

SPACE BASE DELTA 2
BUCKLEY SPACE FORCE BASE COLORADO



STORMWATER MANAGEMENT PROGRAM
PLAN

**National Pollutant Discharge Elimination System (NPDES)
Individual Permit # COR 042003 for Stormwater Discharges
from Municipal Separate Storm Sewer System (MS4)**

1 November 2024

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REVIEW LOG

Reviewer	Role	Review Date	Change
Matt Cohen	460 CES/CEIE	10 March 2023	Review
Matt Cohen	460 CES/CEIE	2 July 2024	Review
Greg Vierra, Matt Cohen, Brandon Fellner	460 CES/CEIE, AFCEC	4 September 2024	Revise for new MS4 permit
Matt Cohen	460 CES/CEIE	1 November 2024	Review
Matt Cohen	460 CES/CEIE	21 March 2025	Review
Matt Cohen	460 CES/CEIE	2 April 2025	Review
Matt Cohen	460 CES/CEIE	20 October 2025	Administrative changes; Content adjustments, rearranged sections; added sections.
Matt Cohen	460 CES/CEIE	1 April 2026	Updated PEO-1 to reflect new FM training schedule
Matt Cohen	460 CES/CEIE	1 April 2026	Renamed PEO-2

INTRODUCTION

Buckley Space Force Base (SFB) must comply with federal and state regulations related to environmental protection while ensuring mission accomplishment. One of the primary environmental laws impacting Buckley SFB is the federal Clean Water Act (CWA) and associated implementing regulations. The purpose of the CWA is to protect and restore the physical, chemical, and biological integrity of our nation’s waterways by controlling and limiting discharges of pollutants to these waterways.

In accordance with the CWA and implementing regulations, Buckley SFB is a small municipal separate storm sewer system (MS4) requiring coverage under the National Pollutant Discharge

Elimination System (NPDES) for stormwater discharges. Buckley SFB previously discharged municipal stormwater under a NPDES General Permit for Stormwater Discharges from Federal Facility Small MS4s in Colorado. This general permit was effective from 23 Jun 2003 through 22 Jun 2008 and was administratively extended through 2013. Region 8 of the United States Environmental Protection Agency (EPA) decided to issue individual MS4 discharge permits to Federal Facilities in Colorado rather than issuing a new General Permit.

Buckley SFB was issued NPDES Permit Number COR 042003 (MS4 Permit) from EPA Region 8. The permit effective date is 1 November 2023 with authorization to discharge expiring at midnight on 31 October 2028.

A requirement of the Buckley SFB MS4 Permit is development of a Stormwater Management Program (SWMP) to implement the terms and conditions of the MS4 Permit. Buckley SFB must update the existing SWMP to comply with the new requirements of the MS4 permit with effective date of 1 Nov 2023 within one year after the effective date of this permit. The MS4 Permit defines the SWMP as a comprehensive program to manage the quality of stormwater discharged from an MS4 through implementation of Best Management Practices (BMPs). The MS4 Permit requires the development and implementation of BMPs to address six Minimum Control Measures (MCMs), which are (1) Public Education and Outreach on Stormwater Impacts, (2) Public Involvement and Participation, (3) Illicit Discharge Detection and Elimination, (4) Construction Site Stormwater Runoff Control, (5) Post-Construction Stormwater Management in New Development and Redevelopment, and (6) Pollution Prevention/Good Housekeeping for Municipal Operations. Buckley SFB must conduct an annual review of the SWMP in conjunction with preparation of the annual report.

PURPOSE

The SWMP describes BMPs, measurable goals, and documentation procedures to comply with the MS4 Permit terms and conditions. Also, this SWMP serves 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 Buckley SFB's regulatory body (i.e. EPA Region 8), installation organizations, contractors, and the public throughout the Buckley SFB community.
 - Be dynamic and adaptively managed to address changes in 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 MS4 Permit. Note, the schedule for BMP implementation will extend due to permit continuance until the permit renewal is issued and effective.
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BUCKLEY SFB OVERVIEW

