

**U.S. AIR FORCE**  
**STORM WATER MANAGEMENT PLAN**  
**GOODFELLOW AIR FORCE BASE**

TXR040344



July 2019

Revised Jan 2023

### **ABOUT THIS PLAN**

This installation-specific Environmental Management Plan (EMP) is based on the U.S. Air Force's (AF) standardized Storm Water Management Plan (SWMP) template. This plan is not an exhaustive inventory of all storm water requirements and practices. Where applicable, external resources, including Air Force Instructions (AFIs); AF Playbooks; federal, state, local, and Final Governing Standards (FGS); and permit requirements are referenced.

Each section of this plan begins with standardized, AF-wide "common text" language that addresses AF and Department of Defense (DoD) policy and federal requirements. This common text language is restricted from editing to ensure that it remains standard throughout all plans. The common text language is maintained and updated by the designated Office of Primary Responsibility (OPR) with assistance from the Office of Collateral Responsibility (OCR), as appropriate. Immediately following the AF-wide common text sections are Installation sections. The Installation sections contain installation-specific content to address state, local, and installation-specific requirements. Installation sections are unrestricted and are maintained and updated by AF environmental Sections and/or installation personnel.

This document is optimized to be accessed and viewed electronically. The eDASH website at <https://cs2.eis.af.mil/sites/10040> is the primary communication tool for AF EMPs. The eDASH website is the internal AF sharepoint site and is not available without a valid common access card with certificates. This website is an internal communicator tool for AF personnel.

This AF standardized template may differ in format and organization from other templates developed by regulatory agencies or other organizations. If applicable, a cross-reference table of sections is included below to simplify review.

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**CERTIFICATION**

This section contains the certification, signed by the appropriate authority. Insert scanned document into this section or use the below template.

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 gathered and evaluated 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.

Responsible Official Certification

Printed Name: **Michael J. Noret, P.E.** Date: **1/9/23**

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Signature: **NORET.MICHAEL** Digitally signed by  
**L.J.1141867055** NORET.MICHAEL.J.1141867055  
Date: 2023.01.09 07:00:46 -06'00' Title: **Deputy Base Civil Engineer**

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## **DOCUMENT CONTROL**

### ***Standardized SWMP Template***

In accordance with (IAW) the Air Force Civil Engineer Center (AFCEC) Environmental Directorate (CZ) Business Rule (BR) 08, *EMP Review, Update, and Maintenance*, the standard content in this SWMP template is reviewed periodically, updated as appropriate, and approved by the Water Quality Subject Matter Expert (SME).

This version of the template is current as of 10/02/2018 and supersedes the 2015 version.

*NOTE:* Installations are not required to update their SWMPs every time this template is updated. When it is time for installations to update their SWMPs, they should refer to the eDASH EMP Repository to ensure they have the most current version.

### ***Installation SWMP***

#### **Record of Updates**

The SWMP is updated as changes to requirements and management practices occur, including those driven by changes in applicable regulations and permits.

#### **Record of Updates**

<b>Change No.</b>	<b>Nature of Change</b>	<b>Date of Change</b>	<b>Approved By:</b>
01	Revision per TCEQ's NOD dated 5 August 2020	September 2020	Allen Sohn
02	Administrative Updates for new Water Program Manager	May 2022	Jarrett Louder
03	Received approval from TCEQ to submit Public Notice – Resigned Certification.	January 2023	Jarrett Louder

#### **Record of Review**

The SWMP must be reviewed and revised on an annual basis, or as required by the permit. The plan is approved by the Environmental, Safety, and Occupational Health Council (ESOHC) and other organizations, as required. Formatting and administrative changes do not require additional review and approval.

#### **Record of Review**

<b>Review Date</b>	<b>Review Participants</b>	<b>Notes/Remarks</b>	<b>Results in Plan Update (Yes or No)</b>
September 2020	Allen J. Sohn and Terry James – GAFB 17 CES/CEIE Environmental. Leigh Ann Liddell – Bhate Environmental subcontractor	Revisions per TCEQ's NOD dated 5 August 2020	Yes
February 2022	Terry James – GAFB 17 CES/CEIE Environmental	None	No

# STORM WATER MANAGEMENT PLAN 2019-2024

## **1.0 OVERVIEW AND SCOPE**

AF installations that operate a Municipal Separate Storm Sewer System (MS4) in an Urbanized Area (UA) are regulated as small MS4s pursuant to the Storm Water Phase II Final Rule of the National Pollutant Discharge Elimination System (NPDES) permitting program of the Clean Water Act. Covered installations must obtain coverage under a small MS4 storm water permit from the appropriately authorized permitting authority and implement a storm water management program.

