach issues by attending bimonthly planning meetings. Bimonthly discussions include Stormwater quality concerns, training scheduling in the region, and community outreach activities planning. CPDC region comprises of the cities of Petersburg, Hopewell, Colonial Heights, Emporia and the counties of Charles City, Chesterfield, Prince George, Sussex, Dinwiddie, Surry and Greenville.



#### **IV. Review of MCM 2 Program Effectiveness**

For the reporting period, July 1, 2020 – June 30, 2021, Fort Lee completed the following actions to maintain compliance with permit conditions.

- Conducted 7 public involvement events from four different activities categories listed in Table 2 of the permit and are all list in Table 2 of this report above. This meets the minimum requirements of the permit.
- Annual Report will be posted on the Fort Lee website on October 1, 2021.
- Although BMP 1 of MCM 2 was accomplished this reporting period, many events like Safety Day and Life at Lee were cancelled due to COVID-19. For the following reporting year, Fort Lee will attempt to implement more social-distant and virtual events to ensure that Fort Lee will continue to stay in compliance with the MS4 General Permit. The Program Plan will be updated to reflect these implementations to adapt with current conditions.
- All other BMPs (2-5) of MCM 2 were executed when feasible.

#### **MCM 3 - Illicit Discharge Detection and Elimination:**

##### **I. Part I.E.3.e (1) – Map and Information Table:**

**Provide a confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting cycle.**

The MS4 Map and Outfall Information Table is currently being updated before June 30 of this reporting year and the final deliverables and updates will be reflected to account for all updates in the next year's reporting cycle. The table attached in Appendix C is the current outfall table that includes the required information per Part I.E.3.a (2) (a-h).

##### **II. Part I.E.3.e (2) – Outfall Screening:**

**Provide the total number of outfalls screened during the reporting period.**

All 32 outfalls are screened for illicit discharges and no illicit discharges detected during screening. Since the number of outfalls are less than 50, 100% of the outfalls were screened annually for dry weather flow.

##### **III. Part I.E.3.e (3) (a-f) – Illicit Discharge Summary:**

**Provide a list of illicit discharges to the MS4, to include spills reaching the MS4.**

**Description must include the source of the illicit discharge, the date or dates that the discharge was observed, reported, or both, whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method, how the investigation was resolved, a description of any follow-up activities, and the date the investigation was closed.**

Nine incidents of potential illicit discharges occurred at Fort Lee during the current reporting period summarized below. None of the spills entered the waters of United States and details are displayed in the table in Appendix B.

#### **IV. Review of MCM 3 Program Effectiveness**

For the reporting period, July 1, 2020 – June 30, 2021, Fort Lee completed the following actions to maintain compliance with permit conditions.

- All 32 (100%) outfalls are inspected and screened for dry weather flow and illicit discharges.
- Illicit discharges were investigated and tracked to completion. There are no unresolved investigations. No significant environmental impacts occurred from all discharges detected.
- For the following reporting year, Fort Lee will continue to implement the weekly windshield inspection to ensure there is more surveillance on potential pollutants. More information will be found in the Fort Lee MS4 Program Plan.
- BMPs (1-6) of MCM 3 from the MS4 Program Plan were executed to ensure illicit discharge detection and elimination.
- BMP 1 consists of the MS4 Illicit Discharge Policy. This policy is currently in the process of being redacted and combined with the Fort Lee Environmental Policy. The new policy continues to emphasize the prohibition of illicit non-stormwater discharges and dumping into storm drains.

#### **MCM 4- Construction Site Storm Water Runoff Control:**

##### **I. Part I.E.4.a – Construction Stormwater Implementation:**

**Please indicate if the construction site stormwater runoff program is implemented in accordance with either Part I.E.4.a (1), (2), (3) or (4) of the MS4 General Permit, as recommended.**

USAG Fort Lee has implemented a construction site stormwater runoff program in accordance with Part I.E.4.a (3). Our current ESC, SWM, and EISA LID requirements are listed in our Environmental Special Conditions which must be followed by all personnel performing ground disturbing activities on post. These requirements mirror the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations. All Erosion and Sediment Control (ESC) Plans are reviewed and approved by the VADEQ and a Construction General Permit is required for any project over an acre.

USAG Fort Lee only had three active construction projects during the reporting period under the Construction General Permit approved by DEQ: Dominion Energy Main Distribution Substation, DEQ Permit# VAR10N325, Dominion Energy Substation (Transmission), DEQ Permit# VAR10O368 and Dominion Energy Substation (Sisisky), DEQ Permit# VAR10P164.

**II. Part I.E.4.d (1) (a) – Confirmation Statement:**

**Provide a confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved E&S specifications.**

All land disturbing projects conducted during the reporting period were conducted in accordance with approved E&S. All land disturbing projects are reviewed by EMD and records of those reviews are maintained online in EMD's NEPA Manager System. Per the Fort Lee Environmental Special Conditions (included in all contracts for work on Fort Lee), all land disturbing projects are required to conform to department approved E&S specifications and storm water management and permitting requirements. The DEQ reviews and approves all VSMP permits for projects on Fort Lee and conducts routine compliance inspections.

**III. Part I.E.4.d (1) (b) – Explanation of Non-conformance:**

**If land-disturbing project (s) were not conducted with the department approved standards and specifications, provide an explanation as to why they did not conform to the approved standards and specifications.**

All land-disturbing projects were conducted with the department approved standards and specifications as stated in Part I.E.4.d.1 (a).

**IV. Part I.E.4.d (2) – Number of Inspections:**

**Provide the total number of inspections conducted.**

The three major active major construction projects at Fort Lee are the Dominion Energy Main Distribution Substation, Dominion Energy Transmission Substation and Dominion Energy Distribution (Sisisky). All of the three Dominion Energy projects Dominion Energy Substation project conducted a total number of 70 inspections. (Dominion Energy Main Distribution=57, Dominion Energy Transmission=5, Dominion Energy Distribution (Sisisky) =8).

**Part I.E.4.d (3) – Number of Enforcement Actions:**

**Provide the total number and type of enforcement actions implemented.**

No enforcement actions from the VDEQ were issued against Dominion Energy Main Substation (Distribution), Dominion Energy Main Substation (Transmission) nor Dominion Energy Substation (Sisisky) Project.

**Review of MCM 4 Program Effectiveness**

For the reporting period, July 1, 2020 – June 30, 2021, Fort Lee completed the following actions to maintain compliance with permit conditions.

- Erosion and sediment control inspections were conducted on the one major construction project upon initial installation of erosion and sediment controls, at least once during every two-week period, within 48 hours of any runoff-producing storm event and upon completion of the project.
- Erosion and sediment control inspections were also conducted for the utility projects by Dominion Energy.
- Fort Lee DPW-EMD Stormwater Program reviewed all proposed projects through NEPA manager and provided stormwater feedback for all submissions.
- All BMPs (1-5) for MCM 4 of the Fort Lee MS4 Program Plan were implemented to meet ESC and SWM requirements as set by Virginia Department of Environmental Quality.

