2022-2023 MS4 ANNUAL REPORT FOR MARINE CORPS INSTALLATIONS NATIONAL CAPITAL REGION - MARINE CORPS BASE QUANTICO (MCINCR-MCBQ)

FINAL

Natural Resources & Environmental Affairs (NREA)
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October 2023

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LIST OF TABLES

LIST OF APPENDICES

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FACILITY INFORMATION

Name of Facility	Marine Corps Base Quantico
Street Address	3250 Caitlin Ave
City	Quantico **State** VA **Zip Code** 22134
County	Stafford, Prince William, Fauquier (MS4 in Prince William County only)

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.

Printed Name	Title
Signature	Date

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1. INTRODUCTION

Bluestone-InterSpec JV, LLC prepared this annual report for the Marine Corps Installations National Capital Region – Marine Corps Base Quantico (MCINCR-MCBQ) for its Phase II (small) Municipal Separate Storm Sewer System (MS4) permit number VAR040069[1] issued on 1 November 2018. This report covers the period of 1 July 2022 through 30 June 2023.

To meet the six minimum control measures[2] (MCMs) required under the MS4 permit, MCINCR-MCBQ has proposed best management practices (BMPs) to help reduce the negative effects of stormwater runoff. The BMPs implemented by MCINCR-MCBQ are described in the June 2020 MS4 Program Plan and evaluated in this annual report to determine the MS4 program's effectiveness.

As a Department of Defense facility in an urbanized area, MCINCR-MCBQ is considered a small MS4, which subjects it to the federal Phase II stormwater requirements and state requirements. MCINCR-MCBQ is also subject to the requirements of the Chesapeake Bay Preservation Act, which places additional restrictions on land disturbing activities.

Requirements for an associated stormwater pollution prevention plan (SWPPP) under Virginia Pollutant Discharge Elimination System (VPDES) permit VA002151 for industrial stormwater discharges were previously met by MCINCR-MCBQ through a Comprehensive Storm Water Management Action Plan (CSWMAP), which identified stormwater pollution prevention requirements for both the Industrial VPDES permit and MS4 permit. However, the Virginia Department of Environmental Quality (VDEQ) requested a separate standalone MS4 SWPPP, which was developed in August 2019 to meet Section I E 6 c of the MS4 permit. The MS4 SWPPP development is further detailed in Section 8.2 of this annual report.

[1] General Permit No. VAR040069, General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems; Authorization to Discharge under the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Effective Date: 1 November 2018. Expiration Date: 31 October 2023.
[2] The six minimum control measures are delineated in 9VAC25-890-40 Part I E.

2. MS4 PROGRAM PLAN AND PROGRAM EFFECTIVENESS

MCINCR-MCBQ met the measurable goals set for BMPs identified in the MS4 Program Plan during this reporting period. MCINCR-MCBQ does not rely on another entity to satisfy any state permit obligations or to implement portions of the MS4 Program Plan. There have been no changes to roles and responsibilities that impact the implementation of this MS4 program.

Sections 3 through **8** of this annual report include a review and assessment of each MCM, and **Sections 9** and **10** meet the reporting requirements for special conditions related to the Chesapeake Bay TMDL and Local TMDLs.

3. MCM 1: PUBLIC EDUCATION AND OUTREACH

BMPs pertaining to MCM 1: Public Education and Outreach focus on the development of educational materials and awareness concerning stormwater pollution. They are designed to inform and educate the public about the potential impact stormwater discharges have on local water bodies and the steps that the public can take to help reduce pollutants in stormwater runoff.

3.1 HIGH-PRIORITY STORMWATER ISSUES

MCINCR-MCBQ has identified the following three high-priority stormwater issues for outreach and education: nutrient overloading in waterways (Chesapeake Bay TMDL), importance of adequate ground cover to prevent soil erosion, and litter prevention.

3.2 STRATEGIES TO COMMUNICATE HIGH-PRIORITY STORMWATER ISSUES

In this reporting period, MCINCR-MCBQ used strategies identified in **Table 3-1** to communicate each of the high-priority stormwater issues during Lunga Adventure Day and the NREA Pollinator Garden Planting Event.

Table 3-1: Strategies to Communicate High-Priority Stormwater Issues

Strategy	Description	Corresponding High-Priority Stormwater Issue
Media Materials	The Marine Corps Base Quantico Facebook page posts pictures and descriptions of Lunga Adventure Day activities. (https://www.facebook.com/MarineCorpsBaseQuantico/) Storm waste training, a sewage spill policy letter, car wash guidelines, a car wash brochure, the base storm	Nutrient overloading in waterways. Litter prevention.

Table 3-1: Strategies to Communicate High-Priority Stormwater Issues		
Strategy	**Description**	**Corresponding High-Priority Stormwater Issue**
	water prevention policy, and a storm water pollution prevention brochure are also posted to the Quantico Natural Resources and Environmental Affairs (NREA) webpage. (https://www.quantico.marines.mil/Offices-Staff/G-F-Installation-and-Environment/Natural-Resources-Environmental-Affairs/NREA-Documents/).	
Training Materials	Environmental training was distributed to new Marines and Environmental Coordinators (ECs) that is offered on the Marinenet website. These can be found in **Table 8-1**.	Nutrient overloading in waterways. Importance of adequate ground cover to prevent soil erosion. Litter prevention.

3.3 BMP APPROPRIATENESS FOR MCM 1

The BMPs and activities conducted in support of MCM 1 were designed to effectively communicate to the public the high-priority stormwater issues.

4. MCM 2: PUBLIC INVOLVEMENT AND PARTICIPATION

BMPs pertaining to MCM 2: Public Involvement and Participation focus on involving employees, residents, contractors, and active-duty personnel in stormwater and pollution prevention efforts. This is achieved through restoration cleanup events, public events, and household hazardous materials collection.

4.1 PUBLIC INPUT ON THE MS4 PROGRAM

MCINCR-MCBQ posts contact information on the NREA website,[3] as a means for the public to provide input on the MS4 program. No input was received from the public during this reporting period.

4.2 MS4 AND STORMWATER WEBPAGE

MS4 annual reports, the MS4 Program Plan, and other required documents pertaining to the MS4 program are posted to the NREA website[4] as well.

4.3 PUBLIC INVOLVEMENT ACTIVITIES

Sections 4.3.1 through **4.3.3** identify the three public involvement activities that were conducted during this reporting period. **Table 4-1** lists each of the three activities along with the metric and corresponding category listed in Table 2 of the MS4 permit.

[3] NREA website's URL: https://www.quantico.marines.mil/Offices-Staff/G-F-Installation-and-Environment/Natural-Resources-Environmental-Affairs/
[4] NREA annual report and stormwater documents are available at https://www.quantico.marines.mil/Offices-Staff/G-F-Installation-and-Environment/Natural-Resources-Environmental-Affairs/NREA-Documents/.

Table 4-1: Public Involvement Activities This Reporting Period		
Activity	**Metric**	**Corresponding Category in Table 2 of MS4 Permit**
Recycling Center Cleanup	15 participants	Restoration
Lunga Adventure Day	1,500 participants	Educational Events
NREA Pollinator Garden Planting Event	25 participants	Restoration and Educational Events

4.3.1 Recycling Center Cleanup

Date: Once a month from July 2022 to February 2023

Location: Marine Corps Base Quantico Recycling Center, 3185 Bauer Rd.

Number of Participants: Approximately 12 people every month

Description: Marine volunteers participated in the cleaning of trash and debris in and around the center to promote a cleaner facility. The activities included grass cutting, weeding, and erosion control and prevention.

Benefits to Improving Water Quality: Prevention debris, trash, and vegetative materials from entering stormwater and reduces erosion and the introduction of total suspended solids.

4.3.2 Lunga Adventure Day

Date: 3 June 2023

Location: Lunga Park, Quantico

Number of Participants: 1,500 participants

Description: MCINCR-MCBQ held a kickoff celebration for the grand opening of Lunga Park. Environmental had a significant presence at this event that included environmental activities and games for the kids and adults, informational brochures, display boards, giveaways, etc. NREA staffed information tables to discuss ways to participate in pollution prevention and stormwater awareness.

Benefits to Improving Water Quality: Educating the public helps reduce household pollutants from entering stormwater.

4.3.3 NREA Pollinator Garden Planting Event

Date: 2 May 2023

Location: Marine Corps Base Quantico

Number of Participants: 25 participants

Description: MCINCR-MCBQ held an event for local kids on base to assist with planting a rain garden with pollinator plants and learn about their benefits. The event included educational teaching about the benefits of stormwater structures and how they help MCINCR-MCBQ meet its MS4 requirements and clean the Chesapeake Bay.

Benefits to Improving Water Quality: Plantings in rain gardens help with infiltration, reducing the total quantity of stormwater runoff from the site.

4.4 COLLABORATION WITH OTHER MS4 PERMIT HOLDERS

MCINCR-MCBQ did not collaborate with any other MS4 permittees in the public involvement activities that occurred within this reporting period.

4.5 BMP APPROPRIATENESS FOR MCM 2

The BMPs and activities conducted in support of MCM 2 are designed to effectively engage the public on pollution prevention and the high-priority stormwater issues.

5. MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

BMPs pertaining to MCM 3: Illicit Discharge Detection and Elimination focus on the maintenance of an up-to-date MS4 map and information table, prohibiting illicit discharges, maintaining written procedures for non-stormwater discharges, dry weather field screenings and investigations into illicit discharges, and notification of downstream MS4 permittees of physical connection.

5.1 MS4 MAP AND OUTFALL INFORMATION TABLE

The MS4 map and information table were submitted to VDEQ prior to the 1 July 2019 date listed in Part I.E.3.a.(2) of the MS4 permit. In accordance with Part I.E.3.a.3, updates to the MS4 map and information table were made by October 1 of each year. Part I.E.3.e(1) requires confirmation of these updates. MCINCR-MCBQ confirms that the MS4 map and information table were updated to reflect changes to the MS4 occurring on or before 30 June 2022. **Appendix A** provides an updated version of the information table and **Appendix B** provides an updated version of the MS4 map.

Stormwater management facilities located within the MS4 that were added to the map during this reporting period are listed in **Table 5-1**, below.

Table 5-1: Summary of Illicit Discharge Source Investigations

207	North side of McCarthy Road	Bioretention
208	North side of McCarthy Road	Bioretention
209	North side of McCarthy Road	Bioretention

Table 5-1: Summary of Illicit Discharge Source Investigations		
210	North side of McCarthy Road	Bioretention
214	North side of Russell Road and south of Purvis Drive	Dry Swale
215	North side of Russell Road and south of Purvis Drive	Dry Swale
216	Northwest corner of Russell Road and Caitlin Avenue	Dry Swale
217	Northwest corner of Russell Road and Caitlin Avenue	Dry Swale
218	North side of Russell Road at the Manpower & Reserve Affairs building	Dry Swale
219	North side of Russell Road at the Manpower & Reserve Affairs building	Dry Swale
220	North side of Russell Road, south of the Marine Corps Combat Development Command	Dry Swale
221	North side of Russell Road, south of the Marine Corps Combat Development Command	Dry Swale
222	North side of Russell Road, south of the Marine Corps Combat Development Command	Dry Swale

Table 5-1: Summary of Illicit Discharge Source Investigations		
223	Fuller Road	Dry Swale
224	Fuller Road	Dry Swale
225	Fuller Road	Dry Swale
226	Fuller Road	Dry Swale
227	Fuller Road	Dry Swale

Non-structural BMPs include urban nutrient management and street sweeping. These were conducted during the 2022 to 2023 reporting cycle but are not depicted on the MS4 map.

5.2 DRY WEATHER OUTFALL SCREENING

In November 2019, MCINCR-MCBQ finalized its updated Illicit Discharge Detection and Elimination Procedures, which also covers MCINCR-MCBQ dry weather screening protocols. There are currently 198 stormwater outfalls identified within the MCINCR-MCBQ MS4 area. Sixty-seven (67) outfalls were screened during this reporting period, above the 50 outfall screenings required annually. Screenings conducted during this permit cycle focused on outfalls not previously visited during previous reporting cycles. Approximately 5.5% of the outfalls were screened more than once during the previous five years, which meets the requirement that no more than 50% be screened twice in a 12-month period.

Flow was present at one outfall (Outfall ID 236); however, it was traced to a natural stream, and it was determined the flow was not illicit. There were no illicit discharges identified during this reporting period.

5.3 ILLICIT DISCHARGE SOURCE INVESTIGATIONS

A summary of dry weather flow (DWF) from the past 5 years can be found in **Table 5-2**.

Table 5-2: Summary of Illicit Discharge Source Investigations

Outfall ID	DWF Inspection Years			Notes
	2019–2020	2020–2021	2022–2023	
100			X	
101		X		
102		X		
103		X		
104		X		
105		X		
106		X		
107		X		
108		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
109		X		
110	X	X		**2019–2020:** Tiny bit of foam seen at the mouth of the outfall. Flow sample collected from west side of

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
				culvert under Fuller Rd. Origin of flow was traced to stormwater pond. **2020–2021:** DWF. Confirm illicit discharge with field sampling.
111	X	X		**2019–2020:** Flow sample collected from west side of culvert under Fuller Rd. Origin of flow was traced to stormwater pond. **2020–2021:** DWF. Confirm illicit discharge with field sampling.
112		X		
113		X		
114		X		
115		X		
116		X		
117		X		
118		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
119			X	
120			X	
121		X		
122				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
123				**Attempted to inspect in 2020-2021; however; could not locate.**
124		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
125		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
126		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
127				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
128			X	**2022-2023:** Updated point location in GIS data.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
129				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
130				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
131				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
132				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
133			X	
134				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
135			X	**2022-2023:** Updated point location in GIS data.
136			X	**2022-2023:** Updated point in GIS data.
137		X		
138		X		**2020–2021:** DWF. Origin of flow was traced to building nearby where there was DWF.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
139			X	
140			X	
141		X		
142		X		
143		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling. A gas leak was detected nearby. The leak was repaired, and the DWF was eliminated.
144		X		
167			X	
200	X	X		**2019–2020:** Moderate flow; clear. Damaged: end section is detached, and pipe is corroded. Origin of flow was traced back to stream in forested area. **2020–2021:** DWF. Confirm illicit discharge with field sampling.
201		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
202		X		
203		X		
204		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
205				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
206				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
207			X	
208			X	
209			X	
210			X	**2022-2023:** Updated point location in GIS data.
211				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
212				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
213				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
214			X	
215			X	
216				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
223		X		
224		X		
225			X	
226	X			**2019–2020:** Substantial erosion downstream of the outfall. Flow was inferred to be groundwater infiltration.
227			X	
228			X	
229			X	

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
230	X		X	**2019–2020:** Bacterial sheen observed at outfall and in downstream pond. Flow/ponding/small stream downstream of outfall. Flow was traced to stormwater pond upstream from outfall.
231	X		X	**2019–2020:** Flow traced to stormwater pond.
232	X		X	**2019–2020:** Trickle flow present. Flow is presumed to be from groundwater infiltration. Orange benthic growth present on pipe.
233			X	
234			X	
235		X		
236	X		X	**2019–2020:** Ponded water at outfall; sample was obtained from flow in nearest upstream manhole. Pipe completely overturned. Flow can be heard in pipe but there is no flow coming out of the pipe. Flow was traced to groundwater infiltration. **2022-2023:** Flow traced to nature stream. No illicit discharge.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
237	X	X		**2019–2020:** Ponded water downstream of outfall. Outfall not draining properly. Flow observed. Sediment buildup causing ponding at outfall. Flow was traced to groundwater infiltration. **2020–2021:** DWF. Flow trickle and algae present.
238		X		
239			X	**2022-2023:** Updated point location in GIS data.
240			X	
241	X	X		**2019–2020:** Water is clear with iron deposits/sediment. Small amount of ponding at mouth and downstream of outfall. Trash observed around outfall. Flow was traced to a natural stream. **2020–2021:** DWF. Orange discoloration, near Lincoln Military Housing.
242			X	**2022-2023:** Updated point location in GIS data.
243			X	

