FORT BELVOIR

BACTERIA TMDL ACTION PLAN FOR LOWER ACCOTINK CREEK

VPDES Small MS4 General Permit No. VAR040093

PREPARED FOR:
Directorate of Public Works
Environmental Division
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ACRONYMS AND ABBREVIATIONS

AAFES	Army and Airforce Exchange Services
AR	Army Regulation
AW	American Water
BASH	Bird Air Strike Hazard
BMP	Best Management Practices
BRAC	Base Realignment and Closure
CFR	Code of Federal Regulations
CWA	Clean Water Act
DAAF	Davison Army Airfield
DECA	Defense Commissary Agency
DoD	Department of Defense
DPW	Directorate of Public Works
DPWES-WMD	Department of Public Works and Environmental Services – Waste Management Division
EMS	Environmental Management System
EPA	Environmental Protection Agency
E. Coli	Escherichia coli
FBNA	Fort Belvoir North Area
FOG	Fats, Oils, Greases
FSDC	Future System Deficiency Corrections / Upgrades
HPF	High Priority Facility
IDDE	Illicit Discharge Detection and Elimination
ISDC	Initial System Deficiency Corrections
ISW	Industrial Stormwater
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MWR	Directorate of Moral, Welfare, and Recreation
NEPA	National Environmental Policy Act
NMUSA	National Museum of the United States Army
NPDES	National Pollutant Discharge Elimination System
OMD	Operation and Maintenance Division
OWS	Oil Water Separators
PREP	Pollution Response Program
RDT&E	Research, Development, Test and Evaluation
R&R	Renewals and Replacements
SMF	Stormwater Management Facilities
SSO	Sanitary Sewer Overflow

SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
VADEQ	Virginia Department of Environmental Quality
VDOT	Virginia Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System
WHMP	Wildlife Hazard Management Plan
WLA	Waste Load Allocation

1. INTRODUCTION AND BACKGROUND

The U.S. Army Garrison Fort Belvoir is in southeastern Fairfax County, Virginia, approximately 15 miles southwest of Washington, DC, and 95 miles north of Richmond, Virginia. Fort Belvoir's military history dates to the early 1900s, when the facility was known as Camp Belvoir and used as an Army rifle range and training camp. The post was re-named Fort Humphreys in 1922 and became Fort Belvoir in 1935. Since 1935, Fort Belvoir has supported major U.S. military operations throughout the world. In recent years, Fort Belvoir has functioned primarily as an administrative and logistics support center for the Army and as a host for over 150 tenant organizations from various government branches (including all branches of the armed services). It currently employs more than 35,000 civilian and military personnel, and provides support services for over 207,000 military personnel, dependents, and retirees in the region.

Fort Belvoir consists of more than 7,700-acres on Main Post and an 806-acre detachment parcel, Fort Belvoir North Area (FBNA), located north of Main Post and west of Interstate 95 as shown in Figure 1. The Main Post is situated between Interstate 95 and Pohick Bay and Gunston Cove on the Potomac River. US Route 1 divides the Main Post into two distinct geographical areas, referred to as North Post and South Post.

All urbanized area (as defined by the 2020 census) of Fort Belvoir is covered under the General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) Permit No. VAR040093. The current MS4 General Permit (9VAC25-890-40) was approved by the State Water Control Board and became effective on 1 November 2023. Part II.B of the permit covers requirements and TMDL special conditions as they relate to local TMDLs and calls for the permittee to update any previously approved TMDL Action Plans to meet the conditions of Parts II.B.4 and B.5, which cover the requirements for all TMDL Action Plans and those in relation to Bacterial TMDLs. Additionally, The permit notes that updated plans should include:

> *(1) An evaluation of the results achieved by the previous action plan; and*
>
> *(2) Any adaptive management strategies incorporated into updated action plans based on action plan evaluation.*

Under the Clean Water Act (CWA), States are required to develop a list of impaired waters based on the State's established water quality standards. The Virginia Department of Environmental Quality (VADEQ) states,

> *"All Virginia waters are designated for the following uses: recreational uses, e.g., swimming and boating; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish."*

The VADEQ identified Stream Segment VAN-A15R-01within the Lower Accotink Creek watersheds that did not meet the Escherichia coli (E. coli) standard and therefore did not protect the recreation beneficial use. A TMDL was developed and implemented for these impaired segments in 2008. The TMDL developed for bacteria reduction provides the means for Virginia to meet the E. coli water quality standards. The U.S. EPA approved the TMDL on 18 December 2008, and the State Water Control Board approved the TMDL shortly after on 28 April 2009.

The Majority of Fort Belvoir drains into the Accotink Creek, with all of FBNA and a portion of North post, being direct sources of runoff to designated impaired watershed covered by this Total Maximum Daily Load (TMDL).

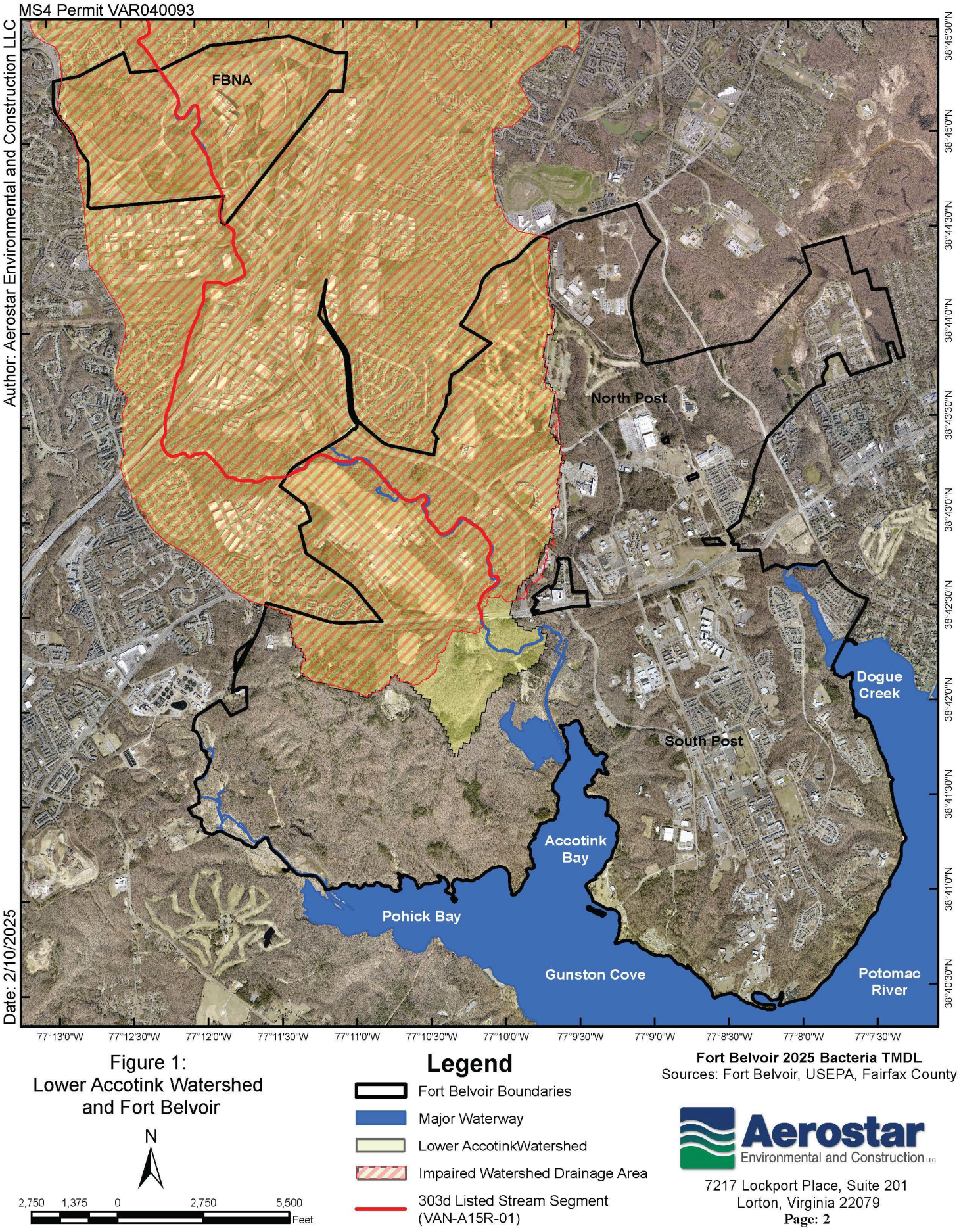

Figure 1:
Lower Accotink Watershed
and Fort Belvoir

N

2,750 1,375 0 2,750 5,500
Feet

Legend

- Fort Belvoir Boundaries
- Major Waterway
- Lower AccotinkWatershed
- Impaired Watershed Drainage Area
- 303d Listed Stream Segment (VAN-A15R-01)

Fort Belvoir 2025 Bacteria TMDL
Sources: Fort Belvoir, USEPA, Fairfax County

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Figure 1: Fort Belvoir and Bacteria TMDL Impaired Water Body

Fort Belvoir also holds a VPDES Industrial Stormwater (ISW) Individual Minor Permit No. VA0092771, effective April 2025. The ISW permit covers industrial areas of Fort Belvoir, including 290 acres at the Davison Army Airfield (DAAF), located within the Lower Accotink Creek Watershed.

Although DAAF is not a part of the regulated MS4 area and much of the Main Post is located outside of the areas addressed in this Total Maximum Daily Load (TMDL) Action Plan, Fort Belvoir implements consistent control practices across the installation. Therefore, practices discussed within this plan are applied consistently whether facilities or operations occur within the impaired portion of Accotink Creek or not.

The goal of this Bacteria TMDL Action Plan for the Lower Accotink Creek Watershed, herein referred to as the Action Plan, is to implement measures that will assist in restoring water quality in the impaired water body and to potentially de-list the impaired segments of the Accotink from the Virginia 303(d) List of Impaired Waters for bacteria impairments. Table 1 below summarizes the requirements set forth within the permit and where in the Action Plan the requirement is addressed.

Table 1: Summary of Permit Requirements and Action Plan Location

Reference	Requirement	Action Plan Location
Part II.B.2.a	For TMDLs approved by the Environmental Protection Agency (EPA) prior to 1 July 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall update the previously approved local TMDL action plans to meet the conditions of Part II B.4, B.6, B.7, and B.8 as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan.	Action Plan in its entirety
Part II.B.2.a. (1)-(2)	Updated action plans shall include: (1) an evaluation of the results achieved by the previous action plan; and (2) any adaptive management strategies incorporated into updated action plans based on action plan evaluation.	*Section 5: Evaluation of Previous Plan*
Part II.B.4.a	The TMDL project name.	*Section 1: Introduction and Background*
Part II.B.4.b	The EPA approval date of the TMDL.	*Section 1: Introduction and Background*
Part II.B.4.c	The wasteload allocated to the permittee (individually or in aggregate), and the corresponding percent reduction, if applicable.	*Section 2: Legal Authorities*
Part II.B.4.d	Identification of the significant sources of the pollutants of concern discharging to the permittee's MS4 and are not covered under a separate VPDES permit. For the purposes of this requirement, a significant source of pollutants of concern means a discharge where the expected pollutant loading is	*Section 4: Bacteria Source Assessment*

	greater than the average pollutant loading for the land use identified in the TMDL.	
Part II.B.4.e	The best management plans (BMPs) designed to reduce the pollutants of concern in accordance with Part II.B.5	*Section 6: Bacteria Reduction Strategy*
Part II.B.4.f	Any calculations required in accordance with Part II B.5	*N/A*
Part II.B.4.g	For action plans developed in accordance with Part II.B.5, B.6, and B.8, an outreach strategy to enhance the public's education (including employees) on methods to eliminate and reduce discharges of the pollutants.	*Section 6: Bacteria Reduction Strategy*
Part II.B.4.h	A schedule of anticipated actions planned for implementation during this permit term.	*Section 7: Implementation Schedule*
Part II.B.5.b	Nontraditional permittees shall select at least one strategy listed in Table 5, of the permit, shown in Appendix A designed to reduce the load of bacteria to the MS4 relevant to sources of bacteria applicable within the MS4 regulated service area. Selection of the strategies shall correspond to sources identified in Part II.B.4.d.	*Section 6: Bacteria Reduction Strategy*

2. LEGAL AUTHORITIES

2.1. SECTION 303(D) OF THE CLEAN WATER ACT (CWA) AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S (EPA'S) WATER QUALITY PLANNING AND MANAGEMENT REGULATIONS (40 CODE OF FEDERAL REGULATIONS (CFR) PART 130)

The CWA and EPA's Management regulations direct States to identify and list water bodies in which current required controls of a specified pollutant are inadequate to achieve water quality standards. For the Commonwealth of Virginia, impaired waters are outlined in the biennial Virginia Water Quality Assessment 305(b)/303(d) Integrated report. Segment VAN-A15R-01 of Accotink Creek was first listed as impaired for bacteria on Virginia's 2004 305(b)/303(d) Water Quality Assessment Integrated Report.

States are then required to establish TMDLs for water bodies that are exceeding water quality standards. TMDLs represent the total pollutant loading that a water body can receive without violating water quality standards. The TMDL process establishes the allowable loadings of pollutants, or the waste load allocation (WLA), needed to achieve and maintain water quality standards. In September 2008, the Bacteria TMDL for the Lower Accotink Creek Watershed was developed by Virginia Department of Environmental Quality, George Mason University and The Louis Berger Group, Inc. The U.S. EPA approved the TMDL on 18 December 2008, and the State Water Control Board approved the TMDL shortly after on 28 April 2009.

The allocated *Escherichia coli* (E. coli) load from five MS4 sources in the Lower Creek Watershed was set at 1.73E+12 cfu/year. The five MS4 sources contributing to the load included the Phase I permit for Fairfax County and four Phase II permits for Virginia Department of Transportation (VDOT) Northern Urban Area, Fairfax County Public Schools, Northern Virginia Community College, and Fort Belvoir (VADEQ, 2008).