**MCM 5 - Post Construction Stormwater Management:**

**I. Part I.E.5.i (1) – VSMP Implementation:**

If you are a Virginia Stormwater Management Program (VSMP) authority or have privately-owned stormwater management facilities (SMFs) associated with the MS4 permit, report the two requirements listed below.

**II. Part I.E.5.i (1) (a) – Private SMF Inspections:**

**State the number of privately owned SMF inspections conducted.**

There are no privately owned BMP/SMF on Fort Lee, therefore no privately owned SMF inspections were conducted.

**III. Part I.E.5.i (1) (b) – Enforcement Actions:**

**State the number of enforcement actions and the type of enforcement action initiated to ensure long-term maintenance of privately owned SMFs.**

There are no privately owned BMP/SMF on Fort Lee, therefore no enforcement actions were initiated by Fort Lee during this reporting period.

**IV. Part I.E.5.i (2) – Public SMF Inspections:**

**State the number of inspections conducted on publically owned SMFs.**

Fort Lee inspected and maintained all 101 permanent stormwater management facilities during the reporting period. Permanent stormwater management facilities inspections were conducted by operations and maintenance contractor, Skookum, Inc., are as follows: 45 Detention Ponds, 30 Retention Ponds, and 3 Underground Storage were inspected on an annual basis. 15 Filterra Systems and 6 Porous Pavement areas were inspected on a semi-annual basis. 5 Culverts were inspected on weekly basis. All permanent stormwater management facilities inspected during the reporting period are listed in Appendix D.

**V. Part I.E.5.i (3) – Public SMF Significant Maintenance:**

**Provide a description of the significant maintenance, repair, or retrofit activities performed on the publically owned SMFs. Do not include routine activities (e.g., mowing, litter pick up). SMFs are inspected annually by DPW Operations and Maintenance (O&M) contractor to ensure proper functioning of the stormwater management facilities. No significant repair, or retrofit activities were performed on the SMFs.**

**VI. Part I.E.5.i (4) – Construction Database Submittal Confirmation:**

**Provide a confirmation statement that SMF information was submitted through the Virginia Construction Stormwater General Permit (CGP) database for land disturbing activities for which coverage under the General VDPES Permit for Discharges of Stormwater was obtained in accordance with Part I.E.5.f of the MS4 General Permit). If no projects requiring coverage under the CGP were completed, please indicate such.**

All Construction works on Fort Lee are completed by outside contractors and it is Fort Lee's policy that the contractors performing the work acquire their own VPDES CGP for their construction projects. Therefore, Fort Lee does not hold any CGPs. All CGP Holders are required to submit as-built plans to DPW when submitting their Notice of Termination Form to VADEQ.

Fort Lee hereby certifies that to the best of our knowledge, all SMFs have been entered into the CGP database by the contractors holding CGPs under our established Standard Operating Procedures. Fort Lee requires that all projects greater than one acre are required to submit for and obtain a Construction General Permit with VADEQ and assume that a CGP cannot be closed until all requirements are met. There were three active construction projects that held the following permits during this reporting period: Dominion Energy Distribution (Sisisky)-Permit #VAR10P164, Dominion Energy Main Distribution Substation-Permit# VAR10N325 and Dominion Energy Main Transmission-Permit#VAR10O368.

**VII. Part I.E.5.i (5) – BMP Warehouse Submittal:**

**Provide a confirmation statement that best management practices (BMPs) (all practices not reported in accordance with Part I.E.5.f of the MS4 General Permit) were reported into the DEQ BMP Warehouse per Part I.E.5.g of the MS4 General Permit.**

Fort Lee confirms that all BMP information was updated and submitted into the DEQ BMP Warehouse by a spreadsheet provided by the DEQ. That spreadsheet will be submitted to the DEQ by 1 October 2021. Currently all BMP information list is being updated by a contractor and will be submitted to Virginia DEQ BMP Warehouse as soon as it is delivered to Fort Lee's DPW.

**VIII. Review of MCM 5 Program Effectiveness**

For the reporting period, July 1, 2020 – June 30, 2021, Fort Lee completed the following actions to maintain compliance with permit conditions.

- All stormwater BMPs and permanent structures were inspected and maintained and BMPs were all reported to the DEQ BMP Warehouse.

- All BMPs (1-4) for MCM 5 of the Fort Lee MS4 Program Plan were implemented to ensure BMPs are properly maintained and tracked for compliance.

**MCM 6 - Pollution Prevention/Good Housekeeping for Municipal Operations:**

**I. Part I.E.6.q (1) – Operation Procedures Summary:**

**Provide a summary of operational procedures developed or modified per Part I.E.6.a during the reported fiscal year.**

During this reporting period, the Spill Poster of the Red Plan was revised and the MS4 Illicit Discharge Policy is in the process of being redacted and incorporated into an overarching Environmental policy.

**1) Red Plan – Spill Poster**

The Red Plan was revised 15 April 2020. The spill poster of the Red Plan was updated to be more concise and user friendly. The reporting chain of command was revised for tenants to report spills to the Installation Operations Center first. The Installation Operations Center will then notify the correct proponent (EMD, 911, etc.). A spill report was also developed to attach to the back of the spill poster. This report contains pertinent information of the spill which includes, the source of the illicit discharge, the date or dates that the discharge was observed, reported, or both. These spill posters were distributed to all facilities that has the potential to pollute and posted on the Fort Lee Environmental Management Division website.

An EMD follow-up report was developed to include whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method, how the investigation was resolved, a description of any follow-up activities, and the date the investigation was closed.

**2) Fort Lee Policy No. 05-13 MS4 Illicit Discharge Policy**

This policy is currently been redacted and combined with the Fort Lee Environmental Policy. The new policy continues to emphasize the prohibition of illicit non-stormwater discharges and dumping into storm drains.

**II. Part I.E.6.q (2) – New SWPPP Summary:**

**Provide a summary of new SWPPPs developed in the fiscal year per Part I.E.6.c of the MS4 General Permit. Inclusion of SWPPPs developed per I.E.6.e of the MS4 General Permit is recommended. If none were developed, please state so.**

USAG Fort Lee Integrated Storm Water Pollution Prevention Plan (ISWPPP) is current as of May 2020.

The ISWPPP will be updated the follow reporting year to reflect the new SWPPPs being developed as a result of the High Priority Facility Assessment completed by DPW-EMD 4 January 2021. More details on this assessment can be found in Par I.E.6.q (3). A copy of the ISWPPP is available upon request.

**III. Part I.E.6.g (3) – SWPPP Modification or Removal of High-Priority Facilities:**

**Provide a summary of any SWPPPs modified per Part I.E.6.f of the MS4 General Permit or the rationale for delisting high-priority facilities per Part I.E.6.h of the MS4 General Permit.**

A High Priority Facility Assessment was completed by DPW-EMD on 4 January 2021. Table 3 displays the facilities that were evaluated or re-evaluated to determine if these facilities meet conditions as stated in Part I.E.6.c. New individual SWPPPS will be developed for the added high priority facilities. As tenants and soldiers change frequently, SWPPPs must be updated and changed to meet proper potential pollutant conditions. A new high priority issue that will be included in the Program Plan and the ISWPPP for the following reporting period which will include Fats, Oil, and Grease (FOG) tanks.

