

# U.S. AIR FORCE STORM WATER MANAGEMENT PLAN

Peterson Air Force Base

Revision 3



4/23/2020

## STORM WATER MANAGEMENT PLAN – VERSION 2

### **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, as applicable, 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 Installation Support Teams (ISTs) and/or installation personnel.

This document is optimized to be accessed and viewed electronically. The eDASH website at <https://cs1.eis.af.mil/sites/edash/> is the primary communication tool for AF EMPs.

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**CERTIFICATION**

This section contains the certification, signed by the appropriate authority. Insert scanned document in to 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: William Robertson, GS-14

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: Deputy Base Civil Engineer

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### **DOCUMENT CONTROL**

#### **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</b>	<b>Nature of Change</b>	<b>Date of Change</b>	<b>Approved By:</b>
1	Updated Installation Profile and Responsible Official and Water Quality Manager	3/20/2019	Robert (Bob) Tomlinson
2	Updated Responsible Official, Water Quality Manager, and MS4 and regulation references	4/23/2020	

#### **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>
3/20/2017	Ben Recker	Review as part of annual report development	No
3/22/2018	Ben Recker	Review as part of annual report development	No
3/19/2019	Ben Recker	Review as part of annual report development	Yes
4/17/2020	Carly Baumann & Ben Recker	Review as part of annual report development	Yes

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### **1.0 OVERVIEW AND SCOPE**

Air Force 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 six minimum control measures (MCMs):

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

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

The SWMP presented herein has been prepared by Peterson AFB pursuant to the Peterson AFB MS4 Permit and describes BMPs, measurable goals, and documentation procedures to comply with the terms and conditions of the Peterson AFB MS4 Permit. More importantly, this SWMP will serve as a framework for identifying, assigning, and implementing control measures and BMPs intended to reduce the discharge of pollutants from the MS4 and protect downstream water quality. In addition to these primary objectives, this SWMP will

- Serve as a planning and guidance document to be used by Peterson AFB's regulatory body (i.e. EPA Region 8), installation organizations, contractors, and the general public throughout the Peterson AFB community;
- Be dynamic and adaptively managed to address changes in Peterson AFB's MS4 Permit requirements, organizational structure, responsibilities, and goals;
- Define techniques and measurable goals for measuring BMP effectiveness; and
- Define a five-year schedule for BMP implementation to comply with the requirements of the Peterson AFB MS4 Permit.

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### **2.0 INSTALLATION PROFILE**

#### **Installation Profile**

<b>Scope of Plan</b>	Peterson Air Force Base, Installation Wide
<b>Office of Primary Responsibility (OPR)</b>	21st Civil Engineer Squadron Installation Management Flight, Environmental Element (21 CES/CEIE) 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>	Office Symbol: 21 SW/CC Name: Thomas G. Falzarano, Colonel USAF Commander, 21st Space Wing Telephone Number: 719-556-2100
<b>Water Quality Program Manager</b>	Name: Carly Baumann Name: Water Quality Program Manager Telephone Number: 719-554-2750 Email address: carly.baumann@us.af.mil
<b>Permitting Authority</b>	Federal Environmental Protection Agency (EPA) EPA Region 8
<b>MS4 Permit Number</b>	COR042006, included in Appendix A
<b>MS4 Permit Expiration Date</b>	12/31/2020
<b>Applicable Federal and AF regulatory references</b>	NPDES Permit COR042006 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>	Not Applicable, EPA Region 8 is the CWA regulatory authority for Federal Facilities in Colorado

### **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) 13834, *Efficient Federal Operations*, U.S. Department of Defense Instruction (DoDI) 4715.17, *Environmental Management Systems*, AFI 32-7001, *Environmental Management*, and international standard, ISO 14001:2015, 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 managing associated risks, and installing a culture of continuous 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 base. 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
- Air Force Civil Engineer Center (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 the Water Quality Playbook, AFI 32-1067 and AFI 32-7001. Additional installation-specific roles and responsibilities are documented in the BMPs below.

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

**Installation Commander (21 SW/CC)** – Responsible for mission operations on Peterson AFB and maintains overall responsibility for environmental compliance.

**Commander, 21st Civil Engineer Squadron (21 CES/CC)** – Responsible for leading, directing, and overseeing the 21st Civil Engineer Squadron. The 21st Civil Engineer Squadron is responsible for operations and maintenance of facilities and infrastructure owned by the 21st Space Wing on Peterson AFB including compliance with environmental regulations. The 21st Civil Engineer Squadron Commander is also responsible for coordinating with tenant organizations concerning tenant owned and operated facilities and infrastructure. The 21st Civil Engineer Squadron Commander also coordinates with other commanders on Peterson AFB, as required, to meet mission requirements including environmental compliance.

**21st Civil Engineer Squadron Installation Management Flight Chief (21 CES/CEI)** - Responsible for real property, environmental, and asset management activities on Peterson AFB, including coordination with tenant organizations. The Installation Management Flight Chief is responsible for coordinating environmental compliance activities on Peterson AFB and supporting the Water Quality Manager with implementation of this SWMP.

**21st Civil Engineer Squadron Engineering Flight Chief (21 CES/CEN)** – Responsible for development and redevelopment projects on Peterson AFB, including coordination with tenants for tenant funded development and redevelopment projects. The Engineer Flight Chief is responsible for planning, design, construction oversight, coordination with contracting agencies, conducting design reviews, incorporating storm water controls into development and redevelopment projects, developing Forms 1391, and maintaining project folders.



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**21st Civil Engineer Squadron Operations Flight Chief (21 CES/CEO)** - Responsible for facility and infrastructure maintenance of 21st Space Wing owned assets. Schedules and directs recurring and non-recurring maintenance activities of facilities and infrastructure. Responsible for implementing the Peterson AFB Facility Management Program.

**21st Civil Engineer Squadron Environmental Element Chief (21 CES/CEIE)** – Responsible for overseeing and directing environmental compliance activities on Peterson AFB, including compliance with the Peterson AFB MS4 Permit. The Environmental Element Chief supervises the Water Quality and Hazardous Waste Program Managers and advocates for resources required for environmental compliance.

**21st Civil Engineer Squadron Water Quality Program Manager (21 CES/CEIE)** – Responsible for coordination and implementation of this SWMP as well as recordkeeping and reporting related to the Peterson AFB MS4 Permit.

**Privatized Housing Contractor with oversight from the 21st Civil Engineer Squadron Housing Management Element Chief (21 CES/CEIH)** – Responsible for maintaining and operating the on-base housing units on Peterson AFB. The Privatized Housing Contractor is responsible for developing and distributing informational materials to the residents of the housing areas, including the Resident Guide and Community Standards (Peterson AFB).

### **5.0 TRAINING**

AF installations implement storm water training programs to ensure that base 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 AFIT training courses and official AF-approved computer-based training resources (e.g., ESOH-TN, ADLS, ArcNet, etc.) to meet training needs.

Specific training requirements are outlined in the BMPs below. Training records are maintained IAW the Recordkeeping and Reporting section of this plan.

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

The Peterson AFB MS4 Permit requires specific education, training, and outreach activities for several of the MS4 MCMs. Education, training, and outreach activities required by the Peterson AFB MS4 Permit are outlined in Section 7 Minimum Control Measures and Best Management Practice to coincide with the requirements and layout of the Peterson AFB MS4 Permit. Specific responsibilities, documentation procedures, and reporting are also defined in Section 7.

### **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,

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*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***

*Recordkeeping* - Peterson AFB must retain records of all applicable monitoring activities, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and a copy of the NPDES permit for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. Peterson AFB must submit these records to EPA only when specifically asked to do so.

*Reporting* - Peterson AFB is required to develop and submit an annual report to EPA Region 8. The annual report is due to EPA Region 8 by 1 April each year and will cover actions taken during the previous calendar year (1 January through 31 December) to comply with the Peterson AFB MS4 Permit. Additional details pertaining to documentation of BMP implementation at Peterson AFB is presented in Section 7 Minimum Control Measures and Best Management Practices of this SWMP. The initial annual report is due on 1 April 2017. The Annual Report must also address any changes made to the SWMP, including updates in BMPs or implementation schedules. The Peterson AFB Annual Report will be reviewed for Anti-terrorism/Force Protection concerns. Any information that cannot be released to the general public will be marked “confidential” or “for official use only.”