The primary objective of this SWMP is to reduce the discharge of pollutants to storm water to the maximum extent possible (MEP). Pollutant discharge reduction will be accomplished by implementing best management practices (BMPs) and measurable goals for the following applicable five minimum control measures (MCMs):

- Public Education, Outreach, and Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention / Good Housekeeping

### ***Installation Supplement – Overview and Scope***

Goodfellow Air Force Base (GAFB) has prepared this Storm Water Management Program (SWMP) document, which provides descriptions of all activities that will be conducted on behalf of GAFB to meet its obligations under the Texas Commission on Environmental Quality (TCEQ) General Permit for Level 2 Phase II Municipal Separate Storm Sewer System Discharge for Small Urbanized Areas with the State of Texas (**TXR040000**).

The five Minimum Control Measures (MCM's) applicable to Level 2 MS4 Operators have been addressed and incorporated in this SWMP. All construction contractor primary operators, secondary operators such as the US Army Corps of Engineers (USACE) and subcontractors will comply with the requirements established in Construction Storm Water Permit (**TXR150000**) as required.

Each MCM has a number of Best Management Practices (BMPs) that constitute the core activities pertaining to each MCM. The SWMP text includes a BMP summary table for each MCM.

Every reasonable effort is made to comply with the State's requirements in the **TXR040000** General Permit for Small Municipal Separate Storm Sewer Systems (MS4s).

## **2.0 INSTALLATION PROFILE**

### **Installation Profile**

<b>Scope of Plan</b>	Goodfellow AFB
<b>OPR</b>	17 CES/CEIE Environmental has overall responsibility for implementing the storm water management program and is the lead organization for monitoring compliance with applicable federal, state, and local storm water regulations.
<b>Responsible Official</b>	Mr. Michael Noret, PE

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<b>Physical Scientist</b>	Mr. Terry James
<b>Water Quality Program Manager</b>	Mr. Jarrett Louder
<b>Permitting Authority</b>	TCEQ
<b>MS4 Permit Number</b>	TXR040344
<b>MS4 Permit Expiration Date</b>	5/31/2024
<b>Applicable Federal and AF regulatory references</b>	<i>List references.</i> Clean Water Act AFI 32-1067, <i>Water and Fuel Systems</i> AFI 32-7001, <i>Environmental Management</i>
<b>Applicable State and local regulatory references</b>	TPDES Texas Water Code

### **3.0 ENVIRONMENTAL MANAGEMENT SYSTEM**

The AF environmental program adheres to the Environmental Management System (EMS) framework and its Plan, Do, Check, Act cycle for ensuring mission success. Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade*, U.S. Department of Defense Instruction (DoDI) 4715.17, *Environmental Management Systems*, AFI 32-7001, and International Organization for Standardization (ISO) standard 14001, *Environmental Management Systems – Requirements with guidance for use*, provide guidance on how environmental programs should be established, implemented, and maintained to operate under the EMS framework.

The storm water management program employs EMS-based processes to achieve compliance with all legal obligations and current policy drivers, effectively manage associated risks, and instill a culture of continual improvement. The SWMP serves as an administrative operational control that defines compliance-related activities and processes.

### **4.0 GENERAL ROLES AND RESPONSIBILITIES**

Storm water management requires the full involvement of all organizations and personnel on the installation, including contractors, tenants, and family members living on the installation. The major roles/organizations involved in supporting the storm water management program at a typical installation include:

- Installation Commander
- Base Civil Engineer
- Flight Chief, Installation Management
- Water Quality Program Manager
- Storm Water Pollution Prevention Team
- Unit Environmental Coordinator (UEC)
- Installation Personnel
- AFCEC

Additional organizational and personnel roles and responsibilities for storm water management are described throughout this plan and in referenced documents. Detailed information about typical responsibilities is available in AFI 32-1067, AFI 32-7001, and the Water Quality Playbook. Additional installation-specific roles and responsibilities are documented in the BMPs below.

#### ***Installation Supplement – General Roles and Responsibilities***

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GAFB has established a Chartered Environmental Management System - Cross Functional Team (EMS-CFT) for maintaining compliance and conformance. This team meets quarterly to discuss base wide environmental issues, including Storm Water Management. The team creates Environmental Action Plans (EAPs) to implement changes, which have objectives and targets for measuring success in execution. It is the team's responsibility to perform annual reviews of environmental programs, including the SWMP. The EMS Coordinator then presents this information to the Environmental, Safety and Occupational Health Council (ESOHC), which is chaired by the 17 Training Wing Commander.

