

ANNUAL REPORT UPDATE

**Reporting Period
July 1, 2020 to June 30, 2021 (Due October 1, 2021)**

Arlington National Cemetery

**1 Memorial Drive
Arlington, VA 22211**



**VPDES Permit Number: VAR040139
Permit Effective Date: November 1, 2018
Permit Expiration Date: October 31, 2023**

This Page Was Intentionally Left Blank

General Information

Permittee: Arlington National Cemetery
System Name: Arlington National Cemetery
Permit Number: VPDES Permit VAR040139
Reporting Period: July 1, 2020 to June 30, 2021

Authorized Program Signature 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 gathered and evaluated 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: _____ Date: _____

General Information

Permittee: Arlington National Cemetery
System Name: Arlington National Cemetery
Permit Number: VPDES Permit VAR040139
Reporting Period: July 1, 2020 to June 30, 2021

Authorized Program Signature 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 gathered and evaluated 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: **AUSTIN.THOMAS.ED**
WARD.1097926898

Digitally signed by
AUSTIN.THOMAS.EDWARD.1097926898
Date: 2021.09.30 14:50:14 -04'00'

Date: _____

This Page Was Intentionally Left Blank

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 MINIMUM CONTROL MEASURE REPORTING AND EVALUATION 2

2.1 Public Education and Outreach..... 2

2.2 Public Involvement and Participation 5

2.3 Illicit Discharge Detection and Elimination 6

2.4 Construction Site Stormwater Runoff Control 7

**2.5 Post-Construction Stormwater Management for New Development and Development on
 Prior-Developed Lands..... 8**

2.6 Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by ANC 9

3.0 TMDL ACTION PLAN STATUS REPORT 11

4.0 SUMMARY 12

This Page Was Intentionally Left Blank

1.0 INTRODUCTION

Arlington National Cemetery (ANC) submits this Annual Report in accordance with the General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) (9 Virginia Administrative Code [VAC] 25-890-1, et seq.) Part I D. The Annual Report contains an evaluation of ANC's MS4 program implementation, a review of each minimum control measure, and the status of its Total Maximum Daily Load (TMDL) Action Plan.

Each section below describes the effectiveness of ANC's MS4 program and a discussion of whether or not ANC must update its MS4 Program Plan. ANC has a contract in place to update the MS4 Program Plan and TMDL Action Plan in 2022.

2.0 MINIMUM CONTROL MEASURE REPORTING AND EVALUATION

2.1 Public Education and Outreach

(1) ANC addressed the following high-priority stormwater issues in the public education and outreach program:		
Illicit Discharge Detection and Elimination; Good Housekeeping; Minimizing Potential Pollutants		
(2) ANC used the following strategies to communicate each high-priority stormwater issue:		
Strategies	Strategies used by ANC (check all used during permit year)	Issue addressed
Traditional written materials	<input checked="" type="checkbox"/> Informational brochures and flyers (English and Spanish)	ANC prepared information brochures during previous reporting years. Brochures continue to be distributed each year to new employees. This information addresses illicit discharge detection and elimination and good housekeeping. Appendix A contains supporting documentation.
	<input type="checkbox"/> Flyers posted in employee common areas (e.g., break rooms, restrooms, information bulletin boards)	
	<input checked="" type="checkbox"/> Facility-wide emails or newsletters	ANC distributed the DoD Chesapeake Bay Program Journal, Spring 2021 Edition electronically to DoD employees. This edition had an article (p. 2) that discussed the need for pollution prevention strategies and BMPs to meet Chesapeake Bay TMDL goals. This information supports ANC's goal of minimizing potential pollutants. Appendix A contains supporting documentation.
Alternative materials	<input type="checkbox"/> Printed water bottles for employees	
	<input type="checkbox"/> Stickers or magnets distributed at employee training events and/or tours for the visiting public	
Signage	<input checked="" type="checkbox"/> Mark storm drains with "Dump No Waste Drains to Chesapeake Bay"	ANC's road projects include a standard inlet style to include "Dump no Waste Drains to Chesapeake Bay." All drains installed in the reporting period included this marking. Appendix A contains supporting documentation.
	<input type="checkbox"/> Signs posted in employee common areas (e.g., break rooms, restrooms, information bulletin boards)	