Each annual report must be signed by either a principal executive officer, ranking elected official, or duly authorized representative of that person. For purposes of this section, a principal executive officer of a Federal agency includes: (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA). A person is a duly authorized representative only if:

- The authorization is made in writing by a person described in principal executive officer or ranking elected official and submitted to the EPA; and
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility for environmental matter for the regulated entity.

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The person signing the annual report must include the following certification statement:

“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 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.”

The Peterson AFB Water Quality Program Manager will retain a copy of all annual reports and monitoring report associated with complying with this permit.

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

AF MS4 storm water management programs are comprised of six 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. These mechanisms are included in the appropriate sections below.

#### **7.1 Public Education and Outreach**

All AF MS4s implement public education and outreach programs to educate the base 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.

Standard 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 base personnel on pet waste management
- Develop a public awareness campaign for base personnel on trash management

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

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

The Public Education and Outreach (PEO) MCM is intended to educate the Peterson AFB community (hereafter referred to as “the public”), which includes, but is not limited to, project managers, contractors, tenants, residents, and environmental staff, about the importance of protecting stormwater quality for the benefit of the environment and human health. The MS4 Permit requires that Peterson AFB continue implementing a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

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Public education and outreach is necessary to fostering community interest and support for Peterson AFB's stormwater management program, which is crucial to implementing this SWMP, reducing the discharge of pollutants, and ultimately protecting water quality. A Peterson AFB community educated in the need for the stormwater management program will ensure greater compliance with the MS4 Permit. As members of the public become aware of what is expected of them and others in the community, they will be more likely to support the program.

The following BMPs will be implemented by Peterson AFB over the next 5 years to satisfy the Public Education and Outreach MCM. Where appropriate, the selected BMPs will specifically address Peterson AFB's current water quality challenges (i.e., pollutants of concern). Peterson AFB will utilize existing federal, state, and Air Force-developed stormwater public education and outreach materials whenever possible. When necessary, new materials will be created. The PEO BMPs are presented in the following subsections. The estimated number of people to be reached by the PEO program contained in this SWMP is in excess of 10,000 people per year which includes military, civilian, contractor, military dependents, and retired military personnel who live, work, and utilize services on Peterson AFB. The PEO program has been developed to provide general awareness outreach to a large populace, primarily through the base newspaper, and targeted outreach to specific subsets of personnel. The Peterson AFB Water Quality Program Manager is responsible for coordination and implementation of the PEO program.

### *PEO-1 Household Hazardous Waste and Stormwater Awareness*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.1, 2.2.2, 2.2.5, 2.2.6, and 2.2.7 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB will provide household hazardous waste and stormwater awareness to new personnel assigned to Peterson AFB during the base newcomer orientation program, Right Start. In cooperation with the privatized housing contractor, Peterson AFB will provide household hazardous waste and environmental protection awareness materials to base housing newcomers, including options for disposing of household hazardous materials. A pamphlet describing the City of Colorado Springs' household hazardous waste collection program will be made available as part of the privatized housing orientation, typically provided on execution of a housing contract with new residents. The Environmental Element Chief is responsible for ensuring that environmental awareness training is provided to base newcomers.

#### **Measurable Goals**

- Provide awareness at least twice per year during Right Start and maintain attendance record. The Peterson AFB Force Support Squadron is responsible for maintaining the Newcomers Orientation attendance roster (Year 1–5)
- Provide environmental protection awareness materials to new housing residents, including household hazardous waste. (Year 1–5)

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### **Documentation and Report Procedures**

- The Force Support Squadron is responsible for providing Right Start to new military and civilian personnel assigned to Peterson AFB. As part of this Right Start, new personnel will receive basic environmental awareness information related to stormwater, water quality, and waste management. The Peterson AFB MS4 Annual Report will include a summary of methods (in person, computer-based, etc.), frequency, and type of awareness training provided to base newcomers (target audience).
- The Peterson AFB privatized housing contractor provides each new housing resident with a copy of “Resident Guide and Community Standards (Peterson AFB)” upon execution of a new lease. The Environmental Element Chief will ensure that these guidelines are reviewed at least annually by the Peterson AFB Environmental Element to ensure appropriate information is being provided to new residents. A Memorandum for Record (MFR) will be generated to document the annual guideline review as well as verify that the housing contractor continues to provide the guidelines to all new residents. The Peterson AFB MS4 Annual Report will include the date of the guideline review. The target audience for this outreach is Peterson AFB housing residents.

***PEO-2 Hazardous Waste or Stormwater Management Related Article on Peterson AFB website or in the Peterson AFB Newspaper***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.1, 2.2.2, and 2.2.6 of the Peterson AFB MS4 Permit.

### **Implementation Details**

The Peterson AFB website and newspaper discuss installation specific news articles, current events and community activities. The Peterson AFB website and newspaper are widely used to convey important information to the installation population and offers an excellent opportunity to reach a wide audience on Peterson AFB. The Water Quality Program Manager will coordinate the article with the Hazardous Waste Program Manager and installation Public Affairs office for publication.

### **Measurable Goals**

- Publish one hazardous waste or stormwater management article in the *Space Observer* and/or on the Peterson AFB website that discusses hazardous waste management and/or stormwater discharge impacts that may include options for disposing of household hazardous waste, pollution prevention, or other related information. (Years 1–5)

### **Documentation and Report Procedures**

- The Peterson AFB MS4 Annual Report will include the publication date and a copy of the hazardous waste or stormwater management article that was

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published. The target audience for this outreach is the entire Peterson AFB population.

### *PEO-3 Sediment and Erosion Awareness Training for Industrial Stormwater Personnel*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.1, 2.2.2, and 2.2.7 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Unit Environmental Managers, members of the installation Stormwater Pollution Prevention Team, and personnel responsible for implementing industrial stormwater BMPs receive annual training on industrial stormwater compliance requirements. A train-the-trainer concept is utilized by several organizations. Peterson AFB will incorporate sediment and erosion awareness training into this existing stormwater training program. The Water Quality Program Manager and appropriate train-the-trainer personnel are responsible for providing training materials.

#### **Measurable Goals**

- Provide training at least once per year and maintain attendance record (Year 1–5)

#### **Documentation and Report Procedures**

- Dates and completion rosters for industrial stormwater training will be maintained by the Water Quality Program Manager and appropriate train-the-trainer personnel. The Peterson AFB MS4 Annual Report will include a summary of methods (in person, computer-based, etc.), frequency, and type of training provided. The target audience of this training is personnel working in industrial areas on Peterson AFB.

### *PEO-4 Sediment and Erosion Awareness Training for Facility Managers*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.2, 2.2.6, and 2.2.7 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Each facility on Peterson AFB has a designated Facility Manager who is the interface between the facility occupants and the Civil Engineer function. The Facility Manager is responsible for reporting maintenance requirements, conducting facility inspections, and coordinating maintenance activities. As the focal point for facility specific maintenance issues, the Facility Manager can help to identify sediment and erosion problems occurring near individual facilities. Facility Managers must attend an initial training program as well as an annual refresher. Sediment and erosion awareness training will be incorporated into this existing training program. The Water Quality Program Manager is responsible for providing training materials. The Civil Engineer Operations Flight is responsible for providing the training and documenting attendance.

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### **Measurable Goals**

- Provide facility manager training at least annually (currently self-paced training) and maintain attendance record. (Year 1–5)

### **Documentation and Report Procedures**

- Documentation of Facility Manager training will be maintained by the Civil Engineer Operations Flight. The Peterson AFB MS4 Annual Report will include a summary of methods (in person, computer-based, etc.), frequency (monthly, quarterly, annual), and type of facility manager training. The target audience of this training is Facility Managers.

