Joint Base Myer-Henderson Hall
VSMP MS4 General Permit
2019 Annual Report

Part I.D.2. General Information.

a. **Permittee**: Joint Base Myer-Henderson Hall (formerly known as U.S. Army Garrison Fort Myer)

System Name: Joint Base Myer-Henderson Hall MS4

Permit Number: MS4 General Permit VAR040068

b. **Reporting Period:** 2018-2019 (Period of Report: 1 July 2018 – 30 June 2019)

c. **Signed 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."

Name: Kimberly A. Peeples
Title: COL, Engineer, Commanding, Joint Base Myer-Henderson Hall

Signature:

Date: 19 Sept 19

d. **Reporting for Minimum Control Measures (MCMs) No.1-6:** See Attachment 1.

e. **Evaluation of the MS4 Program Implementation:** See Attachment 1.

Part II.A.13 Chesapeake Bay TMDL Information

a. **BMPs not Reported to the BMP Warehouse:** All BMPs implemented through 30 June 2019 have been reported to the BMP Warehouse.

b. **Credits:** No credits were acquired during this reporting period.

c. **Progress Toward Meeting Required Reductions:** JBM-HH's progress toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids is presented in the table below.

First Permit Cycle BMPs	TN Removed (lbs/yr)	TP Removed (lbs/yr)	TSS Removed (lbs/yr)
Permeable Pavement Area – Special Events Area	4.23	0.59	264.39
Bioretention Area – Special Events Area	11.61	1.59	657.01
Building 406 Demolition	15.07	1.61	747.94
Bio-swale near Sheridan Ave and Pershing Dr.	2.84	0.41	212.9
Permeable Pavement near Sheridan Ave and Pershing Dr.	2.11	0.3	179.62
Bioswale near the Fitness Center Parking Lot	2.63	0.38	165.1
Bio-retention – East Lot Island	8.71	1.19	423.44
Street Sweeping (SCP-4, every 4 weeks)	35.34	13.2	17784
Total Pollutant Removal	**82.54**	**19.27**	**20434.4**
2028 Pollutant Goal (lb)	**270.8**	**27.6**	**31529.6**
% 2028 Goal	**30.48%**	**69.82%**	**64.81%**

d. BMPs Planned for Next Reporting Period:

- Continue street/parking lot sweeping

Part II.A.9 Local TMDL Information

Summary of Actions:

The MS4 General Permit requires permittees to address pollutants for which the MS4 has been assigned a wasteload allocation (WLA) in an approved TMDL (other than the Chesapeake Bay TMDL). Because JBM-HH discharges to the Potomac River, the Installation is required to have a TMDL Action Plan for polychlorinated biphenyls (PCBs). The PCB TMDL Action Plan for JBM-HH was developed from March-July 2016 and submitted to the Virginia DEQ on 18 July 2016. The Plan was approved by DEQ in a letter dated 26 July 2016.

A summary of the implementation actions included in the PCB TMDL Action Plan and the progress for these actions is provided below:

Action	Progress
Develop a PCB fact sheet	To reach a wide audience of base-wide residents, employees, and military personnel (current and retirees) that utilize the services at JBM-HH, an article about PCBs and the PCB TMDL Action Plan was prepared and published in the widely-read base newspaper, the *Pentagram.* The article was published on March 7, 2017. An additional fact sheet is

	in progress and will be distributed as appropriate.
Continue to perform routine maintenance, as required, of BMPs that may help to control PCBs, such as detention basins	Routine maintenance of systems and BMPs that may help control PCBs is scheduled and performed as needed.
Develop PCB sampling plan to comply with PCB TMDL requirements	A PCB sampling plan was included in the PCB TMDL Action Plan that identified three outfalls in areas with historic PCB use for sampling. To date, two of the outfalls (013 and 021) have been sampled twice and one outfall (012) has been sampled once. There were no PCBs detected in any of the samples collected to date. Issues with access have prevented the collection of a second sample at outfall 012. This outfall will be sampled in late 2019 or early 2020.
Modify existing stormwater pollution prevention training materials for municipal operations to include a section on identifying and reporting potential PCB leaks	Annual stormwater pollution prevention training materials for Public Works employees were modified in 2017 to include PCB TMDL awareness, PCB source identification, and reporting information.

