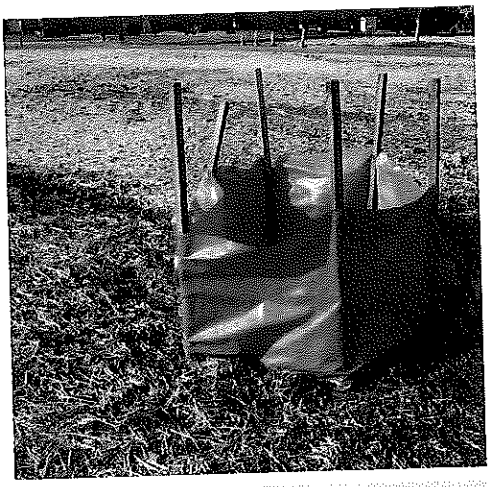

Municipal Separate Storm Sewer System (MS4) Annual Report

JBLE–Eustis, Virginia

Permit Year 5
(1 July 2017 - 30 June 2018)

Permit No.: VAR040035

733 CED
JBLE–Eustis
1407 Washington Blvd
Fort Eustis, VA 23604

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List of Acronyms and Abbreviations

733 CED/EE	733d Civil Engineer Division/Environmental Element
AEM	Advanced Environmental Management
AAFES	Army Air Force Exchange Service
CFT	Cross-Functional Team
E&SC	Erosion and Sediment Control
EMP	Environmental Management Procedure
EMS	Emergency Management System
EPA	Environmental Protection Agency
ESOH	Environmental Safety and Occupational Health
FOG	Fats, Oils and Grease
FSS	Force Support Squadron
FSE	Food service establishment
HUC	Hydrologic unit code
IDDE	Illicit discharge detection and elimination
ISO	Industrial Organization of Standardization
JBLE–Eustis	Joint Base Langley-Eustis – Fort Eustis
MCM	Minimum control measure
MFH	Military family housing
MS4	Municipal separate storm sewer system
N/A	Not applicable
ODUS	Old Dominion Utility Services
P4	Public-Public; Public-Private
POC	Pollutants of concern
POV	Privately owned vehicle
PY	Permit year
SC	Special condition
SCM	Stormwater Control Measure
SSO	Sanitary sewer overflow
SWCB	State Water Control Board
SWM	Stormwater management
SWPPP	Stormwater Pollution Prevention Plan
TA	Training Area
TMDL	Total maximum daily load
TN	Total nitrogen

List of Acronyms and Abbreviations (Continued)

TP	Total phosphorus
TSS	Total suspended solids
VDEQ	Virginia Department of Environmental Quality
VDH	Virginia Department of Health
VSMP	Virginia Stormwater Management Program
WIP	Watershed Implementation Plan
WG	Wing
WOAC	Advanced Marine Warrant Officer Course

Municipal Separate Storm Sewer System Program Plan Certification

As required by Section III.K.2 of General Permit No. VAR040035, all reports required by state permits, and other information requested by the board shall be signed by a principal executive office or ranking elected official as described in 9 VAC 25-870-370(A), or a duly authorized representative.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Type or Print the following information:

Name: MARK J. SCIACCHITANO

Area Code and Telephone No.: 757-878-3642

Official Title: DIRECTOR, 733d CIVIL ENGINEER DIVISION

Signature: Mark J. Sciacchitano

Date Signed: 27 Sep 18

Permit Number: VAR040035

MS4 Name: JBLE–Eustis

Section 1: Introduction

Joint Base Langley-Eustis – Fort Eustis (JBLE–Eustis), Virginia, holds a General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), General Permit No. VAR040035, issued by the Commonwealth of Virginia Department of Environmental Quality (VDEQ) on 1 July 2013. In accordance with provisions outlined in this permit, JBLE–Eustis has developed and implemented a comprehensive stormwater management program designed to prevent or reduce the discharge of sediment and other pollutants into the installation's stormwater conveyance system. General Permit No. VAR040035 Section II.E.1 requires JBLE–Eustis to evaluate the MS4 program on an annual basis to assess program compliance, the appropriateness of the identified BMPs, and progress towards achieving the identified measurable goals.

This report describes the progress and status of JBLE–Eustis' MS4 Program during Permit Year (PY) 5 from 1 July 2017 to 30 June 2018.