### ***PEO-5 Post-Construction Stormwater Control Awareness Training***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.3 and 2.2.7 of the Peterson AFB MS4 Permit.

### **Implementation Details**

Peterson AFB will develop and provide awareness training on post-construction stormwater control requirements of the MS4 Permit. The awareness training can be provided in person or via handout/electronic methods. The Water Quality Program Manager is responsible for developing and providing this training.

### **Measurable Goals**

- Develop post-construction stormwater control awareness training materials. (Year 1)
- Provide post-construction stormwater control awareness training materials to 21st Civil Engineer Squadron (CES) Engineering Flight and Environment Element personnel as well as the 21st SW Contracting Squadron Commander. (Year 1–5)

### **Documentation and Report Procedures**

- The Peterson AFB Water Quality Program Manager will develop a post-construction awareness fact sheet that describes the post-construction stormwater control requirements and contact information for additional details. The fact sheet will be emailed to 21st CES Engineering Flight project managers, 21st CES Environmental Element staff, and the 21st Contracting Squadron (21st CONS) Commander. The target audience for this outreach is design, construction, and environmental project managers as well as the Peterson AFB Contracting Office. The Peterson MS4 Annual Report will include the date in which the fact sheet was emailed as well as a copy of the post-construction stormwater control fact sheet. The fact sheet will be made available to tenant organizations, via email, if construction projects are proposed by the tenant organization.

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### *PEO-6 Stormwater Awareness Brochure*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.4 and 2.2.7 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB will develop and distribute a stormwater awareness brochure. The Water Quality Program Manager is responsible for developing and distributing the brochure.

#### **Measurable Goals**

- A Stormwater Awareness Brochure is developed and available for distribution. Distribution activities may include placing in high use facilities, making the brochure available at large gathers or environmental events, and/or providing to new housing residents. (Year 1-5)

#### **Documentation and Report Procedures**

- The Peterson AFB Water Quality Program Manager will ensure the Peterson AFB Stormwater Brochure is developed. The Water Quality Program Manager will track distribution of the brochure and summarize in the annual report.

### **7.2 Public Involvement / Participation**

All AF MS4s 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 ensure involvement of the base population in all facets of the program; from developing BMPs to performing installation clean up activities.

Standard 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 Involvement / Participation*

The goal of the Public Involvement and Participation (PIP) control measure is to raise public awareness about urban runoff pollution through public involvement and participation in the Peterson AFB water quality protection program. Additionally, Peterson AFB hopes to involve the public in the development and implementation process to secure “buy in” and to generate public support for Peterson AFB’s water quality protection efforts. It is Peterson AFB’s intent that the following BMPs support the overall program in generating public participation, fostering support for the purpose and goals of the program, and ultimately reducing the discharge of pollutants. The municipal stormwater discharge permit requires Peterson AFB at a minimum, comply with applicable public notice requirements when implementing a public involvement/participation program.



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The following BMPs will be implemented by Peterson AFB within 5 years. These BMPs will involve several departments and groups in order to raise awareness and gain the community's input as it relates to Peterson AFB's stormwater management program, water quality challenges, and implementation efforts. The following sections discuss PIP BMPs that comprise the Peterson AFB SWMP. The Peterson AFB Water Quality Program Manager is responsible for coordination and implementation of the PIP program.

### *PIP-1 Public Notice Requirements*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.3.1 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

The Peterson AFB MS4 permit requires compliance with all public notice requirements when implementing the public participation and involvement program. The Peterson AFB Water Quality Program Manager and 21st SW Judge Advocate Office will meet to review and document potential situations in which public notice is required. Triggers that require public notice, if any, will be documented and used by the 21st CES Water Quality Manager to initiate required public notices for future public involvement and participation program activities.

#### **Measurable Goals**

- The Peterson AFB Water Quality Program Manager and 21st SW Judge Advocate Office will review and document the public notice requirements, if any, associated with the public involvement and participation program. (Year 1)
- Public notices are provided and documented for required public involvement and participation activities. (Year 1 – 5)

#### **Documentation and Report Procedures**

- An MFR will be generated by the Water Quality Program Manager and 21st SW Judge Advocate office documenting public notice requirements that could be triggered by the public involvement and participation program.
- Copies of any required public notices will be maintained by the 21st CES Water Quality Manager to document compliance with the Peterson AFB MS4 Permit.

### *PIP-2 SWMP and Annual Report Availability*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.3.2 and 2.3.5 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB is committed to informing the base populace of stormwater management initiatives and obtaining input from installation personnel. The Peterson AFB SWMP and MS4 Annual

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Report will be published on the Peterson AFB website along with contact information for the Water Quality Program Manager.

### **Measurable Goals**

- The Peterson AFB SWMP, which includes the MS4 permit, and MS4 annual reports are available on the Peterson AFB website ([www.Peterson.af.mil](http://www.Peterson.af.mil)). (Years 1–5)

### **Documentation and Report Procedures**

- The Water Quality Program Manager will publish MS4 Annual Reports on the Peterson AFB website ([www.Peterson.af.mil](http://www.Peterson.af.mil)). While not specifically required, the MS4 Annual Report will provide the website address where the reports are published to document compliance with the specific MS4 Permit Condition.

### ***PIP-3 Stormwater Action Line***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.3.4; 2.4.3; and 2.5.5 of the Peterson AFB MS4 Permit.

### **Implementation Details**

Peterson AFB has established a stormwater action line in which the public can ask questions or identify stormwater issues. The action line goes directly to the Peterson AFB Environmental Section. Additionally, appropriate outreach materials include the phone number for the Peterson AFB Environmental Section. The action line phone number is advertised on stormwater related outreach materials to promote public involvement. The stormwater action line also support compliance with Paragraph 2.5.10.5 of the MS4 Permit related public input concerning construction activities. The Water Quality Program Manager is responsible for continued distribution and advertisement of the action line, documenting stormwater related action line calls, and responses taken to calls.

### **Measurable Goals**

- Maintain stormwater action line. Document action line communications received from the public and actions taken in public participation log. (Years 1–5)

### **Documentation and Report Procedures**

- The Peterson AFB MS4 Permit requires a log of public participation and outreach activities. Calls to the stormwater action line, including dates and action taken, description of question/concern, and follow up action will be logged as public participation.
- Paragraph 2.5.10.6 of the MS4 Permit requires the Annual Report to include a description of procedures for receipt and consideration of information submitted by the public concerning construction stormwater management. The above

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procedures concerning the action line, receipt of input from the public, and follow up action documentation will be reported.

### *PIP-4 Volunteer and Clean-up of MS4 Receiving Water Activities*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.3.3 and 2.3.4 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB must document volunteer activities to actively engage residents and personnel at Peterson AFB in understanding water resources and how their activities can affect water quality. Additionally, Peterson AFB must document any events or other activities to clean-up MS4 receiving waters. The permit does not require a specific number of volunteer or cleanup activities, but documentation of volunteer and clean-up activities accomplished must be reported annually.

#### **Measurable Goals**

- Peterson AFB will maintain a log of public participation activities related to water quality protection and clean-up of MS4 receiving waters. (Years 1–5)

#### **Documentation and Report Procedures**

- The MS4 Permit requires a log of public participation and outreach activities performed at Peterson AFB. The log will include the date as well as a description of public participation activities related to water quality protection and cleaning up MS4 receiving waters. Activities may include base clean up days, specific stream cleanup activities, or other volunteer events related to water quality. Scheduled and unscheduled maintenance activities performed during the duty day, as part of the normal job responsibilities, are not classified as volunteer activities.