	<input type="checkbox"/> Temporary signs at construction sites highlighting new stormwater management facilities or strategies	
Media materials	<input checked="" type="checkbox"/> Information disseminated through electronic media, radio, televisions, movie theater, or newspaper	<p>ANC distributed informational videos about rain gardens and sustainable practices at ANC on its website and social media sites. These videos describe the importance of ANC’s rain gardens for capturing and filtering pollutants in stormwater runoff. This information supports ANC’s goal of Minimizing Potential Pollutants.</p> <p>Link to rain garden video: https://www.youtube.com/watch?v=Z4l4Zdr6cC8</p> <p>Link to sustainable practices video: https://www.youtube.com/watch?v=rD0ISNFPTyI</p> <p>ANC shared Earth Day social media posts (Facebook and Instagram) on 22 April 2021 promoting Earth Day and ANC’s commitment to environmental stewardship. Post reached approximately 22,000 people. Appendix A contains supporting documentation. This information supports ANC’s goal of Minimizing Potential Pollutants.</p> <p>ANC shared social media posts (Facebook and Instagram) on 7 June 2021 discussing ANC’s Clean the Bay Day efforts to remove litter from conservation areas. The post reached approximately 1,400 people. Appendix A contains supporting documentation. This information supports ANC’s goal of Minimizing Potential Pollutants.</p>
Speaking engagements	<input checked="" type="checkbox"/> Host educational arboretum and rain garden tours and events for the visiting public and distribute brochures to attendees	<p>ANC Memorial Arboretum Horticulture Fall Tour 2020 conducted 16 November 2020. Video viewed by 372 people. https://www.youtube.com/watch?v=D1H4MJkXycg</p>

Curriculum materials	<input type="checkbox"/> Host educational arboretum and rain garden tours and events geared toward visiting children and school groups	
Training materials	<input checked="" type="checkbox"/> Employee training presentations focused on stormwater management, spill response, recognition and reporting of illicit discharges, good housekeeping, and pollution prevention	Section 2.6 discusses training. ANC maintains a stormwater training presentation. No update to training materials required during this reporting period. Trainings addressed all three high-priority stormwater issues.

MCM 1 Review and Evaluation Public Education and Outreach			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
Facility-wide emails or newsletters	Number of people reached via email	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Information disseminated through electronic media	Number of times link clicked or viewed	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	ANC's MS4 Program Plan does not currently list media materials but were determined to be an effective strategy and will be added to the MS4 Program Plan.

2.2 Public Involvement and Participation

(1) Summary of public input on ANC's MS4 program			
Public Input Comment			ANC's Response
Any public input or comments on MS4 program via email, phone, or in-person?			None
(2) Webpage link to the ANC's MS4 program and stormwater website:			
ANC MS4 Program documents are available to the public in on its website: https://www.arlingtoncemetery.mil/About/Policies-and-Public-Notices/Public-Notices			
(3) Public involvement activity implemented	(4) Metric to determine if beneficial to water quality	(4) Evaluation of metric as to whether or not the activity is beneficial to improving water quality	(5) Other MS4 permittees who participated with ANC in public involvement opportunities
Urban BMP Plant Design Charrette	Number of participants	On 19 September 2020, ANC hosted an education event. Ten participants attended a design charrette hosted by Chesapeake Bay Landscape Professionals. Participants reviewed ANC's stormwater management goals and developed appropriate planting plans for bioretention facilities. Appendix A contains supporting documentation.	N/A
Clean the Bay Day Event	Number of participants	On 4 June 2021, ANC held a clean-up event. Ten participants from ANC and Joint Base Myer-Henderson Hall removed litter and debris from the SEC78 and Millennium conservation area.	Joint Base Myer-Henderson Hall

MCM 2 Review and Evaluation Public Involvement and Participation			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
Voluntary Clean-up Day	Number of participants	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Design Charette	Number of participants	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A

2.3 Illicit Discharge Detection and Elimination

(1) ANC confirms that the MS4 map and information table are up-to-date as of June 30 of this reporting year.	<input type="checkbox"/> Confirm <input checked="" type="checkbox"/> Not Confirmed, ANC will update the MS4 map					
	The information table is current. The MS4 mapping will be updated with the 2022 plan revision to include newly acquired land.					
(2) ANC performed dry weather screening of outfalls during the reporting period, as part of the dry weather screening program.	Total Outfalls Screened <u>12</u> Appendix A contains supporting documentation.					
(3) List of illicit discharges to ANC's MS4 including spills reaching ANC's MS4						
Source of the illicit discharge	Date		Discovery method of discharge	Investigation resolution(s)	Follow-up activities	Date investigation closed
	Observed	Reported				
Dry weather screenings detected no illicit discharges. Appendix A contains a list of spills.						