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
244			X	
245		X		
246	X		X	**2019–2020:** Illicit Discharge: Trickle flow at outfall – insufficient amount of flow to sample. Water had soap suds and was traced to car being washed upstream.
247		X		**2020–2021:** DWF found in one of the outfalls.
248		X		
249	X		X	**2019–2020:** Trickle flow observed; traced to stormwater pond. Flow insufficient to obtain a sample.
250				**Attempted to inspect in 2020-2021; however; could not locate.**
251		X		**2020–2021:** DWF. Stagnant water present.
252	X			**2019–2020:** Outlets to small stream/pool of water. Very slow trickle/flow. Flow presumed to be stream base flow.
253		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
254		X		
255		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
256				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
257		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
310				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
311			X	**2022-2023:** Sign for 312 located near outfall; however, GIS data shows 311 and 312 close to each other. Based on maps, we believe this is outfall 311 and 312 is an underwater pipe that extends out past the seawall.
312				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
313			X	**2022-2023:** Changed ID from 312 to 313 to match sign.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
314		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
315			X	
316			X	**2022-2023:** Changed ID from 313 to 316 to match sign.
317		X		
318			X	**2022-2023:** Changed ID from 316 to 318 based on 2021 inspection field form notes and coordinates.
319				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
320			X	
321			X	
322				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
323		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
324				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
325				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
326		X		
327				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
328				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
329		X		
330		X		
331			X	**2022-2023:** Changed ID from 328 to 331 to match sign.
332			X	**2022-2023:** Changed ID from 331 to 332 to match sign.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
333			X	**2022-2023:** Changed ID from 332 to 333 based on 2021 inspection field form notes and coordinates.
334			X	**2022-2023:** Changed ID from 333 to 334 to match sign. Updated point location in GIS data.
335		X		
336			X	**2022-2023:** Changed ID from 334 to 336 to match sign.
337		X		**2020–2021:** DWF. Confirm illicit discharge with field sampling.
338		X		
339		X		
340		X		
400		X		
401		X		
402		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
403		X		
500		X		
501				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
502			X	
503		X		
504			X	
505				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
506		X		
507			X	**2022-2023:** Updated point location in GIS data.
508				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
509		X		
510		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
511			X	**2022-2023:** Changed ID from 508 to 511 to match sign.
512			X	**2022-2023:** Updated point location in GIS data.
513			X	**2022-2023:** Changed ID from 511 to 513 to match sign. Updated point location in GIS data.
514			X	**2022-2023:** Change ID from 513 to 514 to match sign.
515				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
516		X		
517				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
518				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
519				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
520				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
521		X		
522		X		
523		X		
524			X	**2022-2023:** Updated point location in GIS data.
525		X		
526			X	**2022-2023:** Updated point location in GIS data.
527				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
528		X		
529		X		
530				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
531		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
532			X	**2022-2023:** Changed ID from 530 to 532 to match sign. Updated point location in GIS data.
533		X		
534			X	**2022-2023:** Changed ID from 532 to 534 to match sign.
535		X		
536		X		
537		X		
538			X	**2022-2023:** Changed to 538 based on 2021 inspection field form notes and coordinates.
539		X		
540		X		
541		X		
542			X	**2022-2023:** Changed ID from 538 to 542 to match sign.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
543			X	**2022-2023:** Changed ID from 542 to 543 to match sign.
544				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
545				**Attempted to inspect in 2020-2021; however; BMP was inaccessible due to location in secure area.**
546				**Attempted to inspect in 2020-2021; however; could not locate due to vegetation.**
547		X		
548			X	
549			X	**2022-2023:** Changed ID from 546 to 549 to match sign.
550			X	**2022-2023:** Changed ID from 549 to 550 based on 2021 inspection field form notes and coordinates.
551		X		**2020–2021:** Reviewed. DWF.
552		X		

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
553			X	**2022-2023:** Changed ID from 550 to 553 to match sign.
554			X	**2022-2023:** Changed ID from 553 to 554 to match sign.
555		X		
556		X		
563		X		
564		X		
565		X		
566			X	**2022-2023:** Changed ID from 554 to 566 to match sign.
567		X		
568		X		
569			X	**2022-2023:** Changed ID from 566 to 569 to match sign.

Table 5-2: Summary of Illicit Discharge Source Investigations				
Outfall ID	**DWF Inspection Years**			**Notes**
	2019–2020	**2020–2021**	**2022–2023**	
570			X	**2022-2023:** Changed ID from 569 to 570 to match sign. Updated point location in GIS data.
571		X		

5.4 REPORTED SPILLS

Spills to the MS4 that occurred during this reporting period are summarized in **Table 5-3**. Spill reporting forms are provided in **Appendix C**.

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
110 Neville Rd, Quantico, VA 22134	Water main	31 October 2022	Reported by MCBQ personnel: There was water coming up in the grass at Building 110.	The water main was isolated, and crew secured water to the service line going to 110.	Possible receptor / affected water body: Storm drain / Quantico Bight	None required	31 October 2022

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
3086 Roan St, Quantico, VA 22134	Water main	21 November 2022	Reported by MCBQ personnel: There was water coming up in the roadway at 3086 Roan St.	The water main was isolated, and crew secured water to an 8” water main going down Roan St.	N/A	None required	21 November 2022

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
Fuller Rd (near cart crossing on Golf Course)	Water main	8 December 2022	Reported by MCBQ personnel: A water leak was reported on the Golf Course near the cart crossing.	The water main was isolated.	N/A	None required	8 December 2022

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
3101 Zeilen Rd, Quantico, VA 22134	Water main	11 January 2023	MCBQ personnel reported: There was running water heard at the corner of 3101.	The water main was isolated, and crew secured water to a service line going to 3101.	N/A	None required	11 January 2023

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
Geiger Rd (at the intersection of Louis Rd)	Hydrant	27 March 2023	NREA observation: Contractor hose was discharging water onto Geiger Rd from a hydrant used while performing CERCLA site restoration.	Contractor was notified and secured water at the hydrant.	Possible receptor / affected water body: Little Creek	None required	27 March 2023

Table 5-3: Spill Reports into the MS4

Location	Source of Spill	Date the Discharge was Observed, Reported, or Both	How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)	How Investigation was Resolved	Anything Reported to Downstream MS4s	Description of Follow-up Activities	Date Investigation was Resolved
2034 Barnett Ave, Quantico, VA 22134	Water main	2 February 2023	Reported by MCBQ personnel: There was water coming up on Floyd St.	The water main was isolated, and crew secured water to a water main line.	N/A	None required	2 February 2023

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
2040 Broadway St, Quantico, VA 22134	Water main	25 March 2023	Reported by MCBQ personnel: There was water coming up in the grass at 2040 Broadway St.	The water main was isolated, and crew secured water to a water main.	Possible receptor / affected water body: Potomac River	None required	25 March 2023

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
Below Building 3304 Golf Course by pavilion	Water main	17 May 2023	Reported by MCBQ personnel: There was water coming up in the grass at the Golf Course below the pavilion at Building 3304.	The water main was isolated, and crew secured water to a water main.	N/A	None required	17 May 2023

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
Golf Course by hole #10 close to Fuller Rd, down from Liversedge Dr	Water main	17 May 2023	Reported by MCBQ personnel: There was water coming up in the grass at the Golf Course by hole #10 closer to Fuller Rd.	The water main was isolated, and crew secured water to a water main.	N/A	None required	17 May 2023

Table 5-3: Spill Reports into the MS4

Location	Source of Spill	Date the Discharge was Observed, Reported, or Both	How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)	How Investigation was Resolved	Anything Reported to Downstream MS4s	Description of Follow-up Activities	Date Investigation was Resolved
Chamberlin Village water tower	Water tower	13 June 2023	Reported by MCBQ personnel: There was water slowly running out of overflow of the water tower.	Shop 61 Pipefitters were dispatched to check, pumps were properly secured.	N/A	None required	13 June 2023

Table 5-3: Spill Reports into the MS4							
Location	**Source of Spill**	**Date the Discharge was Observed, Reported, or Both**	**How Spill was Identified/ Reported (during dry weather screening, reported by public, or other method (described)**	**How Investigation was Resolved**	**Anything Reported to Downstream MS4s**	**Description of Follow-up Activities**	**Date Investigation was Resolved**
2034 Barnett Ave	Water main	23 January 2023	Reported by MCBQ personnel: There was water coming up in the grass at 2034 Barnett Ave.	The water main was isolated, and crew secured water to a water main line.	Possible receptor / affected water body: Storm drain / Quantico Bight	None required	23 January 2023

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5.5 BMP APPROPRIATENESS FOR MCM 3

The BMPs and activities conducted in support of MCM 3 lead to the identification and elimination of identified illicit discharges. As mentioned in the previous section, MCINCR-MCBQ finalized its Illicit Discharge Detection and Elimination Written Procedures in November 2019.

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6. MCM 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

To meet MCM 4: Construction Site Stormwater Runoff Control, MCINCR-MCBQ requires contractors to implement a construction site stormwater runoff program in accordance with Part I E 4 a (3) and (4) of the MS4 permit. MCINCR-MCBQ is a federal entity and has not developed their own standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840).

MCINCR-MCBQ has direct legal authority over the use and condition of the land and infrastructure it owns and operates within its legal boundaries. MCINCR-MCBQ works with outside contractors to conduct a variety of construction projects at the facility and incorporates requirements into contracting language for construction projects to implement controls for preventing non-stormwater discharges to the MS4. All construction contractors are required to implement appropriate controls and comply with regulations even if the construction activity does not require a stormwater discharge permit. The contract language, as well as other legal authorities at MCINCR-MCBQ, incorporates requirements stipulated in various Virginia laws and regulations for addressing stormwater discharges from construction activities. Please refer to the MCINCR-MCBQ MS4 Program Plan for more detail on Virginia laws and regulations applicable to MCINCR-MCBQ.

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. **Table 6-1** summarizes the inspections and enforcement actions conducted during this reporting period.

Table 6-1: Summary of Inspections and Enforcement Actions This Reporting Period	
Total Number of Inspections	225
Total Number of Enforcement Actions	1
Type of Enforcement Actions	Stop Work

6.1 BMP APPROPRIATENESS FOR MCM 4

The BMPs and activities conducted in support of MCM 4 are appropriate to help minimize erosion from construction sites and limit sediment runoff.

7. MCM 5: POST-CONSTRUCTION STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND DEVELOPMENT ON PRIOR DEVELOPED LANDS

BMPs pertaining to MCM 5: Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands focus on the prevention or minimization of water quality impacts deriving from new development and redevelopment projects that disturb greater than or equal to 1 acre of land, including projects less than 1 acre that are part of a larger common plan of development that discharges into the MS4. MCINCR-MCBQ does not have privately owned stormwater management facilities associated with the MS4 permit.

7.1 BMP INSPECTIONS AND MAINTENANCE

Inspections were performed on 198 BMPs, 97 of which are located inside the MS4 permit area. BMPs included BaySavers/Filters, bioretention areas, a bioswale, dry detention ponds, dry extension detention ponds, a permeable pavement, vegetated treatment areas, and wet ponds, located throughout MCINCR-MCBQ during this reporting period. These evaluations consisted of visual inspections, photographs, and required maintenance where applicable for each BMP. Inspections found general maintenance needed for trash and debris removal.

Maintenance and/or restoration was performed on 11 BMPs during this reporting period, eight extended detention ponds, two vegetated treatment areas, three wet ponds, and one bio-retention cell. Detention pond maintenance included removing overgrown vegetation, removing deposited sediment and debris, repairing piping, repairing eroded areas, and unclogging drains and outfalls. Wet pond maintenance included bolstering, unclogging outfalls, removing trash and debris, replacing piping, dredging, and addressing erosion. Vegetated treatment area maintenance included addressing erosion present, removing vegetation, unclogging inlets, repairing structural failures, and repairing pipes and outfalls. Bioretention maintenance included unclogging outfalls, addressing erosion, removing vegetation, and removing debris.

7.2 CONSTRUCTION DATABASE SUBMITTAL

Information on stormwater management facilities was not submitted through the Construction General Permit (CGP) database for land-disturbing activities for which coverage under the CGP was obtained. MCINCR-MCBQ works directly with VDEQ and submits as-built drawings for each of its CGP BMPs and, as such, understands submittal of BMPs into the CGP database is not required.

7.3 BMP WAREHOUSE SUBMITTAL

No BMPs were implemented in this reporting period beyond those required for water quality treatment because of new construction. Consequently, no structural BMPs have been reported into the VDEQ BMP Warehouse during this reporting period. Street Sweeping and Nutrient Management Plans are included as new BMPs each year given the potential to change year-to-year.

7.4 BMP APPROPRIATENESS FOR MCM 5

The BMPs and activities conducted in support of MCM 5 are appropriate to address post-construction stormwater management. They include procedures for BMP inspections, maintenance requirements, and the roles and responsibilities of each of MCINCR-MCBQ's divisions in implementing the various BMPs.

8. MCM 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING

BMPs pertaining to MCM 6: Pollution Prevention and Good Housekeeping focus on the prevention or reduction of pollutant runoff from municipal operations and relevant training.

8.1 REVISION OF DAILY OPERATIONAL PROCEDURES

No daily operational procedures were developed or modified during this reporting period.

8.2 MCINCR-MCBQ SWPPP SUMMARY

Prior to 2020, MCINCR-MCBQ maintained a CSWMAP document to facilitate management of MCINCR-MCBQ's Storm Water Program by addressing the requirements of both the VPDES Industrial Storm Water Program and the MS4 Program. In June 2019, however, an MS4-specific MCINCR-MCBQ SWPPP was developed per VDEQ request for a separate document that specifically addresses the requirements of an MS4 SWPPP. In May 2020, MCINCR-MCBQ completed a comprehensive review of all buildings and practices that could potentially impact stormwater or stormwater quality, with the intent of identifying any new sites that could be added to the SWPPP and ensuring all currently monitored sites were reflected accurately in its records. No additional high-priority facilities were identified other than those identified in the previous CSWMAP during the 2020 review or during this reporting period.

8.3 SWPPP MODIFICATIONS

No high-priority facilities with a high potential to discharge pollutants to the MS4 have been added or removed during this reporting period. The SWPPP has not otherwise been modified other than to update potential pollutant inventories, develop SWPPP maps, and confirm that the presented information is current.

8.4 NUTRIENT MANAGEMENT PLAN SUMMARY

A nutrient management plan (NMP) was developed during the 2021 to 2022 reporting period for the Medal of Honor Golf Club, which falls within the MCINCR-MCBQ MS4 area. The NMP was submitted to the Virginia Department of Conservation and Recreation by a certified nutrient management planner and approved through 15 June 2027. No new NMPs were developed during this reporting period.

8.5 TRAINING

Table 8-1 summarizes the training events conducted in accordance with MCM 6 of the MS4 permit, including the date of the training event, number of attendees, and objective of the training event.