The remainder of this annual report is presented as follows:

- Section 2 – Provides an overview of the MS4 including its physical characteristics
- Section 3 – Presents a listing of the base's stormwater program guidance
- Section 4 – Discusses the minimum control measures (MCM) JBLE–Eustis is implementing under the permit
- Section 5 – Reviews the special conditions (SC) JBLE–Eustis is implementing under this permit

These sections are supported by the following attachments:

- Attachment 1 – Stormwater Management Educational Brochures
- Attachment 2 – Public Involvement / Participation Documentation
- Attachment 3 – Illicit Discharge Investigation Details

Section 2: Storm Sewer System Information

Permit Holder

Commanding Officer
JBLE–Eustis
Fort Eustis, Virginia

Facility Information

JBLE–Eustis
Newport News City County, Virginia
MS4 General Permit No. VAR040035

Mailing Address

Commanding Officer
733 CED
1407 Washington Blvd
Fort Eustis, VA 23604

Population Served

The total population of the installation is approximately 13,000, comprised of approximately 6,300 military personnel and 2,800 dependents living on installation, as well as approximately 3,900 civilian non-residents who commute to the installation daily.

MS4 Service Area

JBLE–Eustis, formerly Fort Eustis, is located adjacent to the City of Newport News, Virginia which is part of the Norfolk, Hampton, and Newport News metropolitan area. The installation is located on Mulberry Island, a small peninsula bordered by the James River to the west, Warwick River to the east, and Skiffes Creek toward the north. Smaller waterbodies on or bordering the installation include Jail Creek, Morrison's Creek, Island Creek, Bailey Creek, and Eustis Lake. The installation occupies approximately 8,000 acres and houses a variety of military organizations and support activities. Most of the development is located at the northern end of the installation, while the southern portion of the peninsula remains largely undeveloped. A golf course and an airfield are located near the center of the installation.

The base does not rely on another government entity to satisfy permit obligations. In addition, no program approvals are required as specified in Section II.C of the permit.

MS4 Conveyance System

JBLE–Eustis' stormwater conveyance system consists of sheet flow areas, swales, ditches, and pipes. In addition, the base has mapped the stormwater system for JBLE–Eustis as well as the stormwater control measures (SCM).

There are three subwatersheds that include portions of JBLE–Eustis. These include: Morrison's Creek, Skiffes Creek, and the Warwick River. River basins, streams, or other bodies of water into which the stormwater from the MS4 discharges are shown in Table 1. The table lists the subwatershed and waterbody that receive stormwater runoff from the MS4 jurisdictional area.

Table 1. Subwatersheds

Subwatershed (HUC)	Waterbody Name	Waterbody ID[1]
Morrison's Creek – James River (020802060804)	Fort Creek	VAT-G11E_ZZZ01A00
	James River - Gravel Neck to Pagan River	VAT-G11E_JMS01A06
	Morrison's Creek - Mulberry Island	VAT-G11E_MRS01A06
Skiffes Creek – James River (020802060802)	Bailey Creek	Unavailable[2]
	Blows Creek	VAT-G11E_ZZZ01A00
	Eustis Lake	Unavailable[2]
	James River - Gravel Neck to Pagan River	VAT-G11E_JMS01A06
	Skiffes Creek System	VAT-G11E_SFF01A08
	Skiffes Creek System [Admin Cond]	VAT-G11E_SFF02A08
Warwick River (020802060901)	Browns Lake	Unavailable[2]
	Jail Creek	Unavailable[2]
	Milstead Island Creek	Unavailable[2]
	Warwick River - Lower Tidal Portion	VAT-G11E_WWK03A08
	Warwick River - Middle Tidal Portion	VAT-G11E_WWK02A08
	Warwick River - Upper Tidal Portion	VAT-G11E_WWK01A08

Notes and Acronyms:
[1] The Waterbody ID is from the 2014 Integrated Report GIS layers (http://www.deq.virginia.gov/mapper_ext/).
[2] Waterbody IDs were not included in the 2014 VDEQ Integrated Report.

Section II.B.3.a (1) of Permit No. VAR040035 requires that JBLE–Eustis maintain a stormwater drainage system map that shows the location of all MS4 outfalls as well as the name and location of all waters receiving discharges from the MS4 outfalls and the associated hydrologic unit code (HUC). No new outfalls were identified during the MS4 stormwater drainage system mapping update by 733d CED/EE staff.

Total Maximum Daily Load and Impaired Stream Identification

TMDLs Other than the Chesapeake Bay TMDL

The U.S. Environmental Protection Agency (EPA) or VDEQ has the authority to establish and issue a Total Maximum Daily Load (TMDL) allocation on a body of water or receiving stream. The Warwick River and Skiffes Creek subwatersheds are subject to a TMDL for fecal bacteria. On 28 April 2009, the VDEQ State Water Control Board (SWCB) approved TMDLs to address fecal coliform bacteria impairment in the Warwick River (James River) and Skiffes Creek. Both the Warwick and James Rivers impaired segment (waterbody ID# VAT-G11E) and Skiffes Creek impaired segment (waterbody ID# VAT-G11E) are considered Condemned Shellfish Areas that do not support the Virginia Department of Health (VDH) fecal coliform standards for shellfish harvesting. These waterbodies receive runoff from JBLE–Eustis and the TMDLs for these waterbodies include WLA assignments to JBLE–Eustis.