### **5.0 TRAINING**

AF installations implement storm water training programs to ensure that installation personnel, contractors, and visitors are aware of their role in the program and the importance of their participation to its success. DoDI 4715.10, *Environmental Education, Training, and Career Development*, implements policy and provides the procedures for environmental education, training, and career development programs for DoD personnel. AF installations ensure that appropriate personnel complete required education, training, and certification necessary to perform their jobs. Priority is given to the use of AF-approved education/training sources such as the Air Force Institute of Technology (AFIT) training courses and official AF-approved computer-based training resources (e.g., The Environmental Awareness Course Hub [TEACH], Advanced Distributed Learning Service [ADLS], ArcNet, etc.) to meet training needs.

Specific training requirements are outlined in the BMPs below. Training records are maintained in IAW Section 6.0 of this SWMP (Recordkeeping and Reporting).

#### ***Installation Supplement – Training***

The goal of GAFB's SWMP education, outreach and involvement program is to improve the quality of storm water discharges on Goodfellow AFB by utilizing the Air Force's Pollution Prevention source reduction hierarchy to educate our target audience and encourage base wide participation. The BMPs listed for each MCM in this plan will be utilized as objectives to achieve this goal. Also listed below are specific training activities for several groups on the installation and general public.

#### **Training Activities**

<b>Description and Measurable Goals</b>	Conduct stormwater awareness training for 100% of GAFB active civil engineering shops, contractors, Facility Managers, military and DoD civilians performing construction and maintenance activities. As part of the awareness training, an explanation for what types of issues to be cognizant of are included. This amplifies GAFB's ability to prevent the discharge of materials/pollutants that could be potentially harmful to the MS4, lakes, streams, and estuaries.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	Each calendar year for the 5-year permit term or as needed
<b>Responsible Individual(s)</b>	17 CES/CEIE



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<b>Description and Measurable Goals</b>	Conduct shop-level training for 100% of GAFB industrial area personnel.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least each calendar year for the 5-year permit term or as needed
<b>Responsible Individual(s)</b>	17 CES/CEIE

<b>Description and Measurable Goals</b>	At least one 17 CES/CEIE employee maintains a 5-year, National Pollutant Discharge Elimination System (NPDES) Certified Stormwater Inspector (CSI) license.
<b>Deadline</b>	18 May 2022
<b>Frequency</b>	Renew license every 5 years from the expiration date above
<b>Responsible Individual(s)</b>	17 CES/CEIE

GAFB utilizes multiple training methods. The main training methodology is utilizing The Environmental Awareness Course Hub (TEACH) for awareness level training, shop-level training, as well as Facility Manager training.

Training discussed in this section is applicable to the MCMs described in Section 9.0 of this SWMP.

### **6.0 RECORDKEEPING AND REPORTING**

All AF MS4s have measures in place to ensure compliance with applicable permit recordkeeping and reporting requirements. Records are stored and maintained IAW Air Force Manual 33-363, *Management of Records*, and records are archived and disposed IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

#### ***Installation Supplement – Recordkeeping and Reporting***

GAFB maintains 100% of Environmental records on their local electronic drive, as well as on eDASH, as needed. The Environmental records retention includes maintaining records of 100% of enforcement actions, as applicable. The maintaining of records will be implemented no later than December 31, 2019, and will be updated at least annually or more often as needed.

### **7.0 RECEIVING COMMENTS FROM THE PUBLIC/BASE GENERAL POPULATION**

The general public can contact GAFB with via the “Contact Us” tab on the GAFB webpage (<https://www.goodfellow.af.mil/Contact-Us/>). Under this tab, one can submit a comment to the installation and will also find a list of telephone numbers to reach various departments on the installation. This website is for the Base Public Affairs Office, which is the primary contact between the installation and the general public.

The GAFB general population may submit comments, complaints, and questions by calling the on-base emergency hotline at 325-654-7000 or via email to the 17 CES Environmental at [17CES.CEIE.EnvironmentalWB@us.af.mil](mailto:17CES.CEIE.EnvironmentalWB@us.af.mil). They may also reach the installation via the GAFB website listed above.

**8.0 THREATENED AND ENDANGERED SPECIES**

During the TCEQ’s Water Quality Standards Review of the GAFB’s SWMP application, several threatened and endangered species (TES) were identified as inhabiting the GAFB MS4 area or the receiving waters. GAFB also obtained additional TES species from the Texas Parks & Wildlife Threatened and Rare Species website (<https://tpwd.texas.gov/gis/rtest/>) that are known to inhabit the area. These TES are listed in the table below. Stormwater discharges from GAFB are not anticipated to impact these species.

