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

Municipal Separate Storm Sewer System (MS4) Program Plan

Annual Report

Period: July 1, 2013 – June 30, 2014

Permit # VAR040035

Joint Base Langley Eustis - Eustis

1. **The name and permit number of the program submitting the annual report.**

   Joint Base Langley Eustis – Eustis (JBLE-E) General Permit Number: VAR040035

2. **The annual report permit year.**

   Permit Year #1 (PY1): July 1, 2013-June 30, 2014

3. **Any modifications to any operator's department's roles and responsibilities.**

   Effective September 2013 JBLE-E no longer has a certified combined administrator for Stormwater Management (SWM) and Erosion and Sediment Control (E&SC).

4. **The number of new MS4 outfalls and associated acreage by HUC added during the permit year:** 0

5. **A signed certification in accordance with Section II.E.3.a(5) of the MS4 General Permit:** See attached certification

6. **The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices (BMPs), and progress towards achieving the identified measurable goals for each of the minimum control measures (MCMs).**

   a. Perform internal assessments (IA) of installation activities each year. Theses IAs focuses on BMPs such as drip pans under vehicles, washing vehicles only in authorized wash facilities, and material and waste storage.

   b. Appropriate BMPs that are currently used are detailed in MCM 6 (paragraphs 22-25 of this annual report).

   c. MCM 1, MCM 3, and MCM 5 address the progress towards measureable goals for each of those MCMs. Refer to the following paragraphs in this annual report which address progress towards goals for MCM 1 (paragraph 13), MCM 3 (paragraphs 18 and 19) and MCM 5 (paragraph 21).

7. **The result of information collected and analyzed, including monitoring data, if any, during the reporting period.**

   During PY1 no monitoring data was collected as part of the MS4 program. Visual wet and dry weather monitoring of all JBLE-E industrial and non-industrial outfalls was accomplished for illicit discharges (see paragraph 18, MCM 3).

8. **A summary of the stormwater activities you plan to undertake during the next reporting cycle.**

   a. Develop Chesapeake Bay TMDL action plan.

b. Identify for inclusion on the installation priority list a project to conduct a condition assessment of the storm sewer system and update the GeoBase stormwater maps and data layers. This project will be subject to availability of funding.

c. Develop SWM and E&SC contract language for insertion into contracts that require land disturbance for work performed on JBLE.

d. Update SWM Environmental Management Procedures (EMPs) to comply with requirements of new Virginia SWM and E&SC laws and regulations that became effective July 1, 2014.

9. **Any changes in any identified BMPs or measureable goals for any minimum control measures including steps taken to address any deficiencies:** None.

10. **Notice that you are relying on another government entity to satisfy some of the permit obligations (if applicable):** N/A

11. **The approval status of any programs pursuant to Section II C of the General Permit (if appropriate) or the progress towards achieving full approval of these programs:** N/A

12. **Information required for any applicable TMDL special conditions contained in Section I of the General Permit:** N/A

13. **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 will be reached shall be reported.**

Three high priority water quality issues have been identified in accordance with MCM 1, *Public Education and Outreach on Stormwater Impacts*, Section II B.1.c of the General Permit.

a. <u>High priority water quality issue #1: Construction Stormwater Management (SWM)/Erosion and Sediment Control (E&SC)</u>

- The primary focus for PY1 was to train the newly assigned Stormwater media manager in SWM and E&SC. JBLE lost its previous SWM and E&SC combined administrator shortly after the new permit took effect in September 2013. The new SWM media manager had minimal SWM and no E&SC experience and little institutional knowledge of JBLE-E's program to date.
- The SWM media manager completed the following courses provided by the Virginia Department of Environmental Quality SWM and E&SC training practice. Training course completed were: SWM Basic (11/20/2013); SWM Inspector (02/26/2014); E&SC Basic (01/23/2013); E&SC Inspector (03/04/2014); and E&SC Plan Reviewer (03/19/2013).

Target audience: 2 Number of people reached: 1 Percentage reached: 50%

b. High priority water quality issue #2: Spill Response

- Training activities conducted were Basic Environmental Management Awareness (BEMA), Leadership Environmental Management Awareness Competency (LEMAC), and Advanced Environmental Management (AEM). See paragraph 25 for more information on the JBLE-E training program.

