

ARLINGTON NATIONAL CEMETERY

MS4 Permit Year 2015/2016

VAR040139

Annual Report and Program Plan Update

Reporting Period

July 1, 2015 through June 30, 2016

(Due: October 1, 2016)

Submitted to:

Virginia Department of Environmental Quality
Woodbridge, VA

Prepared by:

Arlington National Cemetery
Arlington, VA



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Arlington National Cemetery Year (2016) MS4 Annual Report
Permit Number VAR040139
FACILITY INFORMATION

Name of Facility Arlington National Cemetery
Street Address 1 Memorial Drive
City Arlington State VA Zip Code 22211
County Arlington

SIGNATURE AND CERTIFICATION

Certification, as required by Virginia Administrative Code (9VAC25-890-40):

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.

Michael D. Peloquin, Colonel,
U.S. Army

Printed Name

Signature

Chief, Engineering Division

Title

September 30, 2016

Date

1.0 INTRODUCTION

The following report has been prepared by Arlington National Cemetery (ANC) to comply with the requirements of the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Storm Sewer Systems (MS4). The Virginia Department of Environmental Quality (VDEQ) originally issued General Permit Number VAR040139 to ANC on December 11, 2014.

ANC submitted a MS4 Program Plan and associated plans to VDEQ in December 2015. The MS4 Program Plan is designed to implement six minimum control measures (MCMs) and to reduce the discharges of pollutants into the storm sewer system to the maximum extent practicable. The MCMs are:

- 1) Public Education and Outreach
- 2) Public Involvement and Participation
- 3) Illicit Discharge Detection and Elimination
- 4) Construction Site and Stormwater Runoff Control
- 5) Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands
- 6) Pollution Prevention and Good Housekeeping for Municipal Operations

In accordance with Part II E 3 of the General Permit, ANC is submitting this annual report to DEQ to report the status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices (BMPs) and progress towards achieving the identified measurable goals for each of the MCMs in this reporting period.

1.1 Modifications to ANC's Roles and Responsibilities

No modifications to ANC's roles and responsibilities during this reporting year.

1.2 New MS4 Outfalls Added During this Permit Year

No new MS4 outfalls added during this reporting year.

2.0 PROGRESS ON MINIMUM CONTROL MEASURES

This section provides progress during this reporting period and planned activities for the next reporting period for each BMP within the six MCMs. These BMPs have been identified in the ANC's registration statement. ANC conducted an assessment of the appropriateness of the identified BMPs. The following table provides assessment comments in columns, Progress Goals, and Planned Activities.

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BMP ID #	BMP Description	Responsible Party	Measurable Goal(s)	Progress on Goal(s) Permit Year 2015/2016	Planned Activities
2.1 MCM 1 – Public Education and Outreach on Stormwater Impacts					
1.a	Information plaques at BMPs	Environmental / Facilities Maintenance	Installation of information plaques at BMPs. At least 20% of the target audience will be reached.	Removed	N/A
1.b	Storm drain inlet markings	Environmental / Facilities Maintenance	Installation of storm drain inlet markings. At least 20% of the target audience will be reached.	Install stormdrains marked with "Dump No Waste Drains to Chesapeake Bay" in highly visited locations. This component addresses illicit discharge minimization as a high priority water quality issue.	Continue to install stormdrains marked with "Dump No Waste Drains to Chesapeake Bay" in highly visited locations.
1.c	Display printed materials at the Welcome Center and distribute information via email, websites, and social media	Environmental / Public Affairs Office	Development of outreach materials focusing on minimizing stormwater pollution and procedures implemented at ANC for reducing stormwater pollution. At least 20% of the target audience will be reached.	ANC employees received training during Town Hall event held in May 2016. Provide environmental brochures regarding stormwater management. Publish brochures on ANC SharePoint site. Estimate 165 employees (82% of target audience) reached through the Town Hall events and ANC SharePoint site. This component addresses illicit discharge minimization, Chesapeake Bay nutrients, and sediment and stormwater run-off as a high priority water quality issues.	Continue to provide training during one quarterly Town Hall event, post brochures and training presentations on Sharepoint.
1.d	Develop training plans and training materials	Environmental / Operations	The training plans and materials increase employee knowledge on reducing stormwater pollution and other high priority water quality issues. At least 20% of the target audience will be reached.	ANC employees received training during Town Hall event held in May 2016. Provide environmental brochures regarding stormwater management. Publish brochures on ANC SharePoint site. Estimate 165 employees (82% of target audience) reached through the Town Hall events and ANC SharePoint site. This component addresses illicit discharge minimization, Chesapeake Bay nutrients, and sediment and stormwater run-off as a high priority water quality issues.	Continue to provide training during one quarterly Town Hall event, post brochures and training presentations on Sharepoint. Revising training plan during Reporting Year 2016/2017.