Chesapeake Bay TMDL

In 2010 the EPA established the Chesapeake Bay TMDL to address excess nitrogen, phosphorus, and total suspended solids (pollutants of concern or POCs) in the bay. The Chesapeake Bay watershed encompasses over 64,000 square miles across the District of Columbia and large sections of Delaware, Maryland, New York, Pennsylvania, West Virginia, and Virginia. JBLE–Eustis sits within the Chesapeake Bay Watershed.

In the Phase I and Phase II Chesapeake Bay Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL, the Commonwealth of Virginia committed to a phased approach to reducing nutrients and suspended solids discharging from MS4s. Section I.C of the JBLE–Eustis MS4 Permit No. VAR040035 requires the installation to prepare a Chesapeake Bay TMDL Action Plan that demonstrates future plans to meet the required nutrient and suspended solids reductions.

Section 3: Water Quality Programs and Guidance

This section discusses the local and state water quality programs that are implemented by JBLE–Eustis or the state, respectively, within the installation boundaries.

Local Programs and Guidance

- JBLE–Eustis Environmental Policy Statement (24 August 2017)
- JBLE–Eustis Instruction 32-101 – Environment Management (28 January 2014)
- JBLE–Eustis EMPs (updated annually)
- JBLE–Eustis Illicit Discharge Elimination Procedure Manual
- JBLE–Eustis Erosion and Sediment Control Standards and Specifications

State Programs

In addition to the local programs that the installation is implementing, there are state programs established by VDEQ, which are also being implemented. These programs are listed below.

- **Erosion and Sedimentation Program** – The Virginia Erosion and Sediment Control Law (VESCL) delegates the authority to administer a Virginia Erosion and Sediment Control Program (VESCP) to local municipalities. Local municipal VESCPs must be approved by the State Water Control Board; however, this is an optional requirement for JBLE–Eustis per the VESCL. JBLE–Eustis has not developed a specific erosion and sediment control program for the base; however, erosion and sediment control standards and specifications were developed and implemented in 2016 for small projects (land disturbance between 2,500 and 10,000 square feet). The base utilizes EMP 4.4.6.2.2, *Stormwater Management*, to outline roles and responsibilities, as well as procedures related to erosion and sediment control.
- **Stormwater Permitting Program** – The VDEQ Water Division implements the stormwater permitting program to develop, plan, and implement statewide stormwater control policies, strategies, and rules designed to protect the state surface waters from the impacts of stormwater pollutants and runoff.

Section 4: Minimum Control Measures

This section discusses the MCMs that JBLE–Eustis is implementing under Permit No. VAR040035. MCMs include:

- MCM 1: Public Education and Outreach
- MCM 2: Public Involvement/Participation
- MCM 3: IDDE
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands
- MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations

Details regarding program requirements, achievements, and planned initiatives are discussed on the following pages.

MCM 1: Public Education and Outreach

The base is required to develop and implement a public education and outreach program with the objective to comply with State and local requirements to educate the installation community regarding the impacts of stormwater discharges on the receiving waters as well as measures that the community can take to reduce the introduction of pollutants to the stormwater drainage system. JBLE–Eustis has taken steps to implement the program BMPs as specified in Section II.B.1.c of the permit.

JBLE–Eustis plans to utilize a combination of relevant messages and outreach materials to educate target audiences for each of the three high priority water quality issues, as well as other stormwater topics of interest to the public. The table below outlines planned education and outreach activities under MCM 1, Public Education and Outreach on Stormwater Impacts, for PY5 in accordance with Section II.B.1.g (2) of the General Permit. Additional details are included in Section 3.1 of the JBLE-Eustis MS4 Program Plan for PY5. Examples of the stormwater management informational brochures that are intended for distribution are included in Attachment 1. Distribution of these materials will continue in PY5.

MCM 1: Public Education and Outreach		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Identify three high priority water quality issues	Continued to monitor previously identified high priority water quality issues, which include: 1. Curb illegal fats, oils, and grease disposal at food service establishments, (FSE), including food trucks, to the stormwater drainage system 2. Curb illegal dumping within MFH and the dormitories. 3. Training Area (TA) erosion and sediment control.	• Use the newly developed FOG management plan for FSEs to better manage FOG on the installation. This will help to alleviate sanitary sewer overflows that enter the storm sewer system • High priority water quality issues will all be assessed when the new MS4 permit is issued by the VDEQ.