Target audience: 12,500 Number of people reached: 4,657 Percentage reached: 37%

c. High priority water quality issue # 3: Chesapeake Bay TMDL

- JBLE-E received an analysis from the National Defense Center for Energy and Environment conducted between August 2012 and August 2013. The Chesapeake Bay TMDL information provided is being used to educate planners, project managers and engineering staff on how to incorporate Low Impact Development techniques into projects.
- Environmental Element staff participated in the Department of Defense Chesapeake Bay Action Team (CBAT) quarterly meetings where information for reducing pollutants of concern were discussed with other CBAT members.
- JBLE awarded a contract September 30, 2013 to evaluate the stormwater management program including a survey of all stormwater outfalls, an update GIS information for stormwater mapping, and an update the 2008 Stormwater Pollution Prevention Plan (SWPPP) for Virginia Pollutant Discharge Elimination System (VPDES) Stormwater Industrial Permit VAR0025216. A drainage evaluation field survey was completed as part of this effort. Field work to inventory/classify industrial facilities and identify outfalls as industrial or non-industrial was conducted on the following dates: 18-22 November 2013; 9-20 December 2013; 24-28 February 2014; 7-11 April 2014; and 16-19 June 2014. Results of the fieldwork were provided after the end of PY1 reporting year.

Target audience: 30 Number of people reached: 20 Percentage reached: 67%

14. 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 that will be reached, and an estimated percentage of the target audience(s) that will be reached.

The following outlines planned education and outreach activities under MCM 1, *Public Education and Outreach on Stormwater Impacts*, for PY2 in accordance with Section II B.1.g (2) of the General Permit.

a. Publish high-priority storm water quality issues in the JBLE newspaper, *The Warrior*. Approximately 25,000 newspapers are printed. The estimated percentage of the target audience that will be reached is 20%.

b. Post on the JBLE-E Facebook page a high-priority water quality issue stormwater tip of the month. The estimated number reached of people to reach is 50, and the estimated percentage of the target audience reached is 20%.
c. In addition all of PY1 education and outreach activities for JBLE-E's high-priority water quality issues will occur in PY2.

15. A web link to the MS4 Program Plan and annual report.

Pursuant to MCM 2, *Public Involvement/Participation*, Section II B.2.a (2), the MS4 Program Plan and annual report will be posted on the web link listed below. An informational link containing these documents will be listed under the JBLE-Eustis Environmental section on the right side of the page.

http://www.jble.af.mil/library/hurricaneinformation/index.asp

16. Documentation of compliance with the public participation requirements of the General Permit.

The following documents public participation for PY1 pursuant to MCM 2, *Public Involvement/Participation*, Section II B.2.b of the General Permit.

a. Earth Day: Observation of Earth Day includes a week of planned events to promote awareness of human-related impacts on the environment to include trash and debris clean up, rain garden development and maintenance, and erosion control. The following provides a list of the events held.

1) Shore Line Clean Up, April 22, 2014: The James River Reserve Fleet conducted cleanup activities on the James River shoreline. Trash collected totaled 250 lbs.
2) Rain Garden Maintenance, April 23, 2014: Volunteers maintained the Rain/Xeriscape garden areas at General Stanford Elementary School. Participants included Civilian volunteers from Old Dominion Utilities Services (ODUS) and Soldiers from the 93rd Signal Brigade.
3) Trash cleanup and installing plants, April 23, 2014: Volunteers from Army Training Support Center cleaned and planted shrubs in the 1900, 2100 and 3300 block areas.
4) Erosion Control, April 23, 2014: Volunteers planted 1100 plugs of salt marsh cord grass (*Spartina* sp.) on Harrison Road along the James River shoreline to help stabilize the shoreline and create habitat. Volunteers included soldiers from the 7th Transportation Brigade and civilian personnel.
5) Butterfly and Rain Garden Maintenance, April 24, 2014: Volunteers from the 128th Aviation Brigade maintained a Butterfly Garden, restored a Rain Garden and made other environmental improvements in the brigade area.
6) Rain Garden Maintenance, April 24, 2014: Volunteers from the 7th Transportation Brigade refurbished three Rain Gardens in the 800 block and refurbished mulch around numerous buildings. The Rain Gardens were sited

near existing storm drains to help minimize sediment and pollutant runoff from entering the James River and Chesapeake Bay.

b. Spring Cleanup: Military units, housing residents and other activities are responsible to keep their assigned areas clean of trash and debris on a daily basis. During Earth Week specifically, these units, residents and activities pick up trash from roadways, parking lots, common areas and stormwater ditches.

c. Clean the Bay Day: Fort Eustis participated in the 26th Annual Clean the Bay Day in conjunction with the City of Newport News on June 7, 2014. Forty-six participants from Boy Scouts of America Boy Scout Troop 43 and Cub Scout Pack 143, installation community members and Environmental Element staff removed approximately 430 pounds of trash from approximately 12 miles of shoreline. Specific locations included the Harrison Road shoreline, Third Port, Warwick Pier and Eustis Lake.

d. America Recycles Day: Displays of products made from recycled material or packaged with recycled materials were in the Base Exchange and Soldier Readiness Support Center on November 15, 2013 to encourage employees and residents to renew their efforts to recycle and purchase recycled goods. The Environmental Element sponsored a "Cash for Cans" competition the entire month of November 2013. Teams competed to recycle the most aluminum cans during that time. A total of 511.81lbs of recyclables was diverted from waste stream, and a total of $271.35 was redeemed for the cans.

e. Environmental Partnership: Fort Eustis participated in the 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.