Table 8-1: Summary of Training Events This Reporting Period

Training Event	Date	Number of Attendees	Objective
Environmental Awareness Training	14 September 2022	8	General environmental awareness training on subjects like hazardous materials, hazardous waste, etc. Also included general awareness training of illicit discharge,
	15 September 2022	11	
	4 October 2022	10	

Table 8-1: Summary of Training Events This Reporting Period			
Training Event	**Date**	**Number of Attendees**	**Objective**
	5 October 2022	14	stormwater pollution prevention, and erosion & sediment.
	29 November 2022	7	
	6 December 2022	7	
	8 March 2023	11	
	7 June 2023	4	

8.6 BMP APPROPRIATENESS FOR MCM 6

The BMPs and activities conducted in support of MCM 6 are appropriate to address good housekeeping and pollution prevention and meet the requirements set forth for good housekeeping in daily operations, SWPPPs, NMPs, and training.

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9. CHESAPEAKE BAY TMDL

MCINCR-MCBQ finalized its FINAL Chesapeake Bay TMDL Action Plan in April 2021 to meet the requirements of Section I.B of the MS4 permit for the permit cycle 1 November 2018, through 30 October 2023, and those contained within the 2021 VDEQ Water Division Guidance Memo No. 20-2003. The Stormwater MS4 Support Chesapeake Bay TMDL Action Plan was submitted to VDEQ and documented the amount of total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) loads that the MCINCR-MCBQ MS4 intends to acquire from the MCINCR-MCBQ Mainside Wastewater Treatment Plant (WWTP) in order to meet its Phase II 40% pollutant reduction requirements by 30 June 2023.

9.1 BMPS NOT REPORTED TO THE BMP WAREHOUSE

MCINCR-MCBQ is not claiming credit toward Chesapeake Bay TMDL pollutant reduction requirements for any BMPs implemented during the reporting period but not reported to the VDEQ BMP Warehouse.

9.2 CREDITS ACQUIRED

No credits were acquired during this reporting period to meet any of the required reductions of the Chesapeake Bay TMDL.

9.3 PROGRESS TOWARD MEETING REQUIRED REDUCTIONS

MCINCR-MCBQ has made progress toward its Chesapeake Bay TMDL pollutant reduction requirements through the implementation of BMPs installed after 1 July 2009 and through nutrient and sediment trading with the Mainside WWTP. MCINCR-MCBQ operates the Mainside WWTP and participates in the Virginia Nutrient Trading Program. The VPDES permit for the WWTP includes effluent limits for TN, TP, and TSS; however, the monitored end-of-year cumulative loads for these effluents discharged by the WWTP are well below the annual permit limits. The differences between the permitted effluent TN, TP, and TSS limits and actual effluent quality discharged are, therefore, eligible credits that the WWTP can sell or trade with other entities.

As MCINCR-MCBQ has exceeded reduction requirements for TSS already, no additional TSS reduction is required during this permit cycle. The remaining reduction amounts for TN and TP are 81.04 pounds per year (lb/yr) and 11.51 lb/yr, respectively. MCINCR-MCBQ implemented a nutrient trading agreement with the Mainside WWTP and issued these amounts of effluent to the MCINCR-MCBQ MS4.

Table 9-1 provides the cumulative progress toward meeting the compliance targets for TN and TP based on BMPs installed after 2009 and nutrient and sediment trading with the Mainside WWTP. The following table reflects the information contained in the Chesapeake Bay TMDL Action Plan submitted to VDEQ in 2021 following VDEQ's release of the updated guidance memorandum for BMP efficiencies.

Table 9-1: Progress Toward MCINCR-MCBQ's Required Reductions for This Permit Cycle[5]			
Control Measures Implemented	**Estimated Pollutant Reduction (lbs/yr)**		
	TN	**TP**	**TSS**
Total Reductions Required This Permit Cycle	**367.26**	**38.99**	**31,534.85**
Total Allowable Existing Source Reductions from Existing BMPs	286.22	27.48	53,065.40
Remaining Reductions Needed for This Permit Cycle	**81.04**	**11.51**	**0**
Total Allowable Existing Source Reductions from Nutrient and Sediment Trading	13,169.00	1,051.80	N/A
Surplus Reductions to Apply Toward Next Permit Cycle	12,405.85	900.78	*N/A*

Appendix D provides two tables indicating which existing BMPs provide the total TN, TP, and TSS reductions found in **Table 9-1** to meet the allowable existing source reductions required by the Chesapeake Bay TMDL Action Plan.

9.4 BMPS PLANNED FOR THE NEXT REPORTING PERIOD

MCINCR-MCBQ does not yet have BMPs planned for implementation during the next reporting period. However, MCINCR-MCBQ plans to explore the following opportunities to apply credits toward its Chesapeake Bay TMDL pollutant reduction requirements:

[5] TN, TP, and TSS credits are identified in Table 6, "WWTP Nutrient Trading Applied to MCINCR-MCBQ's Required Reductions for this Permit Cycle," in the 2021 *MCB Quantico Stormwater MS4 Support Chesapeake Bay TMDL Action Plan.*

- Increased water quality treatment design in its new development projects (that is, overdesign stormwater BMPs and claim credit toward TMDL goals), and
- Downspout disconnection and rerouting to swales and rain gardens.

A TMDL Action Plan addressing the reductions required for the third permit cycle will be submitted with the permit registration statement.

10. LOCAL TMDL

As of January 2019, no United States Environmental Protection Agency (USEPA)–approved TMDLs require MCINCR-MCBQ to develop a Local TMDL Action Plan. If a USEPA-approved TMDL is published after this date and requires MCINCR-MCBQ to develop a TMDL Action Plan, MCINCR-MCBQ will coordinate with VDEQ to identify a deadline to submit a TMDL Action Plan. The 2018 to 2023 MS4 permit does not identify a deadline to submit Local TMDL Action Plans for TMDLs approved by USEPA after 30 June 2018.[6]

[6] Refer to MCINCR-MCBQ's June 2020 *MS4 Program Plan.*

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Appendix A

Information Table

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Unique ID	Previous MCBQ Outfall ID	Latitude	Longitude	Estimated regulated acreage draining to the outfall	Receiving water	6th Order HUC	Is the receiving water impaired (Virginia 2016 305(b) / 303(d) Water Quality Assessment Integrated Report)	Predominant land use for each outfall	Any EPA approved TMDLs for a wasteload allocation is assigned
100	CD-003	38.54182935	-77.32837960	4.892	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
101	CD-004	38.54420369	-77.33206529	0.814	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
102	CD-005	38.53567189	-77.32972491	2.732	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
103	CD-006	38.53426516	-77.33282342	3.253	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
104	CD-007	38.53431279	-77.33297604	6.839	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
105	CD-008	38.53725120	-77.33174679	1.163	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
106	CD-009	38.53695934	-77.33195759	1.105	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
107	CD-010	38.53662172	-77.33222213	1.286	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
108	CD-011	38.53643606	-77.33279612	2.810	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
109	CD-012	38.53811990	-77.33579022	Unknown	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
110	CD-323	38.54345382	-77.33154482	27.063	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
111	CD-334	38.54102526	-77.32809412	36.472	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
112	GR-183	38.53210874	-77.30116367	1.076	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
113	GR-184	38.53230839	-77.29953271	0.658	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
114	GR-190	38.53230613	-77.29351753	0.999	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
115	GR-191	38.53131237	-77.29377394	1.158	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
116	GR-192	38.53104960	-77.29414777	2.812	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
117	GR-193	38.53015475	-77.29475437	2.069	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
118	GR-194	38.52905162	-77.29515687	3.650	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
119	LJ-057	38.52554348	-77.31482321	1.330	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

Unique ID	Previous MCBQ Outfall ID	Latitude	Longitude	Estimated regulated acreage draining to the outfall	Receiving water	6th Order HUC	Is the receiving water impaired (Virginia 2016 305(b) / 303(d) Water Quality Assessment Integrated Report)	Predominant land use for each outfall	Any EPA approved TMDLs for a wasteload allocation is assigned
120	LJ-059	38.52551163	-77.31431175	0.497	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
121	LJ-060	38.52551890	-77.31416768	0.855	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
122	LJ-062	38.52552244	-77.31320710	0.166	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
123	LJ-063	38.52539085	-77.31325907	Unknown	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
124	LJ-064	38.52549836	-77.31296102	0.472	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
125	LJ-065	38.52558821	-77.31295725	1.391	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
126	LJ-066	38.52557179	-77.31281694	0.937	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
127	LJ-069	38.52627338	-77.31100727	0.268	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
128	LJ-070	38.52690563	-77.30975040	0.380	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
129	LJ-071	38.52714568	-77.31050125	0.387	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
130	LJ-072	38.52699162	-77.31102772	0.292	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
131	LJ-073	38.52632124	-77.31126015	0.344	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
132	LJ-076	38.52583509	-77.30764789	0.796	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
133	LJ-086	38.52657764	-77.30812733	0.344	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
134	LJ-087	38.52651017	-77.30865120	0.435	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
135	LJ-088	38.52667110	-77.30895278	0.351	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
136	LJ-095	38.52666498	-77.30570245	1.279	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
137	LJ-096	38.52748956	-77.30728614	0.938	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
138	LJ-097	38.52832281	-77.30734951	1.185	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
139	LJ-303	38.52588100	-77.30591800	0.167	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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140	LJ-304	38.52601200	-77.30502500	0.345	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
141	NR-199	38.52416212	-77.29434323	2.059	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
142	NR-201	38.52429153	-77.29681246	2.989	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
143	NR-211	38.52465749	-77.29293918	0.587	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
144	NR-312A	38.52529067	-77.29922744	0.212	Little Creek > (Lower) Potomac River	PL54	Little Creek: E. coli Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
200	DC-131	38.51110915	-77.31525599	17.290	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
201	DC-132	38.51236308	-77.31400080	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
202	DC-133	38.51266231	-77.31377683	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
203	DC-134	38.51091075	-77.31420750	6.382	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
204	DC-135	38.50610230	-77.30912044	2.554	Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
205	DC-136	38.50607224	-77.31003254	0.761	Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
206	DC-137	38.50655328	-77.31047426	0.298	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
207	DC-138	38.50718049	-77.31023764	0.616	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
208	DC-139	38.50790050	-77.31057325	1.225	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
209	DC-141	38.50871338	-77.31015575	0.801	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
210	DC-308	38.50769600	-77.31024600	0.286	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
211	DC-309	38.50755600	-77.31030500	0.370	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
212	DC-314	38.50847600	-77.31098000	3.888	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
213	DC-315	38.50943000	-77.31247900	5.145	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
214	MC-109	38.51981051	-77.32150351	1.572	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus

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215	MC-110	38.52008888	-77.32218998	1.640	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
216	MC-112	38.52200699	-77.32404364	0.851	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
223	PV-013	38.53474227	-77.34056282	3.779	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
224	PV-014	38.53633607	-77.34112211	5.241	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
225	PV-015	38.53642629	-77.34122478	0.881	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
226	PV-017	38.53420858	-77.34552739	18.669	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
227	PV-018	38.53330563	-77.34425895	2.444	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
228	PV-019	38.53147577	-77.34447696	1.396	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
229	PV-020	38.53087312	-77.34329000	1.392	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
230	PV-021	38.53072627	-77.34401344	2.969	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
231	PV-023	38.52919179	-77.34653656	5.865	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
232	PV-024	38.52972379	-77.34867621	7.779	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
233	PV-027	38.52704301	-77.35370158	3.795	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
234	PV-028	38.53128534	-77.34713671	2.169	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
235	PV-029	38.52830311	-77.34567458	0.450	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
236	PV-030	38.52844580	-77.34544122	3.987	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
237	PV-031	38.52801983	-77.34706794	5.327	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
238	PV-032	38.52678673	-77.34740232	1.951	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
239	PV-033	38.52570039	-77.34671661	2.108	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
240	PV-034	38.52464964	-77.34743343	1.385	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus

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241	PV-035	38.52364998	-77.34739120	1.348	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
242	PV-036	38.52295063	-77.34757827	4.963	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
243	PV-037	38.52236473	-77.34664368	1.535	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
244	PV-038	38.52244897	-77.34635711	1.921	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
245	PV-039	38.52111613	-77.34470561	0.472	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
246	PV-040	38.52115866	-77.34435056	10.730	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
247	PV-325	38.53164525	-77.34601247	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
248	PV-326	38.52745702	-77.34924462	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
249	PV-327	38.52719400	-77.34876000	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
250	PV-328	38.53560892	-77.34518751	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
251	PV-333	38.53565521	-77.34511847	Unknown	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
252	RS-042	38.51902731	-77.35053479	5.080	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
253	RS-043	38.51893002	-77.34988562	5.357	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
254	RS-044	38.51876871	-77.34872687	7.168	Unnamed tributary > Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
255	RS-051	38.51747111	-77.33702175	Unknown	Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
256	RS-052	38.50612312	-77.30195817	6.935	Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
257	RS-053	38.51344971	-77.33090986	1.434	Chopawamsic Creek > (Lower) Potomac River	PL53	Chopawamsic: fecal coliform, pH, PCBs Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Chopawamsic: PCBs Potomac River: PCBs, nitrogen, phosphorus
310	AF-157	38.50717873	-77.30228146	9.557	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
311	AF-158	38.51577580	-77.29445276	0.949	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
312	BA-217	38.51576306	-77.29449517	0.505	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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313	BA-218	38.51791863	-77.29014630	0.381	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
314	BA-219	38.51788910	-77.29015748	Unknown	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
315	BA-220	38.51786398	-77.29007355	0.451	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
316	BA-221	38.51561981	-77.29214472	16.946	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
317	BA-222	38.51699182	-77.29047314	6.278	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
318	BA-223	38.51681851	-77.29479885	2.804	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
319	BA-224	38.51597543	-77.29334243	0.527	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
320	BA-225	38.51664668	-77.29471813	2.062	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
321	BA-226	38.51654358	-77.29478233	1.033	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
322	BA-227	38.51630327	-77.29497881	Unknown	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
323	BA-229	38.51658474	-77.29753093	3.315	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
324	BA-230	38.51637000	-77.29076500	21.530	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
325	BA-329	38.51597500	-77.29356200	0.180	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
326	BA-330	38.51160513	-77.30362206	Unknown	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
327	DC-145	38.51038674	-77.30342483	8.251	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
328	DC-146	38.52648184	-77.28312403	8.421	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
329	HP-233	38.52467893	-77.28448788	Unknown	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
330	HP-238	38.52555568	-77.28311643	4.150	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
331	HP-239	38.52684150	-77.28317382	Unknown	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
332	HP-240	38.52768187	-77.28595577	0.476	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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333	HP-241	38.52687076	-77.28700418	1.601	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
334	HP-242	38.52639575	-77.28869548	1.067	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
335	HP-243	38.52652841	-77.28801949	0.275	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
336	HP-244	38.51315800	-77.30616100	0.910	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
337	HP-318	38.52473209	-77.28435217	6.272	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
338	HP-319	38.52471343	-77.28449153	0.714	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
339	HP-322	38.52528662	-77.28340343	0.552	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
340	HP-324	38.52654369	-77.28786557	2.629	(Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
400	GR-185	38.53291047	-77.29817142	2.125	Unnamed tributary > Quantico Creek > (Lower) Potomac River	PL52	Quantico Creek: estuarine bioassessments, sediment bioassays for estuarine and marine water, E. coli	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
401	GR-186	38.53264468	-77.29620888	1.470	Unnamed tributary > Quantico Creek > (Lower) Potomac River	PL52	Quantico Creek: estuarine bioassessments, sediment bioassays for estuarine and marine water, E. coli	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
402	GR-187	38.53305036	-77.29548443	1.022	Unnamed tributary > Quantico Creek > (Lower) Potomac River	PL52	Quantico Creek: estuarine bioassessments, sediment bioassays for estuarine and marine water, E. coli	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
403	GR-188	38.53436339	-77.29463777	0.900	Unnamed tributary > Quantico Creek > (Lower) Potomac River	PL52	Quantico Creek: estuarine bioassessments, sediment bioassays for estuarine and marine water, E. coli	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
500	BA-212	38.51847625	-77.30435592	16.700	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
501	BA-213	38.52359089	-77.30718053	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
502	DC-310	38.52487377	-77.31654821	7.642	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
503	LJ-054	38.52333035	-77.31625297	1.329	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
504	LJ-055	38.52494426	-77.31650446	0.314	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
505	LJ-056	38.52466766	-77.31353274	3.215	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
506	LJ-058	38.52392181	-77.31484997	1.649	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
507	LJ-061	38.52443347	-77.31215391	0.813	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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508	LJ-067	38.52501961	-77.30595776	1.416	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
509	LJ-068	38.52408425	-77.31109714	0.282	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
510	LJ-074	38.52515068	-77.30549895	0.269	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
511	LJ-075	38.52583450	-77.30851877	0.199	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
512	LJ-077	38.52583635	-77.30876855	0.154	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
513	LJ-078	38.52603206	-77.30950079	0.309	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
514	LJ-079	38.52633155	-77.31011099	0.354	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
515	LJ-080	38.52570852	-77.30973280	0.303	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
516	LJ-081	38.52626874	-77.31017832	0.721	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
517	LJ-082	38.52566745	-77.30985023	0.085	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
518	LJ-083	38.52552806	-77.30980488	0.221	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
519	LJ-084	38.52524458	-77.30967052	0.652	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
520	LJ-085	38.52465643	-77.30642564	0.840	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
521	LJ-089	38.52442405	-77.30779811	0.350	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
522	LJ-090	38.52359089	-77.30718053	0.407	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
523	LJ-091	38.52361377	-77.30697291	0.375	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
524	LJ-092	38.52411856	-77.30505494	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
525	LJ-093	38.52450728	-77.30603967	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
526	LJ-094	38.52420100	-77.30500100	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
527	LJ-300	38.52639200	-77.31006000	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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528	LJ-301	38.52447752	-77.30585532	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
529	LJ-302	38.52418537	-77.30499657	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
530	LJ-305	38.52582900	-77.30849600	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
531	LJ-306	38.52628138	-77.31003826	0.095	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
532	LJ-307	38.51718782	-77.30676183	0.323	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
533	LJ-311	38.52419606	-77.31090073	0.762	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
534	MC-098	38.51804679	-77.31270209	0.706	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
535	MC-099	38.51653928	-77.30781378	0.756	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
536	MC-100	38.51667263	-77.30911985	2.961	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
537	MC-101	38.51768693	-77.31128892	1.372	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
538	MC-102	38.51861886	-77.31567364	2.009	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
539	MC-103	38.51867096	-77.31364155	0.557	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
540	MC-104	38.51869477	-77.31440623	0.901	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
541	MC-105	38.51851732	-77.31507075	0.522	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
542	MC-106	38.51842431	-77.31646858	0.657	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
543	MC-107	38.52158731	-77.32295701	1.005	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
544	MC-111	38.52193725	-77.32212410	3.305	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
545	MC-113	38.52053513	-77.32126110	0.912	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
546	MC-114	38.52187196	-77.30968494	1.023	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
547	MC-115	38.52003604	-77.32065008	1.359	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