Attachment 1 - VSMP MS4 General Permit 2019 Annual Report
JBM-HH Minimum Control Measure Progress Evaluation

<table>
<tr><th>Permit Section: Requirement</th><th>Implementation/Progress Summary</th></tr>
<tr><td colspan="2">Minimum Control Measure 1: Public Education and Outreach on Stormwater Impacts</td></tr>
<tr><td>Part I.E.1.g(1): A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program;</td><td>The High-Priority WQ Issues at JBM-HH are:
• Oil & grease, hydrocarbons and related pollutants
• Sediment
• Trash and litter
These high-priority issues are addressed by activities as described below and in the Public Education and Outreach Plan, which is included as Appendix D of JBM-HH's MS4 Program Plan.</td></tr>
<tr><td>Part I.E.1.g(2): A list of the strategies used to communicate each high-priority stormwater issue.</td><td>
<table>
<tr><th>High-Priority WQ Issue</th><th>Activity</th></tr>
<tr><td>Oil & grease, hydrocarbons and related pollutants</td><td>• Updated Stormwater Pollution Prevention brochures for new employees at JBM-HH, included in the new hire packets.
• Presented stormwater pollution prevention topics at the Environmental Quality Control Committee (EQCC) Meetings held in 12 October 2018 and 30 May 2019; and provided information on stormwater issues to directors and managers of other departments and organizations on the Installation to be further disseminated among Installation staff.
• Published an article in the Pentagram, JBM-HH's weekly newspaper, regarding the health of the Chesapeake Bay and how members of the Installation can help protect it.
• Distributed stormwater pollution prevention table tents at the Dining Facility.</td></tr>
<tr><td>Sediment</td><td>• Updated Stormwater Pollution Prevention brochures for new employees at JBM-HH, included in the new hire packets.
• Presented stormwater pollution prevention topics at the Environmental Quality Control Committee (EQCC) Meetings held in 12 October 2018 and 30 May 2019, and provided information on stormwater issues to directors and managers of other departments and organizations on the Installation to be further disseminated among Installation staff.
• Published an article in the Pentagram, JBM-HH's weekly newspaper, regarding the health of the Chesapeake Bay and how members of the Installation can help protect it.
• Published an article in the Pentagram describing how to prevent sanitary sewer backups and why preventing backups is important in protecting the environment.
• Distributed stormwater pollution prevention table tents at the Dining Facility.</td></tr>
<tr><td>Trash and Litter</td><td>• Updated Stormwater Pollution Prevention brochures for new employees at JBM-HH, included in the new hire packets.
• Presented stormwater pollution prevention topics at the Environmental Quality Control Committee (EQCC) Meetings held in 12 October 2018 and 30 May 2019, and provided information on stormwater issues to directors and mangers of other departments and organizations on the Installation to be further disseminated among Installation staff.
• Published an article in the Pentagram, JBM-HH's weekly newspaper, regarding the health of the Chesapeake Bay and how members of the Installation can help protect it.
• Published an article in the Pentagram, JBM-HH's weekly newspaper, on how sewage backups can be prevented.
• Published an article in the Pentagram describing how to prevent sanitary sewer backups and why preventing backups is important in protecting the environment.
• Distributed stormwater pollution prevention table tents at the Dining Facility.</td></tr>
</table>
</td></tr>
<tr><td colspan="2">Minimum Control Measure 2: Public Involvement/Participation</td></tr>
<tr><td>Part I.E.2.f(1): A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded;</td><td>No public input, including complaints, was received regarding the MS4 program.</td></tr>
<tr><td>Part I.E.2.f(2): A webpage address to the permittee's MS4 program and stormwater website;</td><td>https://home.army.mil/jbmhh/index.php/teamJBMHH/about/Base/stormwater-pollution-prevention-jbm-hh-1</td></tr>
</table>