**Table 3. High Priority Facility Assessment**

Building	Tenant	Purpose	Observation	HPF Risk	Status	Annual Inspection Date	Annual Facility Stormwater Training Date	Total Personnel Trained
1630	AAFES	GAS STATION	Tire storage in back; all underground tanks; Spills occur from users	MED	Add	Jan-4-2021	1/27/2021	1
4200	QM	LABORATORY INSTR BLDG	Lab, cooking, dehydrator and digester; two used oil tank; Heavy spillage and grease stains; No storm drain close by	HIGH	Add	Jan-4-2021	1/27/2021	1
4309	AAFES	FAST FOOD/SNACK BAR	Two grease traps on site; Extremely heavy oil stains	HIGH	Add	Jan-4-2021	1/27/2021	1
6210	DPW	ENGINEERING/HOUSING MAINT SHOP	O&M Laydown yard; Mulch pile shows signs of washing out, needs a berm. Gas tank present	HIGH	Add	Jan-4-2021	1/27/2021	1
6210	DPW	SALT AND SAND DOME	No outfall in vicinity; Signs of washout; Needs some sort of berm/barrier to prevent exposure; unsure if stream is nearby.	HIGH	Add	Jan-4-2021	1/27/2021	1
6274	TACOM	VEH MAINT SHOP	Motor pool; No drip pans present; Used oil tank is next to storm drain; Car wash present in parking lot. I believe there is an OWS on site	HIGH	Add	Jan-4-2021	1/27/2021	1
6275	TACOM	VEH MAINT SHOP	Motor pool; No drip pans present; Used oil tank is next to storm drain; Car wash present in parking lot. I believe there is an OWS on site	HIGH	Add	Jan-4-2021	1/27/2021	1
6295	LRC	FUELING FACILITY	All underground tanks	LOW	Add	Jan-4-2021	1/27/2021	1
6298	TACOM	VEH MAINT SHOP	Motor pool; There is a used oil and anti-freeze tank outside of building. Drip pans are used underneath all vehicles; Fuel tank	LOW	Add	Jan-4-2021	1/27/2021	1



			truck is in secondary containment					
7148	7TB	VEH MAINT SHOP	Motor pool; There is a used coolant and oil tank outside of building. Drip pans are used underneath all vehicles. Historically, has had many issues with facility	HIGH	Add	Jan-4-2021	1/27/2021	1
9025	AAFES	EXCHANGE CAFETERIA	P-Xtra; There is secondary containment for spill from grease pouring; Spills frequently	MED	Add	Jan-4-2021	1/27/2021	1
11040	QM	ACCESS CTRL FAC P (PTF)	PTF; Soldiers practice moving petroleum from one tank to another	LOW	Add	Jan-4-2021	1/27/2021	1
12246	QM	ACCESS CTRL FAC	MIF; Vehicles that require drip pans, paints, fuel storage tanks, and fuel "pods" are scattered on site. Fuel training has previously had spill reports	HIGH	Add	Jan-4-2021	1/27/2021	1
12402	USAR	USAR MOTOR POOL	Motor pool; There are parked motor vehicles; No drip pans recently.	HIGH	Add	Jan-4-2021	1/27/2021	1
17501/3	TACOM	MAINT SHOP, GEN PURP	North Range Motor pool; Used oil and antifreeze tank located outside that is double-lined. Used material is discharged from inside using an automatic system to discharge into tank. Empty drums outside need to be labeled	LOW	Add	Jan-4-2021	1/29/2021	1
18028	LRC	DINING FAC.	Dumpsters on site sometimes leaks, Tenants have previously dumped into storm drain at loading dock	HIGH	Add	Jan-4-2021	1/27/2021	1

11812/1 1814	RECREATIO NAL SHELTER	Pesticide/herbicide storage and mixing area	HIGH	Add	Jan-4-2021	1/27/2021	1
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**IV. Part I.E.6.q (4) – Summary of Approved NMPs:**

**Provide a summary of new turf and landscape nutrient management plans (NMPs) developed to include the information listed below.**

Fort Lee does not regularly apply nutrients to turf and landscape areas as part of its annual roads and grounds maintenance program. Limited amounts of nutrients may be applied, however, on an area where turf is being restored after disturbance. Contractors, in accordance with the provisions of Fort Lee's Environmental Special Conditions package, may apply nutrients to help establish lawns and cover crop after they complete construction (rates based on the results of soil sampling), but that practice ends once the site is turned over to the installation. The Fort Lee Cardinal Golf Course (approximately 60 acres treated) limits their nutrient applications due to the cost involved, instead they make use of hardy, lower maintenance turf grasses such as Bermuda and other warm season species. Fort Lee has a facility-wide Nutrient Management Plan that focuses primarily on operations at the Cardinal Golf Course, but also addresses nutrient application during construction and during municipal operations that has been in place since 26 June 2016.

<b>Table 4. Golf Course Nutrient Management Information</b>				
<b>Permit Part I.E.6.q (4) (a) – Location and Acreage of Each Land Area</b>	<b>Permit Part I.E.6.q (4) (b) – Dates of Approved NMPs</b>	<b>Permit Part I.E.6.q (5) (a) – Dates of Training Events</b>	<b>Permit Part I.E.6.q (5) (b) – Number of Employees Trained</b>	<b>Permit Part I.E.6.q (4) (c) – Objective of the Training</b>
Cardinal Golf Course, Approx.60 Acres	26 June 2016	Aug 2018/May 2021	1 FMWR/ 155 Skookum Contract Employees	Chesapeake Bay Nutrients Management

**V. Part I.E.6.q (5) – Training Events:**

**A list of training events conducted in accordance with Part I.E.6.m of the MS4 General Permit to include the information listed below.**

A total of 249 civilians, military, and contractor employees were trained during the reporting period. Table 5 below shows a summary of all training events conducted. Training materials and sign-in sheets are available upon request. All new soldiers and civilians coming to Fort Lee are required to report to the earliest Newcomer's Brief feasible. During this Newcomer's Brief, the MS4 Illicit Discharge Policy is reviewed. All Environmental Compliance Officers of each organization is required to attend ECO Training provided by Fort Lee's Hazardous Waste Program Manager. This training includes prohibition of illicit discharge, spill response, proper satellite accumulation areas, and pollution prevention practices for petroleum and hazardous waste. All new employees are also required to take the Fort Lee Newcomers Environmental General

Awareness Training (NEGAT) online. The operations and maintenance stormwater training occurs every 24 months as required by their contract.

**VI. Part I.E.6.g (5) (a - c)**

Provide the date of the training event, the number of employees who attended the training event, and the objective of the training event.