Space Base Delta 2 (SBD2), which is the host unit on Buckley SFB and falls under the direction of the United States Space Force (USSF) which ultimately falls under the Department of Air Force (DAF), has a stated mission “to deliver unrivaled combat support to our Joint mission partners and Allies, enabling uninterrupted missile warning, intelligence, and cyber operations.” The USSF is a military service that organizes, trains, and equips space forces to protect U.S. and allied interests in space and to provide space capabilities to the joint force. USSF responsibilities include developing military space professionals, acquiring military space systems, maturing the military doctrine for space power, and organizing space forces to present to our Combatant Commands. Besides being the home of SBD2, Buckley SFB also hosts Space DEL 4 Missile Warning Delta, the 140th Wing, Colorado Air National Guard (COANG), the Navy Operational Support Center, the Aerospace Data Facility-Colorado, the Army Aviation Support Facility and the Air Reserve Personnel Center; these are also known as the "Big Six" mission partners at Buckley.

Buckley SFB is located on 3,311 acres of flat to rolling uplands on the eastern edge of urbanized portions of the City of Aurora. As of 2021, the base consists of about 620 acres of impervious/improved area, approximately 1,396 acres designated as semi-improved land and approximately 1,068 acres designated as unimproved/pervious. The MS4 Permit covers all areas of the MS4 within the exterior boundary of Buckley SFB. The MS4 consists of surface and subsurface conveyance including inlets, junction points, headwalls, culverts, structural controls such as detention ponds, and open channels. There are more than 24 miles of stormwater pipe, 5 miles of stormwater culverts, and 25 miles of open channel conveyance on Buckley SFB.

Stormwater drainage on Buckley SFB is identified by four major drainage basins: Sand Creek Drainage Basin, Murphy Creek Drainage Basin, Granby Ditch Drainage Basin, and East Toll Gate Creek Drainage Basin. Stormwater runoff leaving the Base flows into named and unnamed tributaries to Sand Creek, which generally flows to the northwest and discharges into the South Platte River about 12 miles downstream from Buckley SFB. Drainage from the eastern portion of the Base, Murphy Creek Drainage Basin, naturally drains overland into Murphy Creek. Murphy Creek flows to the northwest until it joins Sand Creek. Drainage from the northeastern and northern portion of the Base flows to Sand Creek. Drainage from the northwestern portion of the Base (Granby Ditch Drainage Basin) flows into the City of Aurora storm sewer system (via an open channel ditch and Granby Ditch) and then to Toll Gate Creek. Drainage on the western and southwestern portion of the Base (East Toll Gate Creek Drainage Basin) flows directly to East Toll Gate Creek.

MINIMUM CONTROL MEASURES AND BMPS

“Minimum Control Measures” is the term used by the EPA for the six MS4 program elements aimed at achieving improved water quality. The MS4 Permit specifies that the SWMP must include BMPs to address requirements of the following six minimum measures:

- Public Education and Outreach on Stormwater Impacts.
 - Illicit Discharge Detection and Elimination.
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- Construction Site Stormwater Runoff Control.
- Post-construction Stormwater Management in New Development and Redevelopment; and
- Pollution Prevention / Good Housekeeping for Municipal Operations.

- Public Involvement and Participation.

BMPs have been developed pursuant to MS4 Permit requirements and to reduce the discharge of pollutants to the installation storm drain system. BMPs presented in this SWMP include operations, maintenance, planning, and construction. BMPs will be updated as appropriate to comply with the MS4 Permit requirements, as well as changes in installation mission or operations.

The BMPs described in Sections 3.0 through 9.0 will be implemented by Buckley SFB staff and outside contractors. Full development and implementation of BMPs will be completed through the 5-year implementation plan and during administrative continuance as presented in the following sections.

ROLES AND RESPONSIBILITIES

Implementation of the SWMP is a team effort involving multiple organizations and personnel across Buckley SFB. The following positions have key roles and responsibilities in implementing this SWMP:

Installation Commander (Space Base Delta 2/CC) – Responsible for mission operations on Buckley SFB and maintains overall responsibility for environmental compliance.