2.2. 40 CFR §122.44 ESTABLISHING LIMITATIONS, STANDARDS AND OTHER PERMIT CONDITIONS APPLICABLE TO STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAMS

Section (d) (1) (vii) (B) requires that all new or revised NPDES permits must be consistent with assumptions and requirements of any applicable TMDL WLA. The Commonwealth of Virginia VADEQ regulates the management of pollutants carried by stormwater runoff under the VPDES program.

2.3. US ARMY REGULATION (AR) 200-1, ENVIRONMENTAL PROTECTION AND ENHANCEMENT

The AR 200-1 defines the framework for the Army Environmental Management System (EMS). It implements Federal, State, and local environmental laws and DoD (Department of Defense) policies for preserving, protecting, conserving, and restoring the quality of the environment. This regulation addresses environmental responsibilities of all Army organizations and agencies. Specifically, this regulation applies to Active Army, Army National Guard, United States Army Reserve, as well as Tenants, contractors, and lessees performing functions on real property under the jurisdiction of the Department of the Army (for example, Army and Air Force Exchange Services (AAFES), Defense Commissary Agency (DECA)) (Army, 2007).

AR 200-1 requires in Chapter 4-2(a)(1) that these groups must:

"Comply with applicable Federal, State, and local laws and regulations regarding water resources management and permitting."

As well as in Chapter 4-2(a)(2):

"Obtain and comply with all required Federal, State, and local Clean Water Act (CWA), Coastal Zone Management Act (CZMA), and Safe Drinking Water Act (SDWA) permits."

This regulation also states in Chapter 4-2(d)(1) that to implement (TMDL) regulations, all Army facilities should:

(d)(1)(a) Initiate and maintain contact with Federal and State water regulators concerning the process of setting TMDLs and allocations for water bodies located on or passing through Army installations.

(d)(1)(b) Integrate all aspects of CWA requirements, programs and available information (for example, the National Pollutant Discharge Elimination System (NPDES) program, 404 wetlands program, wellhead protection, storm water plans/projects, storm water construction permits, spill prevention, control, and countermeasures (SPCC) plans/projects, State CWA 319 requirements (State plans & strategies for reducing non-point source runoff)) with TMDL development and future planning. Ensure all of these programs are consistent with, and work together to attain compliance under, TMDL allocations once they are set by states.

(d)(1)(d) Ensure other programs that are or may have their activities affected by identification of impaired waters and new TMDL allocations are informed of the impacts and requirements (for example, facilities construction, master planning, National Environmental Policy Act (NEPA) requirements).

(d)(1)(g) Ensure that mission and non-mission activities and construction designs utilize best management practices (BMPs) to minimize TMDL impacts.

2.4. FORT BELVOIR GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4), MS4 PERMIT #VAR040093

As required by Fort Belvoir's MS4 permit, TMDL WLAs are specifically addressed through the iterative implementation of programmatic BMPs. Only failure to implement the programmatic BMPs identified in this plan would be considered a permit noncompliance issue. The current regulations found in 9VAC25-890-40, effective 1 November 2023, state in Part I.B:

"The MS4 program shall include the minimum control measures described in Part I E. For the purposes of this permit term, implementation of MCMs in Part I E and the Chesapeake Bay and local TMDL requirements in Part II (as applicable) consistent with the provisions of an iterative MS4 program required pursuant to this general permit constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable," provides adequate progress in meeting water quality standards, and satisfies the appropriate water quality requirements of the State Water Control Law and its attendant regulations."

Fort Belvoir originally developed a Bacteria TMDL Action Plan during the 2013-2018 Permit cycle. The MS4 permit for Fort Belvoir has been reissued for another two additional 5-year cycles under the same permit number VAR040093; 2018-2023 and 2023-2028.

In accordance with the 2023-2028 MS4 General VPDES Permit 9VAC25-890-40 Part II.B, Local TMDL special condition. Part II.B.2 states that:

> *"Permittees previously covered under the General VPDES Permit for Discharges of Stormwater from MS4 effective November 1, 2018, shall develop and maintain a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) as described in Part II B 2 a and 2 b:"*

Part II.B.2.a applies to TMDLs approved before 1 July 2018, and Part II.B.2.b applies to TMDLs approved on or after 1 July 2018. Since the Bacteria TMDL was approved by EPA before 1 July 2018, Part II.B.2.a applies and requires that:

> *a. For TMDLs approved by EPA prior to July 1, 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate or update as applicable the local TMDL action plans to meet the conditions of Part II B 4, B 6, B 7, and B 8, as applicable, no later than* ***18 months after the permit effective date*** *and continue implementation of the action plan.*

In addition, Part II.B.9 of the 2023-2028 MS4 General Permit requires a minimum of 15 days of public comment to the Fort Belvoir public, and states:

> *"Prior to submittal of the action plan required in Part II B 2, the permittee shall provide an opportunity for public comment for no fewer than 15 days on the proposal to meet the local TMDL action plan requirements."*

2.5. FORT BELVOIR BACTERIA TMDL ACTION PLAN

This action plan addresses the requirements to minimize the pollutant of concern, E. coli, by identifying legal authorities, BMPs and measurable goals for achieving compliance in accordance with 9VAC25-890-40, Part II.B.2 through 5 of the Local TMDL Special Conditions of the General VPDES Permit for Discharges of Stormwater from Small MS4s, MS4 Permit #VAR040093.

Part II.B.2 is outlined above in Section 2.4 and requires that permittees previously covered under the General VPDES Permit should develop and maintain a local TMDL action plan to reduce loadings for pollutants of concern.

Part II.B.3 describes how TMDL action plans should be implemented, specifically that:

> *"The permittee shall complete implementation of the TMDL action plans as determined by the schedule. TMDL action plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is achieved in the implementation of BMPs designed to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL"*

Part II.B.5 specifically addresses Bacteria TMDLs. Fort Belvoir, as a non-traditional permittee defined in 9VAC25-890-1, is subject to Part II.B.5.b, which states that:

> *"Nontraditional permittees shall select at least one strategy listed in Table 5 designed to reduce the load of bacteria to the MS4 relevant to sources of bacteria applicable within the MS4 regulated service area. Selection of the strategies shall correspond to sources identified in Part II B 4 d."*

2.6. FORT BELVOIR POLICY MEMORANDUM

Fort Belvoir Policy Memorandum #25 Prohibition of Illicit/Unauthorized Discharges to the Municipal Separate Storm Sewer can be found in full in Appendix B. An installation-wide stormwater policy was developed to address compliance with the MS4 Permit, the ISW permit, the Clean Water Act, and other stormwater regulations, as well as the Hazardous Waste Minimization and Management Plan. The policy outlines proper protocols for minimizing stormwater pollution during activities that directly and indirectly impact water quality of the receiving waters. Section 5 of this policy states:

> *"Fort Belvoir is committed to protecting water quality of waterways on and surrounding Fort Belvoir to ensure that human health, ecosystem health, and the ability to conduct recreational opportunities are not impacted by stormwater pollution."*

Section 5.a. specifically prohibits illicit discharges/illegal dumping at Fort Belvoir, including but not limited to:

> *"Sanitary sewer overflows, trash, paint, grease, motor oil or other lubricants, fuel, cooking oil, salt, fertilizer, pesticides chemicals, liquid materials, lawn wastes (grass clippings and leaves), mulch, cigarette butts, sand, soil, construction materials, wash waters containing soaps, detergents and degreasers of any kind, fire hydrant and water line flushing and potable water tank discharge without prior de-chlorination, and pet/animal waste."*

2.7. HOUSING PET POLICY ORDINANCE

The Villages, Fort Belvoir's housing partners, have a clear pet policy applicable to all tenants across the installation. The Villages provides dog parks and pet waste stations at all the neighborhoods for tenant use. They also require that all pets be registered by tenants, and that tenants follow the housing Pet Policy effective 30 September 2021. The policy states:

> *"Pets must be on a leash at all times when outside the fenced area of a Premises. Pets cannot be tied or staked outside of the home or left outside of the home unattended. Residents who walk their pets must carry a plastic bag or other appropriate container to retrieve and dispose of any droppings."*

3. LOWER ACCOTINK CREEK WATERSHED AND LAND USE

The portion of the Lower Accotink Creek Watershed noted as bacteria impaired receives drainage from approximately 11,395 acres of land (Bacteria TMDL, 2008). This includes direct drainage from about 1,750 acres of Fort Belvoir Main Post and most of FBNA's 806 acres. This direct drainage area includes 290 acres associated with DAAF covered under the ISW Permit and about 219 acres of easements to VDOT and covered under a separate VPDES permit. Figure 2 shows areas covered under these separate permits in relation to the Lower Accotink Creek Watershed. Therefore, approximately 2,000 acres of what Fort Belvoir considers lands within the MS4 drain into the Lower Accotink Watershed. Although the portion of land south of Route 1 is not considered urbanized based on 2020 census data, as mentioned previously, Fort Belvoir implements consistent control practices across the installation. Therefore, practices discussed within this plan are applied consistently whether facilities or operations occur within the regulated portion of the MS4 or not.

Land use within the watershed in described in the following sections. Appendix C provides the land use map from the 2015 Fort Belvoir Real Property Master Plan: Installation Vision and Development Plan

3.1. FORT BELVOIR NORTH AREA LAND USE

FBNA is split almost evenly in the middle by the Accotink Creek. Currently, land use for FBNA is designated as Professional/Institutional use, defined in the Master Plan as:

> ***Professional/Institutional*** *– This land use provides for non-tactical organizations including military schools, headquarters, major commands, and non-industrial Research, Development, Test and Evaluation (RDT&E).*

East of Accotink Creek is a campus for a major mission partner and associated support facilities (fire department and child development center). Land use west of Accotink Creek at FBNA was previously undeveloped but now houses a security checkpoint on the south side of Barta Road and is currently under new development on the north side for the new DIA HQ campus. VDOT holds right-of way for the portion of land to the west associated with the Fairfax County Parkway. Fairfax County holds a Public Utility easement for a major sanitary sewer gravity line that runs along the Accotink Creek on FBNA (Atkins, 2015).

3.2. FORT BELVOIR MAIN POST LAND USE

On Fort Belvoir Main Post, this watershed includes major mission partners requiring secure campuses, a 36-hole golf course, Davison Army Airfield (DAAF), the new National Museum of the United States Army (NMUSA), and a portion of the Accotink Bay Wildlife Refuge. Accotink Creek runs east of the Wildlife Refuge and DAAF and west of Fairfax County Parkway which provides access to the North Post and Route 1. As noted previously, the Wildlife refuge is not considered to be urbanized based on census data; DAAF is covered under a separate VPDES Permit; and VDOT holds right-of way for both the Fairfax County Parkway and Route 1.

Therefore, the majority of regulated MS4 area lies east of Fairfax County Parkway which houses a 36-hole golf course, NMUSA, and administrative buildings for two mission partners. Land use is designated as either Professional/Institutional or Community, defined in the Master Plan as:

> ***Community –*** *This land use encourages a mix of uses. Facilities allowed include religious, family support, personnel services, professional services, medical, community, housing, commercial and recreational services.*

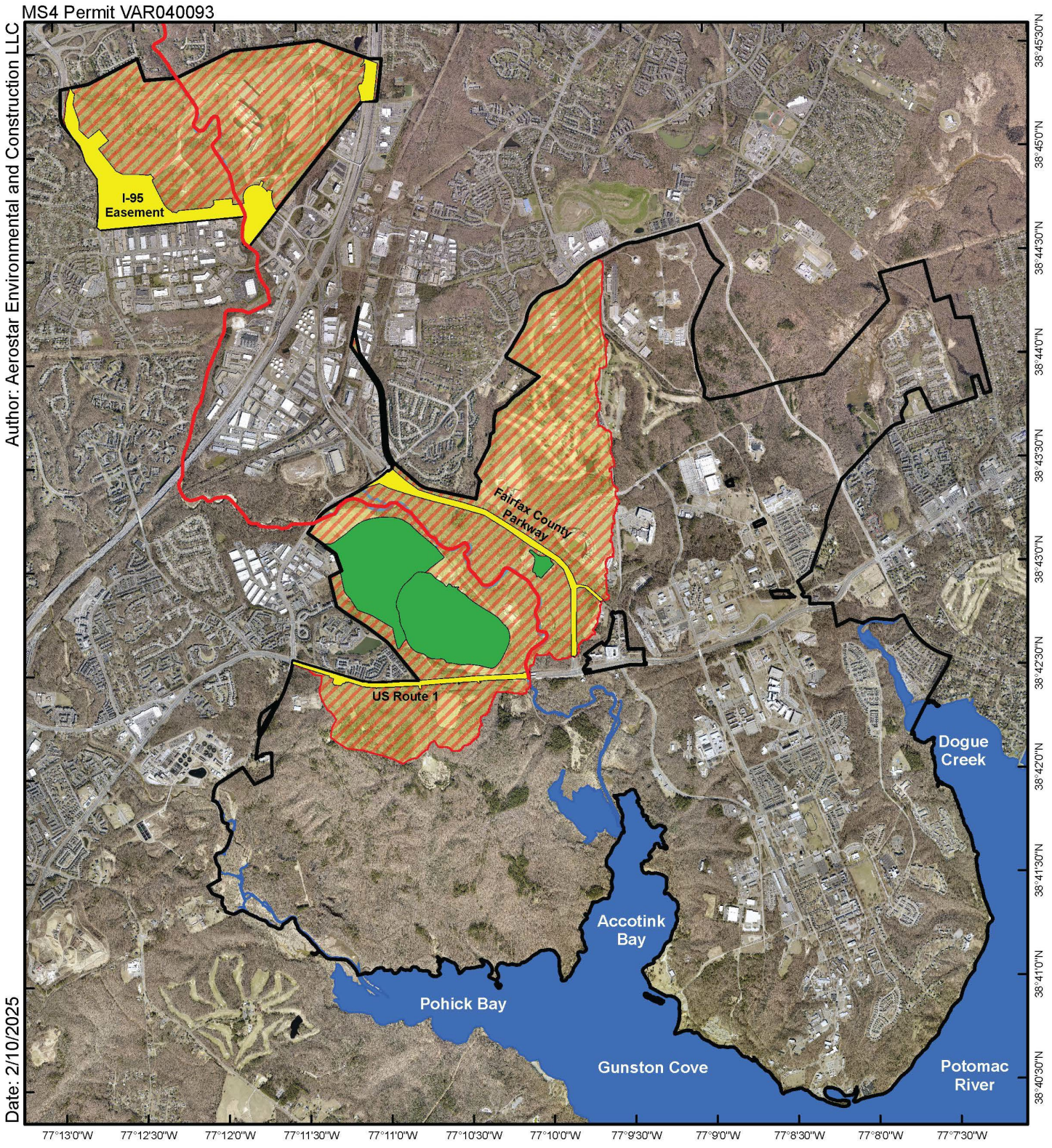

Figure 2:
Lower Accotink Land Use
and Other Permits

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2,750 1,375 0 2,750 5,500 Feet

Legend

- Fort Belvoir Boundaries
- Major Waterway
- VDOT Permit No. VA040115
- ISW Permit No. VA0092771
- Impaired Watershed Drainage Area Within Fort Belvoir
- 303d Listed Stream Segment (VAN-A15R-01)

Fort Belvoir 2025 Bacteria TMDL
Sources: Fort Belvoir, USEPA, Fairfax County

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Figure 2: Areas Covered by Separate VPDES Permits within the Lower Accotink Watershed

4. BACTERIA SOURCE ASSESSMENT

Potential bacteria sources identified in the Bacteria TMDL for the Lower Accotink Creek Watershed, dated September 2008, included an assessment of the following sources: permitted sources, human sources, livestock, and land application of manure and Biosolids, wildlife and pets. The 2008 Bacteria TMDL notes that:

> *Potential key sources of bacteria include run-off from point source dischargers, residential waste, pets, and wildlife. In an urban watershed like Accotink Creek, livestock grazing and manure spread on pasture can be very minor contributors of bacteria.*

Figure 1 and Figure 2 illustrate the portion of Lower Accotink Creek watershed, covered under this TMDL, in relation to Fort Belvoir. The following sections detail the source assessment required under Part II.B.4.d of the General MS4 Permit and focuses on characterizing the sources that potentially contribute to the fecal coliform loading in the Accotink Creek watershed. For consistency with the published Bacteria TMDL, potential bacteria sources considered below are the same as those considered in the VADEQ TMDL.

