

# Joint Base Langley Eustis-Eustis's (JBLE-E)

## Municipal Separate Storm Sewer System (MS4) Program Plan Update



June 30, 2015

Permit # VAR040035

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## Acronyms

AAFES	Army and Air Force Exchange Service
AEC	Activity Environmental Coordinator
AEM	Advanced Environmental Management
AF	Air Force
AFETL	Air Force Engineering Technical Letter
AFI	Air Force Instruction
AFOOSH	Air Force Occupational Safety and Health
BBC	Balfour Beatty Communities
BEMA	Basic Environmental Management Awareness
BMP	Best Management Practice
CED	Civil Engineer Division
CEIE	Civil Engineer Installation Management Flight Environmental Element
CFR	Code of Federal Regulations
CFT	Cross Functional Team
E&SC	Erosion and Sediment Control
EISA	Energy Independence and Security Act
EMP	Environmental Management Procedures
EMS	Environmental Management System
ESOH	Environmental, Safety, and Occupational Health
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESOHTN	Environmental, Safety, and Occupational Health Training Network
ETL	Engineering Technical Letter
GIS	Geographical Information Systems
GMS	Global Management Services
HUC	Hydrologic Unit Code
HWC	Hazardous Waste Coordinator
IA	Internal Assessment
IAW	in accordance with

ICP	Integrated Contingency Plan
IDDE	Illicit Discharge Detection and Elimination
JBLE- E	Joint Base Langley-Eustis, Eustis
LEMAC	Leadership Environmental Management Awareness and Competency
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MWR	Morale, Welfare, and Recreation
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NMP	Nutrient Management Plan
O&M	Operations and Maintenance
OWS	Oil Water Separator
QA	Quality Assurance
QC	Quality Control
P2	Pollution Prevention
P4	Public-Public, Public-Private, Partnership Program
PCB	Polychlorinated biphenyls
PY	Permit Year
SDSFIE	Spatial Data Standards for Facilities, Infrastructure and Environment
SIC	Standard Industrial Classification
SMART	Specific, Measureable, Achievable, Realistic and Timely
SPCC	Spill Prevention, Control and Countermeasures
SRP	Sustainable Range Program
SWM	Storm Water Management
SWPPP	Storm Water Pollution Prevention Plan
SWPPT	Storm Water Pollution Prevention Team
TA	Training Area
TMDL	Total Maximum Daily Load
TRI	Toxic Release Inventory
UEC	Unit Environmental Coordinator
VDEQ	Virginia Department of Environmental Quality

VPDES	Virginia Pollutant Discharge Elimination System
VREMS	Virginia Regional Management System
VSMP	Virginia Stormwater Management Program
WOAC	Warrant Officer Advanced Course

## Introduction

This document represents the Joint Base Langley Eustis - Eustis (JBLE-E) Program Plan to meet the requirements of the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), General Permit Number VAR040035 effective July 1, 2013.

JBLE-E has reviewed and assessed existing stormwater management operations and policies at the installation against the General Permit requirements including the six minimum control measures (MCMs) and the Total Maximum Daily Load (TMDL) special conditions requirements. Based on this review, the Installation has updated the MS4 Program Plan, with a goal of minimizing stormwater pollution to the maximum extent practical. This Program Plan outlines how JBLE-E will accomplish implementation and enforcement. The 733d Civil Engineer Division Environmental Element is the office with primary responsibility to implement this plan.

## Environmental Management

**A. Environmental Policy:** The JBLE-E mission requires daily operations in the land, sea and air environments. JBLE-E is committed to performing duties to meet mission requirements in a manner that prevents pollution, protects the environment, and conserves natural resources. This commitment is documented in a formal Environmental Policy Statement dated June 4, 2013 using the C.L.E.A.N approach:

- **Comply** - We will comply with all environmental regulations and all other requirements while reducing compliance costs and liabilities.
- **Limit impact** - We will prevent pollution and minimize waste while cleaning up past sites of environmental concern and making efforts to achieve Chesapeake Bay conservation.
- **Execute plans** - We will identify and attain energy, environment, safety and occupational health objectives and targets through planning that is Specific, Measurable, Achievable, Realistic and Timely (SMART).
- **Achieve improvements** - We will continuously improve our programs and processes through the use of effective management and planning.
- **Notify** - We will communicate our environmental commitments and performance to all levels of our organization and local community.

**B. Environmental Management System (EMS):** JBLE-E has an ISO14001:2004-conformant EMS to manage environmental program requirements. The core of the JBLE-E EMS consists of three Cross Functional Teams (CFTs): Land Management and Training Support, Procurement, and Quality of Life/Infrastructure. The teams meet biannually in February and August.

The CFTs re-evaluated the installation's environmental aspects and impacts to determine if the previous significant aspects identified in 2012 were still relevant. In February 2015 the CFTs identified the following significant aspects.