Commander, 460 Civil Engineer Squadron (460 CES/CC) – Responsible for leading, directing, and overseeing the 460 CES. The 460 CES is responsible for operations and maintenance of facilities and infrastructure owned by the SBD2 on Buckley SFB including compliance with environmental regulations. The 460 CES/CC is also responsible for coordinating with tenant organizations concerning tenant owned and operated facilities and infrastructure. The 460 CES/CC also coordinates with other commanders on Buckley SFB, as required, to meet mission requirements including environmental compliance.

460 Civil Engineer Squadron Installation Management Flight Chief (460 CES/CEI) - Responsible for real property, environmental, and asset management activities on Buckley SFB, including coordination with tenant organizations. The 460 CES/CEI is responsible for coordinating environmental compliance activities on Buckley SFB and supporting the Water Quality Program Manager with implementation of this SWMP.

460 Civil Engineer Squadron Engineering Flight Chief (460 CES/CEN) – Responsible for development and redevelopment projects on Buckley SFB, including coordination with tenants for tenant funded development and redevelopment projects. The 460 CES/CEN 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.

460 Civil Engineer Squadron Operations Flight Chief (460 CES/CEO) - Responsible for facility and infrastructure maintenance of 460 Space Wing owned assets. Schedules and directs recurring and non-recurring maintenance activities of facilities and infrastructure. Responsible for implementing the Buckley SFB Facility Management Program.

460 Civil Engineer Squadron Environmental Element Chief (460 CES/CEIE) – Responsible for overseeing and directing environmental compliance activities on Buckley SFB, including compliance with the Buckley SFB MS4 Permit. The 460 CES/CEIE Chief supervises the Water Quality and Hazardous Waste Program Managers and advocates for resources required for environmental compliance.

460 Civil Engineer Squadron Water Quality Program Manager (460 CES/CEIE) – Responsible for coordination and implementation of this SWMP as well as recordkeeping and reporting related to the Buckley SFB MS4 Permit.

460 Civil Engineer Squadron Stormwater Coordinator (460 CES/CEIE) – Responsible for coordination and implementation of this SWMP as well as recordkeeping and reporting related to the Buckley SFB MS4 Permit.

Privatized Housing Contractor – Responsible for maintaining and operating the on-base housing units on Buckley SFB. The Privatized Housing Contractor is responsible for developing and distributing informational materials to the residents of the housing areas, including the Buckley SFB Housing Rules and Guidelines. The privatized housing area is under the Buckley SFB MS4 jurisdiction as of 1 November 2023.

LEGAL AUTHORITY AND ENFORCEMENT

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 Buckley SFB. 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 Nonjudicial 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 SBD2/CC has the authority to bar individuals from accessing Buckley SFB. Enforcement procedures on Buckley SFB are administered by individual supervisors, commanders, Security Forces Squadron, and potentially off-installation law enforcement officers. These existing illicit discharge and illegal dumping procedures have worked effectively for Buckley SFB under the installation's previous MS4 Permit.

This section demonstrates Buckley's existing enforcement policy which effectively prohibits non-stormwater discharges into the storm sewer system. The MS4 Annual Report must include a description of the mechanism/ordinance used to prohibit illicit discharges into the MS4, illegal dumping enforcement actions taken. The above description concerning illegal dumping and enforcement procedures can be reported as an appropriate regulatory mechanism to prohibit and enforce illicit discharges on Buckley SFB.

PERMIT CROSS REFERENCE TABLE

MCM	MS4
PEO-1	2.2.1; 2.2.2; 2.2.3
PEO-2	2.2.1; 2.2.2,2.2.3; 2.2.4; 2.2.5
IDDE-1	2.3.1; 2.3.2; 2.3.3; 2.3.4; and 2.3.5; 2.3.6
IDDE-2	2.3.1; 2.3.6; and 2.3.7
IDDE-3	2.3.8
CON-1	2.4.1; 2.4.3; 2.5.1
CON-2	2.4.2
CON-3	2.4.4; 2.4.5; 2.4.6; 2.4.7
PC-1	2.5.1; 2.5.4; 2.5.5; 2.5.6
PC-2	2.5.2
PC-3	2.5.3
PC-4	2.5.7
P2-1	2.6.1; 2.6.2
P2-2	2.6.3
P2-3	2.6.1;2.6.4; 2.6.5;2.6.6; 2.6.8
PIP-1	2.7.1
PIP-2	2.7.1.2

PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

The goal of the Public Education and Outreach (PEO) MCM is to ensure greater public awareness of water quality and MS4 Permit requirements. Specifically, this MCM is intended to educate the Buckley SFB community (hereafter referred to as “the public”), which includes, but is not limited to: grounds maintenance personnel, facility managers, tenants, residents, contractors, project managers, contract managers, environmental staff and workers engaging in industrial activities, military, civilian, contractor, military dependents, and retired military personnel who work and utilize services on Buckley SFB. building managers, maintenance workers, and tenants.

The PEO program addresses potential pollutant sources, impacts of stormwater discharges, pollution prevention strategies, and proper waste disposal practices. Each permit year, and during periods of administrative continuance, Buckley SFB will provide informational materials and update them as necessary.

To accomplish the PEO-1, Buckley SFB will incorporate environmental protection awareness, compliance training into existing programs. Buckley SFB will provide Facility Manager training, Newcomer’s Orientations and distribute informational content to these attendees. The training content must include information on general water quality goals, potential pollutant sources, impacts of stormwater discharges and steps the public can take to reduce pollutants in stormwater runoff. The Water Quality Program Manager is responsible for coordinating and implementing the PEO BMPs.

Buckley SFB will provide excerpts from the PEO program and include the estimated number of people expected to have been reached in the permit year in the annual report.

PEO-1 DISTRIBUTE WATER QUALITY EDUCATIONAL MATERIAL

Implementation Details

- Facility Manager Training will be conducted as needed by 460 CES/CEO. Each facility on Buckley SFB 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. These trainings will cover environmental protection awareness, compliance and spill control, countermeasure, prevention, response training that covers potential pollutant sources, pollution prevention, illicit discharges, and proper waste disposal.
 - Conduct Newcomers Orientation at least quarterly. All personnel working at Buckley are required to attend newcomer’s orientation as part of the on-boarding process. At each orientation, personnel receive a briefing from 460 CES/CEIE on environmental awareness, including how to minimize, report, and recognize spills and illicit discharges. The 460 FSS is responsible for maintaining the Newcomers Orientation attendance roster.
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Documentation and Report Procedures

- Document all dates that Facility Manager and Newcomer's Orientation trainings were conducted as well as the dates any other materials were distributed to demonstrate compliance with the PEO-1 program in the MS4 Annual Report. Include copies or excerpts of educational materials provided in the MS4 Annual Report

PEO-2 TARGETED EDUCATION FOR NUTRIENT AND PESTICIDE REDUCTION

Implementation Details

- Provide the grounds contractors, grounds maintenance shops and/or other parties responsible for pesticide use with training at least once during the effective term of this Permit or within one year of beginning a new contract, whichever is sooner.
- The training content must include requirements for NPDES permitting, proper chemical disposal, impacts of Buckley SFB sources of nitrogen and phosphorus in stormwater runoff, illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nutrients.
- Encourage responsible fertilizer application, encouraging xeriscaping, proper disposal of leaves and lawn waste, and evaluating alternatives to deicers containing phosphorus.
- Determine sources (i.e., residential, industrial, agricultural, or commercial) of nitrogen and phosphorus that have potential (deicers containing phosphorus, application of fertilizers, and pet waste) to contact surface water.

Documentation and Report Procedures

- Dates and attendance rosters for stormwater training will be maintained by the Water Quality Program Manager. The MS4 Annual Report will include a summary of methods (in person, computer-based, etc.), frequency, and type of training provided.

ILLICIT DISCHARGE DETECTION 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 1.4.2 of the Buckley SFB MS4 Permit: 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. Illicit discharge sources must be controlled, and illegal behavior prohibited in accordance with the MS4 Permit.