MCM 3 Review and Evaluation Illicit Discharge Detection and Elimination			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
Update MS4 storm sewer system map and informational table	Accuracy of ANC's storm sewer system map and information table	<input type="checkbox"/> Effective <input checked="" type="checkbox"/> Not Effective	The information table is current. The MS4 mapping will be updated with the 2022 plan revision to include newly acquired land.
Perform dry weather screening of MS4 outfalls	Number of dry-weather inspections	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Implement IDDE written procedures when illicit discharges or spills are reported	Number of illicit discharges reported, investigated, and corrected, if needed	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A

2.4 Construction Site Stormwater Runoff Control

<p>(1) ANC requires contractors to implement a construction site stormwater runoff program in accordance with General Permit Part I E 4 a (3). All land disturbing projects at ANC occurring during the reporting period have been conducted in accordance with the current department approved standards and specifications for erosions and sediment control.</p>		<input type="checkbox"/> NA, ANC did not conduct land disturbing activities during the reporting period <input checked="" type="checkbox"/> Confirmed <input type="checkbox"/> Not Confirmed (see below)
		<p>Appendix A contains copies of ANC's Construction General Permits.</p>
<p>If one or more of ANC's land disturbing projects were not conducted with the department approved standards and specifications. Explain why the project(s) did not conform to the approved standards and specifications: N/A</p>		
<p>(2) Total number of construction site inspections conducted during the reporting period at ANC:</p>		<p>Routine reports: <u>53</u> 48-hour reports: <u>29</u></p>
<p>(3) Total number of enforcement actions:</p>		<p><u>0</u></p>
Number	Enforcement Action(s) Implemented	Type of Enforcement Action(s)
1	N/A	N/A
2		
3		

MCM 4 Review and Evaluation Construction Site Stormwater Runoff Control			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
Perform ESC inspections	Number of ESC inspections performed	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Correct compliance issues when found or reported	Number of issues found and corrected	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A

2.5 Post-Construction Stormwater Management for New Development and Development on Prior-Developed Lands

(1) ANC has not developed their own standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and Virginia Stormwater Management Regulations (9VAC25-870). ANC addresses post-construction stormwater runoff control by requiring compliance with 9VAC25-870.	
(2) Total number of stormwater management facility inspections conducted on stormwater management facilities owned or operated by ANC.	35
	Appendix A contains Stormwater BMP inspection forms.
(3) Description of the significant activities performed on ANC's stormwater management facilities to ensure they continue to perform as designed. (This does not include activities such as grass mowing or trash collection.)	
All underground treatment devices were cleaned between 2019 and 2020. The following BMP cleanouts are scheduled for fall 2021: STC-7, PT-UTD, STF-2 (may include filter replacement). A summary table of all BMP inspections is provided in Appendix A .	
(4) Confirmation Statements (confirm one)	
<input checked="" type="checkbox"/>	ANC submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which ANC was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f.
<input type="checkbox"/>	ANC did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.
(5) ANC electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g.	<input checked="" type="checkbox"/> Yes Date submitted: <u>8/31/2021</u> <input type="checkbox"/> NA

MCM 5 Review and Evaluation Post-Construction Stormwater Management for New Development and Development on Prior-Developed Lands			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
Inspect stormwater management facilities	Number of stormwater management facility inspections performed	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Submit stormwater facility database updates to VDEQ	Submit stormwater facility database updates to VDEQ when facilities are added or retrofitted	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A