- **Wetland Protection** – Includes no net loss to the maximum extent practicable
- **Storm Water (Quality)** – Includes Chesapeake Bay Initiatives, stormwater system improvements and Low Impact Development
- **Spills** – Reduction in number of spills and reportable spills
- **Hazardous Waste Reductions** – All hazardous, non-hazardous, and special wastes
- **Storm Water (Quantity)** – Includes rate and volume of flow to reduce erosion

The teams will meet in August 2015 to develop objectives, targets and tasks for Federal Fiscal Year 2016 to improve the sustainability and environmental status of the installation. Significant aspects are re-evaluated every three years.

- C. **Environmental Management Procedures (EMPs):** EMPs are developed to address specific Activity and base operational requirements. JBLE-E codifies all base environmental requirements and management procedures in JBLE Instruction 32-101, *Environmental Management*, (JBLE I 32-101) and associated EMPs. JBLE I 32-101 articulates policies and requirements while the various EMPs provide the specific; what, when, and how to comply with the requirements. JBLE I 32-101 and the EMPs can be obtained at <https://esohtn.com>.
- D. **Environmental, Safety and Occupational Health (ESOH) Council:** The ESOH Council is a forum to provide senior leadership involvement and direction at all levels of command; establish goals, measures, objectives and targets; and provide additional guidance to subordinate commands. The JBLE-E ESOH Council is chaired by the 633d Air Base Wing Vice Commander.

## MS4 Program Plan

This section of the JBLE-E MS4 Program Plan describes how JBLE-E will implement and demonstrate compliance with each of the six minimum control measures (MCMs) listed in Section II B of MS4 General Permit VAR040035. For each MCM, the Program Plan addresses JBLE-E’s program goals (now and into the future), requirements of the permit, and program elements for compliance. Table 1 summarizes the updates included in this plan.

<b>Table 1: MS4 Program Plan Update Summary</b>		
<b>Program Update Requirement</b>	<b>Permit Reference</b>	<b>Update Summary</b>
High Priority Water Quality Issues (Minimum Control Measure 1 – Public Education and Outreach on Stormwater Impacts)	Section II.B c.(1)	Updated MCM 1 to reflect changes to high-priority water quality issues
Chesapeake Bay TMDL Action Plan – (Special Condition for Chesapeake Bay TMDL)	Section I C	Developed a separate Chesapeake Bay TMDL Action Plan.
Stormwater Management Progressive Compliance and Enforcement (Minimum Control Measure 4 – Construction Site Stormwater Runoff Control)	Section II B 5	Updated to address these requirements. Please see MCM 4 of the Program Plan
Daily Good Housekeeping Procedures (Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 a	Updated to address these requirements. Please see MCM 6 of the Program Plan

### A. MCM 1: Public Education and Outreach on Storm Water Impacts

In keeping with Environmental Protection Agency (EPA) guidance, JBLE-E defines “public” as the resident and employee population (to include contractors) within the fence line of the installation.

The goals of the MS4 Public Education and Outreach program are to:

- Increase target audience knowledge about how to reduce stormwater pollution, with emphasis on reducing impacts to the Chesapeake Bay and tributaries;
- Increase target audience awareness of hazards associated with illegal discharges and improper disposal of waste, to include legal implications;
- Implement program strategies targeted towards audiences most likely to have significant stormwater impacts.

## 1. Educational Priorities Rationale and Target Audience – Section II B 1 c (1-2)

JBLE-E's MS4 Public Education and Outreach Plan emphasizes three high-priority water quality issues. These priorities have been selected because they are currently the most pressing stormwater-related impacts on JBLE-E. A discussion with Virginia Department of Environmental Quality (VDEQ) MS4 Compliance Coordinator resulted in changing two of the previous three high-priority water quality issues since they were being addressed elsewhere in the MS4 Program Plan. The two high-priority water quality issues changed were *Construction Stormwater Management/Erosion and Sediment Control*, which is addressed under MCM 4, and *Chesapeake Bay TMDL*, which is addressed under Special Conditions that includes development and implementation of an Action Plan.

### a) *Controlling Dog/Horse Wastes at the JBLE-E Dog Park and Horse Stables*

**Rationale:** JBLE-E recently opened a dog park for use by residents of the Installation. This event was highly publicized in local newspapers and on a local TV channel. The park has cypher lock controlled access; pet owners must register their pets and sign for receipt of the pet park rules. The rules emphasize "Dog owners/handlers must remove their dogs waste. Any person who violates the dog park rules may be removed and prohibited from returning to the park".

JBLE-E operates a horse stable for authorized personnel to keep their horses. Stable bedding and manure are collected and disposed of offsite; however, horses use pasture land in good weather. Manure is left on the pasture land, which is considered an agricultural land use.

A roll off type container is used for the collected stable bedding and manure. Users are briefed on good housekeeping practices to minimize the amount of animal wastes exposed to storm water.