1. Discharges authorized by a separate NPDES permit.
 2. Discharges in compliance with instruction of an On-Scene-Coordinator pursuant to 40 CFR Part 300 or 33 CFR 153.10(e).
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3. Water line flushing.
4. Landscape irrigation.
5. Diverted stream flows.
6. Rising ground waters.
7. Uncontaminated ground water infiltration.
8. Uncontaminated pumped ground water.
9. Discharges from potable water sources.
10. Foundation drains.
11. Air conditioning condensate.
12. Irrigation water.
13. Springs.
14. Water from crawl space pumps.
15. Footing drains.
16. Lawn watering.
17. Flows from riparian habitats and wetlands.
18. De-chlorinated swimming pool discharges.
19. Street wash water.
20. Power washing where no chemicals are used.
21. Individual residential car washing.
22. Roof drains; and
23. Discharges or flows from emergency firefighting 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.

Typical sources of illicit discharges include:

1. Sanitary wastewater,
2. Effluent from septic tanks,
3. Car wash wastewaters,
4. Improper used oil disposal,
5. Radiator flushing disposal,
6. Roadway spills,
7. Improper disposal of auto and household chemicals.

Buckley SFB performed annual dry weather screening of major outfalls and completed a stormwater system inventory and condition assessment study in 2013. Based on these investigations, Buckley SFB representatives have determined that no known cross-connections currently exist in which sanitary wastewater is entering the stormwater system. Buckley SFB reviews annually allowable non-stormwater discharges and will implement local controls (BMPs) as necessary to ensure that they are not significant contributors of pollutants to stormwater. Illicit discharges can also be reported by installation personnel using the stormwater action line or

through the Base Fire Department (720-847-9117). The action line email address goes directly to the Water Quality Program staff and 460 CES/CEIE Chief. The Base Fire Department will notify the 460 CES/CEIE of illicit discharges and spills as required by the Buckley SFB Spill Plan. The action line email address and phone number are advertised on stormwater related outreach materials to promote public involvement.

The following BMPs will be implemented by Buckley SFB during the five-year permit term and period of administrative continuance. The Water Quality Program Manager is responsible for coordinating and implementing the IDDE BMPs.

IDDE-1 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

Procedures for Detection, Investigation and Elimination

- Initial discovery. Report any release material to supervisor and 460 CES/CEIE Water Quality Program. 460 CES/CEIE will log all spills in EASIER.
- Immediately begin and thoroughly document root cause investigation within two (2) business days of detection.
- Abatement action underway within 15 business days.

Implementation Details

- 460 CES/CEIE will conduct and lead an annual review of the EPA IDDE Manual and confer with Buckley SFB stakeholders about allowable non-stormwater discharges and potential harm and need for control measures. Review of the EPA IDDE Manual familiarizes staff with procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system.
- Provide emergency contact information on any outreach materials as appropriate for building managers, project managers, and tenants.
- Maintain the stormwater action line email address (460ces.cevwater@us.af.mil). Document action line emails received from the public and actions taken in public participation log.
- Monitor daily Fire Department incident response reports for spill notifications.

Documentation and Report Procedures

- The MS4 Annual Report must describe the program used to detect and eliminate illicit discharges into the MS4, including procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system.
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- The MS4 Annual Report must describe the categories of non-stormwater discharges evaluated as potentially being significant contributors of pollutants to the MS4 and any local controls placed on these discharges.
- If illicit discharge occurs – The MS4 Annual Report must describe the discharge, timeline of actions including actions taken to eliminate the source and include a copy of the EASIER spill record. Maintain documentation related to the illicit discharge detection and response as well as any sample and analytical data.
- Document the annual review of the EPA IDDE Manual and if there are any additional controls needed for discharges.
- Distribute emergency spill contact information to all building managers, project managers, and tenants and include contact information.
- Document the time required to investigate, plan, and correct confirmed illicit discharges identified on Buckley SFB. For confirmed illicit discharges, Buckley SFB will investigate any illicit discharge within two (2) business days of its detection and take action to eliminate the source of the discharge within fifteen (15) business days of its detection (or obtain permission from the EPA for such longer periods as may be necessary instances).