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BMP ID #	BMP Description	Responsible Party	Measurable Goal(s)	Progress on Goal(s) Permit Year 2015/2016	Planned Activities
2.2 MCM 2 – Public Involvement and Participation					
2.a	Maintain an updated MS4 Program Plan	Environmental	Evaluate the effectiveness of the MCMs documented in the MS4 Program Plan and revise/add new MCMs as appropriate. Any required updates to the MS4 Program Plan will be completed annually in conjunction with the annual report.	Plan submitted in December 2015.	Annual review of the MS4 Program Plan conducted. Internal review of revised draft plan ongoing.
2.b	Promote availability of the MS4 Program Plan and any annual modifications for public review and comment	Environmental / Public Affairs Office (PAO) / Office of the Chief Information Officer (OCIO)	Post copies of the MS4 Program Plan on the ANC webpage at a minimum of once a year and no later than 30 days following submittal of the annual report to DEQ.	Plan submitted in December 2015.	The 2014/2015 MS4 Program Plan is posted on the ANC Sharepoint page.
2.c	Provide public access to the annual report in compliance with Freedom of Information Act	Environmental / PAO / OCIO	Provide the annual report to the public via the ANC SharePoint no later than 30 days following submittal to DEQ and retain copies of annual reports online for the duration of the Small MS4 General Permit.	The 2015/2016 annual report will be posted on the ANC SharePoint page no later than 30 days following the submittal of the annual report to DEQ.	Post annual reports on SharePoint and retain copies of annual reports for the duration of the Small MS4 General Permit.
2.d	Promotion of Local Activities	Horticulture / Environmental / PAO	Sponsor and host a minimum of four special guided tours of the facility with a focus on stormwater related topics at ANC. These guided tours will be open to the public and be promoted on the ANC webpage.	10/16/15 and 11/6/15: Arboretum Tour 10/23/15: Garden Tour 4/20/16: Guided Earth Day Tour 4/29/16: Arbor Day Tour 6/10/16 and 6/24/16: Arboretum Walking Tour 6/20/16: Pollinators Tour	Host special guided tours of the facility with a focus on environmental related topics at ANC. Promote tours on ANC social media.

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BMP ID #	BMP Description	Responsible Party	Measurable Goal(s)	Progress on Goal(s) Permit Year 2015/2016	Planned Activities
2.3 MCM 3 – Illicit Discharge Detection and Elimination					
3.a	Conduct a Storm Sewer Delineation Pilot to result in a storm sewer system map and outfall information table.	Environmental / OCIO	Create and update the Geographic Information Systems (GIS) mapping files for ANC to ensure storm sewer infrastructure is documented. Develop a storm sewer system map and an associated outfall information table consistent with the Small MS4 General Permit.	Completed 2014/2015.	N/A
3.b	Maintain an updated storm sewer system map and outfall information table	Engineering / OCIO	Update the GIS mapping files and the outfall information table as new data become available. Maintain a copy of the current storm sewer system map and outfall information table for review upon request by the public or by DEQ.	Maintain and update storm sewer system map and outfall information table as needed.	Maintain and update storm sewer system map and outfall information table as needed.
3.c	Coordinate with adjacent MS4s on physically interconnected discharge locations	Environmental	Notify in writing physically interconnected MS4s to promote continued awareness of ANC's points of stormwater discharge.	Completed 2014/2015.	N/A
3.d	Develop and implement procedures to detect and address non-stormwater discharges, including illegal dumping, to ANC.	Environmental / Facilities Maintenance	Document when illicit discharge detection and elimination program is developed. Document regular implementation of program following program development.	Completed 2014/2015.	Continue to provide training.
3.e	Track the illicit discharges identified.	Facilities Maintenance / Environmental	Develop a tracking database to record illicit discharges identified from dry weather monitoring.	Track releases of pollutants using a spreadsheet.	Continue to document releases and track illicit discharges when identified.
3.f	Incorporate standard nonstormwater compliance language into all contracts.	Contract Support Command/ Engineering	Develop standard language and document that the standard language is incorporated into contracts during the review process.	Completed 2014/2015.	N/A
3.g	Encourage public to notify ANC of possible illicit discharges	Environmental	Promote and facilitate employee reporting of illicit discharges observed at ANC or along ANC boundary.	Provide illicit discharge training and distribute illicit discharge pamphlet to ANC personnel.	Continue to provide training and distribute illicit discharge pamphlet to ANC personnel.