**Target Audience:** JBLE-E Dog Park and Horse Stable users

**Estimated Audience Size:** Approximately 40 registered users in PY2.

### b) *Spill Reduction*

**Rationale:** The Quality of Life/Infrastructure Cross Functional Team established an objective in February 2014 to reduce spills on JBLE-E, with an emphasis on the main gate entrance (construction vehicles) and the gas station (pumps).

**Target Audience:** JBLE-E employees.

**Estimated Audience:** Approximately 12,500 employees and contractors.

### c) *Training Area (TA) Erosion and sediment control*

**Rationale:** A total of 29 military Training Areas comprise 3,519 acres. The majority of these areas are forested. TA 1 is not in a forested area, rather it is a shoreline training area adjacent to Skiffes Creek and has evidence of shoreline erosion. A contract is underway for an assessment of how to fix the erosion.

Range Control Office has a contractor evaluating the drainage systems in training areas 17a, 17c, 22, 23, and 24. The contractor will utilize a field biologist along with necessary supporting personnel with expertise in wetlands delineation and Army training land analysis and management. They will also use a Sustainable Range Program (SRP) Geographical Information System (GIS) technician who has a working knowledge of Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE) and SRP GIS standards to perform the field work and analysis of the culverts and ditches within the specified training areas. The contractor will document current conditions and will develop management recommendations to include costs to repair/remediate, environmental documentation required, and impact if not repaired.

**Target Audience:** JBLE Senior Leadership, Civil Engineer Division (CED), and Range Control personnel.

**Estimated Audience:** Approximately 30 employees.

## 2. Relevant Messages/Outreach Material Summary – Section II B 1 c (3)

JBLE-E will use a combination of relevant messages and outreach materials to educate target audiences about high priority areas. The following techniques will be used.

**Websites:** JBLE-E uses both internal and external websites for training and awareness. JBLE-E will continue to maintain and update a website that includes current information about environmental regulations and the Installation's environmental programs. The goal is to provide installation personnel with up-to-date information regarding pollution prevention and to provide employees with links to other educational environmental websites.

The JBLE-E intranet is used by base personnel but is not accessible to the general public. The public version of JBLE-E website can be found at [www.esohtn.com](http://www.esohtn.com).

**Articles:** Environmental Element staff will prepare articles relating to installation operations, impacts to stormwater, and steps personnel can take to minimize pollutants in stormwater runoff. Articles will be published via the Warrior newspaper and posted on the JBLE-E Facebook page: [www.facebook.com/forteustisenvironment](http://www.facebook.com/forteustisenvironment). The goal is to disseminate stormwater impact information to as many employees, contractors and vendors as possible.

**Email Messages:** Mass emails are an effective mechanism to get messages to a large group of employees. Mass emails can be sent to the entire workforce, select organizations and even job groups (such as Activity Environmental Coordinators (AECs)). Email messages can provide guidance on any stormwater-related topic that a target audience may need.

**Training Programs:** Storm water pollution prevention training is available for all base personnel, including those that handle Municipal Solid Wastes, Recycling Materials, Hazardous Materials, Hazardous Wastes, Non-Hazardous Wastes, Universal Wastes,

and Hazardous Substances that have the potential to contaminate storm water runoff at JBLE-E. There are two levels of training offered to installation personnel: a) Level 1 consists of Basic Environmental Management Awareness (BEMA) or Leadership Environmental Management Awareness and Competency (LEMAC) training; and b) Level 2 consists of Advanced Environmental Management (AEM) training.

The BEMA/LEMAC course is solely provided in an online format through the Environmental Safety and Occupational Health Training Network website ([www.esohtn.com](http://www.esohtn.com)) and is required for all installation personnel within 30 days of arrival and annually thereafter. AEM training is required for Activity Environmental Coordinators (AEC), Unit Environmental Coordinators, and Hazardous Waste Coordinators. The AEM training is a classroom course for initial training and an online course for annual refresher training. Environmental Element staff also provide awareness training for the US Army Transportation School's Advanced Marine Warrant Officers (WOAC) course as needed.

The Environmental Element conducts additional training on topics that have an impact on MS4 Program Plan implementation. Issues such as Waste Management, Spill Response, Aboveground Storage Tank inspections and Hazardous Waste and Material Handling all have impacts on stormwater management. Environmental Management Training Programs of Instruction (EMP 4.4.2 Tab 2) provides a complete listing.

**Facility Multimedia Environmental Assessments:** The Environmental Element performs annual multimedia assessments for all Industrial Activities as well as the housing community, Army Air Force Exchange facilities (gas station, car wash, food court, etc.) and Morale, Welfare, and Recreation (MWR) facilities (car wash, golf course, camping area, go cart track, horse stables, etc.). These assessments, along with quarterly inspections by AECs, provide opportunities to highlight implementation of any stormwater management practices they have undertaken. It allows another opportunity outside the AEM training to educate the workforce in the field on any changes to stormwater laws or regulations and provide updates to their chain of command.