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548	MC-116	38.52184505	-77.30955787	0.647	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
549	MC-117	38.52263354	-77.31031668	0.501	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
550	MC-119	38.51954933	-77.30836705	0.580	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
551	MC-120	38.52141118	-77.30929402	0.839	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
552	MC-121	38.52030217	-77.30869924	0.934	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
553	MC-122	38.52198989	-77.30866402	2.026	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
554	MC-123	38.52592964	-77.30165340	1.908	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
555	MC-124	38.52127740	-77.30816515	0.537	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
556	MC-125	38.52072872	-77.30756014	2.478	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
563	NR-196	38.52318336	-77.29563505	0.138	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
564	NR-198	38.52222464	-77.29826789	0.602	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
565	NR-200	38.52331261	-77.29497012	1.542	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
566	NR-204	38.52354926	-77.30266920	0.450	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
567	NR-206	38.52627427	-77.30318202	1.479	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
568	NR-209	38.52297448	-77.30396992	1.297	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
569	NR-210	38.52334800	-77.29655300	1.084	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
570	NR-313	38.52333271	-77.29654791	Unknown	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus
571	NR-312B	38.52514867	-77.29951653	0.197	Unnamed tributary > (Lower) Potomac River	PL54	Potomac River: PCBs, nitrogen, phosphorus	Military use (ranges, airfield, fuel storage, etc.)	Potomac River: PCBs, nitrogen, phosphorus

Appendix B

MS4 Map

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MCBQ MS4 Map

September 2023

N
W E
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0 0.25 0.5 Miles

Legend

- Inlet
- Junction
- Outfall
- Open Drainage
- Storm Water Line
- Stormwater BMP
- MS4 Boundary
- Site Boundary

MCBQ GIS data, May 2023. Esri World Imagery and Hybrid Reference.

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Appendix C

Spill Report Forms

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VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
Phone No. 703-583-3800 or 3864
Fax No. 703-583-3871
Attention: PREP Coordinator

IR _____

Assigned To: **Water ☒ Sewage ☐ Fish Kill ☐**		
	Date: 3/28/2023	**Time: 0646**
Reported By: Dylan Lane	**Phone703-432-0527**	
Address 2006 Hawkins Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: USA Environmental, Inc.	**Phone: 863-657-8446**	
Address: 720 Brooker Creek Boulevard, Suite 204		
City: Oldsmar	**State: FL**	**Zip: 34677**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: Geiger Rd. at the intersection of Louis Rd.	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Dylan Lane	**Phone: 703-432-0527**	
Property Owner: USMC	**Phone:**	

Description of Incident: Discharge of Water from Hydrant connected hose	**Date: 3/27/2023**	**Time: 3:00 pm**

On 3/27/2023 at 3:00 pm NREA personnel noticed a hose discharging water onto Geiger Rd from a hydrant being utilized by a contractor performing CERCLA site restoration. The contractor was notified and secured water at the hydrant at 3:15pm to stop the loss of water. Estimated amount of water loss was approximately 1,000 gallons, water that was released ran onto Geiger Rd and down into Little Creek, located within Quantico MS4 permitted area (VAR040069). No adverse environmental effects were noted.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: Little Creek

Amount of Material/Units **GALLONS RELEASED** ***1,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _X_ No

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
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Attention: PREP Coordinator

IR _____

Assigned To: **Water ☒ Sewage ☐ Fish Kill ☐**		
	Date: 3/25/2023	**Time: 10:44**
Reported By: Taylor Hicks	**Phone703-784-1497**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: 2040 Broadway St.	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Taylor Hicks	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 3/25/2023**	**Time: 10:44**

On 3/25/2023 at 10:44 it was reported that there was water coming up in the grass at 2040 Broadway St. An after-hours crew was called to isolate the water main. The crew secured water to a water main at 15:30 to stop the loss of water. Estimated amount of water loss 1,500 gallons, water that was released ran into street and down the storm drain. Located within Quantico MS4 permitted area (VAR040069). No adverse environmental effects were noted.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: Potomac River

Amount of Material/Units **GALLONS RELEASED** ***1,500*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ _XX_ No

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
Phone No. 703-583-3800 or 3864
Fax No. 703-583-3871
Attention: PREP Coordinator

IR _____

Assigned To:	**Water ☒ Sewage ☐ Fish Kill ☐**	
	Date: 06/13/2023	**Time: 12:00**
Reported By: Michael Urban	**Phone703-784-2246**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico West Side	**Receiving STP: NA**	
Site Address: Chamberlin Village water tower	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: John Stancil	**Phone:**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 06/13/2023**	**Time: 12:00**

On 06/13/2023 at or about 12:00 it was reported that there was water slowly running out of overflow of Chamberlin Village water tower. Shop 61 Pipefitters were dispatched to check. Pumps were properly secured, and it stopped leaking. Estimated amount of loss 200 gallons, water that was released ran into grass and soaked into ground. No water entered the storm drain system.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED** ***200*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:

- compliance auditor:

- permit writer:

SHADED AREA FOR DEQ USE ONLY

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
Phone No. 703-583-3800 or 3864
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Attention: PREP Coordinator

IR _____

Assigned To:	**Water ☒ Sewage ☐ Fish Kill ☐**	
	Date: 10/31/2022	**Time: 1:30**
Reported By: Jonmark Sullivan	**Phone703-432-0539**	
Address:		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: 110 Neville Rd	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Taylor Hicks	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 10/31/2022**	**Time: 10:00**

On 10/31/2022 at 10:00 am, it was reported that there was water coming up in the grass at building 110. A crew was called to isolate the water main. The crew secured water to the service line going to 110 at 10:37 to stop the loss of water. Estimated amount of water loss 500 gallons. The water lost went into an adjacent grassy area and parking lot. Once in the parking lot, the water entered a storm drain that drains to outfall 010 of permit# VA0002151. No detrimental environmental impacts were noted from this incident.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: Storm drain/Quantico Bight

Amount of Material/Units **GALLONS RELEASED** *500* **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _XX_ No

Date CC to - permit compliance:

- compliance auditor:

- permit writer:

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Attention: PREP Coordinator

IR _____

Assigned To:	**Water ☒ Sewage ☐ Fish Kill ☐**	
	Date: 2/2/2023	**Time: 18:24**
Reported By: Taylor Hicks	**Phone703-784-1497**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: 2034 Barnett Ave	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Collin Tolley	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 2/2/2023**	**Time: 18:24**

On 2/2/2023 at 18:24 it was reported that there was water coming up on Floyd St. An after-hours crew was called to isolate the water main. The crew secured water to a water main line at 21:04 to stop the loss of water. Estimated amount of water loss 2,000 gallons, water that was released ran into street and down the storm drain.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED** ***2,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
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Fax No. 703-583-3871
Attention: PREP Coordinator

IR _____

Assigned To:	**Water ☒ Sewage ☐ Fish Kill ☐**	
	Date: 12/08/2022	**Time: 08:30**
Reported By: David Powers	**Phone703-784-1497**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: Fuller Rd near cart crossing on Golf Course.	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: David Powers	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 12/08/2022**	**Time: 08:30**
On 12/2022 at 08:30 A water leak was reported on the Golf course near the cart crossing. Crew isolated the water main around 09:00 The. Estimated amount of water loss 1,000 gallons, water that was released ran into grassy area.		

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED** ***1,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:

- compliance auditor:

- permit writer:

SHADED AREA FOR DEQ USE ONLY

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
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Attention: PREP Coordinator

IR _____

Assigned To: **Water ☒ Sewage ☐ Fish Kill ☐**		
	Date: 5/17/2023	**Time: 0800**
Reported By: Michael Urban	**Phone703-784-2246**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: Golf Course By hole #10 closer to Fuller Rd. Down from Liversedge Dr.	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Michael Urban	**Phone: 703-784-2246**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 5/17/2023**	**Time: 08:00**

On 5/17/2023 at 08:00 it was reported that there was water coming up in the grass at Golf course by Hole #10 closer to Fuller Rd. A crew was sent to isolate the water main. The crew secured water to a water main at 09:30 to stop the loss of water. Estimated amount of water loss 5,000 gallons, water that was released ran into grass area and was absorbed.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED *5,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:
- compliance auditor:
- permit writer:

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Phone No. 703-583-3800 or 3864
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Attention: PREP Coordinator

IR _____

Assigned To: **Water ☒ Sewage ☐ Fish Kill ☐**		
	Date: 5/17/2023	**Time: 16:00**
Reported By: Michael Urban	**Phone703-784-2246**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: Below bldg. 3304 Golf Course by pavilion	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Michael Urban	**Phone: 703-784-2246**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 5/17/2023**	**Time: 14:25**

On 5/17/2023 at 14:25 it was reported that there was water coming up in the grass at Golf course below the Pavilion bldg. 3304. A crew was sent to isolate the water main. The crew secured water to a water main at 15:00 to stop the loss of water. Estimated amount of water loss 1,000 gallons, water that was released ran into grass area and was absorbed.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED *1,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:
- compliance auditor:
- permit writer:

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VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
Phone No. 703-583-3800 or 3864
Fax No. 703-583-3871
Attention: PREP Coordinator

IR _____

Assigned To: **Water ☒ Sewage ☐ Fish Kill ☐**		
	Date: 1/23/2023	**Time: 8:21**
Reported By: Taylor Hicks	**Phone703-784-1497**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: 2034 Barnett Ave	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Taylor Hicks	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 1/23/2023**	**Time: 8:21**

On 1/23/2023 at 8:21 it was reported that there was water coming up in the grass at 2034 Barnett Ave. An after-hours crew was called to isolate the water main. The crew secured water to a water main line at 9:50 to stop the loss of water. Estimated amount of water loss 5,000 gallons, water that was released ran into street and down the storm drain. Permit # VA0002151

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: Storm Drain/Quantico Bight

Amount of Material/Units **GALLONS RELEASED** ***5,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ x__ No

Date CC to - permit compliance:

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL POLLUTION INCIDENT REPORT
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Attention: PREP Coordinator

IR _____

Assigned To:	**Water ☒ Sewage ☐ Fish Kill ☐**	
	Date: 11/21/2022	**Time: 8:24**
Reported By: Taylor Hicks	**Phone703-784-1497**	
Address: 3252 Barnett Ave		
City: Quantico	**State: VA**	**Zip: 22134**
Responsible Party: MCB Quantico	**Phone:**	
Address:		
City:	**State:**	**Zip:**
Site Name: MCB Quantico	**Receiving STP: NA**	
Site Address: 3086 Roan St	**Permit No.: NA**	
	Map Name:	
	Map No.:	
City/County: Quantico VA 22134		
Contact on Scene: Taylor Hicks	**Phone: 703-784-1497**	
Property Owner: USMC	**Phone:**	

Description of Incident: (What Happened, include times if possible)	**Date: 11/21/2022**	**Time: 08:24**

On 11/21/2022 at 08:24 it was reported that there was water coming up in the roadway at 3086 Roan St. A crew was called in to isolate the water main. The crew secured water to an 8" water main going down Roan St at 10:45 to stop the loss of water. Estimated amount of water loss 1,000 gallons, water that was released ran into gravel parking lot area and grassy area.