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2.4 MCM 4 – Construction Site and Stormwater Runoff Control					
4.a	Comply with Virginia laws and regulations governing construction site runoff control.	Engineering	Identify the appropriate regulations, check for updates to the regulations, and inform appropriate contractors, reviewers, and inspectors of the regulations.	Language incorporated into contracts as allowed by contracting action.	Monitor changes to laws and regulations and modify contract language as appropriate.
4.b	Incorporate standard stormwater compliance language into all construction designs and contracts	Contract Support Command/ Engineering	Develop standard language and ensure such language is incorporated into construction designs and contracts to address discharges entering the MS4 from land-disturbing activities	Language incorporated into contracts as allowed by contracting action.	Monitor changes to laws and regulations and modify contract language as appropriate.
4.c	Plan approval and permit authorizations obtained prior to commencement of the land disturbing activity	Engineering	Require that land disturbance not begin until: 1) an erosion and sediment control plan is approved by a VESCP authority in accordance with the Erosion and Sediment Control Act, and 2) that construction activities secure necessary state permit authorizations from DEQ to discharge stormwater.	1. VDEQ approved erosion and sediment control plan and issued permit, VAR10H891, to Environmental Design and Construction LLC for the Funeral Procession Queuing at Arlington National Cemetery on March 9, 2016. Regulated land disturbing activity, 4.95 acres. 2. VDEQ approved erosion and sediment control plan and issued permit, VAR10C624, to Forrester Construction Company for the Millennium Project at Arlington National Cemetery (Ord and Weitzel Dr) on July 25, 2014. Regulated land disturbing activity, 26 acres.	Ensure plan approvals and permits issued for land disturbing activities occur prior to land disturbance.
4.d	Conduct construction site compliance inspections by ANC personnel	Engineering	Inspect land-disturbing activities for compliance with an approved erosion and sediment control plan. Conduct inspections based on implementation schedule.	ANC personnel (certified Combined Administrator) conducts periodic inspections (July 2015, Aug 2015, Sep 2015, Oct 2015, Nov 2015, Dec 2015, Mar 2016, Apr 2016, May 2016, Jun 2016) of Millennium and Funeral Queuing construction sites to ensure compliance with regulations. ANC issued inspection reports and contractors addressed deficiencies. At the Millennium site and Funeral Queuing site, contract personnel (Responsible Land Disturbers) conducted routine and rain event inspections in accordance with construction general permits and erosion and sediment control plans. RLDs conducted 56 routine and 36 rain event inspections at the Millennium site. RLDs conducted 14 routine and 4 rain event inspections at the Funeral Queuing site.	ANC personnel conduct periodic inspections and contractor personnel conduct inspections in accordance with construction general permit and erosion and sediment control plan.

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4.e	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Virginia Erosion and Sedimentation Law	Environmental	Document the types of certificates required under the Erosion and Sedimentation laws and regulations. Document required training and certification frequency. Ensure appropriate personnel have such certificates.	Stacey Rosenquist, ESC Combined Administrator Certification, #6164, expires 11/30/2018. Completed training required for certification renewal. Verified contractors have certified Responsible Land Disturbers.	Track personnel training and certification requirements through VDEQ Knowledge and Certification and Accreditation Tracking System (CATS).