IDDE-2 DRY WEATHER SCREENING OF MAJOR OUTFALLS

Implementation Details

- Conduct and document dry-weather screening at all Buckley SFB outfalls at least once during the permit 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 IAW paragraphs 2.3.5 and 2.3.7 of the MS4 Permit. Additionally, dry weather screening will annotate any significant erosion issues at the outfall locations. Dry weather screening efforts will be documented and maintained in an information system for tracking purposes.
 - If dry weather discharge is detected –
 - Document results of any follow up illicit discharge investigation or assessments.
 - Semi-annual Phosphorus monitoring is to occur for flows greater than 5-gallons per minute at outfalls 1A, 1B, 1C, 2, 3, 6D, 11
 - If an illicit discharge is detected, an assessment of that discharge shall be made. The assessment should first be used to determine the source of the dry weather discharge and if it can be readily remedied (e.g., landscape watering). Field sampling should be used when it is not possible to eliminate a dry weather discharge. Sampling could include field tests of selected chemical parameters as indicators of discharge sources where dry weather flows are detected. Screening level tests may utilize less expensive “field test kits” using test methods not approved by the provided the manufacturer’s published detection ranges are adequate for the illicit discharge detection purposes.
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Documentation and Report Procedures

- Document dry weather screening and erosion evaluation.
- The annual report will describe the location and method of dry weather screening by including a copy of the field form used at each of Buckley's outfalls.
- A description of illicit discharges abated, and all actions taken to eliminate sources of illicit discharges.

IDDE-3 STORM SEWER SYSTEM MAP

Implementation Details

- Buckley SFB has developed a map of the installation storm sewer system that identifies drainage conveyance, storm drain inlets, basins, culverts, outfalls and BMPs. The Buckley SFB GIS storm sewer system map is updated quarterly by AFMC AFCEC/CZO contract with CSU-CEMML.

Documentation and Report Procedures

- Maintain updated map of stormwater drainage system within BSFB property showing location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls.
- Description of the schedule and/or progress in creating a complete storm sewer map.

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Department of the Air Force and the United States Air Force Project Managers' Guide for Design and Construction requirements, requires that all development and redevelopment projects planned for Buckley SFB must be reviewed by 460 CES representatives. The designated government design and construction management agent is responsible for maintaining review comments with the official project folder.

The Buckley SFB CON program is maintained to ensure that projects incorporate appropriate control measures that are selected, designed, installed, implemented, and maintained to minimize all potential pollutants, such as but not limited to sediment, construction site waste, trash, discarded building materials, concrete truck washout, chemicals, sanitary waste, and contaminated soils in discharges to the MS4. Embedded within the Buckley SFB CON program is the 460 CES/CEIE project review process that ensures all proposed construction on Buckley SFB receive enforceable guidance that reduces pollutants in stormwater runoff and outlines all other applicable environmental compliance criteria to ensure compliance with the federal, state and local laws and regulations.

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 documented input and support from quality assurance evaluator and subject matter experts on Buckley SFB.

The CON MCM will be implemented by Buckley SFB during the five-year permit term and period of administrative continuance to prevent soil and construction materials and wastes from leaving the site and entering the stormwater drainage system. Pollutants of concern include sediment, solid waste, phosphorous, nitrogen, pesticides, herbicides, petroleum, oil, lubricants (POL), concrete truck washout, construction chemicals, and construction debris.

CON-1 CONSTRUCTION PROJECT OVERSIGHT PROGRAM

Implementation Details

- 460 CES environmental management, engineers, and planners will review project designs, plans, statement of work, proposals during scoping meetings, AF 103 interior/exterior work clearance requests to ensure that new construction projects, regardless of size of disturbance meet the Control Measure Design Standards found in Parts 2.4 and 2.5 of the Buckley MS4 Permit. During project reviews, each 460 CES environmental subject matter expert is provided with the opportunity to provide requirements to ensure environmental compliance is integrated before, during and after construction activity.
- 460 CES/CEIE will conduct periodic site stormwater compliance inspections at least every 45 days for sites that disturb at least 1-acre of earth and require a stormwater pollution prevention plan. In the event of site non-compliance that requires escalation, 460 CES will provide documentation of the issue to the 460 CEN and 460 CONS organizations to execute enforcement procedures.
- 460 CES/CEIE Water Program Manager will review all projects occurring at Buckley SFB that propose land disturbance equal to or greater than 1-acre. For these projects, an operator specific Notice of Intent (NOI) and site-specific Stormwater Pollution Prevention Plan (SWPPP) will be developed and implemented by the site operator (construction contractor) to comply with the EPA CGP requirements and control the discharge of pollutants off the construction site.