4.1. PERMITTED FACILITIES

Fort Belvoir does not own nor operate any sewage treatment works. All domestic sewage generated by Fort Belvoir goes to the Noman M. Cole Jr. Pollution Control Plant located at 9399 Richmond Highway, Lorton, Virginia 22079. Noman Cole operates under a separate VPDES Individual Permit No. VA0025364 and is located outside of the Accotink Creek Watershed.

Conclusion: Sewage treatment works are not considered a bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.2. SANITARY SEWER SYSTEMS

Sewer service to Fort Belvoir is provided under an existing contract with the Fairfax County Department of Public Works and Environmental Services – Waste Management Division (DPWES-WMD). Fairfax County trunk sanitary lines traverse both FBNA and Main Post of Fort Belvoir and convey wastewater to the Noman Cole treatment facility described above.

According to the Master Plan, Fairfax County trunk sanitary lines traverse both FBNA and Main Post. Public Utility Easements on Post consist of a major sanitary sewer gravity line that runs along Accotink Creek on FBNA and a sewer force main that runs west along the south of Route 1. Fort Belvoir has 38 sewage pumping stations on Main post connected to Fairfax County 42-inch main line.

4.2.1. MAIN POST

Fort Belvoir Main Post is serviced by a sanitary sewer system which was privatized to American Water (AW) Military Services in 2010. These assets were transferred to AW when the U.S. Army entered into a 50-year lease agreement allowing them to own, operate, construct, repair, replace and maintain the system. Under the Utility Privatization Contract, the U.S. Army pays AW for services. In the first five years of the privatization agreement, AW was tasked with slip-lining or replacing all sanitary sewer pipes that are over 50 years old, as well as selected newer piping that is known to be in poor condition. AW also provides repairs, replacements and upgrades to the existing sanitary pump stations on Post.

American Water is consistently identifying and replacing aging infrastructure, upgrading existing, or constructing new facilities, to ensure compliance with the latest water quality standards. Under the privatization contract, AW is required to submit an Annual System Deficiency Corrections / Upgrades and Renewal & Replacement Plan (ASDC). The ASDC Plan addresses three types of projects:

- Initial System Deficiency Corrections (ISDC): Improvements necessary to reach the standards needed to permit the long-term safe and reliable operation of the utility system.
- Future System Deficiency Corrections / Upgrades (FSDC): Investments in the utility system resulting from changes in service requirements, laws, or regulations and/or the implementation of new technologies
- Renewals and Replacements (R&R): Investments in the utility system to renew or replace system components that fail or reach the end of their useful life.

Since privatization, AW has completed 23 ISDC, 58 FSDC, and 65 R&R Projects which involved system improvements such as gravity sewer replacement, installation and repairs of Oil Water Separators (OWSs), sewer flow meters, and Hydrogen sulfide monitors. These infrastructure upgrades worked to limit the occurrences of sanitary sewer overflow (SSOs) across Fort Belvoir Main Post.

As operator of the sanitary sewer system, AW is also responsible for responding to and reporting of any sanitary sewer overflows that do occur on Main Post. AW responds to SSOs as they occur under emergency procedures. Issues can be reported to AW at Fort Belvoir by:

- 24/7 emergency number on their Fort Belvoir website 1-866-269-2837,
- Local Phone at 571-339-8087,
- Email for non-emergency requests at fortbelvoirsubmittals@amwater.com,
- In person at 6035 16th Street, Building 739, Fort Belvoir Virginia, or
- may be routed through housing or DPW

When SSOs are reported to AW, AW shuts down and diverts sanitary sewage around the break point, uses cameras to perform probing and assess damage, submits for emergency dig permits which are expedited, and then completes any replacements or repairs needed. AW collects and disposes of any contaminated soils in the vicinity of the SSO, as needed, and uses lime to disinfect any residual sewage that may remain before backfilling and restoring usage on the line. After repairs, AW completes visual inspections to verify that the issue has been corrected. AW Reports to VADEQ any overflow which reaches state waters through the VADEQ Pollution Response Program (PREP), providing updates as needed until case closure.

Conclusion: Breaks or leaks in the sanitary sewer may be a potential source of bacteria in the Lower Accotink Watershed. However, this source is not considered significant in the portion of the Lower Accotink Creek encompassing Fort Belvoir due to AW's ongoing work to maintain the existing sanitary sewer system and the installation's emergency response procedures that establish a set communication plan and processes to immediately address any potential breaks, leaks, and/or overflows.

4.2.2. FORT BELVOIR NORTH AREA

Fort Belvoir North Area was not privatized during this Utility Privatization effort because construction for facilities at FBNA was not completed until September 2011 after the Base Realignment and Closure action (BRAC). This system is owned and operated by Fort Belvoir. The FBNA sanitary sewer system services a child development center, an office complex, and a Fire Department.

As part of BRAC 2005, a network of new sanitary sewer lines was installed at FBNA that connects to the Fairfax County trunk sewer that runs along Accotink Creek. These lines have been located and sized to serve potential additional development on FBNA. The Fairfax County trunk sewer varies in diameter from 42 to 54 inches. Fairfax County DPWES-WMD staff indicate that this existing trunk sewer and the existing County wastewater treatment plant both have adequate capacity to serve the potential additional development at FBNA. (Master Plan, 2015)

Conclusion: SSOs are not considered to be a source of bacteria at FBNA because Fairfax County is responsible for all SSOs associated with the mainlines. The sanitary sewer system at FBNA owned by the Army is not currently considered to be a bacteria source because the system is relatively new (construction completed September 2011 and later).

4.2.3. SEPTIC SYSTEMS

When the original Bacteria TMDL Action Plan was created in 2013, it noted that there were no known septic systems on the installation, therefore system failures were not considered a potential bacteria source.

In July 2022, an illicit discharge occurring at Golf Course Maintenance Facility, building 2990, was reported to the MS4 Program. Investigations completed to address the illicit discharge identified a previously unknown septic holding tank servicing the facility. The investigation noted that a 6,000-gal septic tank was found near the northeast corner of the building and was discovered after internal toilets were backing up. The program identified both immediate, interim, and long-term corrective actions to address the tank, which is a potential source of bacteria to the Lower Accotink, if not properly maintained.

- As an immediate action, a pump-out of the tank was ordered to be completed as soon as possible to resolve issues within the building and to prevent any leaking/overflows outdoors.
- As an interim action, DPW would determine capacity of the tank and develop a schedule for regular pump-out while long term plans could be developed and funded
- As a long-term action, The installation would work to decommission the tank and connect the building to the sanitary sewer system

As of January 2025, the holding tank at building 2990 remains in place and is being monitored using existing system alarms. The tank is scheduled for pump-out at least once annually and upon request from the tenant through the installation's Project Work Orders (PWO) process. The pump-out services are provided by the base operations contractor through the DPW Operations and Maintenance Division.

Long-term plans for decommissioning of the tank were included, at the highest priority FSDC project, in the AW FY2025 Annual system Deficiency Corrections, Upgrades, and Renewal & Replacement Plan. The project is to install Water & Sewer to Proposed Telegraph Gate, that will:

"support a new gate access point on Telegraph Road as well as provide sewer services to a nearby building (# 2990) associated with the Fort Belvoir Golf Course to allow decommissioning of a 6,000-gallon holding tank."

Conclusion: Septic systems were not previously considered to be a source of bacteria because they were not thought to exist. Since one has been located during plan implementation and a list of historical septic tank locations indicates that there is a potential to encounter other systems in the future, these are considered to be a moderate source of bacteria and can become a significant source if not properly managed.

4.3. LIVESTOCK

Fort Belvoir has one horse stable, The Caisson Stables, located west of the Accotink Creek watershed, east of Old Colchester Road, and south of Route 1. The Caisson Stables are located outside of the Accotink Creek Watershed and the associated livestock management and care does not occur within the drainage area of the Lower Accotink Creek Watershed.

Although the Caisson Stables are not considered a bacteria source to Accotink Creek, Fort Belvoir recognized that manure accumulation has a moderate potential for generating pollutants that may encounter stormwater. As such, the stables were designated a High Priority Facility (HPF) in 2017 and operated under a site-specific SWPPP until 2024 when it was determined that operations had ceased. The horses in the facility were removed in early 2023 and relocated to Meadowood Special Recreation Management Area, an off-site facility which will be housing the horses through December 2027.

Conclusion: livestock facility was managed as a HPF, and all operations occurred outside of the Lower Accotink Watershed. Additionally, all operations have since ceased and therefore livestock are not considered a bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.4. LAND APPLICATION OF MANURE

Fort Belvoir does not conduct land application of manure on either FBNA or Fort Belvoir Main Post. As discussed in Section 4.3 above, The Caisson Stables, were previously considered a potential source of pollutants to stormwater due to their collection of manure in roll-off dumpsters prior to off-site disposal. Operations have since ceased eliminating potential manure sources on Fort Belvoir.

Conclusion: land application of manure is not considered a bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.5. LAND APPLICATION OF BIOSOLIDS

Fort Belvoir does not conduct land application of Biosolids on either FBNA or Fort Belvoir Main Post.

Conclusion: land application of Biosolids is not considered a bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.6. WILDLIFE

There are no anthropogenic activities which would influence the congregation of wildlife. Fort Belvoir enforces state and federal regulations which prohibit the feeding, removal, destruction, harassment, injury, or killing of any fish or wildlife. Additionally, there is and established recreational program which issues hunting, and fishing permits which may aid in population control of deer, turkey, and geese.

4.6.1. WILDLIFE CORRIDORS

Although Fort Belvoir discourages tenants and staff from feeding wildlife, due to its commitment to the conservation of natural resources including multiple designated Special Natural Areas (SNAs) and wildlife corridors, wildlife is bound to naturally frequent these areas. A portion of the Lower Accotink Creek Watershed is a designated wildlife corridor. The Corridor runs from SNA-1, previously referred to as Accotink Creek Wildlife Refuge, on the southwest portion of the watershed to the northwest crossing the watershed just south of the golf course. Appendix C provides maps from the Master Plan detailing these conservation areas.

These areas are maintained forested space and are designed to support natural wildlife and allow for a contiguous space that wildlife can use to freely move across the installation. Per permit Part II.4.d a significant source of pollutant, “means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified.”

Conclusion: because land use in these areas is designated to support natural wildlife, wildlife contributions of fecal coliform is not considered a significant bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.6.2. ANIMAL CARCASSES

Another source of bacteria from wildlife considered was in the form of roadkill/animal carcasses. As these aren’t preventable instances, the Directorate of Public Works (DPW) works to increase public awareness of both the potential issues and reporting avenues. All instances of roadkill/animal carcasses found on For Belvoir are reported to the DPW-Environmental Division Installation Pest Management Coordinator. Removal and disposal of roadkill/animal carcasses is the responsibility of Pest Control Technicians. This practice limits bacteria being released due to wildlife carcasses.

Conclusion: Because of a targeted outreach program, inspection and reporting processes in place, and handling by certified personnel, roadkill/animal carcasses are not considered a significant bacteria source in the portion of Fort Belvoir within the Lower Accotink Watershed.

4.6.3. BIRDS

Birds, especially Canada Geese, have been identified in the region and three locations of the Lower Accotink Creek Watershed; DAAF, the golf course ,and stormwater ponds at FBNA have been identified as potential congregation areas. Both DAAF and FBNA currently implement measures such as deterrents for these birds, as discussed in detail in Section 5.5 below.

Conclusion: Birds are not considered a significant bacteria source in the portion of the Lower Accotink Creek Watershed encompassing Fort Belvoir.

4.7. PETS

4.7.1. MILITARY WORKING DOGS

There is a Working Animal Support Building to the west of Accotink Creek on FBNA. This facility houses on average ten working dogs. As per Army Regulation 40-905:

> *"Inspections of kennels, runs, stables, corrals, and other animal facilities on Government installations, using part 3.3, title 9, Code of Federal Regulations (9 CFR 3.3) and other applicable references as guidelines. The evaluation will determine adequacy of animal husbandry practices and will evaluate construction, maintenance, and sanitation to prevent disease, injury, or adverse effects on the welfare of animals."*

Additionally, this AR requires a:

> *Review invitation for bids on contracts for the collection or disposal of animal or animal biological wastes, animal apprehension services, or other veterinary requirements. The following subjects must be included in the contracts: sanitation of equipment, humane animal care, and protection of the environment and military and animal populations."*

As such, handlers are responsible for immediately picking up dog waste using the bags provided and placing the waste in the disposal container to maintain sanitary living conditions for all military working dogs (MWD). A dog waste disposal container is permanently mounted outside in the dog exercise area. Once full, the container is emptied into a dumpster for final disposal by Waste Management, where it is handled as a separate waste stream.