**EMS:** The biannual Cross Functional Team and quarterly ESOH Council meetings provide education to senior managers and leaders across JBLE-E.

### 3. Public Participation with Education and Outreach Development – Section II B 1 c (4)

JBLE-E encourages and appreciates employee feedback during education and outreach development. This is accomplished with the EMS CFTs. The CFTs are responsible for identifying, categorizing and prioritizing JBLE-E's environmental aspects and impacts as well as developing and implementing objectives, targets and programs to address the significant environmental aspects.

The Cross Functional Teams consist of a cross section of JBLE-E employees from different organizations which allows for diverse feedback and opinions. Since stormwater has been selected as a significant aspect, the Cross Functional Team are involved in developing the program, including MS4-related efforts.

Annually, JBLE-E posts announcements to the JBLE-E intranet calling for feedback on stormwater-related education and outreach. The calls ask employees what they feel is the most pressing stormwater issues the installation faces and where the Environmental Element should focus educational efforts.

#### 4. Outreach Plan – Section II B 1 (c) (5)

Table 2 provides the Outreach Plan for PY2 (July 1, 2014 – June 30, 2015)

<b>Table 2: Outreach Plan for PY2 (July 1, 2014 – June 30, 2015)</b>			
<b>High Priority</b>	<b>Target Audience</b>	<b>Outreach Goal</b>	<b>Outreach type and Timeframes</b>
Dog Park and Horse Stables Pet Wastes	Approximately 40 registered park and stable users	20% of audience annually	Outdoor Recreation JBLE Dog Park Rules Handouts  Periodic Dog Park Horse Stable visits to speak with users  Info Graphic in Warrior Newspaper
Spill Reduction	Approximately 12,500 installation personnel	20% of target audience	BEMA and LEMAC training
Training area Erosion & Sediment Control	Approximately 30 Senior Leadership, CED and Range Personnel	20% of target audience annually	Meetings with range and CED personnel; CFT meetings; ESOH council briefings

#### 5. Annual Review of Program Outreach Effectiveness and Updates to the MS4 Program Plan– Section II B 1 (c) (6) and Section II B 1 (f)

JBLE-E will annually evaluate the effectiveness of its Public MCM 1 program materials and delivery mechanisms to reach target audiences. JBLE-E will evaluate the education and outreach program for:

- Appropriateness of the high-priority stormwater issues;
- Appropriateness of the selected target audiences for each high-priority stormwater issue;
- Effectiveness of the message or messages being delivered; and
- Effectiveness of the mechanism or mechanisms of delivery employed in reaching target audiences.

JBLE-E will address any shortcomings and weaknesses with a revised MS4 Program Plan submittal to the VDEQ.

## 6. Annual Reporting Requirements – Section II B 1 (g)

JBLE-E will include the following information in each annual report:

- A list of the education and outreach activities conducted during the reporting period for each high priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that were reached; and
- A list of the education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people reached, and estimated percentage of the target audience or audiences that will be reached.

## B. MCM 2: Public Involvement and Participation

The Environmental Element currently hosts several successful public participation programs. JBLE-E feels it is important to engage with the public, participate in local events, and promote participation with the surrounding communities. JBLE-E senior leadership encourages public involvement, and these efforts are strongly supported.

### 1. Public Involvement – Section II B 2 (a)

JBLE-E's policy is to comply with all federal, state and local public notice requirements. JBLE-E has many public notice requirements associated with environmental compliance such as Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II and Toxics Release Inventory (TRI) reporting; public involvement on environmental assessments developed pursuant to National Environmental Policy Act (NEPA) requirements; VDEQ Virginia Pollutant Discharge Elimination System (VPDES) and air permitting notifications; and public involvement in actions that could adversely affect historic properties. All public notices documentation is kept on file in the Environmental Element office and available for viewing at any time.

Updates to the MS4 Program Plan will be completed at a minimum once per year by the Environmental Element in compliance with Table 1 of the General Permit. The most up-to-date version of MS4 Program Plan will be posted on the JBLE-E public website. Notification that the MS4 Program Plan has been updated and is available will be made through group emailing. Records of these actions will be kept on file by the Environmental Element Stormwater Media Manager. The link to the website is: <http://www.jble.af.mil/library/environmentalinformation.asp>

Annual reports will also be posted on the JBLE-E public website within 30 days of submittal to the VDEQ and retain copies of annual reports online for the duration of the General Permit. Notification that the annual report has been posted and is available will also be made through group emailing. Records of these actions will be kept on file by the Environmental Element Stormwater Media Manager.

Prior to applying for renewed permit coverage, JBLE-E will notify the public and provide for receipt of comments on the proposed MS4 Program Plan. This notification will be made at least three (3) months in advance of reapplication to ensure adequate time for public comment and consideration.