Documentation and Report Procedures

- Document the total number of projects that occurred on Buckley SFB that disturbed 1-acre or more of land in the MS4 annual report.
 - Briefly describe the nature of these construction activities without disclosing CI, PII, or CUI.
 - Describe the procedures for site inspection. Describe the established ordinance/regulatory mechanism used to require erosion and sediment controls and compliance with the EPA CGP.
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- Provide the title of the person responsible for coordination and implementation of the construction site runoff control program.

CON-2 CONSTRUCTION SITE STORMWATER TRAINING

Implementation Details

- Provide training to staff which perform inspections regarding the maintenance and installation of best management practices (BMPs) for construction stormwater control and the terms of the EPA CGP. This training is required at least once during the term of this Permit or within one year of hiring new inspectors, whichever is sooner, and shall include procedures for how inspectors will document and submit findings to the appropriate Permittee staff.

Documentation and Report Procedures

- Document training through attendance roster and maintain copies of materials presented.

CON-3 DESIGN REVIEW AND CONSTRUCTION SITE BMP INFORMATION

Implementation Details

- Pre-Construction Design and SWPPP Review: Maintain a comprehensive project design review process where 460 CES/CEIE evaluates plans, drawings, and statements of work to ensure projects are eligible for EPA Construction General Permit (CGP) coverage. This review confirms that appropriate control measures are selected and designed to minimize pollutants and requires contractors to submit a site-specific Stormwater Pollution Prevention Plan (SWPPP) for approval prior to seeking EPA coverage. Hold pre-construction meetings with the contractors and project management staff to ensure BMP related questions and requirements are addressed prior to earth disturbance.
- Active Construction Inspection and Compliance: Ensure the SWPPP is kept current and reflects site conditions by conducting periodic site inspections, including mandatory inspections every 45 days for all sites with EPA CGP coverage. These inspections will be documented, and existing enforcement policies will be utilized to ensure all control measures are properly implemented and maintained.
- Project Closure and Recordkeeping: Utilize a formal closure process to verify that final stabilization criteria, such as 70% pre-existing vegetative cover, have been met before authorizing the closeout of construction stormwater permits. All project documentation, including site plan reviews, SWPPP comments, inspection reports, and closure evaluations, will be maintained by 460 CES/CEIE.

Documentation and Report Procedures

- Document and maintain all comments provided to contractors regarding site-specific Stormwater Pollution Prevention Plans (SWPPPs), including the date of communication.
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- Describe all construction projects that disturb one acre or more in the annual MS4 report, including dates of pre-con meetings.
- Include a description of the site plan and pre-construction review procedures in the annual MS4 report, ensuring it details how potential water quality impacts are evaluated.

POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND RE-DEVELOPMENT

The Post-Construction Stormwater Management (PC) MCM focuses on site and design considerations as they relate to stormwater quality, which are addressed in the planning and design stages of project development. The Water Quality Program Manager is responsible for coordination and implementation of the post-construction stormwater management program.

PC-1 POST-CONSTRUCTION STORMWATER MANAGEMENT

Implementation Details

- Maintain existing review process for new development and re-development projects planned for Buckley SFB. Include evaluation of pre-development and post-development runoff conditions in design review process. Include maintenance requirements for newly installed permanent post-construction stormwater control measures into a long-term maintenance plan.
 - Implement a closeout procedure such that newly installed post-construction stormwater control measures can be cleaned and are in working order as designed prior to closing out contracts. Upon closeout of new construction projects, include maintenance requirements and as-built specifications for newly installed permanent post-construction stormwater control measures into a plan or system which integrates into existing facility management procedures for the BSFB.
 - Retain construction as-built designs and maintenance requirements for all Control Measures installed for the purpose of meeting the Control Measure Design Standards for the life of the Control Measures. This requirement applies to vegetative and soil management requirements, minimization of directly connected impervious areas, and other green infrastructure practices.
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Documentation and Report Procedures

- Describe the process used to ensure that all BSFB contracts initiated after the effective date of this Permit contain language which requires the installation of permanent stormwater control measures and an excerpt of applicable contract language.