Conclusion: Due to strict standards imposed on handlers for the proper management and health of MWD, pet waste is not considered a significant bacteria source to the Lower Accotink Watershed.

4.7.2. DOMESTIC PETS – HOUSING AREAS

There is no residential housing area located at either FBNA or any portion of Fort Belvoir Main Post within the Lower Accotink Creek Watershed. Although no housing areas exist within the Accotink Creek Watershed, The Villages, Fort Belvoir's housing partners, have a clear pet policy applicable to all tenants across the installation. The Villages provides dog parks and pet waste stations at all the neighborhoods for tenant use. They also require that all pets be registered by tenants, and that tenants follow the housing Pet Policy and Addendum. The policy states:

> *"Pets must be on a leash at all times when outside the fenced area of a Premises. Pets cannot be tied or staked outside of the home or left outside of the home unattended. Residents who walk their pets must carry a plastic bag or other appropriate container to retrieve and dispose of any droppings. Tenant shall promptly collect and remove all pet defection from the grounds of the Community."*

Conclusion: There are enforceable requirements and amenities additionally there are no housing areas in the Lower Accotink, therefore pet waste is not considered a significant bacteria source to the Lower Accotink Watershed.

4.7.3. DOMESTIC PETS – RECREATIONAL AREAS

Many parks, trails, and facilities on Fort Belvoir are pet-friendly and pet-waste is one of the largest contributors of bacterial pollution. It is Fort Belvoir policy to pick up and properly dispose of pet-waste when using any community areas. MWR provides pet waste stations at recreational areas for community use. MWR states as a term of use of any of their facilities that:

> *If you bring your pet(s), the **pet(s)** must be kept on a leash at all times, and pet waste must be picked up and deposited in waste enclosures or dog waste stations located throughout the camp. Also, pets must not be tied up outside or left unattended in or around vehicles.*

Conclusion: There are enforceable requirements and amenities provided to personnel that use facilities operated by MWR therefore pet waste is not considered a significant bacteria source to the Lower Accotink Watershed.

5. EVALUATION OF 2020 ACTION PLAN

Part II.B.2.a.of the 2023-2028 MS4 General Permit requires that the permittee provide an evaluation of the results achieved by the previous action plan. The following provides an evaluation of the 2020 Action Plan approved by VADEQ in a letter dated 23 May 2022. Along with any adaptive management strategies incorporated into this 2025 Action Plan based on the evaluation.

5.1. ACTION PLAN REVISION AND REPORTING

The 2020 Action Plan called for DPW Environmental to review proposed projects, actions, and activities occurring within the Lower Accotink Creek Watershed with special consideration for their potential as bacteria sources. If during review, any actions are found to be a potential source of bacteria to the watershed DPW would ensure that proper control measures/strategies are selected and implemented to minimize the potential for discharges. The Action Plan would then be updated to include any new sources and controls instated. This goal appeared similarly in the 2018 and 2016 Action Plans.

Evaluation: This was found to be an effective practice for minimizing sources of bacteria to the Lower Accotink Watershed. It encouraged vigilance by the MS4 Program in addressing issues early and lead to proactive solutions.

- Between 2018 and 2024 all proposed projects were reviewed through the established National Environmental Policy Act (NEPA) review process. Although no proposed projects were found to create new bacteria sources, requiring revisions to the plan, The review process remains an effective process in early identification of concerns.

Changes to Strategy: Not Applicable, this practice was found to be effective as is and did not result in any new/changing requirements in this 2025 Action Plan.

5.2. INCORPORATE TMDL INFORMATION INTO MS4 TRAINING PROGRAM

The 2020 Action Plan recommended BMPs that can be implemented under the MS4 permit to eliminate and/or minimize discharges of bacteria sources to the Lower Accotink. The focus of the BMPs selected for implementation were operational controls and involved educating the Fort Belvoir public (tenants, partners, employees, and contractors) in the bacteria water quality issue and what their role is in mitigating and reporting. It included a goal to include information on the Accotink TMDL, the most common sources of bacteria and strategies for bacteria reduction within the Stormwater Pollution Prevention Plan (SWPPP) Training (Levels 1 and 2), General SWPPP Training (Level 3), and Pre-Construction Training (Level 5).

Evaluation: This was found to be an effective practice for minimizing sources of bacteria to the Lower Accotink Watershed. It encouraged attentiveness and caution by the personnel across the installation, promotes sound practices, and further establishes reporting practices by the public to DPW for action.

- Between 2018 and 2024, the MS4 Training Plan was updated and identified seven (7) levels of training at different magnitudes with the content in Level 1 being the most extensive. Updates were completed to Level 1 and Level 2 training materials which included information on the Bacteria TMDL, reporting procedures, and proper grease management practices, which were found to be the most likely source to sanitary sewer overflows (SSOs). These trainings reach an average of 150 people annually.

- Information was not incorporated into Levels 3 or 5 training during this last cycle of implementation due to personnel shortages. Although these training materials where not updated, they are infrequently used and target small audiences.

Changes to Strategy: Not Applicable, this practice was found to be effective as is and did not result in any new/changing requirements in this 2025 Action Plan. Updates to Level 3 and Level 5 training will be targeted during the 2023-2028 permit cycle and Fort Belvoir may complete further updates to the Training Plan with the potential for consolidation of materials and audiences.

5.3. PUBLIC EDUCATION AND OUTREACH

The 2020 Action Plan called for Fort Belvoir to integrate information from the Bacteria TMDL into its public Education and Outreach Program. This included consideration of Bacteria as a high priority stormwater issue under Minimum Control Measure (MCM) 1, publishing one article annually in the *Fort Belvoir Eagle* that discusses the bacteria water quality issue, sources of bacteria, reporting information and steps that can be taken to reduce bacteria sources, and distribution of Pet Waste brochures throughout the housing communities and at facilities operated by the Directorate of Moral, Welfare, and Recreation (MWR).

Evaluation: This was found to be an effective practice for minimizing sources of bacteria to the Lower Accotink Watershed. It increases awareness of the issues by residents and visitors across the installation, promotes proper pet waste management practices, and further establishes reporting practices by the public to DPW for action.

- Between 2018 and 2024 Fort Belvoir has regularly published articles using different media and distribution techniques that focus on bacteria at a stormwater issue and target the public, specifically in management of pet waste. Additionally, DPW has teamed up with MWR to ensure pet waste brochures are available at recreational facilities such as the Travel Camp where visitors and their families may vacation with their pets.

- The Pooch Plunge, an event held annually at the end of the pool season, is the main opportunity for DPW-Environmental to reach the target audience for distribution of brochures as pet owners visit the pools for one final swim prior to the end of pool season.

Changes to Strategy: As of April 15, 2021, the *Fort Belvoir Eagle* is no longer being published in a hard copy format but continues publication online. Although Fort Belvoir will continue to periodically publish articles, the MS4 Program has switched its focus from hardcopy publications towards more electronic distribution of materials and social media posts. This change in practices maintains and potentially increases the reach of outreach materials and is reflected in the update BMP BAC.3 of this 2025 Action Plan.

5.4. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The 2020 Action Plan notes the benefits that the IDDE Program has in reducing bacteria loads across the installation with a more proactive approach. The annual outfall inspections allow for direct screening for the presence of illicit discharges which includes identification of sanitary sewage and illicit connections. Additionally, the IDDE Program promotes good practices through training, education and outreach, facilitates and advertises reporting for the public and Fort Belvoir tenants, and describes process for the elimination of discovered issues.

Evaluation: This was found to be an effective practice for minimizing sources of bacteria to the Lower Accotink Watershed. It provides for a more proactive approach to identifying issues that may cause bacteria loads to increase by DPW and provides for streamlined corrective action. The program brings awareness of pollutant sources to all personnel and encourages reporting of potential bacteria sources such as sanitary sewer system failures (SSOs).

- The IDDE Program has been successful in all aspects and has proven to be a great resource for the MS4 Program. In July 2022, a previously unidentified septic holding tank was discovered by DPW through the (IDDE) program. As noted in Section 4.2.3, When the original Bacteria TMDL Action Plan was created in 2013, it noted that there were no known septic systems on the installation, therefore system failures were not considered a potential bacteria source. Therefore, DPW did not have processes established for addressing concerns with improper management of septic systems.

Changes to Strategy: Due to this locating this septic holding tank that was not captured in the installations' inventory, this 2025 Action Plan was updated to include information on how to respond to any future tanks that are found. Due to the potential for other unknown (and therefore unmaintained) septic systems, holding tanks, and associated system failures, Fort Belvoir has now developed the procedures to capture newly identified units within an inventory, create a maintenance and monitoring plan, and work towards long term removal. It is now better prepared to manage any future issues with a plan that involves immediate, interim, and long-term measures to eliminate septic systems as a source of bacteria. Additionally, a new BMP will be implemented under this 2025 Action Plan which tracks the status of decommissioning and rerouting any septic systems that may be found as BMP BAC.4.

5.5. Other BMPs Implemented Within the Lower Accotink Watershed

The 2020 Action Plan noted some other BMPs implemented through other environmental programs which had an added benefit to limiting bacterial loads within the Lower Accotink Creek Watershed. This included BASH Program and use of signage and deterrents (for geese) at FBNA.

Evaluation: Although not a direct part of this Action Plan or the MS4 Program, these deterrents can be beneficial in reducing bacteria loads to Accotink Creek, by reducing attractiveness and dispersing wildlife.

- The Fort Belvoir Wildlife Hazard Management Plan (WHMP) for DAAF was established in June of 2015. The purpose of the plan is to minimize the potential of a bird/wildlife strike to aircraft using an integrated approach of techniques and entities. To reduce hazards, the WHMP establishes active and passive techniques to disperse birds and wildlife from the airfield.

- FBNA has posted signage and evaluates use of deterrents: The area incorporated multiple Stormwater Management Facilities (SMFs) which led to an increase in ponding areas, known to attract birds, especially geese. Signs have been installed around the ponds to prohibit the feeding of geese. FBNA has also used other bird deterrents including geese deterrent lights and coyote decoys. Implementation of these deterrents/decoys were found to be ineffective as the geese quickly become acclimated to the new situation and adapt.

Changes to Strategy: The WHMP continues to be effective. Although FBNA continues to evaluate deterrents and population controls to mitigate geese, deterrents/decoys are not currently being used.

6. BACTERIA REDUCTION STRATEGY

Best Management Practices (BMPs) can be either structural/engineered or operational control measures that are put in place to mitigate the effects of pollutant sources on water quality. The selection of BMPs is dependent on the site characteristics and the pollutant of concern. For this TMDL Action Plan the pollutant of concern is bacterial loads largely due to fecal coliform. As discussed in Section 4: Bacteria Source Assessment, none of the considered sources caused a substantial bacterial discharge but some were found to have the potential for a moderate effect if not properly managed.

Part II.B.5.b of the MS4 Permit requires Fort Belvoir, as a nontraditional permittee, to select at least one strategy from permit Table 5 (presented in Appendix A). Fort Belvoir currently implements multiple strategies to minimize Bacteria discharges from all sources identified in Section 4 including:

- DPW requires posted signage to pick up dog waste, and providing pet waste bags and disposal containers in designated pet walking areas in residential and recreational areas
- Housing and MWR have adopted enforceable pet waste policies, and/or leash policies.
- Housing and MWR maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria.
- DPW-Environmental utilizes its Education and Outreach and Training Programs to educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage, feed pets indoors).
- DPW-Environmental implements a program for removing animal carcasses from roadways by qualified technicians and properly disposing of them off-site, if practicable.
- DPW-Environmental has identified Facilities known to have commercial trash areas and/or grease traps as High Priority Facilities under MCM 6 which receive annual inspections. Additionally, these facilities receive training which covers topics such as proper management of fats, oils, and greases (FOG) which are a major contributor to SSOs.
- DPW-Environmental has identified areas with high Canada Geese populations, including DAAF, the Golf Course, and FBNA, and continually evaluates deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading.
- FBNA Prohibits feeding of birds and has posted signage around bird congregation areas.
- DPW has developed BMPs for locating, transporting, and maintaining portable toilets used on Fort Belvoir with information included in the *BMP Fact Sheet 21: Portable Toilets*, and *ESC Technical Bulletin #4: Stormwater Pollution Prevention Requirements for Small Projects & Renovation Projects* which are maintained on the Fort Belvoir Webpage, and distributed as necessary

Therefore, the focus of this 2025 Action Plan is to maintain the strategies that are in place, promote further use of practices for all future operations/development, and continue educating Fort Belvoir tenants, partners, employees, and residents of the bacteria water quality issue and what their role is in mitigating and reporting. As per MS4 Permit Part I.D.5, the status of implementation should be provided in the MS4 annual reporting process which covers activities that occur from 1 July to 30 June and is due to VADEQ by 1 October of each year. The BMPs identified below provide the measurable goals and reporting requirements under this 2025 Action Plan.

6.1. BMP BAC.1 PROMOTE STRATEGIES FOR BACTERIA REDUCTION

Promoting reduction strategies should be done consistently and requires the MS4 Program to maintain good communication not just within the Environmental Division, but across DPW and with mission partners across installation.

- ***Measurable Goal:*** Consider potential bacteria sources for any new or proposed projects occurring within the Lower Accotink Creek Watershed. Promote control measures/strategies found in Part II.B.5.b Table 5 (presented in Appendix A) during the NEPA Review Process.
- ***Reporting and Record Keeping:*** In the annual report,
  - Provide a summary of any projects considered to be a new source of bacteria and any new strategies used for bacteria reduction
  - Provide a summary of any evaluations completed, new use of deterrents, and updates to the WHMP.