Fish Kill: None

Adverse Effects Noted: None

Possible Receptors/Affected Water Body: None

Amount of Material/Units **GALLONS RELEASED** ***1,000*** **GALLONS IN WATER**

Description of Materials: Potable Water

Five day letter to follow _____ Yes _ __ No

Date CC to - permit compliance:

- compliance auditor:

- permit writer:

SHADED AREA FOR DEQ USE ONLY

Appendix D

BMPs Providing TMDL Treatment

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Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
BMPs Installed 1985-June 30, 2009 Inside Regulated MS4														
Hospital Point: Bldg 2202 Parking	RP001 - Extended Dry Pond 1	01/2005	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.2	16.86	3.2	20%	N/A	**0.6**	0	
					Regulated Urban Pervious		0.02	10.07	0.2	20%	N/A	**0.04**	0	
					Regulated Urban Impervious	Phosphorus	0.2	1.62	0.3	20%	N/A	**0.1**	0	
					Regulated Urban Pervious		0.02	0.41	0.0	20%	N/A	**0.002**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.2	1171.32	222.6	60%	N/A	**133.5**	0	
					Regulated Urban Pervious		0.02	175.8	3.5	60%	N/A	**2.1**	0	
Hospital Point: Bldg 2202 Parking	RP002 - Extended Dry Pond 2	01/2005	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.2	16.86	3.7	20%	N/A	**0.7**	0	
					Regulated Urban Pervious		0.03	10.07	0.3	20%	N/A	**0.1**	0	
					Regulated Urban Impervious	Phosphorus	0.2	1.62	0.4	20%	N/A	**0.1**	0	
					Regulated Urban Pervious		0.03	0.41	0.0	20%	N/A	**0.002**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.2	1171.32	257.7	60%	N/A	**154.6**	0	
					Regulated Urban Pervious		0.03	175.8	5.3	60%	N/A	**3.2**	0	
Hospital Point: Bldg 2200 Parking Lot Annex	RP003 - Extended Dry Pond 1	01/2005	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.1	16.86	2.0	20%	N/A	**0.4**	0	
					Regulated Urban Pervious		0.03	10.07	0.3	20%	N/A	**0.1**	0	
					Regulated Urban Impervious	Phosphorus	0.1	1.62	0.2	20%	N/A	**0.04**	0	
					Regulated Urban Pervious		0.03	0.41	0.01	20%	N/A	**0.002**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.1	1171.32	140.6	60%	N/A	**84.3**	0	
					Regulated Urban Pervious		0.03	175.8	5.3	60%	N/A	**3.2**	0	
Hospital Point: Bldg 2200 Parking Lot Annex	RP004 - Extended Dry Pond 2	01/2005	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.2	16.86	3.7	20%	N/A	**0.7**	0	
					Regulated Urban Pervious		0.1	10.07	0.8	20%	N/A	**0.2**	0	
					Regulated Urban Impervious	Phosphorus	0.2	1.62	0.4	20%	N/A	**0.1**	0	
					Regulated Urban Pervious		0.1	0.41	0.03	20%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.2	1171.32	257.7	60%	N/A	**154.6**	0	
					Regulated Urban Pervious		0.1	175.8	14.1	60%	N/A	**8.4**	0	
Hospital Point: Bldg 2200 Parking Lot Annex	Two Filterra Tree boxes	01/2005	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.5	16.86	8.8	70%	N/A	**6.1**	0	
					Regulated Urban Pervious		0	10.07	0	70%	N/A	**0**	0	
					Regulated Urban Impervious	Phosphorus	0.5	1.62	0.8	75%	N/A	**0.6**	0	
					Regulated Urban Pervious		0	0.41	0	75%	N/A	**0**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.5	1171.32	609.1	80%	N/A	**487.3**	0	
					Regulated Urban Pervious		0	175.8	0	80%	N/A	**0**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
Hospital Point: Across Sherwood Street from Bldg 2207	RP005 - Extended Dry Pond	01/2000	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	1.9	16.86	31.2	20%	N/A	**6.2**	0	
					Regulated Urban Pervious		0.4	10.07	4.1	20%	N/A	**0.8**	0	
					Regulated Urban Impervious	Phosphorus	1.9	1.62	3.0	20%	N/A	**0.6**	0	
					Regulated Urban Pervious		0.4	0.41	0.2	20%	N/A	**0.03**	0	
					Regulated Urban Impervious	Total Suspended Solids	1.9	1171.32	2166.9	60%	N/A	**1300.2**	0	
					Regulated Urban Pervious		0.4	175.8	72.1	60%	N/A	**43.2**	0	
Training and Education Command (TECOM)	RP006 - Dry Extended Detention Pond	06/2009	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	2.5	16.86	42.3	20%	N/A	**8.5**	0	
					Regulated Urban Pervious		5.8	10.07	58.0	20%	N/A	**11.6**	0	
					Regulated Urban Impervious	Phosphorus	2.5	1.62	4.1	20%	N/A	**0.8**	0	
					Regulated Urban Pervious		5.8	0.41	2.4	20%	N/A	**0.5**	0	
					Regulated Urban Impervious	Total Suspended Solids	2.5	1171.32	2940.0	60%	N/A	**1764.0**	0	
					Regulated Urban Pervious		5.8	175.8	1012.6	60%	N/A	**607.6**	0	
MCU: Jordan Hall Parking	TB001 - Filterra tree box	01/2007	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.3	16.86	5.7	70%	N/A	**4.0**	0	
					Regulated Urban Pervious		0.04	10.07	0.4	70%	N/A	**0.3**	0	
					Regulated Urban Impervious	Phosphorus	0.3	1.62	0.6	75%	N/A	**0.4**	0	
					Regulated Urban Pervious		0.04	0.41	0.02	75%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.3	1171.32	398.2	80%	N/A	**318.6**	0	
					Regulated Urban Pervious		0.04	175.8	7.0	80%	N/A	**5.6**	0	
MCU: Jordan Hall Parking	TB002 - Filterra tree box	01/2007	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.2	16.86	3.5	70%	N/A	**2.5**	0	
					Regulated Urban Pervious		0.01	10.07	0.1	70%	N/A	**0.1**	0	
					Regulated Urban Impervious	Phosphorus	0.2	1.62	0.3	75%	N/A	**0.3**	0	
					Regulated Urban Pervious		0.01	0.41	0.004	75%	N/A	**0.003**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.2	1171.32	246.0	80%	N/A	**196.8**	0	
					Regulated Urban Pervious		0.01	175.8	1.8	80%	N/A	**1.4**	0	
MCU: Jordan Hall Parking	TB003 - Filterra tree box	01/2007	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.1	16.86	0.8	70%	N/A	**0.6**	0	
					Regulated Urban Impervious	Phosphorus	0.1	1.62	0.1	75%	N/A	**0.1**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.1	1171.32	58.6	80%	N/A	**46.9**	0	

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Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
MCU: Jordan Hall Parking	TB004 - Filterra tree box	01/2007	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.4	16.86	6.1	70%	N/A	**4.2**	0	
					Regulated Urban Pervious		0.02	10.07	0.2	70%	N/A	**0.1**	0	
					Regulated Urban Impervious	Phosphorus	0.4	1.62	0.6	75%	N/A	**0.4**	0	
					Regulated Urban Pervious		0.02	0.41	0.01	75%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.4	1171.32	421.7	80%	N/A	**337.3**	0	
					Regulated Urban Pervious		0.02	175.8	3.5	80%	N/A	**2.8**	0	
MCU: Jordan Hall Parking	TB005 - Filterra tree box	01/2007	Operator-owned	Bioretention/ raingardens - A/B soils, underdrain	Regulated Urban Impervious	Nitrogen	0.5	16.86	7.9	70%	N/A	**5.5**	0	
					Regulated Urban Pervious		0.1	10.07	0.8	70%	N/A	**0.6**	0	
					Regulated Urban Impervious	Phosphorus	0.5	1.62	0.8	75%	N/A	**0.6**	0	
					Regulated Urban Pervious		0.1	0.41	0.03	75%	N/A	**0.02**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.5	1171.32	550.5	80%	N/A	**440.4**	0	
					Regulated Urban Pervious		0.1	175.8	14.1	80%	N/A	**11.3**	0	
MCU: Bldg 2084 Parking	RP008 - Extended Dry Pond	01/1998	Operator-owned	Dry Extended Detention Ponds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0**	0	The pond has returned to a forest-like condition and is no longer functional. No credit.
MCU Garage	RP009 - Wet Pond	01/2007	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	0	16.86	0.0	20%	N/A	**0**	0	No credit because the BMP no longer treats existing land uses (pre July 2009) following construction of MCU Garage
					Regulated Urban Pervious		0	10.07	0.0	20%	N/A	**0**	0	
					Regulated Urban Impervious	Phosphorus	0	1.62	0.0	45%	N/A	**0**	0	
					Regulated Urban Pervious		0	0.41	0.0	45%	N/A	**0**	0	
					Regulated Urban Impervious	Total Suspended Solids	0	1171.32	0.0	60%	N/A	**0**	0	
					Regulated Urban Pervious		0	175.8	0.0	60%	N/A	**0**	0	
Gymnasium (Bldg 2073)	RP012 - Dry Pond	01/2007	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Regulated Urban Impervious	Nitrogen	1.6	16.86	26.8	5%	N/A	**1.3**	0	
					Regulated Urban Pervious		0.3	10.07	3.1	5%	N/A	**0.2**	0	
					Regulated Urban Impervious	Phosphorus	1.6	1.62	2.6	10%	N/A	**0.3**	0	
					Regulated Urban Pervious		0.3	0.41	0.1	10%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	1.6	1171.32	1862.4	10%	N/A	**186.2**	0	
					Regulated Urban Pervious		0.3	175.8	54.5	10%	N/A	**5.4**	0	
Auto Hobby Shop (Bldg 2074)	RP013 - Extended Dry Pond	01/2007	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.4	16.86	6.7	20%	N/A	**1.3**	0	
					Regulated Urban Pervious		0.3	10.07	3.3	20%	N/A	**0.7**	0	
					Regulated Urban Impervious	Phosphorus	0.4	1.62	0.6	20%	N/A	**0.1**	0	
					Regulated Urban Pervious		0.3	0.41	0.1	20%	N/A	**0.0**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.4	1171.32	468.5	60%	N/A	**281.1**	0	
					Regulated Urban Pervious		0.3	175.8	58.0	60%	N/A	**34.8**	0	

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Naval Medical Clinic (Bldg 3259)	RP014 - Extended Dry Pond 1	01/2000	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	3.6	16.86	60.9	20%	N/A	**12.2**	0	
					Regulated Urban Pervious		1.5	10.07	15.0	20%	N/A	**3.0**	0	
					Regulated Urban Impervious	Phosphorus	3.6	1.62	5.8	20%	N/A	**1.2**	0	
					Regulated Urban Pervious		1.5	0.41	0.6	20%	N/A	**0.1**	0	
					Regulated Urban Impervious	Total Suspended Solids	3.6	1171.32	4228.5	60%	N/A	**2537.1**	0	
					Regulated Urban Pervious		1.5	175.8	261.9	60%	N/A	**157.2**	0	
Naval Medical Clinic (Bldg 3259)	RP015 - Extended Dry Pond 2	01/2000	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	2.3	16.86	38.4	20%	N/A	**7.7**	0	
					Regulated Urban Pervious		2.0	10.07	20.2	20%	N/A	**4.0**	0	
					Regulated Urban Impervious	Phosphorus	2.3	1.62	3.7	20%	N/A	**0.7**	0	
					Regulated Urban Pervious		2.0	0.41	0.8	20%	N/A	**0.2**	0	
					Regulated Urban Impervious	Total Suspended Solids	2.3	1171.32	2670.6	60%	N/A	**1602.4**	0	
					Regulated Urban Pervious		2.0	175.8	353.4	60%	N/A	**212.0**	0	
Chapel	Extended Dry Pond	01/2009	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	3.6	16.86	60.0	20%	N/A	**12.0**	0	
					Regulated Urban Pervious		5.3	10.07	53.5	20%	N/A	**10.7**	0	
					Regulated Urban Impervious	Phosphorus	3.6	1.62	5.8	20%	N/A	**1.2**	0	
					Regulated Urban Pervious		5.3	0.41	2.2	20%	N/A	**0.4**	0	
					Regulated Urban Impervious	Total Suspended Solids	3.6	1171.32	4169.9	60%	N/A	**2501.9**	0	
					Regulated Urban Pervious		5.3	175.8	933.5	60%	N/A	**560.1**	0	
Chapel Parking Lot	Extended Dry Pond	01/2009	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.2	16.86	3.7	20%	N/A	**0.7**	0	
					Regulated Urban Pervious		0.2	10.07	2.4	20%	N/A	**0.5**	0	
					Regulated Urban Impervious	Phosphorus	0.2	1.62	0.4	20%	N/A	**0.07**	0	
					Regulated Urban Pervious		0.2	0.41	0.1	20%	N/A	**0.02**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.2	1171.32	257.7	60%	N/A	**154.6**	0	
					Regulated Urban Pervious		0.2	175.8	42.2	60%	N/A	**25.3**	0	
Crossroads Inn	RP016 - Extended Dry Pond	01/1997	Operator-owned	Dry Extended Detention Ponds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0**	0	The pond has returned to a forest-like condition and is no longer functional. No credit.
Marsh Center (Bldg. 3280)	RP024 - Wet Pond	01/1998	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	7.9	16.86	133.9	20%	N/A	**26.8**	0	
					Regulated Urban Pervious		8.4	10.07	85.0	20%	N/A	**17.0**	0	
					Regulated Urban Impervious	Phosphorus	7.9	1.62	12.9	45%	N/A	**5.8**	0	
					Regulated Urban Pervious		8.4	0.41	3.5	45%	N/A	**1.6**	0	
					Regulated Urban Impervious	Total Suspended Solids	7.9	1171.32	9300.3	60%	N/A	**5580.2**	0	
					Regulated Urban Pervious		8.4	175.8	1483.8	60%	N/A	**890.3**	0	

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Davis Center (Bldg 3300)	RP025 - Wet Pond	01/1996	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	4.4	16.86	73.8	20%	N/A	**14.8**	0	
					Regulated Urban Pervious		2.5	10.07	25.5	20%	N/A	**5.1**	0	
					Regulated Urban Impervious	Phosphorus	4.4	1.62	7.1	45%	N/A	**3.2**	0	
					Regulated Urban Pervious		2.5	0.41	1.0	45%	N/A	**0.5**	0	
					Regulated Urban Impervious	Total Suspended Solids	4.4	1171.32	5130.4	60%	N/A	**3078.2**	0	
					Regulated Urban Pervious		2.5	175.8	444.8	60%	N/A	**266.9**	0	
PPV Fuller Road at Courtney Drive	RP026 - Wet Pond 1	01/2005	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	10.9	16.86	183.6	20%	N/A	**36.7**	0	
					Regulated Urban Pervious		19.3	10.07	193.8	20%	N/A	**38.8**	0	
					Regulated Urban Impervious	Phosphorus	10.9	1.62	17.6	45%	N/A	**7.9**	0	
					Regulated Urban Pervious		19.3	0.41	7.9	45%	N/A	**3.6**	0	
					Regulated Urban Impervious	Total Suspended Solids	10.9	1171.32	12755.7	60%	N/A	**7653.4**	0	
					Regulated Urban Pervious		19.3	175.8	3384.2	60%	N/A	**2030.5**	0	
PPV Fuller Rd at Courtney Drive	RP027 - Wet Pond 2	01/2004	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	6.9	16.86	115.8	20%	N/A	**23.2**	0	
					Regulated Urban Pervious		15.9	10.07	160.1	20%	N/A	**32.0**	0	
					Regulated Urban Impervious	Phosphorus	6.9	1.62	11.1	45%	N/A	**5.0**	0	
					Regulated Urban Pervious		15.9	0.41	6.5	45%	N/A	**2.9**	0	
					Regulated Urban Impervious	Total Suspended Solids	6.9	1171.32	8047.0	60%	N/A	**4828.2**	0	
					Regulated Urban Pervious		15.9	175.8	2795.2	60%	N/A	**1677.1**	0	
Marine Federal Credit Union	RP028 - Wet Pond	01/2000	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	1.1	16.86	18.0	20%	N/A	**3.6**	0	
					Regulated Urban Pervious		0.4	10.07	3.6	20%	N/A	**0.7**	0	
					Regulated Urban Impervious	Phosphorus	1.1	1.62	1.7	45%	N/A	**0.8**	0	
					Regulated Urban Pervious		0.4	0.41	0.1	45%	N/A	**0.1**	0	
					Regulated Urban Impervious	Total Suspended Solids	1.1	1171.32	1253.3	60%	N/A	**752.0**	0	
					Regulated Urban Pervious		0.4	175.8	63.3	60%	N/A	**38.0**	0	
PPV - Purvis Road at Berkeley Street	RP029 - Extended Dry Pond	01/2007	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	2.2	16.86	37.1	20%	N/A	**7.4**	0	
					Regulated Urban Pervious		3.5	10.07	34.8	20%	N/A	**7.0**	0	
					Regulated Urban Impervious	Phosphorus	2.2	1.62	3.6	20%	N/A	**0.7**	0	
					Regulated Urban Pervious		3.5	0.41	1.4	20%	N/A	**0.3**	0	
					Regulated Urban Impervious	Total Suspended Solids	2.2	1171.32	2576.9	60%	N/A	**1546.1**	0	
					Regulated Urban Pervious		3.5	175.8	608.3	60%	N/A	**365.0**	0	