### **7.3 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.

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

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

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### *Installation Supplement – Illicit Discharge and Elimination*

An illicit discharge is defined as any discharge to a MS4 that is not composed entirely of stormwater, except for the following allowable non-stormwater discharges identified in Paragraph 1.3.2 of the Peterson AFB MS4 Permit:

- Discharges authorized by a separate NPDES permit;
- Discharges in compliance with instruction of an On-Scene-Coordinator pursuant to 40 CFR Part 300 or 33 CFR 153.10(e);
- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration;
- Uncontaminated pumped ground water;
- Discharges from potable water sources;
- Foundation drains;
- Air conditioning condensate;
- Irrigation water;
- Springs;
- Water from crawl space pumps;
- Footing drains;
- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- De-chlorinated swimming pool discharges;
- Street wash water;
- Power washing where no chemicals are used;
- Roof drains;
- Fire hydrant flushing;
- Non-storm water discharges resulting from a spill which are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge;
- Emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges; and
- Discharges or flows from fire fighting activities.

Illicit discharge sources must be controlled and illegal behavior prohibited in accordance with the MS4 Permit. The illicit discharge detection and elimination procedures presented in this section represent the Peterson AFB IDE program. U.S. EPA studies have shown that pollutant levels from illicit discharges can be high enough to significantly degrade receiving water quality and threaten aquatic life, wildlife, and human health. Typical sources of illicit discharges include sanitary wastewater, effluent from septic tanks, car wash wastewaters, improper used oil disposal, radiator flushing disposal, roadway spills, and the improper disposal of auto and household chemicals. Peterson AFB has performed annual dry weather screening of major outfalls for the last five years and completed a stormwater system inventory and condition assessment study in 2014. Based on these investigations, Peterson AFB representatives have determined that no known cross-connections currently exist in which sanitary wastewater is entering the stormwater

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system. No additional cross-connection surveys are planned at Peterson AFB to investigate building floor drains. As required by Paragraph 2.4.10.9, the Peterson AFB Annual Report must include a description of actions to inventory or investigate floor drain connections.

Peterson AFB has reviewed allowable non-stormwater discharges and will implement local controls (BMPs) as necessary to ensure that they are not significant contributors of pollutants to stormwater.

The following BMPs will be implemented by Peterson AFB during the next 5 year permit term. The Water Quality Program Manager is responsible for coordinating and implementing the IDE BMPs.

### *IDE-1 Storm Sewer System Map*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.5 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB has developed a map of the installation storm sewer system (Appendix B of this SWMP) that identifies drainage conveyance, storm drain inlets, basins, culverts, outfalls and BMPs. The current storm water system map will be updated as needed to account for modifications of the system, addition of new post-construction BMPs, and snow disposal sites. The Water Quality Program Manager is responsible for implementing this BMP.

#### **Measurable Goal**

- Update the complete storm sewer system map in the Peterson AFB GIS. (Years 1- 5)

#### **Documentation and Report Procedures**

- Maintain the existing Peterson AFB storm sewer map within the Peterson AFB GIS. Perform annual review of storm sewer map with the GIS office to ensure all updates have been made. Document the annual review using an MFR.

### *IDE-2 Dry Weather Screening of Major Outfalls*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.6 and 2.4.7 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB will conduct visual dry weather screening of major stormwater outfalls on the installation at least once per year. This visual monitoring will occur during dry periods, so that any flow through the storm conveyance system can be noted and tracked to its source. If an unallowable non-stormwater discharge is identified, an assessment of the discharge will be made. Additionally, dry weather screening will annotate any significant erosion issues at the outfall locations. The Water Quality Program Manager is responsible for ensuring that the dry weather

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screening is accomplished. Dry weather screening efforts will be documented and maintained in an information system for tracking purposes.

### **Measurable Goal**

- Conduct dry weather screening of Peterson AFB outfalls once per year. Document findings of dry weather screening and erosion evaluation. Document results of any follow up illicit discharge investigation or assessments. (Years 1–5)

### **Documentation and Report Procedures**

- Annual dry weather screening and erosion assessment activities will be documented via MFR to be signed by the person conducting field screening activities and co-signed by a Duly Authorized Representative. The MFR will annotate date, screening locations, results, and actions to investigate/assess any potential illicit discharges.

### ***IDE-3 Illicit Discharge Detection and Elimination Program***

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.1; 2.4.3; 2.4.4; and 2.4.6 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB is committed to detecting, investigating, and eliminating illicit discharges to the storm sewer system. Peterson AFB recognizes the impact an illicit discharge can have on receiving waterways and the importance of taking corrective actions in a timely manner. The primary method to detect illicit discharges is dry weather screening described in IDE-2. Illicit discharges can also be reported by installation personnel using the stormwater action line described in PIP-2 or through the Base Fire Department. The Base Fire Department will notify the Environmental Element of illicit discharges and spills as required by the Peterson AFB Spill Plan.

If dry weather screening or other evidence of an illicit discharge is identified, Peterson AFB representatives will investigate using the EPA's *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* to help identify and investigate the potential illicit discharge. This document will be provided as training reference material to key Peterson AFB Environmental Element staff whose work duties may include illicit discharge detection. A corrective action plan (CAP) will be developed for any confirmed illicit discharge. The CAP will outline the necessary steps to eliminate the illicit discharge and any remediation necessary.

#### **Measurable Goals**

- Maintain one printed copy of the EPA Illicit Discharge Detection and Elimination Manual in the Environmental Element's library. (Years 1–5)

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- At a minimum, the Water Quality Program Manager, Spill Program Manager, and Environmental Element Chief will conduct an annual review of the EPA Illicit Discharge Detection and Elimination Manual. This review will serve as training for illicit discharge investigation and response techniques. (Years 1–5)
- Document the time required to investigate, plan, and correct confirmed illicit discharges identified on Peterson AFB. For confirmed illicit discharges, Peterson AFB will develop a CAP within 15 business days and implement the corrective action within 45 business days of discovery. If corrective action will require more than 45 business days, permission must be obtained from EPA. (Years 1–5)

### **Documentation and Report Procedures**

- The MS4 Annual Report must describe any illicit discharges identified and actions taken to eliminate the source of the illicit discharge. Peterson AFB will utilize a spreadsheet or other information management system to track illicit discharges, investigations, and corrective actions. An excerpt of the information management system must be provided with the MS4 Annual Report.
- The MS4 Annual Report must include a description of the training materials and frequency training is provided on illicit discharge response. As described above, the illicit discharge response training program will be conducted annually to key Environmental Element staff members. The training program consists of reviewing and familiarization with the EPA Illicit Discharge Detection and Elimination Manual document. An MFR, signed by the Water Quality Program Manager, will be used to document one printed copy of the EPA guidance document is maintained as well as the dates in which key members of the Environmental Element are trained.

### ***IDE-4 Illegal Dumping and Non-compliance Enforcement Procedures***

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.2 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB will maintain existing illegal dumping and non-compliance enforcement procedures. As a military installation, all personnel working, visiting, or otherwise having access to the installation are subject to specific laws, regulations, and policies while on Peterson AFB. Enforcement procedures for non-compliance with laws, regulations, and policies are included in the Uniform Code of Military Justice, contracts subject to Federal Acquisition Regulations, Air Force Instruction (AFI) 51-202 *Non-judicial Punishment*, AFI 36-704 *Discipline and Adverse Actions*, AFI 36-2907 *Unfavorable Information File (UIF) Program* among others. Enforcement procedures can vary based on specific situations. Military and civilian employees can receive verbal reprimands, written reprimands in employment records, demotions, loss of pay, and discharge from Federal service as examples.

In the most severe cases, the Installation Commander has the authority to bar individuals from accessing Peterson AFB. Enforcement procedures on Peterson AFB are administered by individual supervisors, commanders, Security Forces Squadron, and potentially off-installation

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law enforcement officers. These existing illicit discharge and illegal dumping procedures have worked effectively for Peterson AFB under the installation's previous MS4 Permit. The Water Quality Program Manager will document illicit discharge and illegal dumping enforcement procedures.

### **Measurable Goal**

- Document any illicit discharge and illegal dumping enforcement actions taken. (Years 1-5)

### **Documentation and Report Procedures**

- The MS4 Annual Report must include a description of the mechanism used to prohibit illicit discharges into the MS4. The above description concerning illegal dumping and enforcement procedures can be reported as an appropriate regulatory mechanism to prohibit and enforce illicit discharges on Peterson AFB.