MCM 1: Public Education and Outreach		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Curb illegal fats, oils, and grease disposal at food service establishments, (FSE), including food trucks, to the stormwater drainage system. ***Target Audience:*** *JBLE–Eustis FSE workers, food truck vendors. (approximately,200 people)*	• The FSE Inventory identified which FSEs had trained workers in FOG management and which did not. It also identified the procedures AAFES has in place for food trucks doing business on the installation. • FSEs must have two taken workers trained in FOG management using the free training at www.hrfog.com • Food trucks may workers may take either the HRFOG training or must have ServSafe training before entering into a contract with AAFES. • Recommendations have been provided to activities which perform food preparation. Most common issue is training and posting of signage. • **Target Audience:** *100 people (20%) reached*	• An assessment of new water quality issues will be completed and when the new MS4 permit is received. • The areas of concern for this water quality issue will continue to be monitored for continued compliance by the target audience.

Curb illegal dumping within MFH and the dormitories.
 	
Target Audience: *JBLE–Eustis MFH residents and dormitory residents (approximately 5,000 people)*
 	
Goal: *Reach 20% (1,000 people) of the target audience*
	• In late 2017, Air Force Headquarters decided to move from the ESOHTN training platform to a new platform called The Environmental Awareness Course Hub (TEACH). As a result of this decision, JBLE-Eustis's training numbers were down significantly from previous years. JBLE-Eustis expects training numbers to recover within the next CY. Stormwater pollution prevention training was provided to base personnel (active duty, civilian, and contractor). Training activities include Environmental Management Awareness and Competency (EMAC) and Advanced Environmental Management (AEM).
	  ○ The EMAC course is provided in an online format through the TEACH website (https:\\usaf.learningbuilder.com) and is required for all base personnel within 30 days of arrival and annually thereafter.
	  ○ The AEM training is conducted in a classroom setting for initial training with annual refresher training provided via TEACH.
	• The Environmental Element also provided environmental awareness training, including stormwater pollution prevention training, for the US Army Transportation School, Advanced Marine Warrant Officers Course (WOAC).
	• 733 CE/EE Participated in the Family Health and Awareness Fair on 19 April 2018 and utilized the interactive model to demonstrate how different activities affect stormwater runoff.
	• Target Audience:
	  ○ EMAC – 794
	  ○ AEM – 131
	  ○ WOAC – 10
	  ○ Family Health and Awareness Fair – 210
	  ○ Environmental Community Awareness Fun Fair – 500
	  ○ **Total – 1645**
		• Publish articles in the Warrior newspaper related to illegal dumping (e.g., privately owned vehicle [POV] car washing in undesignated areas, littering, and disposal of household chemicals) on a semi-annual basis during the PY.
		• Develop and post information to the JBLE–Eustis and JBLE–Eustis MFH Facebook pages at least semi-annually during the PY.
		• Send a mass email to MFH residents regarding illegal dumping at least semi-annually during the PY.
		• Continue to conduct EMAC, AEM, and WOAC training.

MCM 1: Public Education and Outreach		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Address Training Area (TA) erosion and sediment control ***Target Audience:*** *JBLE-Eustis senior leadership, 733 CED, Range Control personnel, and FSD personnel (approximately 30 people)* ***Goal:*** *Reach 20% (6 people) of the target audience*	• 733 CED/EE is still pursuing an opportunity to partner with the Virginia Institute of Marine Science to obtain Legacy Department of Defense funding to develop an oyster reef at TA 1 to resolve erosion issues. • Discussed at Wing (WG) and Cross-Functional Team (CFT) meetings, as well as Environmental Safety and Occupational Health (ESOH) Council briefings. • Developed an outreach plan for the TAs • **Target Audience:** *10 people (33%) reached*	• Continue to meet with Range Control personnel to discuss erosion and sediment control issues at the TA • Discuss at WG and CFT meetings, as well as at ESOH Council briefings • Distribute TA E&SC outreach materials to Range Control, FSD, and other users.

MCM 2: Public Involvement/Participation

The installation is required to cultivate a public involvement and participation program with the objective to comply with State and local public notice requirements. JBLE–Eustis has taken steps to implement the program BMPs as specified in Section II.B.2 of the permit.