6.2. BMP BAC.2 EDUCATE TENANTS, PARTNERS, EMPLOYEES, AND RESIDENTS

Educational programs work best when they increase the level of environmental awareness in the target audience and convey a clear link between people's everyday activities and stormwater quality impacts. The program should raise the environmental awareness and knowledge level of program participants with respect to stormwater management issues. Education programs can also increase the public scrutiny of industrial and municipal practices, with a resulting increase in the reporting of incidents such as spills, SSOs, or illicit discharges to storm drains.

- ***Measurable Goals:*** Maintain, develop, and distribute educational materials – Such as those developed under MCM 1: Public Education and Outreach Program and/or MCM 6: Pollution prevention and good housekeeping - which include information on the Local Accotink Bacteria TMDL, the most common sources of bacteria, reporting, and strategies for bacteria reduction identified in this Plan by:
  1. Continuing to provide Stormwater Pollution Prevention Plan Training (Levels 1 and 2) to facilities considered to be High Priority Facility.
  2. Updating General Awareness Training (Level 3) and Pre-Construction Training (Level 5) to include Bacteria TMDL Information.
  3. Distributing Pet Waste and/or Stormwater Pollution Prevention brochures, provided in Appendix D, at key locations and at events where pet owners will be present such as the annual 'Pooch Plunge' in September
  4. Publishing one (1) article, annually, targeting Bacteria as a high-priority stormwater issue under the Public Education and Outreach Program.
  5. Maintaining BMP Fact Sheets covering *Fats, Oils, and Grease Handling; Portable Toilets, Dumpster Management* , and *Animal Waste* on the Fort Belvoir Webpage, distributing as necessary
  6. Maintaining *ESC Technical Bulletin #4: Stormwater Pollution Prevention Requirements for Small Projects & Renovation Projects* on the Fort Belvoir Webpage, distributing as necessary

- ***Reporting and Record Keeping:*** In the annual report:
  - Provide a summary of the audiences reached via the training program.
  - Provide a list of the education and outreach activities conducted during the reporting period, the estimated number of people reached, and a list of strategies used.
  - Provide a summary of any updates and/or revisions made to educational materials

6.3. BMP BAC.3 CONTINUE IMPLEMENTATION OF THE IDDE PROGRAM

Fort Belvoir implements an Illicit Discharge Detection and Elimination (IDDE) Program, in accordance with Part I.E.3 of the MS4 General Permit. The 2024 IDDE Plan documents written procedures designed to prevent, detect and eliminate unauthorized non-stormwater discharges, including SSO and improper management of trash, oils, and grease, to the MS4.

- ***Measurable Goals:*** Continue to implement the IDDE Program which includes:
  1. Maintaining a direct reporting hotline on the Fort Belvoir Webpage, including quarterly tests of the Stormwater Pollution Reporting button for functionality.
  2. Advertising the pollution reporting hotline and other reporting avenues via educational materials, social media posts, and training.
  3. Completing annual dry-weather screening of at least 50 outfalls for the presence of illicit discharges which may include sanitary sewage.
- ***Reporting and Record Keeping:*** In the annual report:
  - Provide a summary of reports received through the hotline, via direct reporting to DPW and/or noted during inspections that had a potential to contribute to bacteria loads along with corrective actions taken to address them.

6.4. BMP BAC.4 SEPTIC TANK SYSTEM MAINTENANCE, MONITORING, AND REMOVAL

As discussed in Sections 4 and 5, septic systems were previously not considered a concern due to none being identified. Through implementation of the 2018 and 2020 Action Plans, a single septic holding tank was identified at building 2990, which Fort Belvoir is currently working to decommission and reroute to the sanitary sewer.

Due to the potential for other unknown (and therefore unmaintained) septic systems, holding tanks, and associated system failures, Fort Belvoir has developed the following procedures to capture newly identified units within an inventory, create a maintenance and monitoring plan, and work towards long term removal.

These procedures are intended as interim management until the systems can be removed. The final goal for any discovered systems is removal and rerouting to the sanitary sewer system.

Step 1: Inventory development and unit identification: When a new unit (tank, septic system, etc.) is identified, the unit should be surveyed and the information listed below should be recorded.

- Type of unit
- Location
- Size
- Discharge waterways
- Connections and flow paths
- Method of discovery

This information should be provided to DPW-Master Planning division, and any historic information should be reviewed. If possible the system should be added to GIS layers and Real Property records to ensure proper maintenance can be properly planned and budgeted for. Reporting and/or permitting requirements with the Virginia Department of Health, if needed, should be considered.

Step 2: Maintenance and monitoring plan After identification, a PWO should be developed to maintain and monitor the unit. This should include scheduled pump-outs and a monitoring plan. Unit should be observed for signs of leakage, damage, or discharges and any available monitors checked. Any discovered units should be consistently monitored and maintained, until final removal occurs. Monitoring schedule should be developed based on information gathered under Step 1. Maintenance actions and monitoring observations should be recorded.

Step 3: Long term removal: Upon discovery of a unit, Fort Belvoir will begin planning for the final decommissioning of such systems. Removal actions should be coordinated through the DPW Operation and Maintenance Division (OMD), and progress and status updates should be maintained under this Action Plan.

- ***Measurable Goal:*** Continue to implement the immediate, interim, and long-term corrective actions, described in Section 4.2.3 through the process described above, to address any newly identified septic systems, tanks, and associated utilities, including the holding tank identified during implementation of the previous Action Plan at building 2990.

- ***Reporting and Record Keeping:*** Keep records of scheduled and unscheduled maintenance and repair actions, as well as monitoring observations. In the annual report,

    - Provide a summary of actions taken and status of decommissioning of any identified Septic tanks and related systems

7. IMPLEMENTATION SCHEDULE

During the 2023-2028 permit cycle Fort Belvoir will implement the BMPs discussed in Section 6 above to bring awareness to and reduce the potential of E. coli discharge to surface waters from installation personnel. Part II.B.4.h requires that TMDL Action Plans include a schedule of anticipated actions planned for implementation during this permit term. Fort Belvoir has well established programs developed in multiple phases throughout the 2013-2018, and 2018-2023 implementation of previous Bacteria Action plans. Therefore, the schedule presented in Table 2 below is heavily focused on maintaining current programs.

Table 2: BMP Implementation Schedule

MS4 Program/ Plan BMP	Control Measures	Implementation Schedule
BMP BAC.1	Promote control measures/strategies found in Part II.B.5.b Table 5 (presented in Appendix A) during the NEPA Review Process.	**Regularly** through the already established NEPA Plan review Process
BMP BAC.2.1	Continue to provide Stormwater Pollution Prevention Training (Levels 1 and 2)	Following the schedule established in the MS4 Training Plan
BMP BAC 2.2	Update General Awareness Training (Level 3) and Pre-Construction Training (Level 5) to include Bacteria TMDL Information.	Update Training Materials during the **2025-2026 permit cycle** Implement immediately after updates
BMP BAC 2.3	Distributing Pet Waste brochures, provided in Appendix D, at key locations and at events where pet owners will be present.	**Annually** coordinate with MWR and DPW-Housing for distribution of brochures at facilities and at 'Pooch Plunge'
BMP BAC 2.4	Publish one (1) article, annually, targeting Bacteria as a high-priority stormwater issue.	**Annually** coordinate with housing for article publication in the Newsletter or for social media post.
BMP BAC 2.5	Maintain BMP Fact Sheets covering *Fats, Oils, and Grease Handling; Portable Toilets, Dumpster Management , and Animal Waste* on the Fort Belvoir Webpage, distribute as necessary	**Annually** review and update Fact Sheets, as needed. Post to Webpage within 30 days of updates
BMP BAC 2.6	Maintain *ESC Technical Bulletin #4: Stormwater Pollution Prevention Requirements for Small Projects & Renovation Projects* on the Fort Belvoir Webpage, distribute as necessary	**Annually** review and update Fact Sheets, as needed. Post to Webpage within 30 days of updates

MS4 Program/ Plan BMP	Control Measures	Implementation Schedule
BMP BAC 3	Continue implementation of the IDDE Program, per the most current IDDE Plan	**Regularly** through the already established IDDE Program **Quarterly** tests of the Stormwater Pollution Reporting button to test for functionality.
BMP BAC.4	Continue to implement the immediate, interim, and long-term corrective actions, to address any newly identified septic systems, tanks, and associated utilities, including the holding tank identified at building 2990.	**As needed**, upon any new tank discoveries
BMP BAC.4	Perform regular maintenance and monitoring on current units and systems.	**Semi-Annual** checks of any identified system (including building 2990) to determine if pump-out is required and if established maintenance plan is being followed.
BMP BAC.4	Take actions towards decommission and removal of discovered units and systems.	**Quarterly** checks with OMD on status of removal and rerouting of any identified systems, until compete.

8. PUBLIC COMMENT

Part II B.9 of the General Permit requires that Fort Belvoir provides an opportunity for receipt and consideration of public comment regarding the proposed actions to meet the local TMDL for no less than 15 days. The EPA states in Federal Register Volume 64, No. 235, page 68,750 on 8 December 1999, regarding "public" and its applicability to MS4 programs, the following:

> *"EPA agrees with the suggested interpretation of "public" for DoD facilities as 'the resident and employee population within the fence line of the facility.' The department recommends that nontraditional MS4 operators, such as state and federal entities and local school districts, utilize this statement as guidance when determining their applicable 'public' for compliance with this permit."*

Therefore, Fort Belvoir has adopted this definition and defines the "public" as anyone who lives or works within the jurisdictional boundary of the Garrison as shown in Figure 1.

The Bacteria TMDL for the Lower Accotink Creek Watershed was issued in September 2008. A Fort Belvoir Bacteria TMDL Action Plan was originally developed in 2013 and submitted on September 30, 2016, for VADEQ review and approval. VADEQ requested additional information on the action plan on November 10, 2016, and received Fort Belvoir's response and updated action plan on December 7, 2016. The Action Plan was submitted in accordance with Section I.B of the 2013-2018 MS4 General Permit. The Action Plan was approved and became an enforceable part of the Program Plan on December 9, 2016.

The Bacteria TMDL Action Plan was later updated during the 2018-2023 permit cycle. Updates to the Bacteria TMDL Action Plan for the Lower Accotink Creek were finalized in March 2020. The public comment period involved the posting of the Draft plan on the Fort Belvoir Home Page on March 18, 2020. Fort Belvoir provided for the public comment period to be open until April 15, 2020, allowing for at least 15 days for public comment. Fort Belvoir DPW did not receive any comments during this period. The Final 2020 Bacteria TMDL Action Plan was submitted to VADEQ on April 28, 2020.

VADEQ reviewed the 2020 Action Plan and requested additional information in a letter dated March 7, 2022. VADEQ stated that the TMDL action plan must clearly identify the significant sources of the pollutants of concern discharging to the MS4 not covered under a separate VDPES permit. Fort Belvoir responded to VADEQ in April 2022 and in a meeting held in May 2022. A follow-up response was submitted to on May 18, 2022, which detailed the additional potential bacteria sources that may occur during a sanitary sewer failure occurring within the area covered by the TMDL which would include two (2) facilities, NMUSA and DLA. VADEQ concurred and approved the Plan in a letter dated May 23, 2022.

This 2025 Bacteria TMDL Action Plan for the Lower Accotink Creek was updated to include an evaluation of the previous plan as required by Part II.B.2 of the 2023-2028 MS4 Permit. The Draft Action Plan was posted for public comment on the Fort Belvoir Home Page under Environmental Documents for Stormwater in [Month] 2025 with A Notice of Availability on [Date] 2025.

Fort Belvoir provided for the public comment period to be open until 16 April 2025 and formally addressed the [number] comments received in this Final Bacteria TMDL Action Plan. Table 4 below summarized the comments received and how they were addressed, further details are available upon request.

Table 3. Public Comments on Draft 2025 Bacteria TMDL Action Plan

Comment	Response

[number] comments were received during this comment period and [formally responded to] therefore, the plan was finalized. The Final 2025 Bacteria Action Plan will continue to be available on the public facing website throughout the permit term, allowing for the public to submit comments at any point in time. If any comments are received, Fort Belvoir will evaluate the need for updating the plan and provide a formal response to the commenter. Any comments received and changes made in the plan will be reported in the MS4 annual status report as required under Part II.D.5.

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APPENDIX A:
BACTERIA TMDL BMP STRATEGY TABLE

TABLE 5 FROM 9VAC25-890-40
Strategies for Bacteria Reduction Stormwater Control/ Management Strategy

Table 5
Strategies for Bacteria Reduction Stormwater Control/Management Strategy

Source	Strategies (provided as an example and not meant to be all inclusive or limiting)
Domestic pets (dogs and cats)	• **Provide signage to pick up dog waste, providing pet waste bags and disposal containers.** • **Adopt and enforce pet waste ordinances or policies, or leash laws or policies.** • Place dog parks away from environmentally sensitive areas. • **Maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria.** • Protect riparian buffers and provide unmanicured vegetative buffers along streams to dissuade stream access.
Urban wildlife	• **Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage, feed pets indoors).** • Install storm drain inlet or outlet controls. • Clean out storm drains to remove waste from wildlife. • **Implement and enforce urban trash management practices.** • Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops. • Implement a program for removing animal carcasses from roadways and properly disposing of the same (either through proper storage or through transport to a licensed facility).
Illicit connections or illicit discharges to the MS4	• Implement an enhanced dry weather screening and illicit discharge, detection, and elimination program beyond the requirements of Part I E 3 to identify and remove illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs. • Implement a program to identify potentially failing septic systems. • Educate the public on how to determine whether their septic system is failing. • Implement septic tank inspection and maintenance program. • Implement an educational program beyond any requirements in Part I E 1 though E 6 to explain to citizens why they should not dump materials into the MS4.
Dry weather urban flows (irrigations, car washing, powerwashing, etc.)	• Implement public education programs to reduce dry weather flows from storm sewers related to lawn and park irrigation practices, car washing, power-washing and other non-stormwater flows. • Provide irrigation controller rebates. • Implement and enforce ordinances or policies related to outdoor water waste. • **Inspect commercial trash areas, grease traps, washdown practices, and enforce corresponding ordinances or policies.**
Birds (Canadian geese, gulls, pigeons, etc.)	• **Identify areas with high bird populations and evaluate deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading.** • **Prohibit feeding of birds.**
Other sources	• Enhance maintenance of stormwater management facilities owned or operated by the permittee. • **Enhance requirements for third parties to maintain stormwater management facilities.** • **Develop BMPs for locating, transporting, and maintaining portable toilets used on permittee-owned sites. Educate third parties that use portable toilets on BMPs for use.** • Provide public education on appropriate recreational vehicle dumping practices.