<b>Scientific Name</b>	<b>Common Name</b>
<i>Anaxyrus woodhousii</i>	Woodhouse's toad
<i>Athene cunicularia hypugaea</i>	Western burrowing owl
<i>Bombus pensylvanicus</i>	American bumblebee
<i>Charadrius montanus</i>	Mountain plover
<i>Crotalus viridis</i>	Western rattlesnake
<i>Heterodon nasicus</i>	Western hognose snake
<i>Holbrookia lacerata</i>	Plateau spot-tailed earless lizard
<i>Lasiurus borealis</i>	Eastern red bat
<i>Lasiurus cinereus</i>	Hoary bat
<i>Myotis velifer</i>	Cave myotis bat
<i>Neoleptoneta myopica</i>	Spider tooth cave
<i>Nerodia paucimaculata</i>	Concho water snake
<i>Phrynosoma cornutum</i>	Texas horned lizard
<i>Puma concolor</i>	Mountain lion
<i>Rhadine persephone</i>	Beetle tooth cave
<i>Styrax texana</i>	Texas snowbells
<i>Tartarocreagris texana</i>	Pseudoscorpion tooth cave
<i>Taxamaurops reddelli</i>	Beetle Kretschmarr cave mold
<i>Taxidea taxus</i>	American badger
<i>Texella reddelli</i>	Harverstman bee creek cave
<i>Texella reyesi</i>	Harverstman bone cave
<i>Vireo atricapilla</i>	Black-capped vireo

## **9.0 MINIMUM CONTROL MEASURES AND BEST MANAGEMENT PRACTICES**

AF MS4 storm water management programs are comprised of at least five MCMs that collectively are designed to reduce pollutants discharged to receiving bodies to the MEP. BMPs and measurable goals are implemented and monitored for each MCM as described below. Where required, all AF MS4s have developed regulatory mechanisms to enforce requirements in the general permit.

Five of the seven MCMs listed in the TCEQ General Permit TXR040000 are applicable to GAFB and are discussed in the following sections.

### **9.1 Public Education, Outreach, and Involvement**

All AF MS4s implement public education and outreach programs to educate the installation population on the impact that their common, daily activities and behaviors can have on installation storm water runoff and local water resources. These programs include general storm water pollution awareness and guidance on actions that can be taken to reduce the potential storm water pollution from their activities.

All AF MS4s also comply with applicable public notice requirements associated with their Storm Water Management Program. In addition to the public notice, AF MS4 storm water management programs encourage the involvement of the installation population in all facets of the program, from developing BMPs to performing installation cleanup activities.

Example Public Education and Outreach BMPs include:

- Develop a communication and outreach strategy, including your goals, target audience, distribution methods, and available resources
- Develop outreach materials, including pamphlets, displays, signs, etc.
- Develop a public awareness campaign for installation personnel on pet waste management
- Develop a public awareness campaign for installation personnel on trash management

Example Public Involvement / Participation BMPs include:

- Stream cleanup and monitoring events
- Wetland planting events
- Installation storm drain marking

Installation-specific BMPs are described in the installation supplement below.

### ***Installation Supplement – Public Education, Outreach, and Involvement***

**Public Education, Outreach, and Involvement BMPs**

<b>BMP Title</b>	Stormwater Awareness Information Distribution
<b>Target Audience</b>	GAFB general population
<b>Description and Measurable Goals</b>	Educational slides will be prepared and distributed via electronic distribution at least annually to 100% of the GAFB Unit Environmental Coordinators (UECs), who are responsible for distribution throughout their unit. Estimated distribution is approximately 5,000 personnel. The content of the slides includes topics such as Water Quality, Pollution Prevention, Air Quality, and other environmental areas of interest. Also, at least one newsletter will be distributed to the GAFB general population with educational information pertaining to pertinent stormwater awareness topics, such as proper management of household hazardous waste, chemicals, and pet waste; proper lawn care; vehicle washing and maintenance; proper disposal of trash; and water conservation.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	Each calendar year for the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE
<b>Status</b>	Ongoing

<b>BMP Title</b>	Physical Awareness
<b>Target Audience</b>	Civil Engineering Shops, oil handlers and industrial shops on GAFB
<b>Description and Measurable Goals</b>	Hands-on training or education events for 100% of GAFB engineering and industrial shops and Unit Environmental Coordinators. Materials focused on Pollution Prevention and shop specific areas of interest (i.e. storm drain protections, waste storage and disposal, do's and don't's, etc.)
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	Quarterly during each calendar year for the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE
<b>Status</b>	Ongoing

<b>BMP Title</b>	Education Outreach - Children
<b>Target Audience</b>	Children attending local elementary schools, spring break camps, or summer camps
<b>Description and Measurable Goals</b>	Present stormwater awareness educational information to at least one class or spring/summer camp annually within the local commuting area. These presentations will focus primarily our impact on the environment and methods of Pollution Prevention.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least each calendar year for the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE

<b>Status</b>	Ongoing
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<b>BMP Title</b>	Adopt-a-Highway Program
<b>Target Audience</b>	GAFB general population
<b>Description and Measurable Goals</b>	At least 5 miles of highway will be cleaned through the Texas DOT Adopt-a-Highway Program for cleanup. A notice will be communicated using electronic “splash pages.” The notice will be sent to the base populace to schedule a time and date for the cleanup along the stretch of adopted highway areas.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	2 <sup>nd</sup> and 4 <sup>th</sup> year of the 5-year permit term
<b>Responsible Individual(s)</b>	17 TRW all personnel
<b>Status</b>	Ongoing

<b>BMP Title</b>	Storm Water Drain Labeling
<b>Target Audience</b>	GAFB general population
<b>Description and Measurable Goals</b>	An annual storm drain marker survey will be conducted by the GAFB Environmental team to identify missing or illegible markings for storm drains. Repairs will be planned and programmed based upon annual surveys. The goal is to replace as needed or approximately 20% of the labeling per calendar year.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least each calendar year for the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE
<b>Status</b>	Ongoing

Educational materials will be developed as needed and will be tailored to a specific subject matter, if requested.

All notifications to the general public are communicated through GAFB’s local leadership. The leadership team then notifies the general public via the Public Affairs office, who adds the notice/information to the GAFB Homepage website and typically the GAFB Facebook page, as well.

The SWMP is accessible by the public at the GAFB Library. The public can contact GAFB with any questions, comments, concerns, or to volunteer for GAFB’s public outreach programs as shown in Section 7.0 of this SWMP.

***9.2 Illicit Discharge Detection and Elimination***

All AF MS4s have measures in place to detect and eliminate illicit discharges to the storm water system. Illicit discharges include intentional non-storm water discharges and incidental non-storm water discharges. Installation illicit discharge detection and elimination measures include both proactive and reactive measures for preventing or limiting these types of discharges.

Example Illicit Discharge Detection and Elimination BMPs include:

- Develop a storm sewer system map
- Establish an ordinance, regulatory mechanism, or other binding agreement, as appropriate, prohibiting non-storm water discharges

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- Develop a plan to detect and prevent illicit discharges
- Educate installation personnel on the hazards associated with illicit discharges

Installation-specific BMPs are described in the installation supplement below.

*Installation Supplement – Illicit Discharge and Elimination*

**Illicit Discharge Detection and Elimination**

<b>BMP Title</b>	Outfall Mapping and Inspections
<b>Description and Measurable Goals</b>	Inspect 100% of the located and mapped storm water outfalls during 1 wet-condition event and 1 dry-condition event. The results will be maintained in an inspection log, maintained by GAFB Environmental. None of GAFB’s outfalls discharge directly to any State surface waters. The nearest surface water is the Concho River, which is approximately ½ mile from any outfall.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least quarterly during each calendar year of the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE
<b>Status</b>	Ongoing

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<b>BMP Title</b>	Infrastructure Maintenance
<b>Description and Measurable Goals</b>	Maintenance and repair of 100% of storm water infrastructure as determined by audits, as needed
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	Audit at least each calendar year of the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE, CEO
<b>Status</b>	Ongoing

In order to detect and address any non-stormwater discharges (including illegal dumping), GAFB undertakes the following protocols:

- Maintains a count of planned or programmed project reviews. These reviews are maintained in a local log, updated at least quarterly by 17 CES Environmental program managers.
- Reviews scopes of work, designs, practices, and methods for construction projects across the installation. 17 CES Operations has at least one master plumber and one backflow prevention licensed technician on staff, who are part of all project reviews during the planning stage. These reviews are maintained in a local log, updated at least quarterly by 17 CES Environmental program managers.
- Utilizes 17 CES Operations and Maintenance personnel to exponentially increase base-wide awareness. These personnel are trained to identify and report potential illicit discharges to CE Environmental. The number of reports of such discharges are maintained in a local log, updated at least quarterly by 17 CES Environmental program managers.
- The logs referenced above are in an Excel spreadsheet format and are maintained on our local share drive.

In the event that CE Environmental is notified of an illicit connection or illicit discharge, the Installation Fire Emergency Services are the first responders for spill response. These personnel are highly trained in spill response and mitigation for all spills on the GAFB installation. 17 CES Environmental maintains a spill log on the eDASH-EASIER database. The EASIER module houses all documentation regarding Enforcement Actions, Spills, and Inspections documentation. Once the discharge has been contained, 17 CES Environmental personnel respond and facilitate clean-up efforts, as well as containerizing, characterize and properly dispose of all collected materials. A waste log maintained in the Enterprise Environmental, Safety, and Occupational Health Management Information System (EESOH-MIS) AF database.