## 2. Public Participation – Section II B 2 (b)

JBLE-E communicates through all media including internal and external websites, our community cable channel, the base newspaper as well as frequent interactions with community groups including the Department of Game and Inland Fisheries, the York County Extension Office, and the Newport News Recycling Office.

JBLE-E was an early member of the Virginia Regional Environmental Management System (VREMS) group and continues to interact with other members to explore sustainable practices and partner to enhance our sustainability program.

Fort Eustis participates in a Secretary of the Air Force Program to partner with our local public and private neighbors. The Public-Public, Public-Private, Partnership Program (P4) 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.

JBLE-E will participate, through promotion, sponsorship or other involvement, in a minimum of four (4) local events annually. The activities shall be aimed at increasing public participation to reduce stormwater pollutant loads; improve water quality; and support local restoration and clean-up projects, programs, groups, meetings or other opportunities for public involvement. JBLE-E will utilize the Installation weekly newspaper, *The Warrior*, webpage announcements and Facebook page announcements to promote local programs and events. Events such as Clean the Bay Day, America Recycles Day, Earth Day and the annual spring clean-up will be promoted.

## C. MCM 3: Illicit Discharge Detection and Elimination (IDDE)

This control measure requires a process to identify and eliminate non-stormwater discharges to the installation's MS4. Illicit discharges are those not made entirely of stormwater and are otherwise not allowed. Examples of illicit discharges are domestic and industrial wastewater (cross connections), vehicle wash water, and fuel spills. Examples of non-stormwater discharges that *are* allowable include air conditioner condensate, runoff from irrigation, and water from fire hydrant flushing.

### 1. Storm Sewer System Map – Section II B 3 (a)

The Civil Engineer Division's GIS personnel possess experienced mapping capabilities. The Environmental Element staff has provided GIS personnel electronic files to ensure all current and past GIS data layers obtained via contract actions are

included in the installation's database. The GIS staff maintains the storm sewer system map, which is available upon request.

An updated map of the stormwater sewer system and all stormwater outfalls is required, based on a review of current GIS data. JBLE-E has programmed a project to have an updated stormwater sewer system map and information table completed within 48 months of permit coverage.

## 2. Illicit Discharge Prohibition – Section II B 3 (b)

Illicit discharges are prohibited via JBLE-E I 32-101 *Environmental Management* and AFI 32-1067 *Water and Fuel Systems*. At any time when unauthorized non-stormwater discharges or illicit connections to the stormwater system are identified, the Environmental Element shall be notified. The CED (Engineer Flight, Operations Flight, and Environmental Element staffs) will work to implement corrective measures in-house or under contract to eliminate the discharges.

## 3. IDDE Procedures – Section II B 3 (c)

Procedures to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, are covered in EMP 4.4.6.2, *Wastewater-Stormwater Management*, and EMP 4.4.7, *Spill Prevention and Response*.

## 4. Public IDDE Reporting – Section II B 3 (d)

Information concerning how to report any pollution and/or illicit discharge is continually distributed throughout the installation. The phone numbers for JBLE-E Fire and Emergency Services will be utilized as the hotline numbers, as they are the installation's First Responders. The phone lines are manned 24 hours per day, 7 days per week.

## 5. Annual Reporting – Section II B 3 b

The following information will be included in future MS4 annual reports:

- A list of any written notifications of physical interconnections given by JBLE-E to other MS4s;
- The total number of outfalls screened during the reporting period, the screening results, and detail of any follow-up actions necessitated by the screening results; and
- A summary of each investigation conducted by JBLE-E of any suspected illicit discharge. Each summary will include: (i) the date that the suspected discharge was observed, reported, or both; (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation and the date the investigation was closed.

#### D. MCM 4: Construction Site Stormwater Runoff Control

The purpose of this control measure is to develop, implement and enforce a program to reduce pollutants in stormwater from construction activities greater than or equal to 2,500 square feet (Chesapeake Bay Preservation Act). JBLE-I 32-101 requires compliance with Virginia Erosion and Sediment Control (E&SC) regulations, and includes a policy to reduce pollutant runoff from construction activities. It also mandates erosion and sediment controls and requires operators to control waste and apply for construction permits.

A 733d CED certified stormwater/E&SC inspector is responsible for ensuring that construction contracts in place at JBLE–E comply with all construction storm water pollution prevention requirements. At a minimum, the following will be conducted by a certified inspector:

- Verify that construction site-specific Storm Water Pollution Prevention Plans (SWPPPs) are developed for each required construction project prior to the contractor performing any work;
- Oversee contractors to verify that stormwater discharges from construction sites are being controlled, limited, and monitored per the requirements of VPDES General Permit No. VAR10; and
- Perform follow-up inspections to verify that regular site inspections are conducted and documented by each contractor and kept on file at the construction site, as required. The general permit specifies that the site inspections be conducted at a frequency of:
  - At least once every five business days; or
  - At least once every 10 business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted no later than the next business day.