** Strategies shown in **Bold** are currently Implemented on Fort Belvoir, both within and outside the Lower Accotink Creek Watershed.

APPENDIX B:
POLICY MEMO – STORMWATER POLLUTION PREVENTION

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT BELVOIR
9820 FLAGLER ROAD, SUITE 213
FORT BELVOIR, VIRGINIA 22060-5928

AMIM-BVP-E

MEMORANDUM FOR US Army Fort Belvoir Personnel

SUBJECT: Fort Belvoir Policy Memorandum #25, Prohibition of Illicit/Unauthorized Discharges to the Municipal Separate Storm Sewer

1. References.

a. Clean Water Act (33 USC Sec. 1251)

b. General Virginia Pollution Discharge Elimination System Permit (VPDES) for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), Permit # VAR040093 (9VAC25-890-40)

c. VPDES Industrial Stormwater Individual Major Permit #VA0092771

d. Industrial Stormwater VPDES Discharges (9 Virginia Administrative Code 25-31, 25-151 and 25-120)

2. Purpose. To prevent illicit discharges and illegal dumping into the storm sewer systems at Fort Belvoir Main Post and Fort Belvoir North Area to ensure protection of water quality of Fort Belvoir waterways and compliance with Fort Belvoir VPDES MS4 and Industrial Stormwater permits.

3. Definitions.

a. Illegal dumping: Any dumping of solid or liquid material into the storm sewer system.

b. Illicit connection: Any drain or conveyance, whether on the surface or subsurface, which allows a non-stormwater discharge to enter the storm sewer system and any connections to the storm sewer system from indoor drains, sinks or sanitary sewer.

c. Illicit discharge: Any discharge to the storm sewer system that is not composed entirely of stormwater that causes or contributes to pollution. Illicit discharges may include, but are not limited to: hazardous materials such as paints, varnishes and

solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes such as garbage, yard wastes (grass clippings and leaves), mulch, discarded or abandoned objects, pesticides, herbicides, fertilizers, sewage; dissolved and particulate metals, pet/animal wastes, construction wastes and residues and noxious or offensive material of any kind.

d. Storm sewer system: A collection of underground pipes and conveyances (ditches, channels) that drain to Fort Belvoir waterway. The water that drains through the storm sewer is not treated to remove pollutants. Whatever pollutants enter the storm sewer system directly end up in waterways.

e. Stormwater: Precipitation that flows across the land surface or through conveyances to one or more waterways and that may include rain runoff, snow melt runoff and surface runoff and drainage.

f. Waterways: Includes all bodies of water, but is not limited to, rivers, streams, bays, wetlands stormwater management ponds and drainage ditches.

3. Applicability. This policy applies to military and civilian personnel, tenant and satellite organizations, mission partners, housing residents and contractor activities at Fort Belvoir and Fort Belvoir North Area.

4. Background. As stormwater flows across the ground, off of a roof or through a parking lot, it can pick up various pollutants such as oil, grease, spilled materials, loose soil and other debris. When it rains, stormwater flows to the storm sewer system and eventually drains directly into Fort Belvoir waterways and ultimately to the Chesapeake Bay with no treatment for pollutant removal.

5. Policy. Fort Belvoir is committed to protecting water quality of waterways on and surrounding Fort Belvoir to ensure that human health, ecosystem health and the ability to conduct recreational opportunities are not impacted by stormwater pollution. Reference a. requires the establishment of an enforceable policy that prohibits illicit discharges and illegal dumping.

a. Prohibited Discharges into Storm Sewer System: The following are common sources of illicit discharges/illegal dumping at Fort Belvoir that are prohibited from entering into the storm sewer system: sanitary sewer overflows, trash, paint, grease,

motor oil or other lubricants, fuel, cooking oil, salt, fertilizer, pesticides chemicals, liquid materials, lawn wastes (grass clippings and leaves), mulch, cigarette butts, sand, soil, construction materials, wash waters containing soaps, detergents and degreasers of any kind, fire hydrant and water line flushing and potable water tank discharge without prior de-chlorination, and pet/animal waste.

b. Materials Storage: All personnel are responsible for ensuring proper storage of materials. Materials should be stored inside, under roof, whenever possible. If outside storage of materials cannot be avoided, materials must be elevated off the ground and covered to prevent stormwater from coming in contact with material and being carried into the storm sewer. Keep it “High and Dry”! Any outdoor materials storage areas should be located away from components of the storm sewer system (inlets, drains, swales, stormwater management ponds, ditches). Personnel responsible for bulk storage areas for items such as salt, mulch, and soil stockpiles will implement best management practices to ensure that material does not enter storm sewer during a storm event. Any liquid materials must be stored in adequate secondary containment.

c. Spill Response: All personnel are responsible for following the Fort Belvoir Master Spill Plan. Fort Belvoir Spill Response Procedures can be found at https://home.army.mil/belvoir/index.php/download_file/force/822/549

d. Waste Material Disposal: All personnel are responsible for proper disposal of all hazardous and nonhazardous waste materials, including yard wastes. Hazardous waste disposal is required to be conducted in accordance with the Fort Belvoir Hazardous Waste Minimization and Management Plan.

e. Vehicle Cleaning, Maintenance and Storage: Operations, including fueling, cleaning and maintenance of aircraft, equipment, campers, boats and vehicles should be conducted indoors or under cover to prevent exposure to stormwater whenever possible. Cleaning of vehicles may be conducted outside only at an authorized wash rack or commercial car wash.

f. Use of Deicing Materials: Application of any deicing agents containing urea or other forms of nitrogen or phosphorous or ethylene glycol to parking lots, roadways, sidewalks or other paved surfaces is prohibited per reference a.

g Waste Container Management: All personnel are responsible for ensuring that tops and sides of dumpsters are closed and notifying the Directorate of Public Works (DPW), Operations and Maintenance (O&M), Solid Waste Program Manager, 703-806-0061, if the dumpster is rusty, leaking or missing a drain plug that could allow for dumpster contents to leak onto the ground.

h. Illicit Connections: All personnel are responsible for reporting any discovered or suspected illicit connections to the DPW Environmental Division (ENV), Stormwater Program Manager, 703-806-0627.

i. Annual Training: As required by reference a., the following personnel are required to attend annual training in the recognition, prevention and reporting of illicit discharges: personnel employed in and around maintenance and public works facilities; personnel employed for road, street and parking lot maintenance; personnel employed in and around recreational facilities; and personnel employed at facilities where Stormwater Pollution Prevention Plans have been implemented. Additional categories of personnel may require training if personnel are found to have caused an illicit discharge. DPW ENV will schedule and provide training for all required personnel.

j. All stormwater concerns and suspected illicit connections may be submitted via email at usarmy.belvoir.id-sustainment.mbx.dpw-environmental@army.mil.

6. Proponent. The proponent for this policy is the Directorate of Public Works. The technical POC is the Stormwater Program Manager at 703-806-0627. The point of contact is Mr. Yun Heo, Director of Public Works.

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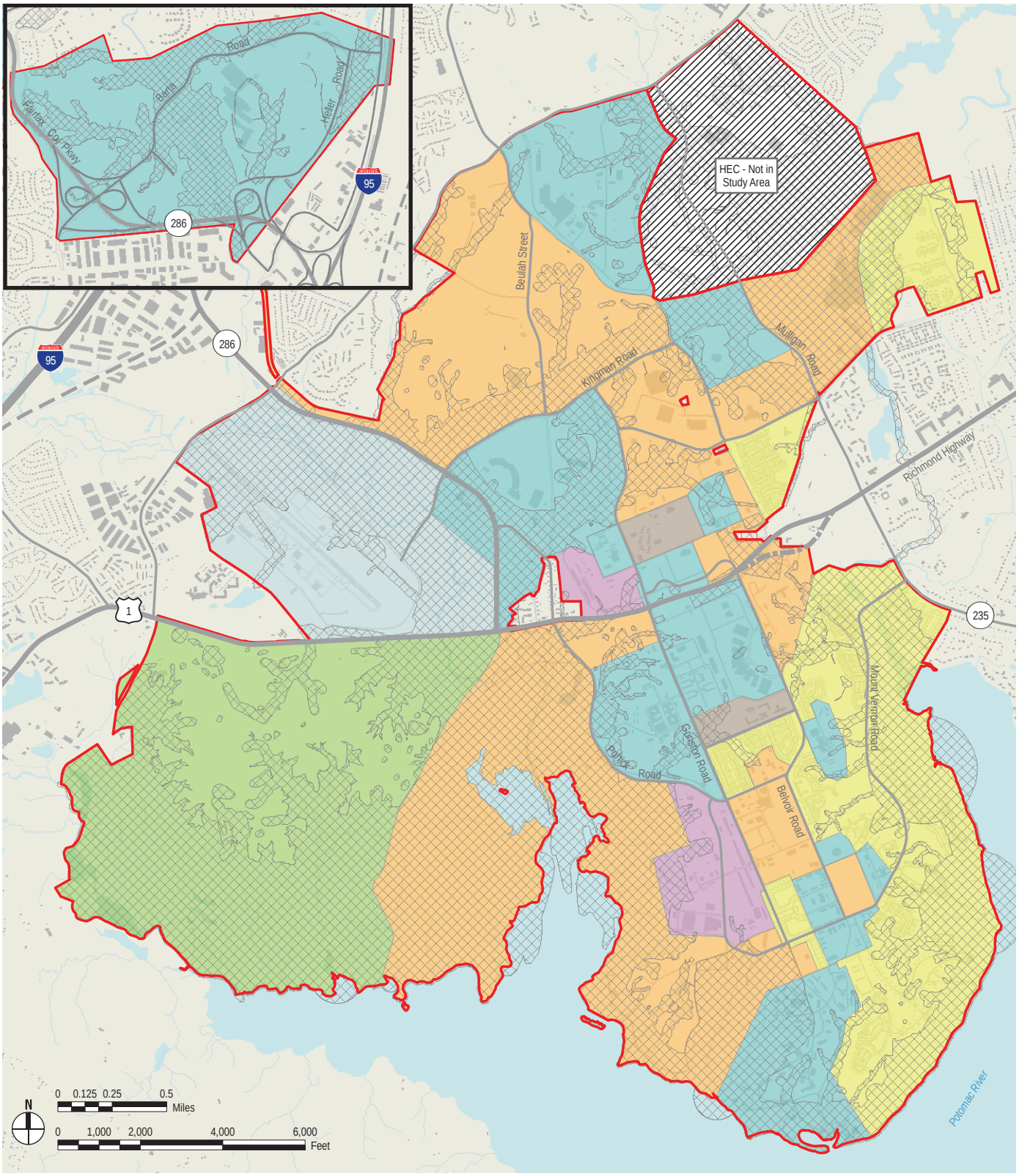
DAVID J. STEWART
COL, EN
Commanding

APPENDIX C:
INSTALLATION MASTER PLAN MAPS

Figure 3.19 - Proposed Land Use Plan
Figure 2.6 - Regional Environmental

From *Fort Belvoir Real Property Master Plan: Installation Vision and Development Plan,* dated May 2015

Figure 3.19 - Proposed Land Use Plan



Natural Resources

This section provides information regarding Fort Belvoir's natural resources and lists planning considerations that ensure future development minimally impacts both the regional and Installation natural resources. This section covers the following natural resources: water, vegetation, habitat, mitigations, watershed conditions, topography/soil conditions, and air quality.

Regional Natural Resources

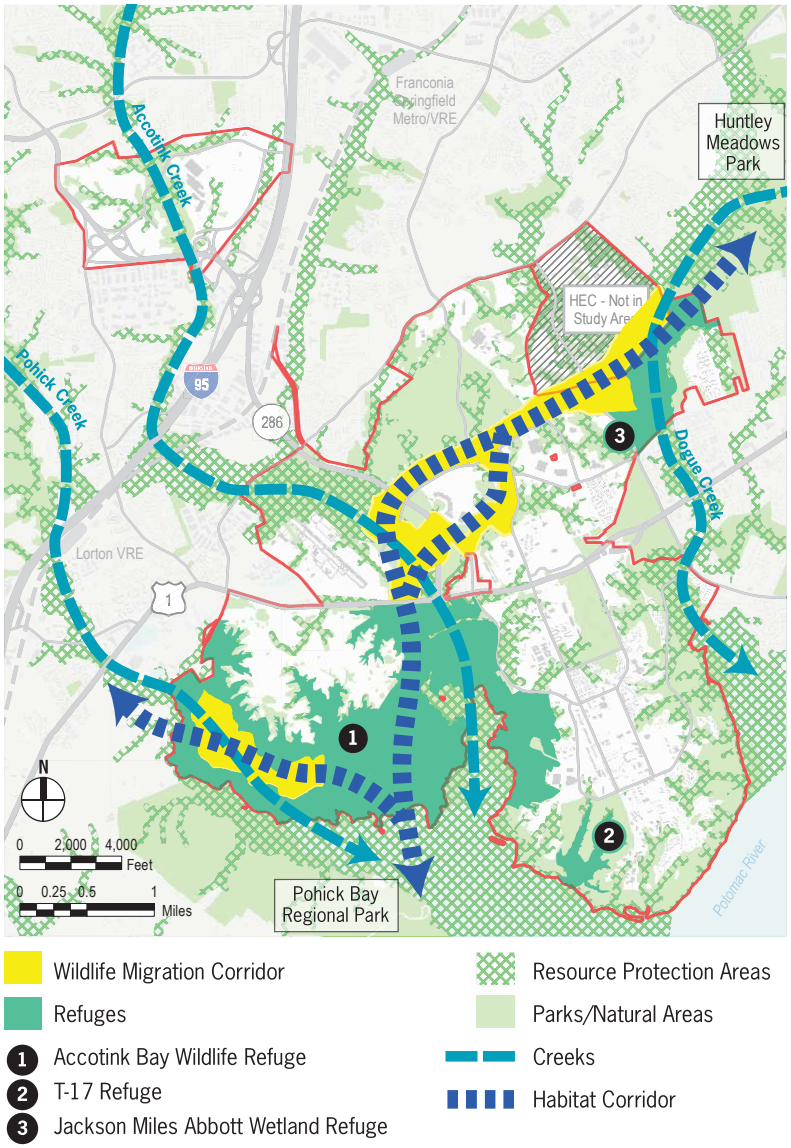
Fort Belvoir's natural environment is a complex area where several ecological subregions converge, resulting in a diversity of environmental conditions, habitats, and climate. Located in one of the most congested regions of the country, Fort Belvoir, along with the surrounding region, must continually balance development pressures with environmental protection. Fort Belvoir has taken the lead on many key environmental initiatives, including: ecosystem management, habitat connectivity and preservation, species migration, biodiversity, endangered species management, water quality best practices, and wetlands preservation. Despite the highly-developed character of nearby areas, approximately 65 percent of Fort Belvoir (Main Post and FBNA) is undeveloped.