<b>Table 5. Newcomers Briefings and ECO Training</b>			
<b>Date</b>	<b>Training Event</b>	<b>Objective</b>	<b>Attendance</b>
5-Oct-20	Newcomers Brief	Illicit Discharge/Spill Prevention	10
19-Oct-20	Newcomers Brief	Illicit Discharge/Spill Prevention	10
2-Nov-20	Newcomers Brief	Illicit Discharge/Spill Prevention	17
12/7/2020	Newcomers Brief	Illicit Discharge/Spill Prevention	15
1/27/2021	HPFs/MS4/P2 BMPs	Illicit Discharge/Pollution Prevention	17
3/1/2021	Newcomers Brief	Illicit Discharge/Spill Prevention	7
2/22/2021	CCFSPCC	Environmental Laws and Regulations	11
4/5/2021	Newcomers Brief	Illicit Discharge/Spill Prevention	7
5/1/2021	Skookum EGAT	Environmental General Awareness, Pollution Prevention, Illicit Discharge Detection and Elimination	155

A total of 249 employees were trained in a classroom setting. Above is the attendance table.

**VII. Review of MCM 6 Program Effectiveness**

For the reporting period, July 1, 2020– June 30, 2021, Fort Lee completed the following actions to maintain compliance with permit conditions.

- HPFs Assessments were completed to identify facility changes and upgrades. 9 new facilities identified as having the potential to impact stormwater quality were added. New SWPPPs will be developed for these 9 facilities and kept alongside the Integrated SWPPP.
- Stormwater Pollution Prevention/Illicit Discharge/Good Housekeeping training was conducted and over 249 individuals were trained throughout the reporting period.
- All BMPs were executed to ensure pollution prevention and good housekeeping practices occur for municipal operations.

## **C. Chesapeake Bay TMDL Information:**

### **I. Part II.A.13.a – BMPs not Reported to the BMP Warehouse**

**Provide a list of BMPs implemented during the reporting period but not reported to the DEQ BMP Warehouse in accordance with Part I.E.5.g of the MS4 General Permit and the estimated reduction of pollutants of concern achieved by each reported in pounds per year.**

A comprehensive list of BMPs implemented during the reporting period was submitted to the DEQ BMP Warehouse via DEQ-provided spreadsheet on 1 October 2020 to Mr. William Keeling. There were no BMPs installed during the reporting period that was not reported. A new comprehensive BMPs list will be submitted by the next deadline if any addition to the BMPs occurred.

There are no BMPs that are planned for implementation during the next reporting period because Fort Lee currently met the 2017 5% reduction goal and the next 35% reduction goal is not due until 2022 this has already been met. 2027 Reduction goal had already been achieved also. See the Table Below for the Percentages and associated pounds reduction achieved relative to the target goals to be achieved to date.

### **II. Part II.A.13.b – Credits Acquired:**

**If credits were acquired during the reporting period to meet all or of the portion of the required reductions in Part II.A.3, A.4, or A.5 of the MS4 General Permit, provide a statement of that credits were acquired.**

During this reporting cycle, no credits were acquired.

### **III. Part II.A.13.c – Progress towards meeting Reduction Goals:**

**Provide the progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids.**

All reduction goals are met. See the table for details. All TMDL goals are met and exceeded through 2027.

Table 6. TMDL Reduction Goals Progress									
TMDL Reduction Goals/ Achieved									
Reduction Goals To be Achieved				Reduction Goals Achieved To Date					
Nitrogen	Phosphorus	TSS	TMDL Goals	Nitrogen		Phosphorus		Total Suspended Solids	
(lbs.)	(lbs.)	(lbs.)	(%)	(lbs.)	(%)	(lbs.)	(%)	(lbs.)	(%)
64.99	13.62	5881.77	5% of 2017 Goal	1132.92	1743.22	442.35	3247.77	147473.46	2507.28
454.93	95.34	41172.39	35% of 2022 Goal	1132.92	249.03	442.35	463.97	147473.46	358.18
1299.8	272.41	117635.41	100% of 2027 Goal	1132.92	87.16	442.35	162.38	147473.46	125.36

**IV. Part II.A.13.d – BMPs Planned for the next reporting period:**

Provide a list of BMPs that are planned for implementation during the next reporting period.

No BMPs currently planned for the next reporting period.

**D. Local TMDL Information:**

**I. Part II.B.9 – Summary of Actions**

The annual report shall include a summary of actions conducted to implement each local TMDL action plan for the corresponding reporting period.

Fort Lee currently do not have local TMDL Action Plan during this reporting cycle. No TMDLs exist for the water bodies that the MS4 discharges to, therefore no sampling or monitoring of any MS4 discharges were conducted. Quarterly monitoring of industrial discharges is conducted IAW the requirements of VAR050594. Monthly sampling and analysis of eight (8) VPDES outfalls is conducted IAW the requirements of VA0059161. Fort Lee began using electronic Discharge Monitoring Report (eDMR) system in June 2011 with the submission of the May 2011 DMR.

**E. Summary of Storm Water Activities the Operator Plans to Undertake During the Next Reporting Cycle**

During the next reporting year (1 July 2021– 30 June 2022) Fort Lee intends to continue plan review and construction site monitoring for projects requiring VSMP permits and those that do not, but may involve ground disturbance. Environmental staff will continue to review all Service Orders and Work Orders performed by the Directorate of Public Works for environmental impact, and will continue to implement, review, and improve Best Management Practices outlined in its permit.

## **F. Describe any Changes in BMPs or Measurable Goals for any MCMs Including Actions Taken to Address Deficiencies**

There were no changes in BMPs or Measurable Goals for any MCMs during the reporting period. As previously stated in the program plan effectiveness for each MCM, the following will be changed for the 1 July 2020 to 30 June 2021 reporting period:

MCM 1 - Although BMP 1 was accomplished this reporting period, many events like Safety Day and Life at Lee were cancelled due to COVID-19. For the following reporting year, Fort Lee will attempt to implement more social-distant and virtual events to ensure that Fort Lee will continue to stay in compliance with the MS4 General Permit. The Program Plan will be updated to reflect these implementations to adapt with current conditions.

MCM 3 - BMP 1 consists of the MS4 Illicit Discharge Policy. This policy is currently in the process of being redacted and combined with the Fort Lee Environmental Policy. The new policy continues to emphasize the prohibition of illicit non-stormwater discharges and dumping into storm drains.

As part of the Chesapeake Bay Program TMDL implementation plan Fort Lee constructed 6 Low Impact Development BMPs that included bio-retention basins, infiltration practices and perimeter sand filters during the reporting period.

## **G. Notice that Operator is Relying on Another Government Entity to Satisfy Some Permit Obligations (If Applicable)**

Not Applicable

## **H. Approval Status of any Programs Pursuant to Section II C of the General Permit**

Not Applicable

## **I. Information Required for any Applicable TMDL Special Conditions**

Fort Lee's Chesapeake Bay TMDL Action Plan was submitted to the DEQ on 1 October 2015 along with the 2015 MS4 Annual Report. Work began in November 2015 on the BMPs designed to meet the Action Plan Goals. The TMDL BMPs construction were all completed this reporting year.