The Environmental Element performs oversight site inspections and has the authority to stop work for noncompliance with stormwater regulations. A database is used to track data on all construction projects, including acreage disturbed and BMPs used. The following information will be included in future MS4 annual reports:

- The total number of regulated land-disturbing activities;
- The total number of acres disturbed;
- The total number of inspections conducted; and
- A summary of the enforcement actions taken, including the total number and type of enforcement actions taken during the reporting period.

#### E. MCM 5: Post-Construction Stormwater Management

VSMP regulations, especially the new Technical Criteria Part II B and the federal EISA Section 438 requirements, have reinforced the importance of an effective post-construction stormwater management program. Permanent Storm Water Management (SWM) facilities are used to limit/reduce pollutant loads and to maintain or restore

predevelopment hydrology of the property with regard to temperature, rate, volume and duration of flow.

Engineering Technical Letter (ETLs) from the US Air Force Engineering Technical Center are intended to provide procedures and practices for minimizing stormwater pollution from Air Force construction activities. They provide guidance for construction inspectors regarding temporary sediment and erosion controls; operations and maintenance guidance for stormwater infrastructure; and permanent stormwater BMPs. ETL 14-1, *Construction and Operations and Maintenance Guidance for Storm Water Systems*, dated August 2014 is used as guidance.

### 1. Legal Authorities – Section II B 5 (d) (1)

The following lists JBLE-E legal authorities:

- VDEQ Stormwater Management Program Permit Regulations 4VAC50-60;
- Municipal Separate Storm Sewer System (MS4) Permit # VAR040035;
- AFI 32-1067 *Water and Fuel Systems*, 4 February 2015
- JBLE I 32-101, *Environmental Management*, 28 January 14; and
- EMP 4.4.6.16, *Contracting*

### 2. Written Procedures for SWM Facility Design/Installation – Section II B 5 (d) (2)

Written procedures for the design/installation of SWM is included in all military construction projects. Specifically, construction design is in ETL 14-1, *Construction and Operations and Maintenance Guidance for Storm Water Systems*. ETL 14-1 provides updated procedures and practices for minimizing stormwater pollution from Air Force construction activities, guidance for construction inspectors regarding temporary sediment and erosion controls, operations and maintenance (O&M) guidance for stormwater infrastructure (i.e., separate storm sewers, associated appurtenances, and drainage areas), and permanent stormwater BMPs. This ETL also provides troubleshooting guides for inspection and maintenance of various SWM BMPs.

A copy of US Air Force ETLs can be found at: [Construction Criteria Base - Engineering Technical Letters \(AFETL\) Whole Building Design Guide](#)

### 3. Inspection Policy for SWM Inspections – Section II B (d) (3)

Post construction inspections shall be made in accordance with the manufacturer's and/or engineer's recommendations. Inspections are accomplished on post-construction SWM facilities by Civil Engineering Division staff prior to final acceptance of the site from the contractor. At a minimum JBLE-E will inspect all SWM at least annually using guidance in ETL 14-1. Maintenance to SWM facilities will be performed as required. The Civil Engineer Division Operations Flight will need to modify the existing base operations contract or award new contracts to conduct the appropriate maintenance.

#### 4. Private Owned SWM Facilities – Section II B 5 (d) (4)

JBLE-E residential housing is privatized. Balfour Beatty Communities (BBC) is the contractor who manages residential housing. BBC is a large corporation and has a construction services division that is responsible for construction and post construction SWM and E&SC.

#### 5. Operator Owned SWM Facilities – Section II B 5 (d) (5)

Written procedures for inspections of Operator-Owned SWM facilities are outlined in ETL 14-1, *Construction and Operations and Maintenance Guidance for Storm Water Systems*.

#### 6. Roles and Responsibilities – Section II B 5 (d) (6)

JBLE-E EMP 4.4.6.2.2, *Stormwater Management*, details the Roles and Responsibilities for SWM. JBLE-E will re-establish a Stormwater Pollution Prevention Team (SWPPT) to ensure key personnel are engaged in the success of the SWM at JBLE-E. The SWPPT includes members from the following organizations: CED Engineering Flight, Operations Flight, Fire and Emergency Services Flight, Installation Management Flight, and the Environmental Element; Activity Environmental Coordinators for high priority facilities; Public Affairs; and the Judge Advocate Office. Roles and Responsibilities are detailed in EMP 4.4.6.2.2; SWPPT responsibilities include, but are not limited to:

- Implementing MS4 Program Plan requirements;
- Defining and agreeing upon an appropriate set of goals for the stormwater program;
- Being aware of any changes that are made to the MS4 and determine whether any changes must be made to the SWM facilities data base; and
- Maintaining a clear line of communication with installation leadership to ensure a cooperative partnership.