Fort Belvoir has conserved three refuges totaling approximately 1,750 acres. They include the Accotink Bay Wildlife Refuge, the T-17 Refuge (located within the T-17 training area and the Jackson Miles Abbott Wetland Refuge. Fort Belvoir also has a designated Forest and Wildlife Corridor of approximately 730 acres. These large areas of native vegetation create a contiguous band of wildlife habitat through the Installation (Figure 2.6). It also connects with off-Post wildlife habitat areas, including Huntley Meadows Park to the northeast and Pohick Bay Regional Park and Mason Neck State Park (part of the Potomac River National Wildlife Refuge Complex) to the southwest. Together these areas represent the largest continuous and most diverse natural habitat area in eastern Fairfax County.

This geographic continuity is not only important to terrestrial wildlife but for bird species as well. The Atlantic Flyway, a major North American bird migration route, passes to the east along the Atlantic Coast. Natural areas along the Potomac River, including areas on Fort Belvoir and those north and south of the Installation, are an important resource for migratory bird species in an area that is otherwise largely developed.

Jackson M. Abbott Wildlife Refuge

Figure 2.6 - Regional Environmental



APPENDIX D:
OUTREACH MATERIALS

Brochures:
Pet Waste and *Stormwater Pollution Prevention*

BMP Fact Sheets:
Fats, Oils, and Grease Handling; Portable Toilets, Dumpster Management, and *Animal Waste*

Technical Bulletin:
*ESC Technical Bulletin #4: Stormwater Pollution Prevention Requirements for Small Projects & Renovation Project*s

For questions and additional information contact Directorate of Public Works, Environmental Division at 703-806-0022

Are You Cleaning Up After Your Pet?

KEEP THE

STORM DRAINS

CLEAN FOR

THOSE DOWNSTREAM

Improving Storm Water Quality

Being a responsible pet owner means cleaning up after your pet and maintaining a healthy and safe environment for all those around you.

Why is Pet Waste a Health Hazard?

There are several very common diseases that pet waste can carry. These include: giardia, roundworms, salmonella, and Ecoli. Pet waste that is left in back yards, streets, pavement, lawns, and trails can be picked up by stormwater run-off and carried into storm drains. The storm drains you see outdoors at curb sides and parks drain directly into nearby streams and rivers, the same rivers and streams we swim and fish in!

In addition to introducing harmful pathogens and bacteria into surface waters, pet waste can also create a breeding ground for flies and other undesirable insects. Being a responsible pet owner means maintaining a safe environment not only for you and your pet but for all those around.

Why is Pet Waste an Environmental Concern?

Pet waste is one of the largest contributors of bacterial pollution in urban wetlands. After it rains or snows, any pet waste that was not picked up will get washed into nearby storm drains. It will then end up in surrounding streams, rivers, and lakes. When pet waste decomposes in waterways it can create detrimental algae blooms that will deplete the water of oxygen and kill fish and other aquatic organisms.

How Can I Help Protect Myself and the Environment?

We can help substantially reduce the amount of pollutants in stormwater run-off by simply picking up and properly disposing of pet waste. The proper Do's and Don'ts of pollution prevention practices for handling pet waste include:

- **DO** carry disposable biodegradable pet waste bags with you to parks and on trails. These bags are inexpensive and often available for free at pet waste collection stations.
- **DO** properly dispose of pet waste in trash can or at designated pet waste collection stations.
- **DO** pick up after your pet regularly, pet waste is not an adequate or safe fertilizer!
- **DO** spread the word about the dangers of leaving pet waste exposed to stormwater. As per Fort Belvoir regulations pet owners must immediately clean up and properly dispose of all fecal waste created by their pet animal in public areas, yard areas of other residents and in their own yard.
- **DON'T** leave pet waste on your lawn. Pathogens are dangerous to children and can contaminate vegetable gardens.
- **DON'T** add pet waste to compost. Not enough heat is generated to kill pathogens.
- **DON'T** leave pet waste near or on a curb, sidewalk, or street. It can get washed down storm drains.

What is stormwater?

Stormwater is the runoff that occurs with natural precipitation such as rain or snowmelt. Runoff occurs when precipitation flows over land, parking areas, and streets and does not soak into the ground.

Why is stormwater bad?

It's not! It's the pollutants already on the ground that the stormwater sweeps up that is "bad." Soda cans, cigarette buds, debris, dirt, oil and grease, and metals found on the ground end up in stormwater.

How does stormwater go into waterways?

A stormwater inlet, a curbside opening or a grate that drains stormwater from streets, carries runoff from streets, sidewalks, and yards and into the streams.

How does polluted stormwater affect the environment?

Unlike a sanitary sewer system, where the sewage from homes and commercial buildings are directed to a wastewater treatment plant to be treated, storm sewers do NOT carry stormwater to a treatment plant to remove pollutants before it's released into our streams and ponds. Any pollutants that are carried by stormwater runoff go directly to streams, creeks, rivers and wetlands and harm the animals that live in the water.

Fort Belvoir Facilities

24-hour Self Service Car Wash
6025 Gorgas Road

Dog Park
At the Corner of Warren Rd and Swift Rd.

Disposal Options in the Area

Fairfax County Lorton Landfill (for Household Hazardous Waste (HHW))
9850 Furnace Rd. Lorton, VA 22079
For more information visit: www.fairfaxcounty.gov/dpwes/trash/disphhw.htm

I-66 Transfer Station (for Household Hazardous Waste (HHW)) 4618 West Ox Road Fairfax, VA 22030 703-631-1179

Potomac Landfill (for construction Demolition and Debris)
3730 Greentree Lane Dumfries, VA 22026
703-690-6040

For more information, contact the Stormwater Program Manager at:
Phone: (703) 806—3406
Facebook: https://www.facebook.com/FortBelvoirStormwater/

PROTECT OUR LOCAL WATERWAYS

DUMPING HERE MEANS...

...IT ENDS UP HERE

...AND BECOMES THIS!

KEEP THE STORM DRAINS CLEAN FOR THOSE DOWNSTREAM

Improving Stormwater Quality

Stormwater drains carry runoff away from urban areas to prevent flooding and water damage. Stormwater at Fort Belvoir moves through the storm sewer, UNTREATED to Accotink and Pohick Creeks, Pohick Bay, Gunston Cove, and the Potomac River, eventually reaching the Chesapeake Bay.

What actions can I take to protect my local waterways?

1. Be proactive—Find means to dispose your waste properly.
2. Be vigilant—If you see someone dumping unknown waste into a storm sewer, report it. See something, say something!
3. Be involved— Get involved at Fort Belvoir by volunteering for cleanup events in the spring!

How do my actions improve stormwater quality?

- Prevents water pollution;
- Maintains recreational swimming areas;
- Improves fishing and boating;
- Helps prevent disease transmission from contaminated fishing and swimming areas; and
- Preserves natural beauty of streams, rivers, ponds, and lakes.

What actions can I take to prevent stormwater pollution?

CARS

- Inspect your car for leaks and promptly repair them.
- Use drip pans and funnels when changing fluids.
- Dispose of used oil and oil filters at an approved facility.*
- Dry sweep floors instead of wet washing.
- Wash cars at the DFMWR carwash.*

SPILLS

- Keep a spill kit in your work space or garage.
- Clean up spills immediately and properly dispose of waste material.
- Soak up and wipe spill instead of rinsing spill area with water.

PET WASTE

- Clean up after your pet.
- Dispose of pet waste by trashing or flushing in a toilet.

DRAINS

To avoid sewer backups…

- Pour fats into a container for trash disposal instead of down the drain.
- Use sink strainers.

REMEMBER:
ONLY RAIN DOWN THE DRAIN!

LAWN

- Use spot treatment when possible.
- Buy and mix only amounts of lawn chemical needed for the job.
- Follow label directions; store pesticides, herbicides and fertilizers in original labeled containers.
- Promptly pick up clipped grass, leaves, pruned branches, and other yard waste from your sidewalks, lawn, and driveways.
- Bag yard waste for proper disposal instead of putting yard waste down storm drain.

MATERIAL STORAGE

- Store materials in a manner that will not come into contact with stormwater. **Keep materials high and dry!**
- Store chemicals in locked storage areas and like chemicals together.
- Keep all containers tightly closed.
- Properly dispose of hazardous product/ waste instead of pouring down into storm drains and toilets.

HOUSEHOLD HAZARDOUS WASTE

- Dispose of household hazardous waste at an approved facility instead of pouring hazardous product/waste into the ground, into gutters or storm drains.*
- Donate usable paint, solvents, automotive fluids, pesticides, fertilizer, and cleaning products for reuse.
- Use nontoxic or less toxic alternatives when possible.

* Locations can be found on the back of this brochure.

FATS, OILS, AND GREASE (FOG) HANDLING
BMP FACTSHEET 11 Rev. 04/2023

Targeted Pollutants	
Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil & Grease	X
Chemicals	
Salt	

Objectives	
Cover	X
Contain	X
Educate	X
Reduce/Minimize	X
Product Substitution	

DESCRIPTION

Fats, oil and grease (FOG) are a byproduct of restaurant activities and, if handled incorrectly, can have negative impacts on wastewater collection, treatment facilities and natural waterways. These type of pollutants can degrade water quality and impair the health of fish and wildlife habitats. Most wastewater collection system blockages can be traced to FOG. Blockages in the wastewater collection system are serious because they cause sewage spills, manhole overflows or raw sewage backups in homes and businesses. Grease may not appear harmful but it congeals and causes grease mat buildup on the surface of settling tanks, digesters and the interior of pipes and other surfaces which may cause serious problems in infrastructure. Anytime there is an overflow in the sewer system this creates the potential for harmful Pollutants and pathogens such as viruses and bacteria to discharge into storm drains which flow directly into creeks, streams and rivers! In addition to clogging pipes, FOG itself is a group of harmful pollutants that can wreak havoc on natural processes and ultimately kill fish and other organisms. In order to protect our natural resources and the health and safety of individuals, it is important to follow basic Best Management Practices (BMP) when handling fats, oils, and greases.

INSIDE GUIDELINES

Food service facilities should provide suitable and adequate grease and oil interceptors that must be regularly inspected, cleaned and maintained in accordance with the established BMPs to minimize spills through good housekeeping practices, and to provide guidance and training to employees on proper BMP practices.

- Do not pour or scrape FOG down any drain
- Witness all grease trap or interceptor cleaning to ensure proper cleaning.
- Do not put enzymes or additives directly into interceptors or traps in order to reduce your cleaning schedule.
- Train kitchen staff to scrape excess food particles and liquid grease into dry trash or a separate container. Use paper towels to wipe excess grease from utensils and work areas.
- Post Fort Belvoir Grease Management Guide above sinks and dishwasher.
- If clean-up sink drains to an under-the-sink grease trap, lower final discharge temperature as not to melt grease and pass through trap.
- Clean up grease spills with absorbent materials.
- Clean hood filters and kitchen floor mats. Discharge wastewater to your interceptor.
- Collect used grease and oil in a proper container. Check for possible leaks, avoid overfilling the grease drums and ensure drum lids are tight.
- Maintain a service record for maintenance activities and routine inspections.
- Properly label all collection containers.

FATS, OILS, AND GREASE (FOG) HANDLING
BMP FACTSHEET 11

OUTSIDE GUIDELINES

The responsibility does not stop in the kitchen! The proper storage and disposal of used grease and oils is just as important as the use of the grease interceptors. The proper BMPs for outdoor grease and oil storage containers includes:

- **Clean up *any* spills immediately with absorbent pads or other dry methods -** Other dry methods include food grade paper, paper towels, and newspaper. During the transportation of used greases from indoor to outdoor storage containers spills can happen. No matter how small the spill it is important it is cleaned up properly and *promptly.* If spill is not cleaned up the next rain event will wash it into the nearest storm drain.
- **Cover outdoor grease and oil containers -** Uncovered grease and oil storage containers can collect rainwater. Since grease and oil float, the rainwater can cause an overflow onto the ground. Such an overflow will eventually reach the storm water system and nearby streams.
- **Locate grease dumpsters and storage containers away from storm drain catch basins -** The farther away from the catch basin, the more time someone has to clean up spills or drainage prior to entering the storm drain system. Be aware of oil and grease dripped on the ground while carrying waste to the dumpster. Schedule regular pickups of grease and oil storage containers.
- **Routinely clean kitchen exhaust system filters -** If grease and oil escape through the kitchen exhaust system, it can accumulate on the roof of the establishment and eventually enter the storm drain system when it rains. Dispose of any cleaning materials properly.
- **Inspect dumpsters and containers** regularly for any damages, leaks, or other deficiencies.
- **Do not wash any kitchen mats, grills, and other equipment outside or throw any wash water**

MAINTENANCE/GOOD HOUSEKEEPING

- Inspect dumpsters and containers regularly for any damages, leaks, or other deficiencies.
- If spills are present during inspection, properly clean-up spill. FOG clean-up methods include placing absorbent litter, rubbing the absorbent litter into the FOG, and sweeping up litter once complete. **DO NOT WASH FATS, OILS, AND, GREASE DOWN STORM DRAIN OR BEST MANAGEMENT PRACTICE!**
- Ensure drum lids are tightly secured.
- Maintain a service record for maintenance activities and routine inspections

SPILL RESPONSE PROCEDURES

In the event of a spill or leak, follow the appropriate Spill Response Procedures posted at your facility or refer to the BMP Factsheet Overview.