## **J. Appendices**

Appendix A: Delegation of Signature Authority

Appendix B: Illicit Discharge Summary

Appendix C: MS4 Outfalls

Appendix D: MS4 Stormwater Management Facilities

# **APPENDIX A**

## **Delegation of Signature Authority**



**CERTIFICATION STATEMENT AND SIGNATORY REQUIREMENTS  
FOR MS4 PERMIT APPLICATIONS AND REPORTS**

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board, shall be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

1. *For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;*
2. *For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or*
3. *For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.*

A person is a duly authorized representative only if:

1. *The authorization is made in writing by a person described above;*
2. *The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and*
3. *The written authorization is submitted to the department.*

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**CERTIFICATION**

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.

Diana M. Maimone



Responsible Official Signature

9/27/21

Date

VAR040007  
Permit Number

US Army Garrison Fort Lee  
MS4 Name

# **APPENDIX B**

## **Illicit Discharge Summary**

**Table 7. Illicit Discharge Summary (1 July 2020 - 30 June 2021)**

Date Reported	Location	MS4 Outfalls Affected	Estimate Gallons Spilled	Short Summary (incl. source of illicit discharge, date discharge was observed, who discharge was discovered by (permittee during dry weather, reported by public, etc),	Resolution	Follow-Up Date	Investigation Close Date
10/28/2020	Battle Drive Sewage Spill	N/A	800 Gallons	ODUS subcontractor hit an elevated sewer main with a tree while clearing the easement. The hit broke the elevated line support, which caused the pipe to collapse in one location and resulted in a sewer spill.	Subcontractor immediately dug a pit where the sewer was spilling, and pumped from the pit to the downstream manhole. Sewage was rerouted into the new lift station under construction to replace this elevated sewer main, which stopped the spill. Once all sewage on the ground had been pumped into the sewer, contractor placed lime in the area and backfilled the pit.	10/29/2020	10/29/2020
11/1/2020	Building 8401 Parking Lot	N/A	1-1.5 Gallons	Spill (4-6 quarts of used motor oil) occurred in the Bldg. 8401 parking lot on Sunday (1 Nov 2020) and was not reported until Monday morning (2 Nov 2020). The individual responsible for the spill applied dry sweep and cleaned up the spill on Sunday.	The individual responsible for the spill applied dry sweep and cleaned up the spill on Sunday.	11/2/2020	11/3/2020
12/3/2020	Shop Road between 19th and 20th St	N/A	5 Gallons	Around 1300, the 111th picked up 13 buckets of oil from the HMCC in a 5-ton. HMCC employee said some buckets were stacked in the back. Truck exited the 20th Street side of HMCC compound, turned left onto Shop Road (heading NE), and a bucket fell off of truck, landed in the right hand travel lane spilling all contents. All fluid remained on impervious surface contained by curb. Offending vehicle did not stop.	Dry sweep was placed down and cleaned up by EMD. Clean-up process was completed by 1430. EMD Chief and DPW Director will notify Commander of responsible unit to ensure all HazMat is secured and accounted for.	12/3/2020	12/3/2020

12/10/20 20	AAFES Gas Station	N/A	2-3 Gallons	<p>At approximately 10am a customer came and told Shift Manager Jessica Nesbitt that the customer pumping on pump 20 spilled gas and that it also had gotten all over her. Jessica let me know and proceeded to go outside with Associate Michelle Lycette to contain the spill. Jessica let the customer know that she was not able to start her car to leave since there was fuel under her car. I immediately called 911 on the way out to the pump to dispatch paramedics and fire department. As I approached pump 20 I saw the nozzle laying on the floor. I asked what happened and the young lady stated that she was trying to undo the auto fill trigger and when she couldn't she just yanked the nozzle out of the vehicle with the gas was still flowing. She stated that the gas soaked down her right side however when looking it was only her thigh area that was wet. Fire department showed up and the paramedics looked at the customer and stated that she was fine because it was not a lot on her and recommended that she just stay away from any matches and change her clothes if possible. They pushed her car away from the pump so that she can leave and we can finish cleaning up the area putting down kitty litter and the absorbent mats. Fire department said it looks like approximately 2 gallons may have spilled. At 1030 I called Mr. Mills at base Environmental to advise him of the incident and he stated that he would send someone to just come and look at the area. Environmental showed up and swept up the kitty litter, absorbent pads and disposed properly.</p>	David, Alex and I arrived on the scene at around 10:45am after being alerted to the spill at roughly 10:30am. The contaminated dry sweep and absorbent (which contained 2-3 gallons of mogas) was collected and bagged up for disposal. After briefing talking to Ms. Ortega we left the Gas Station to Bldg. 7123.	12/10/2020	12/10/2020
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1/12/2021	Near Lee Club at Intersection of Mahone Ave & Battle Dr.	N/A	6' x 8' area contaminated	Today at 1330 I received a call from Taylor Vaughn from Skookum to report a hydraulic oil spill at the Lee club. The spill occurred while Skookum electricians had been in the process of removing Christmas lights from a tree out in front of the club when one of the hydraulic lines on the bucket lift ruptured and rained hydraulic oil down across the entire top of truck. A majority of the oil ran down the lift arm and drained into the back of the truck, ran down the undercarriage / support legs and saturated the grass and soil under the back of the truck in several locations (estimated contaminated area is 6' by 8'. Oil also ran down the front windshield / engine hood of the vehicle onto the bumper and saturated the grass and soil in a narrow strip in front of the truck	Upon DPW HW arrival on the scene Skookum had already placed pads under the truck to catch as much oil as they could to prevent further contamination of the soil. Mr. Hoelt immediately assisted Skookum in picking up all of the saturated spill pads / soaking up any puddles and replacing them with fresh pads/pillow to mitigate the spill until Skookum personnel could arrive with drip pans and buckets to place under the vehicle (see photo "Catch Buckets"). Skookum was made aware that all of this would have to be excavated and back filled with clean s	1/12/2021	1/15/2021
1/15/2021	AAFES Gas Station	N/A	2-3 Gallons	Around 13:05 a customer came up to Mistie Priddy and told her that the gas pump he was on was leaking. She said he began walking away from her and she proceeded to ask him what pump he was on while following him out of the store. Misty followed him to Pump 16 and removed the pump from the vehicle. She told him not move his car she needed to go get a manager. He told her "It's okay Sweetie." and got in his car and drove off quickly she says.	Human error, customers keep walking away from pump. EMD is looking into recommendations on the pump handles to have that locking mechanism removed.	1/15/2021	1/15/2021