In order to trace and remove the source of an illicit discharge, spill mitigation starts with quick response and action from the first responders. These personnel utilize spill response materials, barriers, screens, etc. to effectively manage and mitigate illicit discharges. Proactive project reviews by qualified staff aid in mitigating infrastructure problems, including cross-connections or other improper plumbing techniques.

The public and GAFB general population may report any complaints/illicit discharges of water quality impacts associated with discharges into or from the GAFB installation as shown in Section 7.0 of this SWMP. It is the responsibility of 17 CES Environmental to follow up on complaint by performing an inspection of the area. The inspection is recorded using Memorandum for Record (MFR) to document and record.

In order to prevent leaking on-site sewage disposal systems, GAFB plumbing shop ensures corrective actions are taken upon discovery or service requested via 17 CES Service Call. In the event a leak or leaks are reported by the public or base personnel, the submittal of a work task request via the 17 CES Service Call procedure is the primary method for requesting maintenance. Through this procedure, the task will be

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assigned to the GAFB plumbing shop. 17 CES Operations has at least one master plumber and one backflow prevention licensed technician on staff.

### **9.3 Construction Site Runoff Control**

All AF MS4s have measures in place to reduce discharges to storm water of sediment and other potential pollutants from construction sites disturbing one or more acres of land.

Example Construction Site Runoff Control BMPs include:

- Establish an ordinance, regulatory mechanism, or other binding agreement, as appropriate, requiring erosion and sediment control
- Implement erosion and sediment control measures
- Establish procedures for controlling construction waste
- Develop a procedure to review construction site plans for proper sediment control
- Develop a procedure for collecting and considering installation personnel information and feedback
- Conduct inspections and enforce storm water requirements at construction sites

Installation-specific BMPs are described in the installation supplement below.

### ***Installation Supplement – Construction Site Runoff Control***

#### **Construction Site Storm Water Runoff Control**

<b>BMP Title</b>	Ordinance for Sediment and Erosion Controls and other Pollution Controls
<b>Description and Measurable Goals</b>	GAFB's ordinance requires 100% of construction projects greater than ½ acre in size to utilize sediment and erosion control measures. These measures include but are not limited to: silt fence; erosion waddles; soil stabilization practices; ingress/egress cobblestone; pollution control from vehicle washing/other wash waters; minimize exposure of building materials and products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials; spill response procedures, hazardous material usage approvals, and minimize/prevent the discharge of pollutants from spills and leaks. The GAFB Water Quality Manager assists the contractor in design for control methods utilized. Contractors shall be apprised that GAFB prohibits illicit discharges such as wash-out wastewater, fuels, oils, soaps, solvents, and dewatering activities.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	Audit at least once during the active project for the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEIE, CEN
<b>Status</b>	Ongoing

<b>BMP Title</b>	Review SOWs, SWPPPs, and P3s
<b>Description and Measurable Goals</b>	Review 100% of project statements of work



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	(SOWs), Storm Water Pollution Prevent Plan (SWPPP) measures (SWPPPs are required for projects one acre or greater in size), and Pollution Protection Plans (P3) (required for sites less than 1 acre but greater than ½ acre) including site inspections, site outfall protections, active control measures, and emergency response procedures.
<b>Deadline</b>	Prior to the beginning of the construction project (dates TBD)
<b>Frequency</b>	At least once prior to the commencement of the construction project and as needed during the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEN, CEIE
<b>Status</b>	Ongoing

<b>BMP Title</b>	GAFB Work Requests (AF Form 103)
<b>Description and Measurable Goals</b>	Ensure “Dig Permits” are utilized prior to breaking ground, properly approved by all internal AF shops as well as external required agencies (i.e. DigTESS).
<b>Deadline</b>	Audit at least semi-annually for the 5-year permit term
<b>Frequency</b>	Each Calendar Year
<b>Responsible Individual(s)</b>	17 CES/CEO, CEN, CEI
<b>Status</b>	Ongoing

As described above, one of the BMPs that was implemented for the Construction Site Runoff MCM to address stormwater runoff from construction projects one acre and greater (including larger common plan of development) is the requirement of a site-specific SWPPP. The prime contractor (owner or operator) is required to create and submit the SWPPP prior to commencement of work. 17 CES Environmental reviews and approves the SWPPPs for these construction projects and ensures that they are in compliance with TPDES Construction General Permit TXR150000. Also, project work plans are reviewed at least annually during project review meetings. An inventory of planned or programmed project reviews are maintained by 17 CES Environmental. A log of these projects is maintained at least quarterly by 17 CES Environmental.