- **Survey the incident** from a safe distance. Identify the source of release and the material being released.
- Call the Ft. Belvoir Fire Department if spills are *greater than 5 gallons OR greater than 5 square feet.* If ANY amount of leaked material has entered a storm drain or waterway call the Ft. Belvoir Fire Department at 703-781-1800 and DPW Environmental Division (Env. Div.) at 703-806-3694.
- Provide the Safety Data Sheet of the spilled material to the spill response personnel.
- Fill out Spill Incident Report in your SWPPP.
- REPORT ALL SPILLS REGARDLESS OF SIZE TO DPW/ENV. DIV.

REPORT SPILLS TO DPW/ENV. DIV. BY:

- E-mailing your Spill Incident Report to zachary.d.witman.civ@army..mil
- Calling 703-806-3694

PORTABLE TOILETS
BMP FACTSHEET 21 Rev. 04/2023

Targeted Pollutants	
Sediment	X
Nutrients	
Trash	
Metals	
Bacteria	X
Oil & Grease	
Chemicals	
Salt	

Objectives	
Cover	
Contain	
Educate	X
Reduce/Minimize	X
Product Substitution	

DESCRIPTION

Portable toilet facilities are regularly placed on construction sites. The prevention of storm water pollution from construction projects is regulated by the Municipal Separate Storm Sewer System (MS4) permit. Proper management and attention to toilet facilities will minimize the potential for storm water pollution from portable toilets and therefore ensure regulatory compliance.

GUIDELINES

Consider the following recommendations when locating portable toilets at a construction site:

- Place toilets on flat stable ground.
- Toilets should be located at least 25’ away from the nearest storm drain. Secondary containment will be necessary in the event of a leak or spill.
- Avoid impervious surfaces, such as concrete, that will quickly direct spills to storm sewers. Grass, sand and gravel surfaces will absorb liquid for easy clean up of leaks or spills.
- Place toilets inside security fences to prevent vandalism.
- Locate toilets so exposure to traffic and moving equipment is minimized. Install safety bollards if necessary.
- Consider securing toilets to the ground with cables and stakes if they are located in open areas subject to high winds.
- Ensure easy access for pump truck and toilet service staff.

The following records will help ensure regulatory compliance:

- Record the location of portable toilets on the stormwater pollution prevention plan.
- Make note of portable toilet condition on weekly stormwater inspection records.
- Report leaks and spills to (703) 806-3694.

PORTABLE TOILETS
BMP FACTSHEET 21

MAINTENANCE

- Follow vendor recommendations for a suitable number of portable toilets for the anticipated site workforce.
- Provide for a suitable cleaning and maintenance schedule.
- Check regularly for damage, leaks and spills. This would be part of the weekly stormwater site inspection.
- Clearly label toilets needing maintenance or repair. Promptly notify vendor to schedule maintenance or pump out.
- Maintain spill response material and equipment on site. Often, the earth moving equipment associated with the construction project is sufficient.

SPILL RESPONSE PROCEDURES

In the event of a spill or leak, follow the appropriate Spill Response Procedures posted at your facility or refer to the BMP Factsheet Overview.

- **Survey the incident** from a safe distance. Identify the source of release and the material being released.
- Call the Ft. Belvoir Fire Department if spills are *greater than 5 gallons OR greater than 5 square feet.* If ANY amount of leaked material has entered a storm drain or waterway call the Ft. Belvoir Fire Department at 703-781-1800 and DPW Environmental Division (Env. Div.) at 703-806-3694.
- Provide the Safety Data Sheet of the spilled material to the spill response personnel.
- Fill out Spill Incident Report in your SWPPP.
- REPORT ALL SPILLS REGARDLESS OF SIZE TO DPW/ENV. DIV.

REPORT SPILLS TO DPW/ENV. DIV. BY:

- E-mailing your Spill Incident Report to zachary.d.witman.civ@army.mil
- Calling 703-806-3694

DUMPSTER MANAGEMENT
BMP FACTSHEET 22 Rev. 04/2023

Targeted Pollutants	
Sediment	X
Nutrients	
Trash	X
Metals	X
Bacteria	X
Oil & Grease	X
Chemicals	X
Salt	

Objectives	
Cover	X
Contain	X
Educate	X
Reduce/Minimize	
Product Substitution	

DESCRIPTION

Almost all facilities generate waste and temporarily store the waste on-site. These dumpsters, compactors, or refuse bins can be a major source of stormwater pollution if they are not properly operated and maintained. Open dumpsters may collect rain water that mixes with the contents of the dumpster resulting in "leachate." Leachate is prohibited to entering waters of the state. See 9VAC20-81-210 for more leachate concentrate requirements. This water may then wash leaking materials, spills, and trash from the dumpsters into storm drains. Wash water from cleaning dumpsters and loading docks is another source of stormwater pollution. This runoff water may contain grease, litter, bacteria, pathogens and chemicals. Properly maintained dumpsters and clean loading docks may prevent unpleasant odors and unsightly conditions. Proper management and cleaning of dumpsters will minimize the potential for stormwater pollution from dumpsters and ensure regulatory compliance.

TO REPLACE A LEAKING DUMPSTER PLEASE CONTACT THE SOLID WASTE PROGRAM MANAGER AT (703) 806-0061.

GUIDELINES

- Keep dumpsters and compactors in a covered area. If this is not practical, ensure covers on each receptacle are closed after use. Cover dumpsters without lids with a waterproof tarp.
- Replace leaking dumpster, waste containers and compactors as soon as possible.
- Control litter by making sure waste is contained in dumpsters and compactors. Sweep loading dock area regularly and place sweepings in the trash.
- Increase receptacle service frequency if capacity is routinely exceeded.
- Avoid or minimize placing liquid waste, grease or leaky garbage bags into dumpsters. Place liquid waste in closed or sealed containers for disposal.
- Keep dumpster lids tightly closed to keep rainwater out and prevent leaks. Replace damaged or missing lids promptly.
- Do not place hazardous waste in a dumpster. Lock the dumpster or enclosure to prevent illegal disposal of hazardous material.
- Post signs indicating the materials that can be placed in the container. Check regularly for unacceptable materials.

DUMPSTER MANAGEMENT
BMP FACTSHEET 22

MAINTENANCE

- Inspect dumpsters and compactors regularly for leaks. Do not allow leachate from dumpsters and compactors to enter storm drains.
- Inspect dumpster and compactor areas regularly for litter or stains.
- When cleaning dumpster avoid hosing out the dumpster interior. Apply absorbent material such as kitty litter over any liquids spilled in the dumpster and dispose of in the trash.
- Replace leaking dumpster, waste containers and compactors as soon as possible. Call the number on the front of this fact sheet for assistance.
- Install berms or curbs around dumpsters and loading docks to contain leaks, spills and trash. Collect any wash water with a wet vacuum system.
- Install a water quality management device to treat runoff from the dumpster area.

SPILL RESPONSE PROCEDURES

In the event of a spill or leak, follow the appropriate Spill Response Procedures posted at your facility or refer to the BMP Factsheet Overview.

- **Survey the incident** from a safe distance. Identify the source of release and the material being released.
- Call the Ft. Belvoir Fire Department if spills are *greater than 5 gallons OR greater than 5 square feet.* If ANY amount of leaked material has entered a storm drain or waterway call the Ft. Belvoir Fire Department at 703-781-1800 and DPW Environmental Division (Env. Div.) at 703-806-3694.
- Provide the Safety Data Sheet of the spilled material to the spill response personnel.
- Fill out Spill Incident Report in your SWPPP.
- REPORT ALL SPILLS REGARDLESS OF SIZE TO DPW/ENV. DIV.

REPORT SPILLS TO DPW/ENV. DIV. BY:

- E-mailing your Spill Incident Report to zachary.d.witman.civ@army..mil
- Calling 703-806-3694

ANIMAL WASTE
BMP FACTSHEET 23 Rev. 04/2023

Targeted Pollutants	
Sediment	
Nutrients	X
Trash	
Metals	
Bacteria	X
Oil & Grease	
Chemicals	
Salt	

Objectives	
Cover	
Contain	
Educate	X
Reduce/Minimize	X
Product Substitution	

DESCRIPTION

The goal of ensuring proper pollution prevention practices when dealing with animal and pet waste is to prevent unnecessary and unlawful discharges of harmful pollutants into our waterways. Many parks, trails, and facilities on Fort Belvoir are pet-friendly. Pet waste left on streets, pavement, lawns, and trails can be picked up by stormwater run-off and carried to surrounding watersheds through storm drains. It is very important to pick up and properly dispose of pet waste to ensure harmful bacteria and parasites are not introduced into the environment. In addition, when pet waste decomposes in watersheds, it can create detrimental algae blooms that will deplete the water of oxygen and kill fish and other aquatic organisms. If proper pollution prevention practices are not followed, harmful pollutants can migrate by means of stormwater run-off into our natural waterways.

GUIDELINES

- Carry disposable biodegradable pet waste bags with you to parks and on trails. These bags are inexpensive and often available for free at pet waste collection stations.
- Properly dispose of pet waste in trash can or at designated pet waste collection stations.
- Spread the word about the dangers of leaving pet waste exposed to stormwater. In most counties it is becoming the law that pet owners clean up after their pets so if you see something say something!
- At pet care facilities such as veterinary clinics, grooming and training facilities it is important that proper pet waste handling signs are posted and pet owners have access to either designate pet waste areas or pet waste collection stations.

Fort Belvoir Directorate of Public Works (DPW)
Municipal Separate Storm Sewer System (MS4) Program

Erosion & Sediment Control Technical Bulletin #4:

STORMWATER POLLUTION PREVENTION REQUIREMENTS FOR SMALL PROJECTS AND RENOVATION PROJECTS

APPLICABILITY

This bulletin is applicable to Garrison, Tenant and Contractor Operations for small construction projects that involve less than 2,500 sq.ft. of land disturbance and building renovation projects.

BACKGROUND

While projects less than 2,500 sq.ft. are not required to obtain a Virginia Department of Environmental Quality (VADEQ) Construction General Permit or go through any formal plan submittal & review process, projects are still held to the pollution prevention/good housekeeping requirements of Fort Belvoir's Small Municipal Separate Storm Sewer System (MS4) permit (VAR040093) (9VAC25-890-40 Section II.A.6).

EROSION AND SEDIMENT CONTROL REQUIREMENTS

Erosion and Sediment Control (ESC) practices over the course of work prevent discharges of sediment laden water to the storm sewer system. The following ESC practices are required to be implemented, when applicable.

- Install and maintain erosion and sediment control measures to ensure disturbed ground does not leave the work site. These measures will be left in place until final stabilization has been achieved.
    - Silt fence (VESCH STD. & SPEC. 3.05) should be installed on the downslope side of any disturbed area, and along walkways or roadways (see attached).
    - Inlet protection (VESCH STD. & SPEC. 3.07) should be installed on all inlets nearby and immediately downstream of the project site (see attached).
- Removing all excavated materials not required from the work site once the work has been completed.
- Grading the area once the work has been completed.
- Seeding and/or mulching the disturbed area to bring to final stabilization.

The contractor is to notify DPW-Environmental when work has been completed to arrange for an inspection. This inspection will ensure that requirements of VESCR and the VESCH have been met.

STORMWATER MANAGEMENT REQUIREMENTS

The contractor is responsible for using good practices to prevent the discharge of pollutants into the storm sewer system during work. The following list outlines practices that should be implemented during the course of work to prevent illicit discharges, when applicable.

- Portable toilets must be located a minimum distance of 25 feet away from the nearest Stormwater feature (inlets, swale, pond, etc.), they must also be maintained and cleaned, inspected for leaks, and placed on a level surface.
- Wash waters from equipment and vehicle washing, wheel wash water, and other wash waters must be treated in a temporary sediment basin or alternative control that provides an equal or greater level of treatment prior to discharging.

- If temporary fuel tanks are necessary, contact the Petroleum & Spill Response Program Manager at (703) 806-3694. These tanks must be a minimum distance of 25 feet away from the nearest Stormwater feature. Ensure that the temporary fuel tank has secondary containment, and if a plug is used with the secondary containment, the plug must remain in place for the duration of the project.
- For construction material storage, materials must be stored in a manner where they will not come in contact with Stormwater, i.e. covered and up off the ground. These materials must also be a minimum distance of 25 feet away from the nearest Stormwater feature. Materials include but are not limited to building products, construction wastes, trash, landscape materials, fertilizers, pesticides, detergents, paint, stucco, concrete, oils, gasoline, sealants, copper flashing, curing compounds, etc…
- For concrete use on site, a concrete washout must be utilized in accordance with the EPA Concrete Washout Guidelines.
- All dewatering operations must be performed in accordance with the Fort Belvoir ESC Technical Bulletin #1: Dewatering Operations.
- A "Spill Response Procedures" Placard must be posted, and followed should there be any spill on the site. This placard is attached to this bulletin. The contractor shall minimize discharges of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- A map outlining the locations of possible pollutant generating activities should be kept and maintained during the course of the work to be performed, and should include locations of trailers, dumpsters, staging and storage areas, vehicle washout area, concrete washout area, portable toilet area, and ingress/egress from site.

The following procedures are prohibited:

- Discharge of sanitary waste.
- Discharge of wash waters from equipment and vehicle washing, unless managed by an appropriate control.
- Discharge of soaps or solvents used in vehicle and equipment washing.
- Discharge of fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
- Discharge of concrete washout water, unless managed by an appropriate control.
- Discharge from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed by an appropriate control.
- Discharge of wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials.

DPW-ENVIRONMENTAL POINT OF CONTACT

Name, Email and Phone Number:	Ashley McMahon, ashley.c.mcmahon.2.civ@army.mil 703-806-0627
Physical Location:	Bldg 1442, 2nd Floor, Room 226
Mailing Address:	9430 Jackson Loop, Bldg 1442 Directorate of Public Works Fort Belvoir, VA 22060