MCM 2: Public Involvement/Participation		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
JBLE-Eustis Environmental Website	• The 733 CED/EE maintains a website that provides information to the public, including the MS4 Program Plan and the MS4 Annual Reports. • The website is located here: http://www.jble.af.mil/Units/Army/Eustis-Enviromental/	Continue to maintain the JBLE–Eustis Environmental website and post educational and reference information for the base population.
Public Involvement / Participation	• Public involvement and participation activities include: ○ Earth Week (23 – 27 April 2018) - The 633d Air Base Wing Public Affairs Office provided newspaper, Command TV Channel, and social media notification of events, as well as photography support. They also provided electronic marquee support at the base gates to advertise Earth Week and asked for volunteers. ▪ BMP cleanup – 8 volunteers ▪ Nature Trail cleanup – 19 volunteers ▪ Wildlife Boat Tours – 26 volunteers ▪ Box Turtle Survey – 13 volunteers ▪ Family Health and Awareness Fair – Stormwater interactive display demonstrations at the elementary school (approximately 210 attendees) ▪ Earth Day Community Awareness Fun Fair – Joint event hosted by 733 CED/EE and JBLE–Eustis Family Housing (approximately 500 attendees) ○ Clean the Bay Day (2 June 2018) – Teamed with a local Boy Scout Troop and local volunteers to pick up trash at Eustis Lake (approximately 14 Boy Scouts, Troop Leaders and volunteers).	• Continue to host events during Earth Week to engage base personnel and residents. • Continue participating in Clean the Bay Day and other Earth Week events hosted by MFH and FSS.

MCM 2: Public Involvement/Participation		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Public Involvement / Participation *(Continued)*	○ Environmental Partnership – JBLE-Eustis participates in the Secretary of the Air Force Program to partner with our local public and private neighbors. The Public-Public; Public-Private (P4) Partnership Program seeks to identify and develop opportunities to share resources, increase efficiency and improve effectiveness of operational, educational, and recreational programs. The JBLE P4 program is currently focused on the Virginia Peninsula. As the program matures, there may be opportunities for broader partnerships. ○ Communication with installation personnel and residents takes place on a regular basis through internal and external websites, the installation community cable channel, the Warrior newspaper, as well as regular interactions with various community groups (e.g., the Department of Game and Inland Fisheries, the York County Extension Office, and the Newport News Recycling office). An example of this type of communication and other Public Participation documentation is provided in Attachment 2.	• Continue to look for P4 partnerships to share resources and increase program effectiveness. • Develop focused educational messages to be disseminated via internal and external websites (e.g., Facebook, Twitter), the Peninsula Warrior, community group emails and websites.

MCM 3: Illicit Discharge Detection and Elimination

The installation is required to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. JBLE–Eustis has taken steps to implement the IDDE program BMPs as specified in Section II.B.3 of the permit.

MCM 3: IDDE		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
List any written notifications of physical interconnection given by the operator to other MS4s.	There are no known physical interconnections with other MS4s.	733 CED/EE will continue to monitor the MS4 area to ensure there are no interconnections with other MS4s.
Outfall screenings	• Fifty (50) of the 83 non-industrial outfalls were inspected during PY 5. Details regarding the inspection findings are included on the outfall inspection forms. • Copies of the outfall inspection forms are maintained by 733 CED/EE and will be made available upon request.	Inspect non-industrial outfalls as required when new MS4 permit is issued and document the inspection utilizing the outfall inspection forms.
Investigations of suspected illicit discharges	• JBLE-Eustis personnel utilized the IDDE procedures to investigate potential illicit discharges. • Investigations into potential illicit discharges include: o **22 January 2018** – Sanitary sewer overflow (SSO) to stormwater conveyance ditch o **19 March 2018** – Brownish foam seen at outfall 031 o Detailed descriptions of each of the illicit discharge investigations are included in Attachment 3.	• JBLE-Eustis personnel will continue to utilize IDDE procedures to investigate potential illicit discharges. • Continue to report all spills or unauthorized releases, whether it enters the MS4 or not, in accordance with JBLE-Eustis EMP 4.7.7, Spill Prevention and Response, and log the incident in the spill database maintained by the 733 CED/EE Spill Program Manager.

MCM 4: Construction Site Stormwater Runoff Control

The installation is required to comply with the Virginia Stormwater Management Program (VSMP) in order to maintain compliance with the Construction Site Runoff Controls. These controls are designed to assist with the development, implementation, and enforcement of an E&SC Program to reduce the pollutants (e.g., total suspended solids [TSS], total phosphorus [TP], and total nitrogen [TN]) related to "land-disturbing activities including clearing, grading, or excavation that results in a land disturbance equal to or greater than 2,500 square feet and less than one acre in all areas of jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830) adopted pursuant to the Chesapeake Bay Preservation Act." The base has taken steps to implement the program BMPs as specified in Section II.B.4 of the permit.

MCM 4: Construction Site Stormwater Control		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Track regulated land-disturbing activities	• Continued to track all regulated land disturbing activities o Total number of land disturbing activities – 3 ▪ AIT Barracks Complex Phase 3 Benedict Place Demo ▪ Mulberry Island walking trail addition ▪ Main Gate Barricade o Total number of acres disturbed – 13.43 acres ▪ AIT Barracks Complex Phase 3 Benedict Place Demo – 13 acres ▪ Mulberry Island Road walking trail addition – 0.21 acres ▪ Main Gate Barricade – 0.22	• Continue to track regulated land-disturbing activities, including: o Number of on-going land disturbing activities o Number of acres disturbed o Number of inspections conducted
Track regulated land-disturbing activities *(Continued)*	o Total number of inspections conducted – 10 ▪ AIT Barracks Complex Phase 3 Benedict Place Demo - 4 ▪ Mulberry Island Road walking trail addition – 4 ▪ Main Gate Barricade - 2	See above.