For construction projects less than 1 acre but greater than ½ acre, a Pollution Protection Plan (P3) is required to be prepared and implemented by the prime contractor. The P3s are submitted to 17 CES Environmental before performing any site work for review and approval.

Any comments received from the public or GAFB general population via the contact methods shown in Section 7.0 of this SWMP regarding any sites under construction are reviewed and considered.

Storm water runoff inspections are performed after ½-inch rainfall events for all active construction sites by 17 CES Environmental. As discussed in Section 5.0 of this SWMP, at least one 17 CES/CEIE personnel maintains a 5-year, NPDES CSI license. The inspection log is maintained at the office of 17 CES Environmental. If deficiencies are noted, the prime contractor is notified and has 10 business days to correct any deficiencies noted. In the event that the site remains out of compliance, GAFB has an ordinance in place, which includes adherence to contracted requirements within Statements of Work and sanctions to ensure compliance, to the extent allowable under state and local law. GAFB, as the MS4-permitted facility, has authoritative oversight of all construction projects within the perimeter of the installation.

***2.4 Post-Construction Runoff Control***

All AF MS4s have measures in place to reduce discharges to storm water of sediment and other potential pollutants from new and/or redevelopment projects.

Example Post-Construction Runoff Control BMPs include:

- Develop strategies for implementing both structural and non-structural BMPs in development projects
- Establish an ordinance, regulatory mechanism, or other binding agreement, as appropriate, addressing post-construction runoff
- Implement a program to ensure adequate long-term operation and maintenance of BMPs

Installation-specific BMPs are described in the installation supplement below.

***Installation Supplement – Post-Construction Runoff Control***

**Post-Construction Storm Water Management**

<b>BMP Title</b>	Review Construction Projects and SWPPPs
<b>Description and Measurable Goals</b>	Review 100% of project SOWs as well as implemented SWPPP measures, including site inspections, site outfall protections, and final stabilization measures (structural and non-structural BMPs).
<b>Deadline</b>	Upon completion of the project.
<b>Frequency</b>	Each calendar year during the 5-year permit term, or as needed
<b>Responsible Individual(s)</b>	17 CES/CEN, CEIE
<b>Status</b>	Ongoing

<b>BMP Title</b>	Post-Construction Walkthroughs
<b>Description and Measurable Goals</b>	Attend post-construction walkthroughs for 100% of the completed construction sites to identify any deficiencies and issues, review NOI/NOT/NOV documentation, and address site establishment.
<b>Deadline</b>	Upon completion of the project.
<b>Frequency</b>	Each calendar year during the 5-year permit term, or as needed
<b>Responsible Individual(s)</b>	17 CES/CEN, CEIE, CEO
<b>Status</b>	Ongoing

As described in first BMP, GAFB (17 CES Environmental) will review SWPPPs implemented for projects greater than one acre (including projects disturbing less than one acre that are part of a larger common plan of development) to ensure that the Plan addresses stormwater runoff after construction has been completed. This includes proper soil stabilization, landscaping/hardscaping activities, and the implementation of structural and non-structural BMPs. 17 CES Environmental performs spot check inspections at least quarterly, for active construction projects, to ensure long-term controls are maintained.

As a requirement for contracting with GAFB, owners or operators of new developments and redeveloped sites must design, install, implement, and maintain a combination of structural and nonstructural BMPs appropriate for the community and that protects water quality. GAFB has an ordinance in place, which includes adherence to contracted requirements within Statements of Work and sanctions to ensure

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compliance, to the extent allowable under state and local law. In the event that notice of violations are issued, enforcement documentation shall be maintained within GAFB's eDASH website on the EASIER module. The EASIER module houses all documentation regarding Enforcement Actions, Spills, and Inspections documentation.

### **9.5 Pollution Prevention / Good Housekeeping**

All AF MS4s have measures in place to identify and implement methods and practices for performing municipal operations in a manner that minimizes and prevents pollution of storm water runoff. Municipal operations may include:

- Storm drain maintenance and cleaning
- Landscaping
- Road repair and infrastructure maintenance
- Winter road maintenance

Example Pollution Prevention / Good Housekeeping BMPs include:

- Cover deicing materials when not in use
- Ensure proper procedures are followed when deicing roadways
- Ensure vehicle maintenance is performed in approved locations
- Perform regular street cleaning
- Inspect storm sewer system and conduct maintenance as necessary

Installation-specific BMPs are described in the installation supplement below.