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2.5 MCM 5 - Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands					
5.a	Encourage the use of low impact development (LID)	Engineering/ Contract Support Command	Encourage implementation of LID (as appropriate to local and regional conditions) in standardized contract language for addressing post-construction stormwater runoff that enters the MS4 from all applicable land-disturbing activities.	Army LID Technical User Guide - 4 Jan 2013. Provide MS4 program guidance to contracting center (US Army Corps of Engineers) during design and contracting process.	As a result of the Army's LID policy, ANC considering removal of this component.
5.b	Incorporate required design criteria for stormwater runoff controls into standard stormwater compliance language for all construction designs and contracts	Contract Support Command/ Engineering	Coordinate MS4 program requirements with contracting center (US Army Corps of Engineers) during design and contracting process.	ANC participates in the design process by reviewing designs, plans, and specifications.	ANC participates in the design process by reviewing designs, plans, and specifications.
5.c	Implement an inspection and maintenance program for structural BMPs at ANC	Facilities Maintenance	Implement regular inspection and long-term operation and maintenance of ANC's stormwater management facilities	Inspected existing BMPs: permeable pavement, stormceptors, sandfilter, and bioretention units. ANC continues design and development of a facility-wide inspection and maintenance tracking system, BUILDER.	Conduct inspections of existing stormwater management facilities. Where maintenance is deemed necessary according to the inspection forms, confirm maintenance is planned or has been conducted.
5.d	Electronic database of all known stormwater management facilities at ANC	Environmental/ Facilities Maintenance	Maintain an updated electronic database of all known ANC-owned stormwater management facilities that discharge into the MS4.	No new BMPs in 2015/2016.	Continue to update table as new BMPs are brought online.

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2.6 MCM 6 – Pollution Prevention and Good Housekeeping for Municipal Operations					
6.a	Minimize or prevent pollutant discharge from daily operations such as road, street, and parking lot maintenance	Field Operation Officer/Deputy Superintendent	Implement written protocols included in the MS4 Program Plan for minimizing or preventing pollutant discharge from daily operations. Document BMPs in SWPPPs for high-priority areas.	Completed and submitted with MS4 plan in December 2015.	Conduct inspections.
6.b	Minimize or prevent pollutant discharge from equipment and vehicle maintenance activities	Field Operation Officer/Deputy Superintendent	Implement written protocols included in the MS4 Program Plan for minimizing or preventing pollutant discharge from equipment and vehicle maintenance. Document BMPs in SWPPPs for high-priority areas.	Completed and submitted with MS4 plan in December 2015.	Conduct inspections.
6.c	Minimize or prevent pollutant discharge from the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers	Field Operation Officer/Deputy Superintendent	Refer to written protocols included in the ANC Integrated Pest Management Plan for minimizing or preventing pollutant discharge from the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers.	Pesticides, herbicides, and fertilizers are managed in accordance with the ANC Integrated Pest Management Plan.	Usage reports are maintained by Horticulture.
6.d	Identify SWPPP sites at ANC	Environmental	Identify high-priority facilities at the installation that have a high potential of discharging pollutants	Completed and submitted with MS4 plan in December 2015.	N/A
6.e	Develop and implement facility-specific SWPPPs for all applicable sites at ANC	Environmental	Develop and implement SWPPPs for all high-priority facilities that have a high potential of discharging pollutants to the stormwater system	Completed and submitted with MS4 plan in December 2015.	N/A

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6.f	Update the ANC SWPPPs on an annual basis following SWPPP development	Environmental	Conduct Comprehensive Site Compliance Evaluations (CSCEs) annually to compare current conditions at high-priority facilities to SWPPPs	Conducted annual inspection at B123 and Spoils Yard.	Conduct annual inspections.
6.g	Develop a Turf and Landscape Nutrient Management Plan	Horticulture	Develop Nutrient Management Plan in accordance with appropriate regulations.	Completed and submitted with MS4 plan in December 2015.	Horticulture personnel are revising the plan.
6.h	Conduct appropriate training for all applicable employees in compliance with the small MS4 General Permit	Environmental	Develop a Training Plan (MCM 1.d) to determine and document required training and provide training frequency	Completed and submitted with MS4 plan in December 2015.	Continue to evaluate plan for revisions.