17. A list of any written notification of physical interconnection given by the operator to other MS4s.

N/A, no physical interconnections with other MS4s.

18. The total number of outfalls screened during reporting period, the screening results, and details of any follow-up actions necessitated by the screening results.

In compliance with MS4 General Permit Section II.B.3f (2) for MCM 3, *Illicit Discharge Detection and Elimination*, inspections of each stormwater outfall were conducted as part of the Comprehensive Site Compliance Evaluation and SWPPP update for VPDES Industrial Permit VA0025216. During the inspections the contractor also identified non-stormwater discharges and potential illicit discharges (e.g., wastewater cross connections) to the stormwater drainage system. Outfalls 132

and 133 were found to have a small amount of paint chips from an upstream building that needs repainted.

19. A summary of each investigation conducted by the operator of any suspected illicit discharge, including how the investigation was resolved.

A summary of investigations of suspected illicit discharges and unauthorized releases of contaminants is provided as required by MCM 3, *Illicit Discharge Detection and Elimination*, Section II.B.3f (3) of the General Permit.

a. Outfalls 065 and 073 at Felker Army Airfield had evidence of a minor sheen from parking lot runoff. Both discharges were investigated by backtracking from the outfall to the stormwater catch basins and adjacent impervious surfaces. The source of the discharge was not found.

b. Outfalls 132 and 133 are near the Applied Aviation Technology Directorate (AATD) warehouse, Building 3523. AATD personnel were asked to keep paint chips cleaned up as best as possible until such time as the building could be repainted.

c. Outfall 042 had evidence of construction site runoff (sediment). A visit to the new housing construction area on Wilson Road found runoff was escaping poorly placed silt fencing. The situation was corrected on the spot and no further action was required.

d. Outfall 046 had evidence of POL contamination from the OWS in the Helicopter Jet Engine Test Cell Facility, Building 3307. The product was cleaned up, and an investigation revealed the OWS was connected to storm sewer line adjacent to the building. The OWS discharge line was subsequently plugged, making it a holding tank instead of an OWS. This OWS is still inspected and maintained on a monthly basis as part of our Hampton Roads Sanitation District Permit 0505. A project for replacing and upgrading the OWS is currently planned for Fiscal Year 2016, subject to availability of funding.

Any spill or unauthorized release, whether it enters the MS4 system or not, is reported in accordance with JBLE-E Environmental Management Procedure (EMP) 4.7.7, *Spill Prevention and Response*, and logged into a spill database by the Environmental Element Spill Program Manager.

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

Reporting information for MCM 4, *Construction Site Stormwater Runoff Control*, Section II B.4.f, is provided below.

a. Total number of regulated land disturbing activities: 3

b. Total number of acres disturbed 9.51

1) Defense Commissary expansion: 8.42 acres
2) Murphy's Field sidewalk extension: 0.65 acres
3) Mulberry Island Road walking path: 0.44 acres

c. Total number of oversight inspections by Environmental Element staff: 6

d. Summary of enforcement actions: 0

21. An electronic data base or spreadsheet of all stormwater management facilities brought online during the reporting period that contains all information required by Section II. B.5.e

For MCM 5, *Post-construction Stormwater Management in New Development and Development on Prior Developed Lands*, JBLE-E uses an Access Database/Excel spreadsheet program for tracking SWM facilities required be Section II B.5.e of the General Permit. The land disturbing activities for the Advanced Individual Training (AIT) Barracks Phase 2 project was included in the 2012 annual report to the Virginia Department of Conservation and Recreation under the previous permit. However, SWM facilities associated with construction of the two barracks associated with this project, located at 2302 and 2303 Marshall Road, are still under construction and not currently online.

22. A summary report on the development and implementation of the daily operational procedures.

JBLE-E has an environmental management system that conforms to the International Organization of Standardization, ISO 14001, to manage environmental program requirements. JBLE-E codifies all base environmental requirements and management in JBLE Instruction (JBLE I) 32-101, Environmental Management. JBLE-E utilizes Environmental Management Procedures (EMPs) to implement the environmental program. These EMPs are reviewed and updated as required on an annual basis. Of the 140 plus current EMPs, the following list has the most direct impact on daily operations related to stormwater management:

a. EMP 4.4.2, *Environmental Awareness & Competency Training*
b. EMP 4.4.2 Tab 2, *Environmental Management Training Programs of Instructions (POIs)*
c. EMP 4.4.6.2, *Wastewater-Stormwater Management*
d. EMP 4.4.6.2.2, *Stormwater Management (SWM)*
e. EMP 4.4.6.6, *Hazardous Materials Management (HMM)*
f. EMP 4.4.6.7, *Solid Waste and Recycling Management*
g. EMP 4.4.6.8, *Hazardous Waste Management (HWM)*
h. EMP 4.4.6.12, *Integrated Pest Management (IPM)*
i. EMP 4.4.6.14.1, *Aboveground Storage Tanks (AST) Management*
j. EMP 4.4.6.14.2, *Underground Storage Tanks (UST) Management*

k. EMP 4.4.7, *Spill Prevention and Response*
l. EMP 4.5.2.1, *Activity Assessments Conducted by CED-EE*
m. EMP 4.5.2.3, *Internal Inspections Conducted by Activities*
n. EMP 4.5.2.3.1, *Activity Corrective Action Plans (ACAP)*

23. A summary report on the development and implementation of the required SWPPPs.

JBLE-E requires only one SWPPP which satisfies requirements of VPDES Permit No. VA0025216. The objectives of the SWPPP are to:

a. Identify the sources of pollution that affect the quality of industrial area stormwater discharges; and
b. Describe and ensure the implementation of practices to reduce pollutants in industrial area stormwater discharges.

The purpose of the SWPPP is to facilitate the management of activities that may affect the quality of stormwater discharges from the installation. It is the primary reference for descriptions of current industrial activities having the potential to impact stormwater discharges and for existing and planned stormwater management practices.

JBLE–E has developed BMPs with the authority to implement all provisions of the Stormwater Program. In addition to installation-specific orders, the following Air Force guidance documents are applicable to the implementation of the program.

Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, 20 July 1994: This directive establishes that achieving and maintaining environmental quality is an essential part of the Air Force's mission. It mandates that an environmental quality program will be developed and implemented and that the program will be composed of four pillars: cleanup, compliance, conservation, and pollution prevention.

Air Force Instruction (AFI) 32-7041, *Water Quality Compliance*, 28 January 2010: This AFI implements AFPD 32-70, *Environmental Quality*, and provides details of the Air Force Water Quality Compliance Program. This AFI mandates establishment of a water quality compliance program at all Air Force installations to assess, attain, and sustain compliance with the Clean Water Act and other Federal, state, and local regulations. Specific to the stormwater program, this instruction requires strict compliance with NPDES permits, preparation of SWPPPs, implementation of BMPs, development of a nonpoint-source pollution control program, and it identifies a means of assessing the adequacy of the storm water program.

24. A summary report on the development and implementation of the turf and landscape nutrient management plans that includes the total acreage of lands where turf and landscape nutrients plans are required, and the acreage of lands upon which turf and landscape nutrient management plans have been implemented.

JBLE-E property consists of areas of managed turf grass, a golf course, and a horse pasture for grazing. Residential areas are managed privately, and a landscape contractor for Balfour Beatty Community (BBC) regularly fertilizes 63 acres of turf. The Pines Golf Course, comprised of 1000 acres, on Mulberry Island (latitude – 76.5993e longitude 37.1418n) receives regular fertilization, which is currently not covered by a Nutrient Management Plan. JBLE-E has a horse stable with adjacent pasture (latitude – 76.6097e longitude 37.1492n) that will be included in the Nutrient Management Plan that will be developed for the Pines Golf Course in the future, prior to PY5.

Reports of the amount of fertilizer, herbicides, pesticides and other regulated chemicals applied to the golf course and the housing areas are sent monthly to the Environmental Element as a requirement of VPDES permit for pesticide discharges, VAG87.

25. A summary report on the required training, including a list of training events, the number of employees attending the training and the objective of the training.

Stormwater 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 stormwater runoff at JBLE-E. There are two levels of training offered to base personnel: Level 1, Basic Environmental Management Awareness (BEMA) or Leadership Environmental Management Awareness and Competency (LEMAC) training; and Level 2, Advanced Environmental Management (AEM) training. The BEMA/LEMAC course is solely provided in an online format through the ESOHTN website (www.esohtn.com) and is required for all installation personnel within 30 days of arrival and annually thereafter. The AEM training is conducted in a classroom setting for initial training and an online course for annual refresher training. The Environmental Element also provides environmental awareness training for the US Army Transportation School's Advanced Marine Warrant Officers Course (WOAC) as needed. The total number trained in each level during this reporting period were:

BEMA: 2217	LEMAC: 2180
AEM: 260	WOAC: 39

The objective of this training is to reach as many installation personnel as possible to educate them on a variety of environmental issues, including stormwater.

CERTIFICATION STATEMENT

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board shall, be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:
1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and
3. The written authorization is submitted to the department.

CERTIFICATION
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.

Matt Tracci — 8 APR 15
Responsible Official Signature Date
DIRECTOR, 733d CIVIL ENGINEER DIVISION

VAR040035 Joint Base Langley Eustis
Permit Number MS4 Name