1/27/2021	AAFES Gas Station	N/A	10 Gallons	A customer was pumping gas on pump #11, he said while it was pumping the hose ruptured where it curves, touching the ground. Another customer came in the store and let Maricelly Ortiz know what was going on. She came and informed us managers (Jessica Kunes, Jahnaya Hudson, Jessica Nesbitt) and letting us know that the gas was not shutting off. We went out and checked and hit our emergency auto shut off outside. It was not working, so we hit our emergency shut off behind the registers, it still wasn't working, We put an FSL for pump #11(Case Number-00064474), and for our emergency auto shut off switches (Case Number-00064477). We had to shut down all of our pumps, until our emergency auto shut off switches are fixed. Jessica Kunes went and shut the emergency auto shut off in the stockroom and still nothing happened. Finally, it stopped spraying out, but it was still leaking. The customer got gas all over himself, the inside and outside of his vehicle. Fire Chief, and Environmental came out. Fire Chief said we lost about 10 gallons. Another small spill of <1 gal occurred at pump #21 as the primary spill was being cleaned up. Reported to EMD and FD by AAFES staff as we were packing up to leave. Apparently a customer had spilled this fuel and drove off without notifying the station staff.	Spilled fuel cleaned up by FD and EMD. FD Inspector directed AAFES to stop dispensing fuel until emergency shutoff system is repaired. AAFES submitted emergency work order to test/repair the shutoff system. Dispenser hose will also have to be replaced.	1/27/2021	1/27/2021
3/1/2021	Entrance to the substation on 5th Street	N/A	110 Gallons	Spill looks like gray sludge. In sludge, hair and paper was observed. There was no sewage or petroleum odor. A boom was placed in front of the storm inlet.	The spilled sludge was scooped from the incident area for safe disposal on 3/3/2021.	3/4/2021	3/4/2021
3/5/2021	AAFES Gas Station	N/A	5 Gallons	AAFES customer put the nozzle into her car and put on the auto trigger. She went to the back seat to help her godson and was not paying attention. Another customer came and flicked off the auto trigger. This occurred at pump No. 16.	Two AAFES employees poured Kitty litter down and swept it up. Spill was reported to EMD at around 1538. AAFES employees cleaned up the spill.	3/5/2021	3/5/2021

3/11/2021	AAFES Gas Station Popeyes	N/A	3-5 Gallons	<p>On Wednesday (3/10/2021) the staff at the AAFES gas station observed that there was a spill of roughly 3-5 gallons of used cooking oil around the dumpster behind Bldg. 1630. The spill was reported up the chain and DPW EMD was notified at 0720 Thursday morning (3/11/2021). At this time the AAFES personnel do not know who is responsible for the spill. The used cooking oil collection bin is adjacent to the back door of Bldg. 1630 and is located at least 50 feet from the site of the spill. In order for the spill to occur someone had to have carried the used cooking oil past the oil collection bin and attempted to deposit it into the refuse dumpster.</p>	<p>Dry sweep was placed down and cleaned up by EMD. Clean up process was completed by 0956 and the contaminated dry sweep has been placed into the contaminated soil roll off at the MIF. Estimated cost of spill cleanup is: \$83 in materials and manpower.</p>	3/11/2021	3/11/2021
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# **APPENDIX C**

## **MS4 Outfalls Information**



Table 8. MS4 Associated Outfall Information (1 July 2020 - 30 June 2021)

Outfall	Latitude	Longitude	Drainage Area (Acre)	Receiving Water	HUC12	Impaired	Land Use	TMDL
1	37.25575	-77.34864	8.5	Harrison Branch	020802071001	Yes	National Defense	None
2	37.25503	-77.34974	35.3	Harrison Branch	020802071001	Yes	National Defense	None
3	37.25735	-77.34851	21.7	Harrison Branch	020802071001	Yes	National Defense	None
4	37.22973	-77.32689	6.6	Bailey Creek	020802060201	Yes	National Defense	None
5	37.23015	-77.32625	17.3	Bailey Creek	020802060201	Yes	National Defense	None
6	37.24801	-77.32455	18.6	Bailey Creek	020802060201	Yes	National Defense	None
7	37.2474	-77.32374	22.2	Bailey Creek	020802060201	Yes	National Defense	None
8	37.24673	-77.32624	130	Bailey Creek	020802060201	Yes	National Defense	None
9	37.25732	-77.34085	24.3	Cabin Creek	020802071002	Yes	National Defense	None
10	37.25771	-77.34361	19.4	Harrison Branch	020802071001	Yes	National Defense	None
11	37.25152	-77.35289	30	Appomattox River	020802071001	Yes	National Defense	None
12	37.24898	-77.34754	36.6	Harrison Branch	020802071001	Yes	National Defense	None
13	37.25018	-77.3444	19.2	Harrison Branch	020802071001	Yes	National Defense	None
14	37.2491	-77.34339	66.6	Harrison Branch	020802071001	Yes	National Defense	None
15	37.25529	-77.33593	56.9	Cabin Creek	020802071002	Yes	National Defense	None
17	37.28499	-77.35572	4.2	Appomattox River	020802071001	Yes	National Defense	None
20	37.29152	-77.33163	180.1	Bull Hill Run	020802071002	No	National Defense	None
21	37.3368	-77.34288	41.7	Bailey Creek	020802060201	Yes	National Defense	None
22	37.23071	-77.33994	34.6	Bailey Creek	020802060201	Yes	National Defense	None
23	37.22849	-77.33504	35.2	Bailey Creek	020802060201	Yes	National Defense	None
24	37.22156	-77.33946	22.7	Bailey Creek	020802060201	Yes	National Defense	None
25	37.22158	-77.34265	53.4	Bailey Creek	020802060201	Yes	National Defense	None
26	37.21957	-77.33834	18.8	Bailey Creek	020802060201	Yes	National Defense	None
27	37.21435	-77.33062	70.8	Blackwater Swamp	030102020102	Yes	National Defense	None
28	37.24614	-77.32429	7.8	Bailey Creek	020802060201	Yes	National Defense	None
29	37.24381	-77.32947	37.7	Bailey Creek	020802060201	Yes	National Defense	None
30	37.21946	-77.33924	11	Bailey Creek	020802060201	Yes	National Defense	None
31	37.25196	-77.33579	58	Cabin Creek	020802071002	Yes	National Defense	None
32	37.23217	-77.34748	20.7	Appomattox River	920802071001	Yes	National Defense	None