### ***IDE-5 Allowable Non-stormwater discharges and controls***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.10.7 of the Peterson AFB MS4 Permit.

### **Implementation Details**

The Peterson AFB MS4 Permit provides a listing of allowable non-stormwater discharges. These discharges are specifically authorized under the MS4 Permit unless the permittee determines that these allowable non-stormwater discharges are significant contributors of pollution. If the permittee determines that these discharges are significant contributors of pollution, then the discharge is considered illicit and controls must be put in place to minimize or eliminate pollutants from the associated discharge. The Water Quality Program Manager will conduct an annual review of the allowable non-stormwater discharge list and determine if any of the listed categories are significant contributors of pollution on Peterson AFB. If a category is determined to be a significant contributor, the Water Quality Program Manager will develop and implement a plan to minimize or eliminate the discharge.

### **Measurable Goal**

- Conduct annual review of allowable non-stormwater discharges listed in Paragraph 1.3.2 of the MS4 Permit. Identify if any category of allowable, non-stormwater discharge is a significant contributor of pollutants to the MS4. If a category of allowable, non-stormwater discharge is determined to be significant, the category is then considered an illicit discharge and controls must be enacted to minimize or eliminate the discharge. (Years 1–5)

### **Documentation and Report Procedures**

- The annual review of allowable, non-stormwater discharges occurring on Peterson AFB will be documented via MFR signed by the Water Quality Program Manager. The MFR will identify if any category of allowable non-stormwater is a significant contributor of pollutants to the MS4.



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### *IDE-6 Storm Drain Stencil*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.9 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

The Peterson AFB MS4 Permit requires that all storm drain (e.g. paint, placards, stenciling), as practicable, in all areas with industrial uses and residential uses by the by the end of year four of this permit. If a category is determined to be a significant contributor, the Water Quality Program Manager will develop and implement a plan to minimize or eliminate the discharge.

#### **Measurable Goal**

- Storm drain inlets in the main industrial portions of the installation are stenciled and a map showing stencil locations is available. (By the end of Year 4)

#### **Documentation and Report Procedures**

- Paragraph 2.4.10.10 of the Peterson AFB MS4 Permit requires an inventory of industrial areas that discharge into the Peterson AFB MS4 or to Waters of the United States within Peterson AFB.
- Storm drains on Peterson AFB have been previously marked with Do Not Dump markers. By the end of Year 4, the Peterson AFB Water Quality Manager will review the storm drain markers surrounding the industrial areas, see previous bullet, to ensure markers are still in place or missing markers are replaced. A map of the stenciled storm drains will be updated by the end of Year 4.

### *IDE-7 Household Hazardous Waste Collection*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.4.8 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Residents living on Peterson AFB are authorized to utilize the El Paso County Household Hazardous Waste Facility. Information regarding the use of this facility is provided to new occupants upon signing a housing lease. El Paso County maintains appropriate records of household hazardous waste collected. The Environmental Element Chief is responsible for coordinating and maintaining, if available, authorization for Peterson AFB residents to utilize the El Paso County Household Hazardous Waste Facility.

#### **Measurable Goal**

- Residents living on Peterson AFB have the opportunity to participate in at least one household hazardous waste collection event per year. The event could be provided by Peterson AFB or local community. The collection event could be a one-time event or continual service. (Year 1 -5)

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### **Documentation and Report Procedures**

- In accordance with Paragraph 2.4.10.8 of the Peterson AFB MS4 Permit, the Annual Report must include a description of the household hazardous waste disposal options for Peterson AFB residents. The Environmental Element Chief and Water Quality Program Manager will develop the household hazardous waste disposal option descriptions for the Annual Report based on options available to Peterson AFB residents.

### **7.4 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.

Standard 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 base 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*

The purpose of the Construction Site Stormwater Runoff Control MCM is to prevent soil and construction materials and wastes from leaving the site and entering the stormwater drainage system. Sediment is usually the primary pollutant of concern; during a short period of time, uncontrolled construction sites can contribute more sediment to waterways than can be deposited naturally over several decades. The resulting siltation—along with the contribution of other pollutants from construction sites—can cause physical, biological, and chemical harm to local waterways.

The following BMPs will be implemented by Peterson AFB during the next 5-year permit term and represent a program to reduce pollutants in stormwater runoff from construction sites. Pollutants of concern specifically targeted by the BMPs established in this section include sediment, solid waste, phosphorous, nitrogen, pesticides, oil and grease, concrete truck washout wastewater, construction chemicals, and construction debris. The Construction Site Stormwater Runoff Control (CON) BMPs are presented in the following subsections. The Water Quality Program Manager is responsible for coordination and implementation of the construction site runoff control program.

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### *CON-1 Construction Project Oversight Program*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.5.1, 2.5.2, 2.5.3, 2.5.7, 2.5.8, and 2.5.9 of the Peterson AFB MS4 Permit

#### **Implementation Details**

Minimizing erosion and sediment runoff from construction sites is one of the primary ways to minimize the discharge of pollutants to the stormwater drainage system. For development and re-development projects that results in a land disturbance of greater than or equal to one acre, or disturbs less than one acre if the development or redevelopment is part of a larger common plan of development or sale that would disturb one acre or more, requires coverage under the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado, COR400000 (i.e., the 2017 Construction General Permit or “CGP”). For these regulated projects, an operator specific Notice of Intent (NOI) and site-specific Stormwater Pollution Prevention Plan (SWPPP) will be developed and implemented to meet permit requirements and control the discharge of pollutants off of the construction site. A Notice of Termination (NOT) will be filed once construction is complete and the site has been finally stabilized as defined in the CGP.

A construction project oversight program will be developed to oversee compliance with the CGP and site-specific SWPPP. The construction oversight program will include construction site inspection criteria, scheduling, responsibilities, procedures to address noncompliance, and inspection form. The Water Quality Program Manager is responsible for developing the construction project oversight program.

#### **Measurable Goal**

- Develop a written construction oversight program and inspection plan for use by Peterson AFB stormwater managers. The construction oversight program will include a list of policies and procedures that can be used to enforce compliance with applicable stormwater discharge permits related to construction activities. (Year 1)

#### **Documentation and Report Procedures**

- The MS4 Annual Report must include a description of the regulatory mechanism used to require sediment and erosion controls. Typically, the construction contract and standard specifications related to environmental and stormwater management include provisions for erosion and sediment controls as well as compliance with applicable discharge permits. Government contractors must comply with Federal Acquisition Regulations and contract requirements, including environmental protection. Acquisition regulations and contracts contain specific enforcement provisions for non-compliance by contractors. Enforcement provisions include cure notices, contract termination, stop work orders, liquidated damages, negative contractor performance ratings, and being precluded from future government contracts. Enforcement against government contractors is a contracting officer responsibility with input and support from quality assurance evaluator and subject matter experts on Peterson AFB.

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- The MS4 Annual Report must include a description of the procedures to address noncompliance and enforcement mechanisms used at Peterson AFB to ensure construction activities are in compliance with applicable stormwater discharge permits. Construction contracts include provisions for non-compliance with contract requirements and specifications as well as legal procedures for enforcing contract provisions.

### *CON-2 Construction Project Oversight Inspections*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.5.5, 2.5.7, and 2.5.8 of the Peterson AFB MS4 Permit and will implement the inspection plan developed as part of CON-1.

#### **Implementation Details**

Construction oversight inspections accomplish the following:

- Ensure detailed on-site knowledge of construction project permitting and compliance requirements.
- Allow Peterson AFB additional opportunities to provide guidance and education regarding construction site runoff control.
- Enable Peterson AFB to establish a relationship with construction personnel.
- Enable Peterson AFB to provide timely feedback on construction site stormwater compliance.
- Enhance Peterson AFB MS4 protection efforts.
- Ensure signs are posted at the construction site IAW the CGP containing SWPPP and contact information.

The Water Quality Program Manager will perform periodic inspections of construction site to assess compliance.