MCM 4: Construction Site Stormwater Control		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Land-disturbing activity enforcement actions	• *AIT Barracks Complex Phase 3 Benedict Place Demo* – An initial site visit was conducted on 20 November 2017 at 1040 by VDEQ and JBLE–Eustis 733 CED personnel. There were no observations made during this inspection. A subsequent inspection 23 January 2018 at 0900 indicated there was runoff from the site into outfall 031. The contractor was notified and an investigation revealed the sediment was entering the storm sewer system form a drop inlet outside of the projects boundaries. The contractor took action and placed silt fencing around the inlet to stop the sediment from entering the storm sewer system. A 24 April 2018 and a 19 June 2018 site visit and inspection resulted in no deficiencies. Finalize soil stabilization and establishment of a permanent vegetative cover is in progress.	Not applicable (N/A)

MCM 4: Construction Site Stormwater Control		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Land-disturbing activity enforcement actions *(Continued)*	• *Main Gate Vehicle Barrier* - A Force Protection project to install vehicle barricades at the JBLE-Eustis main entry control point began in April 2018. The total LDA was approximately 9,645 sq. ft. and consisted of several small areas of disturbance for installation of the barricades. The contractor submitted the required E &SC plan for projects where there is an LDA of greater 2,500 sq. ft. but less than 10,000 square feet. for CED Environmental Element staff approval. During the project inspections were completed on 22 May 2018 and on 26 June 2018. No deficiencies were found during either inspection. Project has been completed.	N/A

MCM 4: Construction Site Stormwater Control		
Management Practices & Techniques	**Program Achievements (1 July 2017 – 30 June 2018)**	**Initiatives Planned for Coming Year (1 July 2018 – 30 June 2019)**
Land-disturbing activity enforcement actions *(Continued)*	• *Mulberry Island Walking Trail Extension* – A project to extend the asphalt walking trail along Mulberry Island Road began in late April 2018. The extension added approximately 1500 feet of asphalt, six feet wide for a total of approximately 9000 square feet. The contractor submitted the required E &SC plan for projects where there is an LDA of greater 2,500 sq. ft. but less than 10,000 square feet for CED Environmental Element staff approval. During the project inspections were completed on 22 May 2018 and on 26 June 2018. During the 26 June inspection it was noted several sections of silt fencing had fallen down. The contractor corrected the problem on the spot and no deficiency was written. Project has been completed.	N/A

MCM 5: Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands

The base is required to develop, implement, and enforce a program to address stormwater runoff related to new development and redevelopment projects throughout the service area, including a combination of structural and non-structural BMPs. In addition, JBLE–Eustis is required to ensure that the structural BMPs are functional through long term operation and maintenance (O&M) practices. The base has taken steps to implement the program BMPs as specified in Section II.B.5 of the permit.

MCM 5: Post-Construction Stormwater Management in New Development and Development on Prior Developed Lands		
Management Practices & Techniques	**Program Achievements (1 July 2016 – 30 June 2017)**	**Initiatives Planned for Coming Year (1 July 2017 – 30 June 2018)**
Maintain an updated electronic database of all known operator-owned and privately-owned stormwater management (SWM) facilities that discharge into the MS4	JBLE–Eustis utilized an excel spreadsheet to track SWM facilities. The spreadsheet is provided to the Chesapeake Bay Action Team, Naval Base Norfolk for entry into the BMP clearinghouse data base. The Navy is the DoD lead for the Bay program and will work with the VDEQ, EPA and Chesapeake Bay Organization to ensure SWM facilities are reported for JBLE-Eustis.	Continue to maintain a SWM facilities inventory via an Excel spreadsheet.
Identify new SWM facilities brought online during the PY	There were no new storm water management facilities brought online during PY 5.	• Track construction projects and planned SWM facilities and include in the inventory as they are brought online. • Work closely with 733 CED planning and engineering departments to review plans and specifications associated with upcoming construction projects
SWM facility O&M management	AFCEC developed a project for evaluation all SWM facilities on the installation. The draft report was delivered 25 May 2018 for CED Environmental staff review. Many additional SWM facilities were identified and several previously identified SWMs were removed because they could not be verified. This effort also provide and inspection of the SWMFs in the MS4 regulated area as well as the industrial sectors. This new information was provided to the CBAT for updating the BMP clearinghouse information. The SWMF inventory and verification is in final review. An additional project was funded to prepare a SWMF rehabilitation plan to address the issues found during the verification survey.	• Use the SWMF inventory assessment to develop a SWMF rehab plan for use in obtaining funding for repairs and improvements of SWMFs.

MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations

The base is required to develop and implement a program to address pollution prevention and good housekeeping procedures, including a training program for installation personnel and the community. JBLE–Eustis has taken steps to implement the program BMPs as specified in Section II.B.6 of the permit.

MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations		
Management Practices & Techniques	**Program Achievements (1 July 2016 – 30 June 2017)**	**Initiatives Planned for Coming Year (1 July 2017 – 30 June 2018)**

Develop and implement daily operational procedures	• JBLE-Eustis utilizes an environmental management system (EMS) that conforms to International Organization of Standardization (ISO) 14001:2004, to manage environmental program requirements.
	• All base environmental and management requirements are codified in Joint Base Langley-Eustis Instruction (JBLE-I) 32-101, *Environmental Management*.
	  ○ EMPs have been developed and are used to implement the environmental program. These EMPs are reviewed and updated (as required) on an annual basis. EMPs that are related to the Stormwater Management Program include:
	  ▪ EMP 4.4.2, Environmental Awareness & Competency Training
	  ▪ EMP 4.4.2 Tab 2, Environmental Management Training Programs of Instructions
	  ▪ EMP 4.4.6.2, Wastewater-Stormwater Management
	  ▪ EMP 4.4.6.2.2, Stormwater Management
	  ▪ EMP 4.4.6.6, Hazardous Materials Management
	  ▪ EMP 4.4.6.7, Solid Waste and Recycling Management
	  ▪ EMP 4.4.6.8, Hazardous Waste Management
	  ▪ EMP 4.4.6.12, Integrated Pest Management
	  ▪ EMP 4.4.6.14.1, Aboveground Storage Tanks Management
	  ▪ EMP 4.4.6.14.2, Underground Storage Tanks Management
	  ▪ EMP 4.4.7, Spill Prevention and Response
	  ▪ EMP 4.5.2.1, Activity Assessments Conducted by CED/EE
	  ▪ EMP 4.5.2.3, Internal Inspections Conducted by Activities
	  ▪ EMP 4.5.2.3.1, Activity Corrective Action Plans
	  ▪ EMP 4.4.6.16, Tab 1, Assessment Management Special Conditions and Affirmative Procurement
	• Copies of the above EMPs are available upon request
	• EMPs are posted on the JBLE–Eustis Environmental website.
		• Continue to implement an EMS that conforms to ISO 14001:2004.
		• Post EMPs on the JBLE-Eustis Environmental website and advertise them on the JBLE–Eustis Facebook pages.

MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations		
Management Practices & Techniques	**Program Achievements (1 July 2016 – 30 June 2017)**	**Initiatives Planned for Coming Year (1 July 2017 – 30 June 2018)**
Develop and implement daily operational procedures *(Continued)*	Revised training schedules and requirements based on updates to EMP 4.4.2 Tab 2, Environmental Management Training Programs of Instructions	Review EMP 4.4.2 Tab 2 and interview installation personnel that manage the training program and update as needed.
Develop and implement required SWPPPs	• JBLE-Eustis operated under a comprehensive SWPPP, which is designed to satisfy requirements of VPDES Individual Permit No. VA0025216. • High priority non-industrial facilities have included in the comprehensive SWPPP (the Pines Golf Course, AAFES gas station and associated facilities, Base Exchange, and FSS Sport Field Maintenance facility) in order to manage to the same standard as the base's industrial facilities. • High priority non-industrial facilities incorporated in the SWPPP were inspected for compliance with the SWPPP as part of the annual CSCE. • Annual site compliance evaluation was completed and no new SWPPs are currently required.	• Conduct the annual site compliance evaluation of the high-priority non-industrial areas. • Continue to review and update the list of municipal/non-industrial high priority facilities and determine if they require a SWPPP under the new MS4 permit when issued.
Develop and implement turf and landscape nutrient management plans (NMP)	• The FSS youth athletic fields were previously excluded from NMP development because no nutrients were being applied. However, due to the proximity of this area to the TRADOC and Mission Support Group Command buildings, FSS was asked to begin adding nutrients to these fields for better aesthetics. A NMP was completed in June 2018 and is being implemented. • Each of the activities with NMPs have been visited to ensure compliance with the NMP requirements. No additional training is need at this time.	• Continue to implement the NMPs at each of the three locations. • Review previously developed training materials and conduct follow-up training with each of the locations subject to an NMP.