# **APPENDIX D**

## **Permanent Stormwater Management Facilities Maintenance**

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance Summary

Storm Water Maintenance Report  
Retention/Detention Pond Maintenance



**SKOOKUM**  
Contract Services

Location	Frequency	Type (Retention/Detention)	Date Of Last Service	Inspect Pond	Clean Pond	Cut Pond	Functioning	Other Work Required	Remarks
Pond 001 - Along A Ave / AAFES Car Wash 1631 (smaller with Rip Rap Included)	ANNUALLY	DETENTION	11/05/20	✓	✓	✓	✓		
Pond 002 - Between 1630 and Commissary Parking, NE of 1630 Loading Dock	ANNUALLY	RETENTION	11/05/20	✓	✓	✓	✓		
Pond 003 - SW of Water Tower, between 2nd and 3rd St on A Ave	ANNUALLY	DETENTION	11/05/20	✓	✓	✓	✓		
Pond 004 - Behind PX / Helicopter Pad, In Sharp Curve closest to PX/ Comm. Breezeway	ANNUALLY	DETENTION	11/05/20	✓	✓	✓	✓		
Pond 005 - Sisisky Blvd & B Ave - NE of intersection	ANNUALLY	DETENTION	11/05/20	✓	✓	✓	✓		
Pond 006 - Sisisky Blvd Behind 2607	ANNUALLY	DETENTION	11/10/20	✓	✓	✓	✓		
Pond 007 - Sisisky Blvd outbound Past Guard shack on right	ANNUALLY	DETENTION	11/10/20	✓	✓	✓	✓		
Pond 009 - Along C Ave between 3rd and 5th St. Southeast of Overflow parking	ANNUALLY	DETENTION	11/10/20	✓	✓	✓	✓		
Pond 010 - ENE of 1540	ANNUALLY	DETENTION	11/10/20	✓	✓	✓	✓		
Pond 011 - SE of 3002 DFAC Parking	ANNUALLY	RETENTION	11/12/20	✓	✓	✓	✓		
Pond 012 - 2nd St near C Ave - 100ft NW of intersection	ANNUALLY	DETENTION	11/12/20	✓	✓	✓	✓		
Pond 013 - Along 2nd St - NW of B Ave intersection, eastern side of 2nd St	ANNUALLY	DETENTION	11/12/20	✓	✓	✓	✓		

Summary

Storm Water Maintenance Report



**SKOOKUM**  
Contract Services

Pond 014 - Between 6298 and 6295 and Quartermaster Road	ANNUALLY	RETENTION	11/13/20	✓	✓	✓
Pond 015 - 49th GRP storage on Quartermaster Road, SW of Light	ANNUALLY	DETENTION	11/13/20	✓	✓	✓
Pond 016 - 49th GRP storage on QM, SW of Bridge, at base of bridge slope	ANNUALLY	DETENTION	11/13/20	✓	✓	✓
Pond 017 - Along C Ave - South of C Ave at 13th Street intersection	ANNUALLY	RETENTION	11/16/20	✓	✓	✓
Pond 018 - Between 4225 and 4210	ANNUALLY	RETENTION	11/16/20	✓	✓	✓
Pond 019 - At the corner of Lee Ave and B Ave, North of intersection	ANNUALLY	DETENTION	11/17/20	✓	✓	✓
Pond 020 - Inside NEC server farm addition / Army Rd	ANNUALLY	DETENTION	11/17/20	✓	✓	✓
Pond 021 - Along C Ave Behind Liberty Chapel	ANNUALLY	DETENTION	11/18/20	✓	✓	✓
Pond 022 - Between 10600 and 10620	ANNUALLY	DETENTION	11/18/20	✓	✓	✓
Pond 023 - 34th St and Evacuation, Due East of ALU Parking lot #2	ANNUALLY	RETENTION	11/18/20	✓	✓	✓
Pond 024 - Intersection of 38th St and F Ave	ANNUALLY	RETENTION	11/19/20	✓	✓	✓
Pond 025 - Foot of flyover bridge, northeast of traffic circle	ANNUALLY	DETENTION	11/19/20	✓	✓	✓
Pond 026 - Foot of flyover bridge, southwest of traffic circle	ANNUALLY	RETENTION	11/19/20	✓	✓	✓
Pond 027 - Large pond south of TSED	ANNUALLY	RETENTION	11/20/20	✓	✓	✓
Pond 028 - Central Campus Pond east of RR, north of substation	ANNUALLY	RETENTION	11/23/20	✓	✓	✓
Pond 029 - Central Campus Large Pond west of RR, N/W of 18037	ANNUALLY	RETENTION	11/24/20	✓	✓	✓
Pond 030 - The first pond next to the Clinic on Edgewood Rd	ANNUALLY	RETENTION	11/23/20	✓	✓	✓
Pond 031 - East of Temple Ave gate	ANNUALLY	RETENTION	11/23/20	✓	✓	✓

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance Summary

Storm Water Maintenance Report



**SKOOKUM**  
Contract Services

Identifier	Location	Frequency	Type (Retention/Detention)	Date Of Last Service	Inspect Pond	Clean Pond	Cut Pond	Functioning	Other Work Required	Remarks
Pond 032	West of Temple Ave gate	ANNUALLY	RETENTION	11/23/20	✓	✓	✓	✓		
Pond 033	On Edgewood east of North Bridge	ANNUALLY	DETENTION	11/23/20	✓	✓	✓	✓		
Pond 034	On Edgewood west of North Bridge	ANNUALLY	RETENTION	11/24/20	✓	✓	✓	✓		
Pond 035	Behind OD Store, large, N of track, W of Store	ANNUALLY	RETENTION	11/30/20	✓	✓	✓	✓		
Pond 036	Behind the EOD / Munitions Building 18016	ANNUALLY	RETENTION	12/01/20	✓	✓	✓	✓		
Pond 037	First at DFAC 18027 nearest to pedestrian bridge	ANNUALLY	RETENTION	12/02/20	✓	✓	✓	✓		
Pond 038	18027, NE of Loading Dock beside Aberdeen	ANNUALLY	RETENTION	12/02/20	✓	✓	✓	✓		
Pond 039	NE of 18027, between 18027 and 18032	ANNUALLY	DETENTION	12/02/20	✓	✓	✓	✓		

040 - South of TASP along I-295 ANNUALLY RETENTION 12/02/20 ✓ ✓ ✓ ✓

041 - Inside the Vehicle Recovery Training - West of Steep Hill ANNUALLY RETENTION 12/03/20 ✓ ✓ ✓ ✓

042 - est to River Rd., parallel to River when heading before sharp cur ANNUALLY RETENTION 12/09/20 ✓ ✓ ✓ ✓

043 - narrow pond closest to Drop Zone, South of all pad network ANNUALLY RETENTION 12/10/20 ✓ ✓ ✓ ✓

044 - Along entrance to River Training Site off Rd ANNUALLY DETENTION 12/11/20 ✓ ✓ ✓ ✓

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance Summary

Storm Water Maintenance Report



**SKOOKUM**  
Contract Services

045 - On left along entrance road to MIF	ANNUALLY	RETENTION 12/07/20	✓	✓	✓
046 - MIF Pond	ANNUALLY	RETENTION 12/07/20	✓	✓	✓
047 - PTF Pond	ANNUALLY	RETENTION 12/04/20	✓	✓	✓
048 - In woods behind RIBS Site along meter fence	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
050 - Beside Credit Union Drive-Thru	ANNUALLY	DETENTION 12/07/20	✓	✓	✓
051 - Behind MEPS Center	ANNUALLY	DETENTION 12/07/20	✓	✓	✓
059 - 49th GRP storage, between 7146 and	ANNUALLY	DETENTION 12/07/20	✓	✓	✓
061 - Behind Bldg 1530	ANNUALLY	DETENTION 12/07/20	✓	✓	✓
062 - Corner of 41st St. and E Ave, behind	ANNUALLY	DETENTION 12/07/20	✓	✓	✓
063 - Front of 11105 near the SE end of the ing track	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
064 - North corner of 11107	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
065 - SE of Larkin Hall between 11102 and St	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
066 - Behind Bldg 1110, behind loading dock of	ANNUALLY	DETENTION 12/09/20	✓	✓	✓