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JBM-HH Minimum Control Measure Progress Evaluation

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<tr><th>Permit Section: Requirement</th><th>Implementation/Progress Summary</th></tr>
<tr><td>Part I.E.2.f(3): A description of the public involvement activities implemented by the permittee;

Part I.E.2.f(4): A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality;</td><td>The following public involvement/participation activities were held during this reporting year:
<table>
<tr><th>Activity</th><th>Metrics</th><th>Water Quality Benefits</th></tr>
<tr><td>• Presented stormwater pollution prevention topics at the Environmental Quality Control Committee (EQCC) Meetings held in 12 October 2018 and 30 May 2019, and provided information on stormwater issues to directors and mangers of other departments and organizations on the Installation to be further disseminated among Installation staff.</td><td>Approximately ten representatives from various organizations across the Installation (including Environmental Management; Security; Public Affairs; Resource Management; Public Works; Human Resources; Police; Planning; and Family and Morale, Welfare and Recreation) attended the meetings.</td><td>Indirect benefits through awareness of stormwater pollution issues.</td></tr>
<tr><td>• JBM-HH distributed table tents at the Installation’s main Dining Facility 9 September 2018, to teach members of the Installation about stormwater and the effects of pollution.</td><td>Approximately 70 table tents were distributed and left on display for approximately 8 months.</td><td>Indirect benefits through awareness of stormwater pollution issues.</td></tr>
<tr><td>• Representatives of JBM-HH attended the Department of Defense (DoD) Chesapeake Bay Action Team (CBAT) Meetings on 26 July 2018, 30 October 2018, 24 January 2019, and 18 April 2019.</td><td>Attendance at four meetings.</td><td>Indirect benefits through cooperation with other DoD installations to share strategies for implementing water quality BMPs and improvements.</td></tr>
<tr><td>• Two JBM-HH representatives attended a VA DEQ/DoD Partnership Meeting on 16 January 2019.</td><td>Two JBM-HH representatives, approximately eight DEQ representatives, approximately 10 DoD representatives from the Chesapeake Bay Program and Regional Environmental Coordination Programs, and numerous representatives of DoD Installations in Virginia attended.</td><td>Indirect benefits through cooperation with DEQ and other DoD installations to develop strategies for implementing water quality BMPs and improvements.</td></tr>
<tr><td>• JBM-HH held a paper shredding and recycling event on 17 April 2019 where multiple organizations on the Installation were involved.</td><td>Approximately 60 bins (90-gallon bins) worth of shredded paper were collected and recycled at the shredding event.</td><td>Paper and hazardous materials that are collected for proper recycling/disposal are prevented from becoming potential stormwater pollution sources.</td></tr>
<tr><td>• JBM-HH held an Earth Day base-wide cleanup that involved multiple organizations on the Installation from 15 April through 19 April 2019.</td><td>Quantifiable data was unavailable for this event.</td><td>Trash and other wastes that are collected for proper recycling/disposal prevented from becoming potential stormwater pollution sources.</td></tr>
<tr><td>• A new Stormwater Pollution Prevention webpage was created and added to JBM-HH’s website. The webpage includes a description of JBM-HH’s MS4, information on preventing stormwater pollution, the MS4 Program Plan, the most recent MS4 Annual report, the MS4 General Permit, the Chesapeake Bay TMDL Action Plan, the PCB TMDL Action Plan, stormwater pollution prevention articles previously published in the Pentagram, and an Environmental Incident Report for the public to use to report spills, leaks, or other environmental concerns.</td><td>N/A</td><td>Indirect benefits through awareness of stormwater pollution issues.</td></tr>
</table>
EMD is currently in the process of planning public involvement activities for the next year (2020) as described in the MS4 Program Plan.</td></tr>
<tr><td>Part I.E.2.f(5): The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.</td><td>JBM-HH did not collaborate with other MS4 permittees on public involvement activities during this reporting year. Information and strategies for public involvement opportunities were shared with other DoD installations during DoD CBAT meetings.</td></tr>
<tr><td colspan="2">Minimum Control Measure 3: Illicit Discharge Detection and Elimination</td></tr>
<tr><td>Part I.E.3.e(1): 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, 2019;</td><td>The EMD updated the storm sewer system map and outfall information table in May 2019. Updates to the map included adding the recently-constructed stormwater management facilities. Additional information has been added to the outfall information table and it will continually be updated as needed.</td></tr>
<tr><td>Part I.E.3.e(2): The total number of outfalls screened during the reporting period as part of the dry weather screening program;</td><td>All 23 outfalls were screened in May 2019.</td></tr>