#### **Measurable Goal**

- Conduct oversight compliance assistance inspections of permitted construction sites (greater than 1 acre in size or part of a large common plan of development that will cumulatively disturb 1 acre or more) at least quarterly and prior to construction permit termination to verify final stabilization has been met on all areas of the site. Peterson AFB will develop a spreadsheet based prioritization model to guide additional construction oversight inspections based on project location, size, and nature of construction activity, site characteristics, and compliance history of construction contractor. (Years 1–5)

#### **Documentation and Report Procedures**

- The MS4 Annual Report must include a description of permitted construction activities occurring on Peterson AFB during the term of the MS4 Permit. For each permitted construction project, semi-annual inspections are required and must be documented using an installation developed inspection form.

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### *CON-3 Construction Site Stormwater Training*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.2.2 and 2.2.7 of the Peterson AFB MS4 Permit

#### **Implementation Details**

Construction project oversight is a team effort at Peterson AFB. The Water Quality Program Manager provides guidance but responsibility for executing effective construction site stormwater controls resides with contractors and other base personnel. Oversight of stormwater compliance at these sites requires training on stormwater compliance requirements. The Water Quality Program Manager will facilitate (provide training resources and other support) construction site stormwater training annually for quality assurance evaluators. The training will include, at a minimum, BMP installation and maintenance as well as CGP compliance requirements. The Engineering Flight and Installation Management Flight Chiefs are responsible for approving and monitoring of training for quality assurance personnel.

#### **Measurable Goal**

- Document the number of Peterson AFB construction site quality assurance personnel who have received construction stormwater compliance annual training. (Years 1–5)

#### **Documentation and Report Procedures**

- The Engineering Flight Chief and Water Quality Program Manager will oversee the construction site stormwater training program. The training program can be performed using internal Peterson AFB resources, established Air Force wide training programs, outside training sources, or other training mechanism agreed upon by the Engineering Flight Chief and Water Quality Program Manager. A roster of personnel who receive approved construction site stormwater management training will be maintained and the number of personnel who receive training on an annual basis will be reported in the Peterson AFB MS4 Annual Report.

### *CON-4 Design Review and Construction Site BMP Information*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.5.4 of the Peterson AFB MS4 Permit

#### **Implementation Details**

Peterson AFB currently implements a design review process for design and construction projects. This existing design review process provides Peterson AFB environmental management, engineers, and planners the opportunity to review site plans, evaluate statements of work, and incorporate consideration of potential water quality impacts. The construction contractor must prepare and implement a CGP compliant SWPPP, implement construction site stormwater BMPs, and comply with requirements of construction project specifications and drawings. CGP and

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SWPPP compliance guides as well as SWPPP template are made available to construction contractors to support this BMP. The 21st CES Engineering Flight is responsible for implementing the design review process.

### **Measurable Goal**

- Maintain existing review process for design and construction projects planned for Peterson AFB. (Years 1–5)

### **Documentation and Report Procedures**

- In accordance with AFIs and the *United States Air Force Project Managers' Guide for Design and Construction* requirements, all development and redevelopment projects planned for Peterson AFB must be reviewed by 21st CES representatives. The designated government design and construction management agent is responsible for maintaining review comments with the official project folder. The 21st CES Water Quality Manager will provide CGP, SWPPP, and SWPPP guidance as required for specific construction projects. CGP information, SWPPP guidance, and SWPPP templates can include Peterson AFB specific documents or Federal EPA produced documents.

### ***CON-5 Site Plan and Construction Stormwater Pollution Prevention Plan Review***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.5.6 of the Peterson AFB MS4 Permit

### **Implementation Details**

Peterson AFB has established procedures for site plan review by reviewing construction site SWPPP for construction activities requiring coverage under the CGP. During the review process, the Peterson AFB Environmental Element provides comments concerning the contractor's SWPPP. The contractor maintains ultimate responsibility for complying with the CGP and site-specific SWPPP. This process will be maintained and the Water Quality Program Manager will document comments made to contractor SWPPPs.

### **Measurable Goal**

- Maintain existing site plan and SWPPP review process. Document site plan and SWPPP reviews and record any comments provided to the construction entity pertaining to the contractor's SWPPP. Dates and copies of SWPPP review comments will be maintained by the Environmental Element (Years 1–5).

### **Documentation and Report Procedures**

- The date and a copy of comments provided to contractors pertaining to site-specific SWPPPs will be maintained by the Environmental Element. Comments can be submitted electronically or via hard copy to contractors. Records will be maintained as appropriate and depending on submittal method.

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### ***7.5 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.

Standard Post-Construction Runoff Control BMPs include:

- Develop strategies for implementing both structural and non-structural BMPs in the development
- 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*

One of the best opportunities to reduce non-point source pollution is through informed project planning and design. Once construction is complete, rectifying stormwater quality problems can become significantly more complex and expensive to correct. The Post-Construction Stormwater Management (PC) MCM focuses on site and design considerations as they relate to stormwater quality, which are most effective when addressed in the planning and design stages of project development.

The following BMPs will be implemented by Peterson AFB over the next 5 year permit term. The Peterson AFB Water Quality Program Manager is responsible for coordination and implementation of the post-construction stormwater management program.

#### ***PC-1 Post-construction Stormwater Management Program***

##### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.6.1 and 2.6.2 of the Peterson AFB MS4 Permit

##### **Implementation Details**

The Peterson AFB MS4 Permit requires the establishment and implementation of a process to ensure that all new and redevelopment projects, disturbing equal to or greater than one acre and discharge into the Peterson AFB MS4, are designed and constructed with permanent post-construction stormwater control measures to prevent or minimize water quality impacts. Additionally, the Peterson AFB MS4 permit requires that structural or nonstructural BMPs be designed and installed to attempt to maintain onsite runoff conditions, except to the extent it is impracticable to do so.

For the purposes of compliance with the Peterson AFB MS4 Permit, the predevelopment runoff condition at Peterson AFB is defined as the existing runoff conditions, at each major outfall, on 1 January 2016, the effective date of the modified Peterson AFB MS4 Permit. The predevelopment runoff condition at Peterson AFB includes all previously completed projects as well as development and redevelopment projects that are contracted for construction on or before 1 January 2016, the effective date of the modified Peterson AFB MS4 Permit. Furthermore, predevelopment runoff conditions to be considered include rate, volume, and duration of

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stormwater flow from Peterson AFB at each of the major outfalls. The 21 CES Engineering Flight is responsible for performing, or obtaining from design and construction contractors, the predevelopment and post-development runoff condition analysis for projects that meet the thresholds outlined in the Peterson AFB MS4 Permit and this SWMP. The 21 CES Water Quality Manager will provide technical guidance and review hydrologic analysis to support compliance with the Peterson AFB MS4 Permit.

### **Measureable Goal**

- Predevelopment runoff conditions at Peterson AFB are defined in the SWMP. (Year 1)
- Develop a written post-construction stormwater management program that details the process for evaluating predevelopment runoff conditions compared to post-construction runoff conditions at Peterson AFB. (Prior to 1 January 2016, one year following the effective date of the modified MS4 Permit)

### **Documentation and Report Procedures**

- This BMP is applicable to development and redevelopment projects occurring on Peterson AFB that disturb equal to or greater than one acre. These projects also require permitting under the CGP as discussed in CON-1. Projects disturbing less than one acre in size are not specifically subject to the post-construction stormwater control requirements of Paragraph 2.6.1 of the MS4 Permit. The second trigger for MS4 Permit Paragraph 2.6.1 compliance is that stormwater from the development or redevelopment project must enter the Peterson AFB stormwater conveyance system (MS4). The majority of development and redevelopment projects on Peterson AFB will discharge into the stormwater conveyance system. For projects that trigger both requirements, Peterson AFB, or design and construction engineers, will perform a hydrologic analysis that compares predevelopment and post-development runoff conditions. Permanent post-construction stormwater controls shall be designed and installed to attempt to maintain predevelopment runoff conditions for rate, volume, and duration of flow. Hydrologic analysis will be maintained with the project folder.