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PPV - Adams Street	RP030 - Wet Pond	01/2007	Operator-owned	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	2.6	16.86	43.5	20%	N/A	**8.7**	0	
					Regulated Urban Pervious		4.8	10.07	48.3	20%	N/A	**9.7**	0	
					Regulated Urban Impervious	Phosphorus	2.6	1.62	4.2	45%	N/A	**1.9**	0	
					Regulated Urban Pervious		4.8	0.41	2.0	45%	N/A	**0.9**	0	
					Regulated Urban Impervious	Total Suspended Solids	2.6	1171.32	3022.0	60%	N/A	**1813.2**	0	
					Regulated Urban Pervious		4.8	175.8	843.8	60%	N/A	**506.3**	0	
PPV - Purvis Road at Cukela Street	RP031 - Dry Pond	01/2007	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Regulated Urban Impervious	Nitrogen	4.4	16.86	73.7	5%	N/A	**3.7**	0	
					Regulated Urban Pervious		7.6	10.07	76.5	5%	N/A	**3.8**	0	
					Regulated Urban Impervious	Phosphorus	4.4	1.62	7.1	10%	N/A	**0.7**	0	
					Regulated Urban Pervious		7.6	0.41	3.1	10%	N/A	**0.3**	0	
					Regulated Urban Impervious	Total Suspended Solids	4.4	1171.32	5118.7	10%	N/A	**511.9**	0	
					Regulated Urban Pervious		7.6	175.8	1336.1	10%	N/A	**133.6**	0	
PPV Poynter Street	RP032 - Dry Pond	01/2007	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Regulated Urban Impervious	Nitrogen	7.5	16.86	126.3	5%	N/A	**6.3**	0	
					Regulated Urban Pervious		10.1	10.07	101.7	5%	N/A	**5.1**	0	
					Regulated Urban Impervious	Phosphorus	7.5	1.62	12.1	10%	N/A	**1.2**	0	
					Regulated Urban Pervious		10.1	0.41	4.1	10%	N/A	**0.4**	0	
					Regulated Urban Impervious	Total Suspended Solids	7.5	1171.32	8773.2	10%	N/A	**877.3**	0	
					Regulated Urban Pervious		10.1	175.8	1775.6	10%	N/A	**177.6**	0	
PPV - Purvis Road at Dulaney Street	SD004 - Vegetated swale with check dam	01/2007	Operator-owned	Vegetated Open Channel –Urban – C/D soils, no underdrain	Regulated Urban Impervious	Nitrogen	0.1	16.86	1.2	10%	N/A	**0.1**	0	
					Regulated Urban Pervious		0.2	10.07	1.8	10%	N/A	**0.2**	0	
					Regulated Urban Impervious	Phosphorus	0.1	1.62	0.1	10%	N/A	**0.01**	0	
					Regulated Urban Pervious		0.2	0.41	0.1	10%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.1	1171.32	82.0	50%	N/A	**41.0**	0	
					Regulated Urban Pervious		0.2	175.8	31.6	50%	N/A	**15.8**	0	
Marathon Center (Bldg 3399)	RP034 - Extended Dry Pond	01/2005	Operator-owned	Dry Extended Detention Ponds	Regulated Urban Impervious	Nitrogen	0.5	16.86	7.9	20%	N/A	**1.6**	0	
					Regulated Urban Pervious		0.1	10.07	1.3	20%	N/A	**0.3**	0	
					Regulated Urban Impervious	Phosphorus	0.5	1.62	0.8	20%	N/A	**0.2**	0	
					Regulated Urban Pervious		0.1	0.41	0.1	20%	N/A	**0.01**	0	
					Regulated Urban Impervious	Total Suspended Solids	0.5	1171.32	550.5	60%	N/A	**330.3**	0	
					Regulated Urban Pervious		0.1	175.8	22.9	60%	N/A	**13.7**	0	

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BMPs installed 1985-June 30, 2009 Outside Regulated MS4														
Aircraft Fire Rescue (Bldg 5172)	Extended Dry Pond	01/2004	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	1.5	16.86	26.0	20%	2.3	**2.9**	0	
					Unregulated Urban Pervious		0.7	10.07	7.0	20%	0.4	**1.0**	0	
					Unregulated Urban Impervious	Phosphorus	1.5	1.62	2.5	20%	0.4	**0.1**	0	
					Unregulated Urban Pervious		0.7	0.41	0.3	20%	0.02	**0.04**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.5	1171.32	1803.8	60%	360.8	**721.5**	0	
					Unregulated Urban Pervious		0.7	175.8	123.1	60%	10.8	**63.1**	0	
Bldg 3230	RP017 - Wet Pond	01/2005	Operator-owned	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	1.1	16.86	19.2	20%	1.7	**2.1**	0	
					Unregulated Urban Pervious		1.7	10.07	17.1	20%	1.0	**2.4**	0	
					Unregulated Urban Impervious	Phosphorus	1.1	1.62	1.8	45%	0.3	**0.5**	0	
					Unregulated Urban Pervious		1.7	0.41	0.7	45%	0.1	**0.3**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.1	1171.32	1335.3	60%	267.1	**534.1**	0	
					Unregulated Urban Pervious		1.7	175.8	298.9	60%	26.2	**153.2**	0	
OCS: Taylor Hall (Bldg 3065)	RP018 - Wet Pond	01/2006	Operator-owned	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	4.1	16.86	68.8	20%	6.2	**7.6**	0	
					Unregulated Urban Pervious		3.6	10.07	35.8	20%	2.2	**5.0**	0	
					Unregulated Urban Impervious	Phosphorus	4.1	1.62	6.6	45%	1.1	**1.9**	0	
					Unregulated Urban Pervious		3.6	0.41	1.5	45%	0.1	**0.6**	0	
					Unregulated Urban Impervious	Total Suspended Solids	4.1	1171.32	4779.0	60%	955.8	**1911.6**	0	
					Unregulated Urban Pervious		3.6	175.8	625.8	60%	54.8	**320.7**	0	
OCS: Taylor Hall (Bldg 3065)	RP019 - Extended Dry Pond	01/2005	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.2	16.86	3.7	20%	0.3	**0.4**	0	
					Unregulated Urban Pervious		0.1	10.07	1.3	20%	0.1	**0.2**	0	
					Unregulated Urban Impervious	Phosphorus	0.2	1.62	0.4	20%	0.1	**0.01**	0	
					Unregulated Urban Pervious		0.1	0.41	0.1	20%	0.004	**0.01**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.2	1171.32	257.7	60%	51.5	**103.1**	0	
					Unregulated Urban Pervious		0.1	175.8	22.9	60%	2.0	**11.7**	0	
OCS: Taylor Hall (Bldg 3065)	RP020 - Extended Dry Pond	01/2005	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.4	16.86	6.7	20%	0.6	**0.7**	0	
					Unregulated Urban Pervious		0.1	10.07	1.2	20%	0.1	**0.2**	0	
					Unregulated Urban Impervious	Phosphorus	0.4	1.62	0.6	20%	0.1	**0.03**	0	
					Unregulated Urban Pervious		0.1	0.41	0.05	20%	0.004	**0.01**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.4	1171.32	468.5	60%	93.7	**187.4**	0	
					Unregulated Urban Pervious		0.1	175.8	21.1	60%	1.8	**10.8**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
OCS: Taylor Hall (Bldg 3065)	RP021 - Extended Dry Pond	01/2005	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.3	16.86	5.2	20%	0.5	**0.6**	0	
					Unregulated Urban Pervious		0.3	10.07	3.2	20%	0.2	**0.5**	0	
					Unregulated Urban Impervious	Phosphorus	0.3	1.62	0.5	20%	0.1	**0.02**	0	
					Unregulated Urban Pervious		0.3	0.41	0.1	20%	0.01	**0.02**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.3	1171.32	363.1	60%	72.6	**145.2**	0	
					Unregulated Urban Pervious		0.3	175.8	56.3	60%	4.9	**28.8**	0	
OCS: Taylor Hall (Bldg 3065)	RP022- Extended Dry Pond	01/2005	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.2	16.86	3.7	20%	0.3	**0.4**	0	
					Unregulated Urban Pervious		0.1	10.07	1.1	20%	0.1	**0.2**	0	
					Unregulated Urban Impervious	Phosphorus	0.2	1.62	0.4	20%	0.1	**0.01**	0	
					Unregulated Urban Pervious		0.1	0.41	0.05	20%	0.003	**0.01**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.2	1171.32	257.7	60%	51.5	**103.1**	0	
					Unregulated Urban Pervious		0.1	175.8	19.3	60%	1.7	**9.9**	0	
OCS 202K	RP023 - Extended Dry Pond	01/2009	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	2.2	16.86	37.3	20%	3.4	**4.1**	0	
					Unregulated Urban Pervious		0.7	10.07	6.9	20%	0.4	**1.0**	0	
					Unregulated Urban Impervious	Phosphorus	2.2	1.62	3.6	20%	0.6	**0.1**	0	
					Unregulated Urban Pervious		0.7	0.41	0.3	20%	0.02	**0.04**	0	
					Unregulated Urban Impervious	Total Suspended Solids	2.2	1171.32	2588.6	60%	517.7	**1035.4**	0	
					Unregulated Urban Pervious		0.7	175.8	121.3	60%	10.6	**62.2**	0	
National Museum of the Marine Corps	RP035 - Bioretention with underdrain	06/2009	Operator-owned	Bioretention/ raingardens - C/D soils, underdrain	Unregulated Urban Impervious	Nitrogen	1.6	16.86	27.3	25%	2.5	**4.4**	0	
					Unregulated Urban Pervious		0.9	10.07	8.7	25%	0.5	**1.6**	0	
					Unregulated Urban Impervious	Phosphorus	1.6	1.62	2.6	45%	0.4	**0.8**	0	
					Unregulated Urban Pervious		0.9	0.41	0.4	45%	0.03	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.6	1171.32	1897.5	55%	379.5	**664.1**	0	
					Unregulated Urban Pervious		0.9	175.8	151.2	55%	13.2	**69.9**	0	
National Museum of the Marine Corps	RP036 - Bioretention with underdrain	06/2009	Operator-owned	Bioretention/ raingardens - C/D soils, underdrain	Unregulated Urban Impervious	Nitrogen	1.6	16.86	27.7	25%	2.5	**4.4**	0	
					Unregulated Urban Pervious		0.9	10.07	8.7	25%	0.5	**1.6**	0	
					Unregulated Urban Impervious	Phosphorus	1.6	1.62	2.7	45%	0.4	**0.8**	0	
					Unregulated Urban Pervious		0.9	0.41	0.4	45%	0.03	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.6	1171.32	1921.0	55%	384.2	**672.3**	0	
					Unregulated Urban Pervious		0.9	175.8	151.2	55%	13.2	**69.9**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
National Museum of the Marine Corps	Extended Dry Pond	06/2009	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	7.5	16.86	125.8	20%	11.3	**13.8**	0	
					Unregulated Urban Pervious		7.3	10.07	73.2	20%	4.4	**10.2**	0	
					Unregulated Urban Impervious	Phosphorus	7.5	1.62	12.1	20%	1.9	**0.5**	0	
					Unregulated Urban Pervious		7.3	0.41	3.0	20%	0.2	**0.4**	0	
					Unregulated Urban Impervious	Total Suspended Solids	7.5	1171.32	8738.0	60%	1747.6	**3495.2**	0	
					Unregulated Urban Pervious		7.3	175.8	1278.1	60%	111.8	**655.0**	0	
National Museum of the Marine Corps	Grass Swale	06/2009	Operator-owned	Vegetated Open Channel –Urban – C/D soils, no underdrain	Unregulated Urban Impervious	Nitrogen	0.4	16.86	6.4	10%	0.6	**0.1**	0	
					Unregulated Urban Pervious		0.4	10.07	3.5	10%	0.2	**0.1**	0	
					Unregulated Urban Impervious	Phosphorus	0.4	1.62	0.6	10%	0.1	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		0.4	0.41	0.1	10%	0.01	**0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.4	1171.32	445.1	50%	89.0	**133.5**	0	
					Unregulated Urban Pervious		0.4	175.8	61.5	50%	5.4	**25.4**	0	
National Museum of the Marine Corps	Wet Pond	06/2009	Operator-owned	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	1.4	16.86	23.1	20%	2.1	**2.5**	0	
					Forest		13.9	5.29	73.5	20%	0.0	**14.7**	0	
					Unregulated Urban Impervious	Phosphorus	1.4	1.62	2.2	45%	0.4	**0.6**	0	
					Forest		13.9	0.13	1.8	45%	0.0	**0.8**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.4	1171.32	1604.7	60%	320.9	**641.9**	0	
					Forest		13.9	79.91	1109.9	60%	0.0	**666.0**	0	
MCIOC/ MCNOSC (Bldg 27410)	RP040 - Extended Dry Pond 2	01/2007	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	1.5	16.86	25.5	20%	2.3	**2.8**	0	
					Unregulated Urban Pervious		0.9	10.07	8.6	20%	0.5	**1.2**	0	
					Unregulated Urban Impervious	Phosphorus	1.5	1.62	2.4	20%	0.4	**0.1**	0	
					Unregulated Urban Pervious		0.9	0.41	0.3	20%	0.03	**0.04**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.5	1171.32	1768.7	60%	353.7	**707.5**	0	
					Unregulated Urban Pervious		0.9	175.8	149.4	60%	13.1	**76.6**	0	
MCIOC/ MCNOSC (near Fuel Farm)	RP041 - Grass Swale 3	01/2009	Operator-owned	Vegetated Open Channel –Urban – C/D soils, no underdrain	Unregulated Urban Impervious	Nitrogen	1.8	16.86	29.5	10%	2.7	**0.3**	0	
					Unregulated Urban Pervious		1.2	10.07	12.1	10%	0.7	**0.5**	0	
					Unregulated Urban Impervious	Phosphorus	1.8	1.62	2.8	10%	0.5	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		1.2	0.41	0.5	10%	0.04	**0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.8	1171.32	2049.8	50%	410.0	**614.9**	0	
					Unregulated Urban Pervious		1.2	175.8	211.0	50%	18.5	**87.0**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
Fuel Farm	Oil/Water Separator connected to storm sewer system	01/1997	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Unregulated Urban Impervious	Nitrogen	0.9	16.86	15.7	5%	1.4	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		0.9	10.07	8.8	5%	0.5	**0**	0	
					Unregulated Urban Impervious	Phosphorus	0.9	1.62	1.5	10%	0.2	**0**	0	
					Unregulated Urban Pervious		0.9	0.41	0.4	10%	0.03	**0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.9	1171.32	1089.3	10%	217.9	**0**	0	
					Unregulated Urban Pervious		0.9	175.8	152.9	10%	13.4	**0**	0	
TBS (Bldg 24018)	RP042 - Extended Dry Pond	01/2007	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	1.1	16.86	18.0	20%	1.6	**2.0**	0	
					Unregulated Urban Pervious		1.1	10.07	11.1	20%	0.7	**1.6**	0	
					Unregulated Urban Impervious	Phosphorus	1.1	1.62	1.7	20%	0.3	**0.1**	0	
					Unregulated Urban Pervious		1.1	0.41	0.5	20%	0.03	**0.06**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.1	1171.32	1253.3	60%	250.7	**501.3**	0	
					Unregulated Urban Pervious		1.1	175.8	193.4	60%	16.9	**99.1**	0	
TBS (Bldg 24192)	RP043 - Dry Pond	01/2009	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Unregulated Urban Impervious	Nitrogen	1.8	16.86	29.8	5%	2.7	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		0.8	10.07	8.1	5%	0.5	**0**	0	
					Unregulated Urban Impervious	Phosphorus	1.8	1.62	2.9	10%	0.5	**0**	0	
					Unregulated Urban Pervious		0.8	0.41	0.3	10%	0.02	**0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.8	1171.32	2073.2	10%	414.6	**0**	0	
					Unregulated Urban Pervious		0.8	175.8	140.6	10%	12.3	**0**	0	
TBS (Bldg 24192)	RP044 - Extended Dry Pond	Jan-09	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	1.0	16.86	16.9	20%	1.5	**1.9**	0	
					Unregulated Urban Pervious		1.1	10.07	11.5	20%	0.7	**1.6**	0	
					Unregulated Urban Impervious	Phosphorus	1.0	1.62	1.6	20%	0.3	**0.1**	0	
					Unregulated Urban Pervious		1.1	0.41	0.5	20%	0.03	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.0	1171.32	1171.3	60%	234.3	**468.5**	0	
					Unregulated Urban Pervious		1.1	175.8	200.4	60%	17.5	**102.7**	0	
WTBn Fleet Armory (Bldg 27251)	RP046 - Extended Dry Pond 1	01/2006	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.9	16.86	14.8	20%	1.3	**1.6**	0	
					Unregulated Urban Pervious		1.3	10.07	13.2	20%	0.8	**1.8**	0	
					Unregulated Urban Impervious	Phosphorus	0.9	1.62	1.4	20%	0.2	**0.1**	0	
					Unregulated Urban Pervious		1.3	0.41	0.5	20%	0.04	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.9	1171.32	1030.8	60%	206.2	**412.3**	0	
					Unregulated Urban Pervious		1.3	175.8	230.3	60%	20.2	**118.0**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
WTBn Fleet Armory (Bldg 27250) Parking	RP047 - Extended Dry Pond 2	01/2006	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	1.1	16.86	17.7	20%	1.6	**1.9**	0	
					Unregulated Urban Pervious		1.0	10.07	9.7	20%	0.6	**1.4**	0	
					Unregulated Urban Impervious	Phosphorus	1.1	1.62	1.7	20%	0.3	**0.1**	0	
					Unregulated Urban Pervious		1.0	0.41	0.4	20%	0.03	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.1	1171.32	1229.9	60%	246.0	**492.0**	0	
					Unregulated Urban Pervious		1.0	175.8	168.8	60%	14.8	**86.5**	0	
WTBn Fleet Armory	RP048 - Extended Dry Pond 3	01/2007	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	0.7	16.86	11.8	20%	1.1	**1.3**	0	
					Unregulated Urban Pervious		0.4	10.07	4.3	20%	0.3	**0.6**	0	
					Unregulated Urban Impervious	Phosphorus	0.7	1.62	1.1	20%	0.2	**0.05**	0	
					Unregulated Urban Pervious		0.4	0.41	0.2	20%	0.0	**0.0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.7	1171.32	819.9	60%	164.0	**328.0**	0	
					Unregulated Urban Pervious		0.4	175.8	75.6	60%	6.6	**38.7**	0	
Camp Upshur	RP051 - Extended Dry Pond	01/2007	Operator-owned	Dry Extended Detention Ponds	Unregulated Urban Impervious	Nitrogen	2.5	16.86	42.8	20%	3.9	**4.7**	0	
					Unregulated Urban Pervious		1.9	10.07	18.6	20%	1.1	**2.6**	0	
					Unregulated Urban Impervious	Phosphorus	2.5	1.62	4.1	20%	0.7	**0.2**	0	
					Unregulated Urban Pervious		1.9	0.41	0.8	20%	0.1	**0.1**	0	
					Unregulated Urban Impervious	Total Suspended Solids	2.5	1171.32	2975.2	60%	595.0	**1190.1**	0	
					Unregulated Urban Pervious		1.9	175.8	325.2	60%	28.5	**166.7**	0	
Camp Upshur	Grass Swale	01/2007	Operator-owned	Vegetated Open Channel –Urban – C/D soils, no underdrain	Unregulated Urban Impervious	Nitrogen	0.8	16.86	13.8	10%	1.2	**0.1**	0	
					Unregulated Urban Pervious		0.3	10.07	3.2	10%	0.2	**0.1**	0	
					Unregulated Urban Impervious	Phosphorus	0.8	1.62	1.3	10%	0.2	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		0.3	0.41	0.1	10%	0.01	**0**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.8	1171.32	960.5	50%	192.1	**288.1**	0	
					Unregulated Urban Pervious		0.3	175.8	56.3	50%	4.9	**23.2**	0	
Russell Road Landfill	Dry pond	01/1996	Operator-owned	Dry Detention Ponds and Hydrodynamic Structures	Unregulated Urban Impervious	Nitrogen	0.8	16.86	13.8	5%	1.2	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		29.4	10.07	295.9	5%	17.8	**0**	0	
					Unregulated Urban Impervious	Phosphorus	0.8	1.62	1.3	10%	0.2	**0**	0	
					Unregulated Urban Pervious		29.4	0.41	12.0	10%	0.9	**0.2**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.8	1171.32	960.5	10%	192.1	**0**	0	Total Load Reductions for DEQ Consideration were negative for this calculation. Therefore, zero load reductions should be considered.
					Unregulated Urban Pervious		29.4	175.8	5165.0	10%	451.9	**0**	0	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Owner- ship	Corresponding DEQ/CBP BMP Name	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)	EOS Load (lbs/yr)	Reduction Efficiencies	Unregulated Land Correction Factor	Total BMP Credits for DEQ Consideration (lbs)	BMP Credits for inclusion into the CBAP (lbs)	Comments
Russell Road Landfill	Grass Swale 1	01/1996	Operator-owned	Vegetated Open Channel –Urban – A/B soils, no underdrain	Unregulated Urban Impervious	Nitrogen	0.8	16.86	13.8	45%	1.2	**5.0**	0	
					Unregulated Urban Pervious		29.4	10.07	295.9	45%	17.8	**115.4**	0	
					Unregulated Urban Impervious	Phosphorus	0.8	1.62	1.3	45%	0.2	**0.4**	0	
					Unregulated Urban Pervious		29.4	0.41	12.0	45%	0.9	**4.5**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.8	1171.32	960.5	70%	192.1	**480.2**	0	
					Unregulated Urban Pervious		29.4	175.8	5165.0	70%	451.9	**3163.6**	0	
Middle Branch Pond - Westside	Wet Pond	01/1998	Operator-owned	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	0.4	16.86	6.2	20%	0.6	**0.7**	0	
					Unregulated Urban Impervious	Phosphorus	0.4	1.62	0.6	45%	0.1	**0.2**	0	
					Unregulated Urban Impervious	Total Suspended Solids	0.4	1171.32	433.4	60%	86.7	**173.4**	0	
South Branch Pond - Westside	Wet Pond	01/1998	Operator-owned	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	1.6	16.86	27.0	20%	2.4	**3.0**	0	
					Unregulated Urban Pervious		3.5	10.07	35.2	20%	2.1	**4.9**	0	
					Forest		123.5	5.29	653.3	20%	0	**130.7**	0	
					Unregulated Urban Impervious	Phosphorus	1.6	1.62	2.6	45%	0.4	**0.8**	0	
					Unregulated Urban Pervious		3.5	0.41	1.4	45%	0.1	**0.5**	0	
					Forest		123.5	0.13	16.1	45%	0	**7.2**	0	
					Unregulated Urban Impervious	Total Suspended Solids	1.6	1171.32	1874.1	60%	374.8	**749.6**	0	
					Unregulated Urban Pervious		3.5	175.8	615.3	60%	53.8	**315.3**	0	
					Forest		123.5	79.91	9868.9	60%	0	**5921.3**	0	