MCM 6: Pollution Prevention / Good Housekeeping for Municipal Operations		
Management Practices & Techniques	**Program Achievements (1 July 2016 – 30 June 2017)**	**Initiatives Planned for Coming Year (1 July 2017 – 30 June 2018)**

Required training	• In late 2017, Air Force Headquarters decided to move from the ESOHTN training platform to a new platform called The Environmental Awareness Course Hub (TEACH). As a result of this decision, JBLE-Eustis's training numbers were down significantly from previous years. JBLE-Eustis expects training numbers to recover within the next CY. Stormwater pollution prevention training was provided to base personnel (active duty, civilian, and contractor). Training activities include Environmental Management Awareness and Competency (EMAC) and Advanced Environmental Management (AEM).
	  o The EMAC course is provided in an online format through the TEACH website (https:\\usaf.learningbuilder.com) and is required for all base personnel within 30 days of arrival and annually thereafter.
	  o The AEM training is conducted in a classroom setting for initial training with annual refresher training provided via TEACH.
	• The Environmental Element also provided environmental awareness training, including stormwater pollution prevention training, for the US Army Transportation School, Advanced Marine Warrant Officers Course (WOAC).
	• 733 CE/EE Participated in the Family Health and Awareness Fair on 19 April 2018 and utilized the interactive model to demonstrate how different activities affect stormwater runoff.
	• Target Audience:
	  o EMAC – 794
	  o AEM – 131
	  o WOAC – 10
		Conduct stormwater pollution prevention training and continue to track base personnel that have received training.

Section 5: Special Conditions

SC1: TMDL Special Conditions Compliance other than the Chesapeake Bay TMDL

Section I.B.1 of the JBLE–Eustis MS4 permit, Permit No. VAR040035 requires the installation to maintain an updated MS4 Program Plan that includes a specific TMDL Action Plan for pollutants allocated to the MS4 in an approved TMDL.

On 30 November 2015, VDEQ notified JBLE-Eustis that, as part of maintaining its MS4 Program Plan, the installation is required to develop Action Plans for the James River, Warwick River, and Skiffes Creeks to address bacteria impairment in those waterbodies. Specifically, the MS4 operator must update the MS4 Program Plan to incorporate approvable TMDL Action Plans that identify the BMPs and other interim milestone activities. Based on the 28 April 2009 SWCB approval date, the TMDL Action Plans for James River, Warwick River and Skiffes Creek were to be completed by the end of PY3 (30 June 2016).

JBLE–Eustis is required to implement an approved TMDL Action Plan for bacteria impairment that was developed during PY3. Implementation began in PY4 and will continue in PY5.

SC2: TMDL Special Conditions Compliance for the Chesapeake Bay TMDL

JBLE–Eustis' Chesapeake Bay TMDL Action Plan was developed during PY5 and submitted with the MS4 Permit Registration Statement. The Action Plan presents a discussion of the compliance requirements for JBLE–Eustis.

The Action Plan presents the JBLE-Eustis estimated load contribution, required load reductions and pollutant reduction credits. The plan also reports progress made toward meeting the 40% cumulative pollutant reduction requirement for the first and second permit cycles. The methodology used to calculate the pollutant loads and credits is based on VDEQ Guidance Memo No. 15-2005 (Guidance Document).

The Action Plan was developed and submitted with the registration statement in PY5. Implementation of the Action Plan will be finalized, and the installation will begin implementation in PY1 of the new permit cycle.

Attachment 1: Stormwater Management Educational Brochures

Attachment 2: Public Involvement / Participation Documentation

Attachment 3: Illicit Discharge Investigation Details

Attachment 3. Illicit Discharge Investigation Details

1. **Sanitary Sewer Overflow (SSO) to Stormwater Conveyance Ditch** – On 22 January 2018 at approximately 1622 hrs. a crew from Old Dominion Utility Services (ODUS) responded to a spill in the vicinity of Building 2951 (Summerall Circle and Wilson Ave). Upon arrival, ODUS determined that the lift station malfunctioned causing a release of sewage in excess of 2000 gallons. Fort Eustis Fire and Emergency Services arrived on site at 1642 hrs. 733 Environmental Element on call Spill Responder was also notified and arrived onsite at 1715 hrs. ODUS was able to recover approximately 200 gallons and limed the area as part of the cleanup effort. The sewage was released to the Warwick River. ODUS will continue to investigate cause of the equipment failure and repair as needed.

2. **Brown foam in outfall 031 discharge** - During recon of Ft. Eustis Nature Trail for Earth Week activities on 19 March 2018, a brown foam was seen pooling in several areas of a creek from Outfall 031. There was no odor, or other evidence (POL feel) to suggest it is anything other than organic foam from leaves. Last rain event was 17 March 2018. Investigation upstream from this outfall also did not show any evidence of the brown foam.