### ***PC-2 Design Review Process and Impracticality Determination Documentation for Post Construction Stormwater Controls***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.6.3 and 2.6.4 of the Peterson AFB MS4 Permit

### **Implementation Details**

Peterson AFB currently implements a design review process that involves multiple levels of review for design and construction projects. This existing design review process provides Peterson AFB environmental management, engineers, and planners the opportunity to review site plans and consideration of potential water quality impacts, including post-construction stormwater controls. The 21 CES Engineering Flight is responsible for implementing the design review process and documenting all impracticality determinations for development and redevelopment projects occurring on Peterson AFB. The modified Peterson AFB MS4 Permit



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and Statement of Basis contain specific scenarios for impracticability determinations related to post-construction stormwater control measure design and installation. All impracticability determinations should be included in the existing design review process. Copies of all impracticability determinations must be provided to the Peterson AFB Water Quality Program Manager. As required by the Peterson AFB MS4 Permit, the following information must be detailed for all new and redevelopment projects in which predevelopment runoff conditions cannot be maintained:

- 1). Name, locations, and identifying project description;
- 2). The reason(s) for making the impracticability determination;
- 3). Any information developed or relied upon to support the impracticability determination (e.g., feasibility analyses, geologic studies, groundwater data, etc)

### **Measureable Goal**

- Maintain existing review process for design and construction projects planned for Peterson AFB. Include evaluation of predevelopment runoff conditions in design review process. (Years 1–5)
- Document all impracticability determination and provide supporting documentation to the Peterson AFB Water Quality Program Manager.

### **Documentation and Report Procedures**

- In accordance with several AFIs and the *United States Air Force Project Managers' Guide for Design and Construction*, all development and redevelopment projects planned for Peterson AFB must be reviewed by 21 CES representatives. The designated government design and construction management agent is responsible for maintaining review comments with the official project folder.
- The Peterson AFB MS4 Annual Report must include a description of any impracticability determinations made during the reporting period, including:
  - 1). Name, locations, and identifying project description;
  - 2). The reason(s) for making the impracticability determination; and
  - 3). Any information developed or relied upon to support the impracticability determination (e.g., feasibility analyses, geologic studies, groundwater data, etc)

### ***PC-3 Inventory, Visual Inspection, and Maintenance of Post-construction Stormwater Controls***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.6.6; 2.6.8; and 2.6.9 of the Peterson AFB MS4 Permit

### **Implementation Details**

The Peterson AFB MS4 Permit requires all new post-construction stormwater controls to be included in a georeferenced data management system. Peterson AFB has developed a map of the installation storm sewer system that identifies drainage conveyance, storm drain inlets, basins,

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culverts, outfalls and BMPs. This map will be updated to account for modifications of the system. Construction contractors are required to provide as-built drawings of storm sewer system modifications to the GeoBase Office for incorporation into the overall base map. The Water Quality Program Manager and GeoBase Office will conduct an annual review of the Peterson AFB structural post-construction stormwater controls inventory/map to ensure updates are being made. Any structural post-construction stormwater controls missing from the inventory will be added during the annual review

As a non-traditional MS4, Peterson AFB is the final owner of nearly all post-construction BMPs. Inspection and maintenance of these post-construction stormwater controls is critical to ensuring long-term operation and improved downstream water quality. To properly maintain existing and future structural BMPs, the Water Quality Program Manager will perform a visual inspection of each structural post-construction stormwater BMP at least annually. Structural post-construction stormwater BMPs for the purposes of this BMP include the following structural control measures: detention ponds, bioretention areas, outfalls, and check dams. Inlets and culverts will be inspected as part of P2-4 presented in the next section of this SWMP. Maintenance will be initiated based on inspection findings.

### **Measurable Goal**

- Conduct annual review of the post-construction stormwater controls inventory/map and make required updates. (Years 1–5)
- Document annual visual inspection results and maintenance requirements. Track corrective actions until maintenance or repair is completed. Any permanent post-construction stormwater control measures that are under warranty, typically 1 year following installation, will be annotated and the appropriate official responsible for warranty enforcement will be notified. (Years 1–5)

### **Documentation and Report Procedures**

- Structural post-construction stormwater BMPs, defined as detention ponds, bioretention areas, outfalls, and check dams for the purposes of this BMP, will be inspected at least annually. Any maintenance requirements will be identified on the inspection report. As required, BMP maintenance and repairs will be requested through the appropriate organizations.
- This BMP will be accomplished in conjunction with the annual review of the Peterson AFB storm sewer system GIS map (IDE-1). The annual review will be documented via MFR to be signed by the Water Quality Program Manager. The MFR will annotate the date in which the review was accomplished as well as results of the review process.

### ***PC-4 Visual Inspection of New Post-construction Stormwater Controls***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.6.7 of the Peterson AFB MS4 Permit

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### **Implementation Details**

In accordance with the Peterson AFB MS4 Permit, all newly installed post-construction stormwater control measures must be inspected to ensure functionality prior to closing out contracts. The 21st CES Water Quality Manager is responsible for implementing this inspection process in conjunction with the contracting agent.

### **Measurable Goal**

- Document inspections of all newly installed post-construction stormwater control measures prior to closing out contracts. (Years 1–5)

### **Documentation and Report Procedures**

- All new post-construction stormwater control measures will be inspected for functionality and inspection results will be documented. For new post-construction stormwater control measures installed at locations not permitted under the CGP, the Water Quality Program Manager will be required to perform the inspection after installation. Coordination with the 21st CES Engineering Flight is required to identify all new post-construction stormwater controls being installed on Peterson AFB.

### ***PC-5 Natural Resource Management Plan Update***

### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.6.5 of the Peterson AFB MS4 Permit.

### **Implementation Details**

In accordance with the Peterson AFB MS4 Permit, hydrologic performance specifications and information related to the design and maintenance of permanent stormwater control measures will be incorporated into updated natural resource management plans. The 21st CES Environmental Element is responsible for implementing this BMP.

### **Measurable Goal**

- Hydrologic performance standards and information related to design and maintenance of permanent post-construction stormwater controls are included in natural resource plans when these plans are updated. (Year 5)

### **Documentation and Report Procedures**

- During the next major rewrite and update of Peterson AFB natural resource management plans, hydrologic specifications as well as information related to design and maintenance of post-construction stormwater control measures will be incorporated into the updated natural resource plans. References to existing Department of Defense and Air Force guidance, such as Unified Facilities Criteria, can be used to meet this requirement. The MS4 Annual Report will include the date of the natural resource plan updates and a summary of changes recommended to address post-construction stormwater controls.

**7.6 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

Standard 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*

The purpose of this MCM is to implement Pollution Prevention and Good Housekeeping practices to prevent or reduce pollutant runoff from municipal operations at Peterson AFB. The following BMPs are either existing or will be implemented by Peterson AFB over the next 5-year permit term. The Pollution Prevention and Housekeeping (P2) BMPs are described in the following subsections.

***P2-1 Conduct Annual Stormwater Training for All Fleet Maintenance and Civil Engineer Shops***

**Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.2 of the Peterson AFB MS4 Permit

**Implementation Details**

Peterson AFB will develop and provide annual training to fleet maintenance and civil engineer shop personnel. The annual training must include stormwater runoff impacts, controls, and maintenance of onsite pollution control measures. The specific delivery method of annual training is not specified in the MS4 Permit; however the permit does allow a train-the-trainer approach in which training can be provided to a single point of contact for each facility for further distribution to fleet maintenance and shop personnel. The awareness training can be provided in person or via handout/electronic methods. The Peterson AFB Water Quality Program Manager is responsible for overseeing this training.