TOTAL: **60**

Total TN (lbs) **731**

Total TP (lbs) **69**

Total TSS (lbs) **76,592**

Notes:

Edge of Stream (EOS) Loading Rates (lbs/ac/yr) for Potomac River Basin from Phase II MS4 Permit.

N/A - Not Applicable

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
Nonstructural BMP's Conducted Regularly													
Select Roads and Parking Areas	Street Sweeping	10/2015	Operator- owned	Street Sweeping	N/A	Regulated Urban Impervious	Nitrogen	76.20	15.4	1173.5	0.05	**58.7**	Regenerative vacuum-type sweepers used on all mainside roads, some parking lots, every two weeks. Contents dumped in solid waste dumpster. Reduction efficiencies in lbs/year/ac
						Regulated Urban Impervious	Phosphorus	76.20	2.0	152.4	0.06	**9.1**	
						Regulated Urban Impervious	Total Suspended Solids	76.20	1171.32	89254.6	0.25	**22,313.6**	
n Initiated 1 July 2009 - 30 June 2020 Inside Regulated MS4													
MCU: Bldg 3169 Parking	RP007 - Extended Dry Pond	01/2010	Operator- owned	Dry Extended Detention Ponds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.0**	The pond has returned to a forest-like condition and is no longer functional. No credit.
MCU: SNCO Academy (Bldg 3077)	RP010 - Bioretention Basin with underdrain	06/2010	Operator- owned	Bioretention Practices Level 1	Bioretention/ Raingardens	Regulated Urban Impervious	Nitrogen	0.20	16.86	3.4	64%	**2.2**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		0.00	10.07	0.0	64%	**0.0**	
						Regulated Urban Impervious	Phosphorus	0.20	1.62	0.3	55%	**0.2**	
						Regulated Urban Pervious		0.00	0.41	0.0	55%	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	0.20	1171.32	234.3	80%	**187.4**	
						Regulated Urban Pervious		0.00	175.8	0.0	80%	**0.0**	
MCU: SNCO Addition (Bldg 3077)	Bioretention Basin with underdrain	06/2013	Operator- owned	Bioretention Practices Level 1	Bioretention/ Raingardens	Regulated Urban Impervious	Nitrogen	0.20	16.86	3.4	64%	**2.2**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		0.00	10.07	0.0	64%	**0.0**	
						Regulated Urban Impervious	Phosphorus	0.20	1.62	0.3	55%	**0.2**	
						Regulated Urban Pervious		0.00	0.41	0.0	55%	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	0.20	1171.32	234.3	80%	**187.4**	
						Regulated Urban Pervious		0.00	175.8	0.0	80%	**0.0**	
MCU Addition	Land Use Change: Demolition of Parking Lot and Conversion to Grass	Jun-15	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	1.60	16.86	27.0	4.27	**6.8**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	1.60	1.62	2.6	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	1.60	1171.32	1874.1	1240.00	**1,984.0**	
Wounded Warriors (Bldg 1128)	RP011 - Extended Dry Pond	01/2010	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Regulated Urban Impervious	Nitrogen	0.00	16.86	0.0	10%	**0.0**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		1.40	10.07	14.1	10%	**1.4**	
						Regulated Urban Impervious	Phosphorus	0.00	1.62	0.0	15%	**0.0**	
						Regulated Urban Pervious		1.40	0.41	0.6	15%	**0.1**	
						Regulated Urban Impervious	Total Suspended Solids	0.00	1171.32	0.0	60%	**0.0**	
						Regulated Urban Pervious		1.40	175.8	246.1	60%	**147.7**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
Old Heat Plant	Land Use Change: Demolition of Buildings and Pavement and Conversion to Grass	01/2011	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	0.40	16.86	6.7	4.27	**1.7**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	0.40	1.62	0.6	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	0.40	1171.32	468.5	1240.00	**496.0**	
Greenside Apron Hangar	Grass swale 1	01/2011	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Regulated Urban Impervious	Nitrogen	2.40	16.86	40.5	15%	**6.1**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Regulated Urban Pervious		2.40	10.07	24.2	15%	**3.6**	
						Regulated Urban Impervious	Phosphorus	2.40	1.62	3.9	23%	**0.9**	
						Regulated Urban Pervious		2.40	0.41	1.0	23%	**0.2**	
						Regulated Urban Impervious	Total Suspended Solids	2.40	1171.32	2811.2	70%	**1,967.8**	
						Regulated Urban Pervious		2.40	175.8	421.9	70%	**295.3**	
Old MCAF Dining Hall	Land Use Change: Demolition of Buildings and Pavement and Conversion to Grass	01/2015	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	0.30	16.86	5.1	4.27	**1.3**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	0.30	1.62	0.5	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	0.30	1171.32	351.4	1240.00	**372.0**	
New MCAF BEQ and Dining Hall	Land Use Change: Demolition of Pavement and Conversion to Grass	01/2015	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	1.20	16.86	20.2	4.27	**5.1**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	1.20	1.62	1.9	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended	1.20	1171.32	1405.6	1240.00	**1,488.0**	
Child Development Center	Bioretention Basin 5, with underdrain	01/2012	Operator- owned	Bioretention Practices Level 1	Bioretention/ Raingardens	Regulated Urban Impervious	Nitrogen	0.10	16.86	1.7	64%	**1.1**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		0.60	10.07	6.0	64%	**3.9**	
						Regulated Urban Impervious	Phosphorus	0.10	1.62	0.2	55%	**0.1**	
						Regulated Urban Pervious		0.60	0.41	0.2	55%	**0.1**	
						Regulated Urban Impervious	Total Suspended Solids	0.10	1171.32	117.1	80%	**93.7**	
						Regulated Urban Pervious		0.60	175.8	105.5	80%	**84.4**	
Child Development Center	Extended Dry Pond	01/2012	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Regulated Urban Impervious	Nitrogen	0.40	16.86	6.7	10%	**0.7**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		2.30	10.07	23.2	10%	**2.3**	
						Regulated Urban Impervious	Phosphorus	0.40	1.62	0.6	15%	**0.1**	
						Regulated Urban Pervious		2.30	0.41	0.9	15%	**0.1**	
						Regulated Urban Impervious	Total Suspended Solids	0.40	1171.32	468.5	60%	**281.1**	
						Regulated Urban Pervious		2.30	175.8	404.3	60%	**242.6**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
Child Development Center	Grass Swale	01/2012	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Regulated Urban Impervious	Nitrogen	0.90	16.86	15.2	15%	**2.3**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		3.00	10.07	30.2	15%	**4.5**	
						Regulated Urban Impervious	Phosphorus	0.90	1.62	1.5	23%	**0.3**	
						Regulated Urban Pervious		3.00	0.41	1.2	23%	**0.3**	
						Regulated Urban Impervious	Total Suspended Solids	0.90	1171.32	1054.2	70%	**737.9**	
						Regulated Urban Pervious		3.00	175.8	527.4	70%	**369.2**	
Child Development Center	Wet Pond	01/2012	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Regulated Urban Impervious	Nitrogen	1.50	16.86	25.3	30%	**7.6**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		3.50	10.07	35.2	30%	**10.6**	
						Regulated Urban Impervious	Phosphorus	1.50	1.62	2.4	50%	**1.2**	
						Regulated Urban Pervious		3.50	0.41	1.4	50%	**0.7**	
						Regulated Urban Impervious	Total Suspended Solids	1.50	1171.32	1757.0	60%	**1,054.2**	
						Regulated Urban Pervious		3.50	175.8	615.3	60%	**369.2**	
Commissary	Extended Dry Pond	01/2010	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Regulated Urban Impervious	Nitrogen	2.30	16.86	38.8	10%	**3.9**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Regulated Urban Pervious		2.10	10.07	21.1	10%	**2.1**	
						Regulated Urban Impervious	Phosphorus	2.30	1.62	3.7	15%	**0.6**	
						Regulated Urban Pervious		2.10	0.41	0.9	15%	**0.1**	
						Regulated Urban Impervious	Total Suspended Solids	2.30	1171.32	2694.0	60%	**1,616.4**	
						Regulated Urban Pervious		2.10	175.8	369.2	60%	**221.5**	
Commissary	Dry Pond	01/2010	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Regulated Urban Impervious	Nitrogen	0.20	16.86	3.4	10%	**0.3**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Regulated Urban Pervious		0.10	10.07	1.0	10%	**0.1**	
						Regulated Urban Impervious	Phosphorus	0.20	1.62	0.3	15%	**0.0**	
						Regulated Urban Pervious		0.10	0.41	0.0	15%	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	0.20	1171.32	234.3	60%	**140.6**	
						Regulated Urban Pervious		0.10	175.8	17.6	60%	**10.5**	
Old Stables on Fuller Road	Land Use Change: Demolition of Buildings and Conversion to Grass	01/2014	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	0.30	16.86	5.1	4.27	**1.3**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	0.30	1.62	0.5	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended	0.30	1171.32	351.4	1240.00	**372.0**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
BMPs Installed with Construction Initiated 1 July 2009 - 30 June 2020 Outside Regulated MS4													
Greenside Apron Hangar	Grass swale 2	01/2011	Operator- owned	Grass Channels Level 1	Vegetated Open Channel –Urban – C/D soils, no underdrain	Unregulated Urban Impervious	Nitrogen	3.50	16.86	59.0	15%	**8.9**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		3.30	10.07	33.2	15%	**5.0**	
						Unregulated Urban Impervious	Phosphorus	3.50	1.62	5.7	23%	**1.3**	
						Unregulated Urban Pervious		3.30	0.41	1.4	23%	**0.3**	
						Unregulated Urban Impervious	Total Suspended Solids	3.50	1171.32	4099.6	70%	**2,869.7**	
						Unregulated Urban Pervious		3.30	175.8	580.1	70%	**406.1**	
Old OCS Building	Land Use Change: Demolition of Building and Conversion to Grass	01/2012	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	0.20	16.86	3.4	4.27	**0.9**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	0.20	1.62	0.3	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended	0.20	1171.32	234.3	1240.00	**248.0**	
Old Brig	Land Use Change: Demolition of Building and Conversion to Grass	01/2013	Operator- owned	Land Use Change: Impervious to Grass	N/A	Regulated Urban Impervious	Nitrogen	0.90	16.86	15.2	4.27	**3.8**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	0.90	1.62	1.5	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended	0.90	1171.32	1054.2	1240.00	**1,116.0**	
Russell Road Landfill	Grass Swale 2	09/2014	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.00	16.86	0.0	55%	**0.0**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		5.90	10.07	59.4	55%	**32.7**	
						Unregulated Urban Impervious	Phosphorus	0.00	1.62	0.0	52%	**0.0**	
						Unregulated Urban Pervious		5.90	0.41	2.4	52%	**1.3**	
						Unregulated Urban Impervious	Total Suspended Solids	0.00	1171.32	0.0	70%	**0.0**	
						Unregulated Urban Pervious		5.90	175.8	1037.2	70%	**726.1**	
MDIA Addition	Grass Swale	12/2014	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.62	16.86	10.5	15%	**1.6**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		1.60	10.07	16.1	15%	**2.4**	
						Unregulated Urban Impervious	Phosphorus	0.62	1.62	1.0	23%	**0.2**	
						Unregulated Urban Pervious		1.60	0.41	0.7	23%	**0.2**	
						Unregulated Urban Impervious	Total Suspended Solids	0.60	1171.32	702.8	70%	**492.0**	
						Unregulated Urban Pervious		1.60	175.8	281.3	70%	**196.9**	