### ***Installation Supplement – Pollution Prevention / Good Housekeeping***

#### **Pollution Prevention / Good Housekeeping**

<b>BMP Title</b>	Facility Manager Training
<b>Description and Measurable Goals</b>	Educate 100% of the Facility Managers through Facility Manager Training opportunities. Active maintenance and repair will be emphasized.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least quarterly each calendar year during the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEO, CEIE
<b>Status</b>	Ongoing

<b>BMP Title</b>	GAFB Green Team
<b>Description and Measurable Goals</b>	The Green Team cleans the urbanized areas of Goodfellow AFB. The team is comprised of AF students who are awaiting class start dates, and report at least monthly to 17 CES. Approximately 75% of the installation is cleaned annually using the Green Team. 17 CES Operations shall clean the remainder of the installation, performing street sweeping (approx. 100 miles annually) and outfall clean-ups (at least annually).

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<b>Deadline</b>	By the end of each month
<b>Frequency</b>	Monthly during each calendar year throughout the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEO, CEN, CEI
<b>Status</b>	Ongoing

<b>BMP Title</b>	Pollution Prevention Inspections
<b>Description and Measurable Goals</b>	17 CES Environmental performs pollution prevention checks/audits, focused on identifying problem areas.
<b>Deadline</b>	December 31, 2019
<b>Frequency</b>	At least quarterly for each calendar year throughout the 5-year permit term
<b>Responsible Individual(s)</b>	17 CES/CEO, CEN, CEI
<b>Status</b>	Ongoing

Active communication with the 17 CES Operations Flight addresses Operations & Maintenance (O&M) for all federal real property. As such, O&M is a function within the Civil Engineering department. O&M personnel repair, replace, and maintain real property items across the installation. GAFB evaluates O&M activities for their potential to discharge pollutants in stormwater for road and parking lot maintenance, bridge maintenance, cold weather operations, and right-of-way maintenance etc. Infrastructure updates are communicated through the Base Real Property Officer, as well as Engineering and Environmental. GAFB maintains an accurate inventory of all real property facilities. These records are maintained with the Installation Real Property Officer.

GAFB personnel involved in O&M protocols and good housekeeping practices are trained per methods discussed in Section 5.0 of this SWMP. O&M discharge starts with training and awareness. Shop level training is tailored to the specific shop function and addresses common issues, as well as answers all questions concerning stormwater.

Contractors hired by GAFB must comply with operating procedures. The MS4 requirements are included in SOWs provided to contractors as well as Contracts executed at GAFB.

GAFB has identified pollutants of concern that could be discharged from O&M activities. A list of aspects and their impacts, which are reviewed at least annually and updated as needed, are maintained on the GAFB eDASH database. All potential base pollutants are captured in the aspects and impacts list.

### **10.0 REFERENCES**

#### ***Standard References***

*(Applicable to all AF Installations)*

- [Federal Water Pollution Control Act \(Clean Water Act\)](#)
- [AFI 32-1067, \*Water and Fuel Systems\*](#)
- [AFI 32-7001, \*Environmental Management\*](#)
- [AFI 90-201, \*Air force Inspections System\*](#)
- [ETL 14-1, \*Construction and Operation and Maintenance Guidance for Storm Water Systems\*](#)
- [Water Quality Program Management Playbook](#)
- [eDASH AFLOA Water Quality Legal and Other Requirements](#)
- [eDASH Water Quality Program Page](#)

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- [eDASH Training Matrix](#)
- [ADLS](#)

### ***Installation References***

- GAFB 2014-2019 Approved Storm Water Management Plan
- GAFB Integrated Natural Resources Management Plan (INRMP)

## **11.0 ACRONYMS**

### ***Standard Acronyms***

*(Applicable to all AF Installations)*

- [eDASH Acronym Library](#)
- [Water Quality Playbook Acronym Section](#)
- [U.S. EPA Terms and Acronyms](#)

### ***Installation Acronyms***

- AWWG – Air-Water Working Group
- CC – Commander
- CEIE – Office code for Base Environmental
- CEN – Office code for Base Engineering
- CEO – Office code for Operations and Maintenance
- CES – Civil Engineer Squadron
- EMS – Environmental Management System
- EMS-CFT – Environmental Management System-Cross Functional Team
- EESOH – Energy, Environmental, Safety and Occupational Health
- GAFB – Goodfellow Air Force Base
- TRW – Training Wing
- UEC – Unit Environmental Coordinator

## **12.0 DEFINITIONS**

### ***Standard Definitions***

*(Applicable to all AF Installations)*

- [Water Quality Playbook Definition Section](#)

## **13.0 INSTALLATION – SPECIFIC CONTENT**

Inspection checklists are maintained by 17 CES/CEIE program managers.