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Permit Section: Requirement	**Implementation/Progress Summary**
Part I.E.3.f(3): A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows: (a) The source of the discharge; (b) The dates that the discharge was observed, reported, or both; (c) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe); (d) How the investigation was resolved; (e) A description if any follow-up activities; and (f) The date the investigation was closed.	No suspected illicit discharges to the MS4 were observed. One observation of flow during dry weather screening required further investigation. On 20 May 2019, flow was observed from an outfall located on the southern portion of the Installation, next to the Hatfield Gate, during dry weather outfall screening activities. A sample was unable to be retrieved because of the inlet's grated cover. No chlorine or sewage odors were detected. EMD staff attempted to trace the flow in upstream stormwater inlets and manholes and were unable to determine the source, as the flow was not observed in upstream inlets. DPW was notified of the flow and investigated the area by shutting off various water lines in the area. The source of the flow is a suspected leak in a water main. DPW is in the process of determining the exact location of the leak in order to repair it.
Minimum Control Measure 4: Construction site stormwater runoff control	
Part I.E.4.a: The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff.	The EMD has created a Construction Inspection and Compliance Procedure, included as Appendix G in the MS4 Program Plan, that includes responsibilities and roles for construction compliance; legal authorities used to address discharges from construction sites; and procedures for ensuring contractors are aware of stormwater management requirements prior to construction, conducting construction site erosion and sediment control inspections, and addressing deficiencies noted during inspections. Additionally, EMD has updated the JBM-HH base-wide stormwater policy to include EMD's authority in requiring compliance and corrective actions when deficiencies are identified.
Part I.E.4.d(1): (a) A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved standards and specifications for erosion and sediment control; and (b) If one or more of the land disturbing projects were not conducted with the department approved standards and specifications, an explanation as to why the projects did not conform to the approved standards and specifications.	JBM-HH's construction site stormwater runoff program is implemented in accordance with Part I.E.4.(4) and has not developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law and Regulations. Virginia DEQ is the permit review and issuing authority for erosion and sediment control plans and Construction General Permits, as JBM-HH is a federal entity.
Part I.E.4.d(2): Total number of inspections conducted;	No DEQ-permitted projects were implemented on the post since the MS4 Permit became effective on 1 November 2018.
Part I.E.4.d(3): The total number and type of enforcement actions implemented and the type of enforcement actions.	N/A
Minimum Control Measure 5: Post-construction stormwater management in new development and development on prior developed lands	
Part I.E.5.i(1): If the permittee implements a Virginia Stormwater Management Program in accordance with Part I.E.5.a(1) and (2): (a) The number of privately owned stormwater management facility inspections conducted; and (b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;	JBM-HH is a military installation. Inspection and maintenance of all stormwater management facilities (SMFs) on the Installation is the responsibility of the DPW. Maintenance issues are managed through the DPW work order process; enforcement actions are not applicable. Standard Operating Procedures (SOPs) have been developed for all SMFs on the Installation that include checklist forms to document the inspections and maintenance. In 2018, DPW contracted USACE to conduct inspections of SMFs across the installation on a routine basis. The USACE Inspection Team conducted inspections of four underground SMFs on 23 August 2018. The EMD is responsible for maintaining completed documentation received from USACE. EMD is in the process of submitting work orders to correct deficiencies noted during the inspections.
Part I.E.5.i(2): Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;	In 2018, DPW hired USACE to conduct inspections of SMFs across the installation on a routine basis. During this reporting period, the USACE Inspection Team conducted inspections of four SMFs on 23 August 2018 and two SMFs on 20 December 2018. The EMD is responsible for maintaining completed documentation received from USACE.
Part I. E.5.i(3): A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;	No significant deficiencies in SMFs were noted during the inspections, with the exception of the Filterra units located on base. EMD is working to identify the appropriate, qualified contractor to conduct the necessary maintenance for the units.