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### **Measurable Goal**

- Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date. (Years 1–5)

### **Documentation and Report Procedures**

- The Peterson AFB Water Quality Program Manager will develop a fact sheet targeted at appropriate planning staff, project managers and contracting officers. The fact sheet will describe impacts of stormwater runoff, control measures, and maintenance of control measures. The fact sheet will also provide contact information for additional details concerning the Peterson AFB stormwater program. The fact sheet will be emailed to 21 CES Operations Flight personnel, 21 CES Operations Flight personnel, 21 LRS fleet maintenance personnel and appropriate tenant unit environmental coordinators. At a minimum, the following tenant units will receive the fact sheet: Colorado Army National Guard, Marines, Navy Reserve and the Aerospace Data Facility-Colorado with instructions to provide the fact sheet to appropriate fleet maintenance personnel. It is assumed that all personnel receiving the emailed fact sheet will review the content. The Peterson MS4 Annual Report will include the date in which the fact sheet was emailed as well as a copy of the fleet maintenance and civil engineer shop personnel fact sheet.

### ***P2-2 Snow and Ice Control Training***

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.3 of the Peterson AFB MS4 Permit

#### **Implementation Details**

The seasonal conditions in Colorado require Peterson AFB to be prepared for extreme weather events. To ensure that base personnel are prepared for snow and ice control prior to the winter season, annual training will be provided to snow and ice control operations personnel. Training will include sand, salt, deicing and anti-icing agent application; snow removal and dump guidance; and equipment training. The 21 CES Operations Flight is responsible for providing and documenting this training.

### **Measurable Goal**

- Conduct training once per year and maintain attendance roster. (Years 1–5)

### **Documentation and Report Procedures**

- Dates and attendance rosters for annual snow and ice control training will be maintained by the 21 CES Operations Flight. A description of training content and list of positions trained must be provided with the MS4 Annual Report. In accordance with AFI 32-1002 Snow and Ice Control, training is required for Peterson AFB personnel who operate snow and ice control equipment, including deicing and traction equipment. Training includes equipment operation,

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priorities, and snow dump locations. Training must be provided prior to the deicing season, typically in September.

### *P2-3 Street Sweeping*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.5 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

Peterson AFB executes a street sweeping program to remove debris and materials deposited on streets to remove this material prior to the contaminant entering the stormwater drainage system. The installation will continue this service on base roads and parking lots. The sweeping program will focus on areas of sediment and debris accumulation rather than a set route. The 21 CES Operations Flight is responsible for executing the street sweeping program.

#### **Measurable Goal**

- Accomplish an average of 20 hours of street sweeping per month. (Years 1–5)

#### **Documentation and Report Procedures**

- The number of hours of street sweeping per month is maintained by the 21st CES Operations Flight and is tracked in the IWIMS or other Air Force approved system. Street sweeping is accomplished based on need versus a set schedule. The Peterson MS4 Permit requires the SWMP to include a description of the street sweeping program (provided within the BMP). The MS4 Annual Report requires a description of any evaluations performed on street cleaning operations or any new measures taken related to street sweeping to minimize the negative impacts to water quality. Any street sweeping evaluations performed will be reported in the MS4 Annual Report.

### *P2-4 Storm Drain Inlet Inspection and Maintenance Schedule*

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.4 of the Peterson AFB MS4 Permit

#### **Implementation Details**

Peterson AFB will inspect storm drain inlets and culverts for maintenance requirements. The results of each inspection will be recorded and developed into a maintenance plan. The plan will identify a proposed cleaning schedule and methods to accomplish the required maintenance. The 21 CES Operations Flight will manage this task, accomplish the inspections, and update the maintenance plan annually.

#### **Measurable Goal**

- Inspect an average of 5 percent of storm drain inlets and culverts per quarter. Develop maintenance schedule based on inspection results. Document cleaning

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activities, waste disposal practices, and amount of debris collected during maintenance (Years 2–5).

### **Documentation and Report Procedures**

- The 21st CES Operations Flight is responsible for maintenance of the stormwater conveyance system including inspection and clean out of storm sewer inlets. The MS4 Annual Report requires a description of any evaluations performed on catch basin cleaning operations or any new measures taken related to catch basin cleaning to minimize the negative impacts to water quality. Any catch basin cleaning evaluations performed will be reported in the MS4 Annual Report.

### ***P2-5 Evaluation of Airborne Particulates from Municipal Storage Piles***

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.6 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

The 21 CES Operations Flight operates and maintains the primary storage piles and yards for municipal operations on Peterson AFB.

#### **Measurable Goal**

- By the end of year 2, the Peterson AFB Water Quality Manager will complete an evaluation of the need for and application of covers to prevent airborne disposition of particulates from storage piles on Peterson AFB. A MFR will be generated describing the evaluation and results. (End of Year 2)

### **Documentation and Report Procedures**

- The Peterson AFB Water Quality Program Manager will complete the evaluation and develop the MRF. The Year 2 MS4 Annual Report will include a description of the evaluation and practices implemented based on the evaluation.

### ***P2-6 Evaluation of Municipal Operations***

#### **Permit Cross-Reference**

This BMP supports compliance with Paragraph 2.7.1 of the Peterson AFB MS4 Permit.

#### **Implementation Details**

As required by Paragraph 2.7.1 of the Peterson AFB MS4 Permit, the Peterson AFB Water Quality Program Manager will coordinate with organizations responsible for street cleaning, catch basin cleaning, and street snow/ice control to evaluate existing operations to minimize negative impacts to water quality. The evaluation will include existing practices for waste disposal and maintenance operations. The evaluation must identify any actions or improvements necessary to minimize negative water quality impacts and timelines for incorporating such action

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or improvements. The Peterson AFB Water Quality Program Manager is responsible for coordinating and completing this evaluation.

### **Measurable Goal**

- By the end of year 4, the Peterson AFB Water Quality Manager will complete an evaluation of municipal operations, including but not limited to: street cleaning operations; catch basin cleaning operations; and street snow/ice control operations. A MFR will be generated describing the evaluation and results. (End of Year 4)

### **Documentation and Report Procedures**

- The Peterson AFB Water Quality Program Manager will complete the evaluation and develop the MRF. The Year 4 MS4 Annual Report will include a description of the evaluation and practices implemented based on the evaluation.

## **8.0 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, The Air Force Inspection System](#)
- [ETL 14-1, Construction and Operation and Maintenance Guidance for Storm Water Systems](#)
- [Water Quality Program Management Playbook](#)
- [AFLOA Water Quality Legal and Other Requirements](#)
- [eDASH Water Quality Program Page](#)
- [eDASH Training Matrix](#)
- [ADLS](#)

### *Installation References*

- Peterson AFB eDASH site and associated support, current plans (SPCC Plan, INRMP, etc)

## **9.0 ACRONYMS**

### *Standard Acronyms*

*(Applicable to all AF Installations)*

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



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### *Installation Acronyms*

- None, applicable acronyms covered by the above references.

## **10.0 DEFINITIONS**

### *Standard Definitions*

*(Applicable to all AF Installations)*

- [Water Quality Playbook Definition Section](#)

### *Installation Definitions*

- None, applicable definitions covered by the above reference

## **11.0 INSTALLATION – SPECIFIC CONTENT**

Monitoring is an important component of stormwater management programs so decision makers can evaluate program progress and focus future efforts to address targeted concerns. Paragraph 3.1.1 of the Peterson AFB MS4 Permit requires the installation to develop a monitoring program to assess streambank stabilization and water quality for the East Fork of Sand Creek at a minimum. The monitoring program shall specifically address Peterson AFB's potential contribution of contaminants of concern in Sand Creek and Fountain Creek.

Peterson AFB must develop and submit a proposed monitoring program to EPA Region 8 with the Year 3 MS4 Annual Report. EPA Region 8 will review the proposed monitoring program to determine whether the program meets the goals of the Peterson AFB MS4 Permit as well as if the data is being collection and reported in compliance with procedures approved under 40 Code of Federal Regulations (CFR) Part 136. Peterson AFB will comply with the monitoring program development requirements and monitoring program will begin once the proposed program has been reviewed by EPA Region 8

## **APPENDICES**

- Appendix A NPDES Permit Number COR042006 Municipal Separate Storm Sewer System Permit for Peterson Air Force Base
- Appendix B Peterson Air Force Base Municipal Separate Storm Sewer System Map