#### 7. Stormwater Management Tracking and Reporting – Section II B 5 (e)

JBLE-E will maintain and submit in the annual report an electronic database that includes:

- Stormwater management facilities brought online during the reporting period;
- A general description of each facility location, including the address or latitude and longitude;
- The acres treated by the facility, including total acres, as well as the breakdown of pervious and impervious acres;
- The date the facility was brought online (MM/YYYY). If the date is not known, the operator shall use June 30, 2005, as the date brought online for all previously existing stormwater management facilities;
- The sixth order hydrologic unit code (HUC) in which the stormwater management facility is located;

- The name of any impaired water segments within each HUC listed in the 2010 § 305(b)/303(d) Water Quality Assessment Integrated Report to which the stormwater management facility discharges;
- Whether the stormwater management facility is owner-operated or privately owned;
- Whether a maintenance agreement exists if the stormwater management facility is privately owned; and
- The most recent inspection of the stormwater management facility. JBLE-E will also annually track and report the number of inspections completed and, when applicable, the number of enforcement actions taken to ensure long-term maintenance.

## F. MCM 6: Pollution Prevention (P2)/Good Housekeeping for Operations

JBLE-E Civil Engineering Division performs maintenance of roads, grounds and the storm sewer collection system. This control measure focuses on P2 and good housekeeping to improve stormwater quality. Procedures are designed to minimize or prevent pollutant discharges from daily operations such as road maintenance and application of pesticides and herbicides.

### 1. Stormwater Management Tracking and Reporting – Section II B 6 (b)

Previous surveys indicate a total of 110 facilities at the installation have activities that may impact stormwater quality. Inspected facilities were designated as industrial or non-industrial based on Standard Industry Classification (SIC) codes assigned to each facility. The SIC is a U.S. government system for classifying industries by a four-digit code. Basic information including building number, shop name and symbol, and point of contact name were collected as part of facility inspections. Information regarding activity-specific information including industrial activities conducted; storage and use of potential stormwater pollutants; and location and status of storage tanks, oil/water separators (OWSs), wash racks, and other activities with potential to impact stormwater runoff were documented during the surveys.

There are 83 outfalls that receive municipal stormwater runoff. Municipal high-priority areas not subject to the VPDES Phase I Permit include 1) road, street and parking lot maintenance; 2) application, storage, transport, and disposal of pesticides, herbicides and fertilizers; and 3) vehicle washing.

JBLE-E presently implements the following procedures to minimize the use of pollutants that are susceptible to runoff:

*a) Cleanup of Paved Surfaces (Street Sweeping):* Street sweepers are used to remove debris and accumulations from streets and parking lots by the base operation contractor Global Management Services (GMS). JBLE-E currently implements a regular street sweeping schedule of once every one to two weeks. Water is carried on the street sweeper and applied during sweeping activities to help manage dust.

*b) Cleanup for Shops, Work Areas, and Storage Areas:* Routine cleanup is scheduled and conducted for shops, work areas, and storage areas to minimize hazardous

conditions to the employees and/or the environment. In addition, work areas are maintained to the standards dictated by the Air Force Occupation Safety and Health (AFOSH) requirements, and personnel are provided training in safety procedures and good housekeeping.

*c) Contractor- Operated Sites:* Contractors performing construction activities on the installation are required to operate under a Construction Storm Water Permit and individual SWPPP for construction sites exceeding one acre. Sites not exceeding one acre fall under the installation MS4 Permit. The Environmental Element Stormwater Media Manager and contract quality assurance/quality control (QA/QC) representative monitor the construction sites to ensure that contractors are implementing required stormwater BMPs according to their specific construction site SWPPP. Contractors are responsible for ensuring that their personnel are properly trained in the SWPPP for their construction sites.

*d) Vehicle, Vessel, and Equipment Washing:* Vehicles, vessels, and equipment are routinely washed as part of normal maintenance and care as well as to reduce the potential for spreading materials accumulated on the equipment. Government-owned vehicles, vessels, and equipment are washed in approved locations at the installation. An installation policy for residential and fund raiser car washes will be developed and implemented to reduce runoff to impervious surfaces.

*e) Internal Assessments (IA's):* In accordance with JBLE EMP 4.5.2.3 *Internal Inspections Conducted by Activities*, Activities will conduct inspections of their facilities for compliance with all environmental media areas a minimum quarterly. Annual assessments will be conducted at installation units and facilities for good housekeeping and pollution prevention compliance. These IA's are completed no later than December 1<sup>st</sup> of each year. Results from these assessments are briefed to senior management at the quarterly ESOH Council.

## 2. Turf and Landscape Management – Section II B 6 (c) (1) (a)

JBLE-E will continue to strictly limit the use of nutrients and fertilizer applications in all housing areas and the 1,000-acre Pines Golf Course.