2.6 Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by ANC

(1) Summary of any daily operational procedures developed or modified in accordance with Part I E 6 a during this reporting period:			
N/A. Appendix A includes SWPPP inspection forms.			
(2) Summary of any new SWPPPs developed in accordance Part I E 6 c during this reporting period:			
N/A			
(3) Summary of any SWPPPs modified in accordance with Part I E 6 f during the reporting period:			
N/A			
(4) Summary of any new turf and landscape nutrient management plans developed:			
Location of each land area in nutrient management plan		Total Acreage of land area	Date of plan approval
N/A			
(5) Training events conducted in accordance with Part I E 6 m	(a) The date of the training event	(b) Number of employees attending	(c) Objective of the training event.
Newcomers Training	11 November 2020	11	<ul style="list-style-type: none"> • Recognition and reporting of illicit discharges • Pollution prevention and good housekeeping associated with road, street, and parking lot maintenance • Pollution prevention and good housekeeping associated with maintenance, public works, or recreational facilities • General stormwater topics, and • Spill response. Appendix A includes stormwater training slides.
Town Hall	5 May 2021	150	
Stormwater Training for VOS and Oceans Construction	5 May 2021	104	
Stormwater Training for USACE NAO	11 May 2021	7	
Stormwater Training for NPS	26 May 2021	6	
Stormwater Training for DTS, PLMS, Greenleaf, and Montgomery Vault	3 June 2021	36	
Stormwater Training for MAICA	6 June 2021	1	
Stormwater Training for The Old Guard	8 June 2021	30	
Stormwater Training for DAG	9 June 2021	10	
Stormwater Training for the Four Tribes	10 August 2021	4	

MCM 6 Review and Evaluation			
Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by ANC			
BMP	Measurable Goal	Evaluation results	If not effective, provide discussion of MS4 Program Plan changes required
NMP Plan implementation	NMP effectiveness	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
SWPPP implementation	SWPPP effectiveness at preventing illicit discharges and promoting good housekeeping	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A
Training program events	Number of attendees at training program events	<input checked="" type="checkbox"/> Effective <input type="checkbox"/> Not Effective	N/A

3.0 TMDL ACTION PLAN STATUS REPORT

a. BMPs implemented at ANC during the reporting period but not reported to the DEQ BMP Warehouse in accordance with Part I E 5 g				
BMP Type	Location	Total Load Reductions (lbs/yr)		
		Nitrogen	Phosphorus	Total Suspended Solids
<p>All BMPs used for TMDL compliance are included in the TMDL Action Plan drafted November 2018. ANC meets and exceeds the reduction requirements for this permit cycle.</p> <p>Comprehensive Stormwater Plan: Ord Weitzel Drive-Road Project (VAR10K463) ANC installed two devices to meet water quality reductions required under IIB for redevelopment.</p> <p>Appendix A contains the Comprehensive Stormwater Plan dated May 2020.</p> <p>Every contractor holding a Construction General Permit files for the NOT with VDEQ; however, VDEQ no longer provides confirmation of NOT requests. No new BMPs have been added to the warehouse.</p>	<p>STC-9 Sec 52 INF-1 SEC 52</p>	N/A	<p>8.15 13.04</p>	N/A
b. ANC will meet all required reductions during each reporting period of the permit as shown in its TMDL Action Plan dated November 11, 2018 and will not acquire credits.				
ANC has contracted to update TMDL Action Plan in 2021/2022 to account for new BMPs and facility expansion. The MS4 mapping will be updated as part of this effort.				
c. ANC meets and exceeds the reductions for total nitrogen, total phosphorus, and total suspended solids required during this permit term as demonstrated in its TMDL Action Plan. The table below summarizes ANC's pollutant reduction achievements.				
	<i>First Permit Cycle</i>		<i>Second Permit Cycle</i>	
Pollutant	Reduction Required in 1st Permit Cycle (lbs/yr)	Total Reduction Achieved with BMPs (lbs/yr)	Reduction Required in 2nd Permit Cycle (lbs/yr) [8x or 40% of L2 Scoping Run Reductions]	Total Reduction Achieved with BMPs (lbs/yr)
Nitrogen	22	612.73	173	212.20
Phosphorus	1.74	315.25	14	143.37
TSS	1,271	142,876.37	10,169	105,884.20
d. BMPs ANC plans to implement during the next reporting period.				
BMP Type		Location		
N/A		N/A		

4.0 SUMMARY

ANC's MS4 program is effective based on BMPs implemented and measures of effectiveness used. ANC will update its MS4 Program Plan a to include the following:

- Media materials as a strategy to communicate high-priority stormwater issues in the Public Education and Outreach minimum control measure,
- MS4 mapping,
- TMDL Action Plan to include the Memorial Avenue land acquisition and new BMPs.

ANC has a contract in place and they are scheduled for completion in 2022.