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Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
FBI Bypass	Extended Dry Pond 2	01/2012	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Unregulated Urban Impervious	Nitrogen	0.90	16.86	15.2	10%	**1.5**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		2.50	10.07	25.2	10%	**2.5**	
						Unregulated Urban Impervious	Phosphorus	0.90	1.62	1.5	15%	**0.2**	
						Unregulated Urban Pervious		2.50	0.41	1.0	15%	**0.2**	
						Unregulated Urban Impervious	Total Suspended Solids	0.90	1171.32	1054.2	60%	**632.5**	
						Unregulated Urban Pervious		2.50	175.8	439.5	60%	**263.7**	
MCB-2 Landfill	Wet pond 1	01/2012	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	0.50	16.86	8.4	30%	**2.5**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		6.90	10.07	69.5	30%	**20.8**	
						Unregulated Urban Impervious	Phosphorus	0.50	1.62	0.8	50%	**0.4**	
						Unregulated Urban Pervious		6.90	0.41	2.8	50%	**1.4**	
						Unregulated Urban Impervious	Total Suspended Solids	0.50	1171.32	585.7	60%	**351.4**	
						Unregulated Urban Pervious		6.90	175.8	1213.0	60%	**727.8**	
MCB-2 Landfill	Wet pond 2	01/2012	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	1.00	16.86	16.9	30%	**5.1**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		5.60	10.07	56.4	30%	**16.9**	
						Unregulated Urban Impervious	Phosphorus	1.00	1.62	1.6	50%	**0.8**	
						Unregulated Urban Pervious		5.60	0.41	2.3	50%	**1.1**	
						Unregulated Urban Impervious	Total Suspended Solids	1.00	1171.32	1171.3	60%	**702.8**	
						Unregulated Urban Pervious		5.60	175.8	984.5	60%	**590.7**	
Marine Corps Information Operations Center (MCIOC)/Mari ne Corps Network Operations Security Center (MCNOSC) (Bldg 27410)	Grass Swale 1	01/2012	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	1.50	16.86	25.3	15%	**3.8**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		1.30	10.07	13.1	15%	**2.0**	
						Unregulated Urban Impervious	Phosphorus	1.50	1.62	2.4	23%	**0.6**	
						Unregulated Urban Pervious		1.30	0.41	0.5	23%	**0.1**	
						Unregulated Urban Impervious	Total Suspended Solids	1.50	1171.32	1757.0	70%	**1,229.9**	
						Unregulated Urban Pervious		1.30	175.8	228.5	70%	**160.0**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
MCIOC/ MCNOSC (Bldg 27410)	Grasse Swale 2	01/2012	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.60	16.86	10.1	15%	**1.5**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		0.00	10.07	0.0	15%	**0.0**	
						Unregulated Urban Impervious	Phosphorus	0.60	1.62	1.0	23%	**0.2**	
						Unregulated Urban Pervious		0.00	0.41	0.0	23%	**0.0**	
						Unregulated Urban Impervious	Total Suspended Solids	0.60	1171.32	702.8	70%	**492.0**	
						Unregulated Urban Pervious		0.00	175.8	0.0	70%	**0.0**	
MCIOC/ MCNOSC (Bldg 27410)	RP039 - Extended Dry Pond	Installed 01/2007, Retrofit 01/2012	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Unregulated Urban Impervious	Nitrogen	0.70	16.9	11.8	10%	**1.2**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		0.90	10.1	9.1	10%	**0.9**	
						Unregulated Urban Impervious	Phosphorus	0.70	1.6	1.1	15%	**0.2**	
						Unregulated Urban Pervious		0.90	0.4	0.4	15%	**0.1**	
						Unregulated Urban Impervious	Total Suspended Solids	0.70	1171.3	819.9	60%	**491.9**	
						Unregulated Urban Pervious		0.90	175.8	158.2	60%	**94.9**	
MCIOC/ MCNOSC (Bldg 27410)	Wet Pond 2	01/2012	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	1.10	16.86	18.5	30%	**5.6**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		1.50	10.07	15.1	30%	**4.5**	
						Unregulated Urban Impervious	Phosphorus	1.10	1.62	1.8	50%	**0.9**	
						Unregulated Urban Pervious		1.50	0.41	0.6	50%	**0.3**	
						Unregulated Urban Impervious	Total Suspended Solids	1.10	1171.32	1288.5	60%	**773.1**	
						Unregulated Urban Pervious		1.50	175.8	263.7	60%	**158.2**	
MCIOC/ MCNOSC (Bldg 27410)	Wet Pond 3	01/2012	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	0.00	16.86	0.0	30%	**0.0**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		0.50	10.07	5.0	30%	**1.5**	
						Unregulated Urban Impervious	Phosphorus	0.00	1.62	0.0	50%	**0.0**	
						Unregulated Urban Pervious		0.50	0.41	0.2	50%	**0.1**	
						Unregulated Urban Impervious	Total Suspended Solids	0.00	1171.32	0.0	60%	**0.0**	
						Unregulated Urban Pervious		0.50	175.8	87.9	60%	**52.7**	
MCIOC/ MCNOSC (near Fuel Farm)	Grasse Swale 4	01/2013	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.70	16.86	11.8	15%	**1.8**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Impervious	Phosphorus	0.70	1.62	1.1	23%	**0.3**	
						Unregulated Urban Impervious	Total Suspended Solids	0.70	1171.32	819.9	70%	**573.9**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
MSG Training Facility	Extended Dry Pond	01/2011	Operator- owned	Ext. Det. Pond Level 1	Dry Extended Detention Pond	Unregulated Urban Impervious	Nitrogen	0.50	16.86	8.4	10%	**0.8**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		0.20	10.07	2.0	10%	**0.2**	
						Unregulated Urban Impervious	Phosphorus	0.50	1.62	0.8	15%	**0.1**	
						Unregulated Urban Pervious		0.20	0.41	0.1	15%	**0.0**	
						Unregulated Urban Impervious	Total Suspended Solids	0.50	1171.32	585.7	60%	**351.4**	
						Unregulated Urban Pervious		0.20	175.8	35.2	60%	**21.1**	
MSG Training Facility	Grass Swale	01/2012	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.30	16.86	5.1	15%	**0.8**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		0.20	10.07	2.0	15%	**0.3**	
						Unregulated Urban Impervious	Phosphorus	0.30	1.62	0.5	23%	**0.1**	
						Unregulated Urban Pervious		0.20	0.41	0.1	23%	**0.0**	
						Unregulated Urban Impervious	Total Suspended Solids	0.30	1171.32	351.4	70%	**246.0**	
						Unregulated Urban Pervious		0.20	175.8	35.2	70%	**24.6**	
WTBn BEQ	Grass Swale 1	12/2013	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.08	16.86	1.3	15%	**0.2**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		0.16	10.07	1.6	15%	**0.2**	
						Unregulated Urban Impervious	Phosphorus	0.08	1.62	0.1	23%	**0.0**	
						Unregulated Urban Pervious		0.16	0.41	0.1	23%	**0.0**	
						Unregulated Urban Impervious	Total Suspended Solids	0.08	1171.32	93.7	70%	**65.6**	
						Unregulated Urban Pervious		0.16	175.8	28.1	70%	**19.7**	
WTBn BEQ	Grass Swale 2	12/2013	Operator- owned	Grass Channels Level 1	Vegetated Open Channel - Urban	Unregulated Urban Impervious	Nitrogen	0.64	16.86	10.8	15%	**1.6**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency.
						Unregulated Urban Pervious		1.24	10.07	12.5	15%	**1.9**	
						Unregulated Urban Impervious	Phosphorus	0.64	1.62	1.0	23%	**0.2**	
						Unregulated Urban Pervious		1.24	0.41	0.5	23%	**0.1**	
						Unregulated Urban Impervious	Total Suspended Solids	0.64	1171.32	749.6	70%	**524.8**	
						Unregulated Urban Pervious		1.24	175.8	218.0	70%	**152.6**	
TBS (Bldg 24195)	RP045 - Wet Pond	01/2010	Operator- owned	Wet Ponds Level 1	Wet Ponds and Wetlands	Unregulated Urban Impervious	Nitrogen	2.20	16.86	37.1	30%	**11.1**	TP and TN efficiencies from VA BMP Clearinghouse. TSS efficiency determined from Chesapeake Bay Program Established Efficiency. This BMP treats both Existing and New Sources; therefore, it is eligible for partial credit. The Existing Sources acres treated is reflected in Column I.
						Unregulated Urban Pervious		2.30	10.07	23.2	30%	**6.9**	
						Unregulated Urban Impervious	Phosphorus	2.20	1.62	3.6	50%	**1.8**	
						Unregulated Urban Pervious		2.30	0.41	0.9	50%	**0.5**	
						Unregulated Urban Impervious	Total Suspended Solids	2.20	1171.32	2576.9	60%	**1,546.1**	

Marine Corps Base Quantico, Virginia

Location (Bldg. Name or Number)	Stormwater Management Facility Type	Date Brought Online or Most Recent Date Implemented (MM/YYYY)	Ownership	Corresponding Virginia BMP Clearinghouse Type	Corresponding chesapeake Bay Program BMP Type	SubSource	Pollutant	Acres Served by BMP (Existing Sources dated 30 June 2009 only)	EOS Loading Rates (lbs/ac/yr)[1]	EOS Load (lbs/yr)	Reduction Efficiencies[2]	BMP Credits for inclusion into the CBAP (lbs)	Comments
						Unregulated Urban Pervious		2.30	175.8	404.3	60%	**242.6**	
Old Camp Upshur WWTP	Land Use Change: Demolition of Building and Parking Lot and Conversion to Grass	12/2016	Operator- owned	N/A	Land Use Change: Impervious to Grass	Regulated Urban Impervious	Nitrogen	1.20	16.86	20.2	4.27	**5.1**	Reduction efficiencies are EOS reduction in lbs/year/ac from Table V.H.1 of 2021 Guidance Memo.
						Regulated Urban Impervious	Phosphorus	1.20	1.62	1.9	0.00	**0.0**	
						Regulated Urban Impervious	Total Suspended Solids	1.20	1171.32	1405.6	1240.00	**1,488.0**	

Total TN (lbs)	**286.22**
Total TP (lbs)	**27.48**
Total TSS (lbs)	**53,065.40**

Notes:
1. Edge of Stream (EOS) Loading Rates (lbs/ac/yr) for Potomac River Basin from Phase II MS4 Permit. N/A - Not Applicable
2. Reduction efficiencies are depicted as percentages, unless otherwise noted in the Comment column.