## 3. High Priority Facilities Analysis –Section II B 6 (f) (2)

JBLE-E will revisit certain facilities for possible individual SWPPP development and implementation. Potential facilities include the AAFES service station and car wash, the golf course cart barn maintenance area, and food service activities located within the MS4.

## 4. Annual Training Plan – Section II B 6 (f) (4)

BEMA, LEMAC, and AEM training (see Section III A 2 of this Program Plan) is required of JBLE-E personnel in accordance with (IAW) EMP 4.4.2, *Environmental Awareness & Competency Training*. BEMA or LEMAC as appropriate are required within 30 days of arrival on the installation and annually thereafter. AEM training is provided to Activity

Environmental Coordinators (AECs), Unit Environmental Coordinators (UECs), and Hazardous Waste Coordinators (HWCs) by Environmental Element staff, normally during the months of March and October. Environmental Element staff also provide environmental awareness training for the Warrant Officer Advanced Course (WOAC) as needed. The Integrated Contingency Plan (ICP) and Spill Prevention Control and Countermeasures Plan (SPCC), incorporated by reference, present additional training available to base personnel.

JBLE-E personnel involved in spill response maintain the required training as specified in Air Force Instruction (AFI) 10-2501 and the base ICP. Specific training requirements are mandated by Federal regulations, including 29 Code of Federal Regulations (CFR) 1910, 40 CFR 112, and National Fire Protection Association (NFPA) standards. To prevent expiration of training requirements, yearly refresher courses are provided for personnel, when applicable. Individual training records, such as AF Form 55, *Employee Safety and Health Record*, or other approved documentation are used to record participation in training courses.

In addition, oil-handling personnel must be trained in the maintenance of equipment to prevent discharges; discharge procedure protocols, applicable pollution control laws, and regulations; general facility operations; and the contents of the base SPCC Plan. Course materials are maintained by the Environmental Element on ESOHTN, and AF Form 55 or other approved documentation (examples are provided in the ICP) are used to record participation in training courses.

## 5. Annual Reporting - Measurable Goals – Section II B 6 (g)

JBLE-E will submit the following in each annual report:

- A summary report on the development and implementation of the daily operational procedures;
- A summary report on the development and implementation of SWPPPs;
- A summary report on the development and implementation of the turf and landscape nutrient management plans (NMP) that includes:
  - The total acreage of land where turf and landscape nutrient management plans are required;
  - The acreage of lands upon which turf and landscape nutrient management plans have been implemented;
- A summary report on the required training, including a list of training events, the training date, the number of employees attending training and the objective of training.

## TMDL Special Conditions Compliance other than Chesapeake Bay TMDL

JBLE-E received a *TMDL Baseline Assessment Report for Joint Base Langley-Eustis, Virginia*, which was published on April 26, 2013. This report discusses existing TMDLs based on the draft *2012 Virginia Integrated Report*, of which the final was published in January 2014. The only nutrient or sediment TMDL associated with JBLE-E's receiving water bodies is the

Chesapeake Bay TMDL. Other planned TMDLs associated with the base's receiving water bodies address parameters other than nutrients or sediments (e.g., polychlorinated biphenyls [PCBs] or bacteria). Skiffes Creek, Warwick River, Morrison's Creek (Mulberry Island) and the James River are all receiving stormwater runoff from the installation.

## MS4 Program Updates

Table 3 provides the schedule for future program updates.

<b>Table 3: Future Program Plans Updates Schedule</b>		
Other TMDL Action Plans for applicable TMDLs approved between July 2008 and June 2013 – (Special Conditions for Approved Total Maximum Daily Loads (TMDL) Other Than Chesapeake Bay	Section I B	To be completed in PY3
Outfall Map Completed – (MCM 3 – Illicit Discharge Detection and Elimination) – Applicable to new boundaries identified as “urbanized” areas in the 2010 Decennial Census	Section II B 3 a (3)	To be completed in PY4
SWPPP Implementation – (MCM 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 b (3)	To be completed in PY4
NMP Implementation – (MCM 6 – Pollution Prevention/Good Housekeeping for Municipal Operations)	Section II B 6 b (3)	To be completed in PY5

Table 4 provides a record of changes to this document to date.

<b>Table 4: Record of Changes</b>				
<b>Permit Year</b>	<b>Annual Review? (Y/N)</b>	<b>Date</b>	<b>Responsible Party</b>	<b>Description of Change</b>
July 1, 2013 – June 30, 2014	N	April 9, 2015	733d Water Program Manager, Ronald Holcomb	New MS4 program Plan developed
July 1, 2014 – June 30, 2015	Y	June 30, 2015	733d Water Program Manager, Ronald Holcomb	Program Plan updates made to MCM 1, MCM 4 & MCM 6
July 1, 2015 – June 30, 2016	Y			
July 1, 2016 – June 30, 2017	Y			