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Permit Section: Requirement	**Implementation/Progress Summary**
Part I.E.5.i(4): A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I.E.5.f or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities;	No projects occurred at Fort Myer or Henderson Hall with land-disturbing activities that required a construction stormwater permit.
Part I.E.5.i(5): A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I.E.5.g and the date on which the information was submitted.	A JBM-HH representative reported BMPs to the DEQ Warehouse on 26 September 2019.
Minimum Control Measure 6: Pollution prevention/good housekeeping for municipal operations	
Part I.E.6.q(1) A summary of any operational procedures developed or modified in accordance with Part I.E.6(a) during the reporting period;	Standard operational procedures (SOPs) for DPW activities were developed during the previous permit term and were disseminated to the appropriate DPW departments. Training efforts have been expanded to focus on good housekeeping and pollution prevention at the Installation's maintenance-related facilities. No new standard operating procedures were developed during this reporting year.
Part I.E.6.q(2): A summary of any new SWPPPs developed in accordance with Part I.E.6.c during the reporting period;	No new SWPPPs were developed this reporting period.
Part I.E.6.q(3): A summary of any SWPPPs modified in accordance with Part I.E.6.f or the rationale of any high priority facilities delisted in accordance with Part I.E.6.h during the reporting period;	A JBM-HH SWPPP that addresses all municipal operations for the Installation was prepared to comply with the Installation's VPDES Industrial Stormwater Permit. This SWPPP has been implemented since 2009 and is updated annually. The SWPPP is currently being revised to reflect the requirements of the 2018 MS4 permit and the termination of the Installation's Industrial General Permit.
Part I.E.6.q(4): A summary of any new turf and landscape nutrient management plans developed that includes: (a) Location and the total acreage of each land area; and (b) The date of the approved nutrient management plan.	Turf and landscaped areas at the Installation are generally limited to small maintained yards and landscaped areas surrounding residences and buildings. The only large area that may have nutrient applications is the Summerall Field. This area is approximately 9 acres and is used for ceremonies, parades, and other similar activities. The coordinates for this area are: N38.881746, E-77.081838. The need for a nutrient management plan has been evaluated. It was determined that nutrients are not currently being applied to Summerall Field or any other areas of the Installation. Therefore, a nutrient management plan is not required. If nutrients are applied at JBM-HH in the future, a plan will be developed in accordance with the permit conditions.
Part I.E.6.q(5): A list of the training events conducted in accordance with Part I.E.6.m, including the following information: (a) The date of the training event; (b) The number of employees who attended the training event; and (c) The objective of the training event.	During this reporting year, 27 employees and active duty military personnel assigned to motor pool maintenance and DPW maintenance activities completed required training that addresses stormwater pollution prevent and spill prevention, control and countermeasures (SPCC). Illicit discharge detection and elimination. During this reporting year, 2 employees completed training on 27 July 2018 and 25 employees completed training on 6 September 2018. The objective of the training is to address good housekeeping and pollution prevention by providing an understanding of the environmental issues and methods used to address these issues. The training includes, but is not limited to, the following topics: • How JBM-HH activities can impact the local environment; • How state and federal regulations apply to activities at JBM-HH; • Identifying opportunities to prevent pollution and use sustainable practices; • Environmental risks associated with employee's duties; • Methods for reducing environmental impacts; • Spill prevention and response; and • Illicit discharge detection and elimination. • Good housekeeping and pollution prevention practices for DPW operations (including roadway and parking lot maintenance and pollutant minimization practices) • PCB TMDL required topics After employees/personnel successfully pass an integrated test, a certificate of completion is generated.