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance Summary

Storm Water Maintenance Report



**SKOOKUM**  
Contract Services

067 - South of 1603, within Bus Loop	ANNUALLY	DETENTION	12/08/20	✓	✓	✓	✓
068 - Corner of 1603, along Quartermaster Road, east to Commissary	ANNUALLY	DETENTION	11/06/20	✓	✓	✓	✓
069 - Sisisky Guard Shack, btwn Guard Shack, messary and Salt Dom Large	ANNUALLY	DETENTION	11/09/20	✓	✓	✓	✓
070 - Directly behind 1603, east to trees Middle of 3 adjacent	ANNUALLY	DETENTION	11/09/20	✓	✓	✓	✓
071 - NW of 1603 - Toward Salt Dome	ANNUALLY	DETENTION	11/09/20	✓	✓	✓	✓
080 - Landfill 1 - Road to Trailer Park off end th St to left	ANNUALLY	DETENTION	12/10/20	✓	✓	✓	✓
081 - Landfill 2 - Road to Trailer Park off end th St right side	ANNUALLY	DETENTION	12/10/20	✓	✓	✓	✓
082 - Along 16th Street between 3800 and 4200	ANNUALLY	DETENTION	12/08/20	✓	✓	✓	✓
083 - Along 16th Street between 3800 and 4200	ANNUALLY	DETENTION	12/08/20	✓	✓	✓	✓
085 - 2nd on right side of entrance to Water ing Site	ANNUALLY	RETENTION	12/11/20	✓	✓	✓	✓
086 - 3rd on right, closest to actual river, rip rap bed in pond.	ANNUALLY	RETENTION	12/14/20	✓	✓	✓	✓
087 - northeast corner of drop zone, against TASP, separation of 28/29	ANNUALLY	RETENTION	12/11/20	✓	✓	✓	✓
088 - West of 11108, SE corner of Intersection th and A Avenue	ANNUALLY	DETENTION	12/08/20	✓	✓	✓	✓

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance Summary

Storm Water Maintenance Report



**SKOOKUM**  
Contract Services

089 - Along G Avenue behind 11031	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
090 - South of 4225 mechanical area along 19th	ANNUALLY	DETENTION 12/04/20	✓	✓	✓
091 - Behind Sisisky Welcome Center beside courts	ANNUALLY	DETENTION 12/08/20	✓	✓	✓
092 - Central Avenue between 18031 and 18032	ANNUALLY	DETENTION 12/10/20	✓	✓	✓
093 - Fenced in between SECLEE and 1599	ANNUALLY	DETENTION 12/09/20	✓	✓	✓

Maintenance

Location	Frequency	Remarks
Culvert Area 001 - A Ave	WEEKLY	Culverts were inspected every week by Skookum personnel and documented in daily reports.
Culvert Area 002 - B Ave	WEEKLY	Culverts were inspected every week by Skookum personnel and documented in daily reports.
Culvert Area 003 - Battle Drive	WEEKLY	Culverts were inspected every week by Skookum personnel and documented in daily reports.
Culvert Area 004 - 5th Street	WEEKLY	Culverts were inspected every week by Skookum personnel and documented in daily reports.
Culvert Area 005 - Sisisky Blvd	WEEKLY	Culverts were inspected every week by Skookum personnel and documented in daily reports.



Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance

Summary

Storm Water Maintenance Report  
Filterra System Maintenance



**SKOOKUM**  
Contract Services

Identifier	Location	Frequency	Date Of Service	Inspect System (1)	Clean System (2)	Mulch & Erosion (3)	Plant Health (4)	Other Work Required	Remarks
FRA001	Filterra System Area 001 - System 1 @ Building 03024	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA002	Filterra System Area 002 - System 2 @ Building 03024	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA003	Filterra System Area 003 - System 3 @ Building 03024	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA004	Filterra System Area 004 - System 1 @ Building 03400	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA005	Filterra System Area 005 - System 2 @ Building 03400	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA006	Filterra System Area 006 - System 3 @ Building 03400	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA008	Filterra System Area 008 - System 1 @ Building 06242	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA009	Filterra System Area 009 - System 2 @ Building 06242	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA010	Filterra System Area 010 - System 1 @ Building 10624	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA011	Filterra System Area 011 - System 2 @ Building 10624	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA012	Filterra System Area 012 - System 3 @ Building 10624	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		
FRA013	Filterra System Area 013 - System 1 @ Building 03020	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA014	Filterra System Area 014 - System 4 @ Building 10624	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA015	Filterra System Area 015 - System 5 @ Building 10624	SEMI-ANNUALLY	06/03/20	✓	✓	✓	✓		
FRA016	Filterra System Area 016 - System 4 @ Building 03400	SEMI-ANNUALLY	06/04/20	✓	✓	✓	✓		

(1) Inspect System: Inspection includes checks for standing water, box damage, grate damage, cleaning the bypass, cleaning the area around the filterra system and cleaning the drop inlet.

(2) Clean System: Cleaning includes removal of silt, mulch and soil, trash and leaves.

Skookum Contract Services - Fort Lee Base Operations Support Contract W91QF5-18-C-0004 Storm Water Maintenance

Summary

Storm Water Maintenance Report

- (3) Mulch & Erosion: Mulch & Erosion includes adding mulch to required height, repositioning erosion control stones and replacing filterra grates.
- (4) Plant Health: Plant health includes making sure plants are alive and healthy and making sure the plants are adequate for usage.



**SKOOKUM**  
Contract Services

01APR2020 - 31MAR2021

Porous Pavement Maintenance

Identifier	Location	Frequency	Type (Concrete/Asphalt/ Pavers)	Date Of Service	Standing Water Removed	Debris Removed	Vacuumed	Leveled Surface	Other Work Required	Remarks
POR001	Porous Pavement Area 001 - Porous Concrete @ Building 1406	SEMI- ANNUALLY	Concrete	05/28/20	✓	✓	✓			
POR002	Porous Pavement Area 002 - Porous Concrete @ Building 11200	SEMI- ANNUALLY	Concrete	05/27/20	✓	✓	✓			
POR003	Porous Pavement Area 003 - Porous Concrete @ Building 11810	SEMI- ANNUALLY	Concrete	05/27/20	✓	✓	✓			
POR004	Porous Pavement Area 004 - Porous Asphalt @ Building 1303	SEMI- ANNUALLY	Asphalt	05/28/20	✓	✓	✓			
POR005	Porous Pavement Area 005 - Porous Pavers @ Building 1111	SEMI- ANNUALLY	Pavers	05/27/20	✓	✓	✓	✓		
POR006	Porous Pavement Area 006 - Porous Pavers @ Building 6242	SEMI- ANNUALLY	Pavers	06/25/20	✓	✓	✓	✓		