PC-2 ANNUAL MEETING WITH EXTERNAL STAKEHOLDERS

Implementation Details

- 460 CES/CEIE will arrange at least one meeting, annually with City of Aurora and/or drainage staff to discuss recently constructed or proposed new developments and how they may impact the water quality downstream.

Documentation and Report Procedures

- Document meeting with attendance roster, meeting agenda, memorandum for record, or pictures.

PC-3 CONTROL MEASURE DESIGN AND CONSTRUCTION PLANNING TRAINING

Implementation Details

- 460 CES/CEIE will provide training to appropriate permittee staff with construction planning and/or oversight duties, and other staff as deemed appropriate.
- Training content will include stormwater runoff, and the expectations for meeting the Control Measure Design Standards defined in Part 2.5. of the Buckley SFB MS4 permit.

Documentation and Report Procedures

- Document training of staff through sign-in roster and provide a description of the training in the MS4 annual report.

PC-4 ANNUAL INSPECTION OF STORMWATER CONTROL MEASURES

Implementation Details

- 460 CES/CEIE will inspect at a minimum, annually, all Control Measures installed for the purpose of meeting the Control Measure Design Standards. The complete list includes detention ponds, bioretention areas, outfalls, and check dams. Inlets and culverts will be inspected as part of P2-3 presented in the next section of this SWMP. Maintenance will be initiated based on inspection findings.
 - In the event maintenance is required, 460 CES/CEIE will submit a work request through the Buckley SFB enterprise maintenance system. Minor maintenance such as trash, sediment, weed removal may be accomplished through existing base-wide service
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contracts. Major maintenance such as re-grading or engineered repairs may require a contractor or project to correct. Any maintenance requirements will be identified on the inspection report. As required, BMP maintenance and repairs will be requested through the appropriate organizations.

- Buckley SFB has developed a map of the installation storm sewer system that identifies drainage conveyance, storm drain inlets, basins, culverts, outfalls and BMPs. This map will be updated as new post-construction BMPs are added. Construction contractors are required to provide as-built drawings of storm sewer system modifications to the 460 CES/CEN for incorporation into the georeferenced data management system. The Water Quality Program Manager and 460 CES/CEN will conduct an annual review of the Buckley SFB 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.

Documentation and Report Procedures

- Document annual review/update of the post-construction stormwater controls inventory/map.
- Describe the inspection and recordkeeping procedures and the assumptions provided to ensure the long-term operation and maintenance of permanent stormwater control measures.

POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL-TYPE FEDERAL OPERATIONS

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

P2-1 MUNICIPAL STORMWATER TRAINING

Implementation Details

- Develop and implement an operation and maintenance program that includes an employee training component and has the goal of preventing or reducing pollutant runoff from municipal-type federal operations.
 - Develop and implement a municipal-type federal operations program that has the goal of preventing or reducing nitrogen and phosphorus in stormwater runoff associated with the MS4 Permittee's operations. Written procedures for an operation and maintenance program to prevent or reduce nitrogen and phosphorus in stormwater runoff associated with the MS4 Permittee's operations shall be developed.
 - Install and maintain control measures (structural or non-structural) which reduce the discharge of pollutants in stormwater runoff from electronic component recycling areas,
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herbicide and pesticide application areas, turf management areas, recycling/material storage areas, fuel storage and transfer areas, de-icer storage, lavatory waste transfer/disposal areas, industrial activities (e.g., welding), food service areas, and loading/unloading areas.

Documentation and Report Procedures

- The MS4 Annual Report will include a description of the contents and frequency of the training program for municipal personnel and a list of the personnel or positions trained during the term of the Permit.
- Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date as applicable. If not applicable, maintain a distribution list and dates of distribution.
- Evaluate, identify, and document the municipal-type federal operations and facilities that are and/or have the potential to contribute nitrogen and phosphorus to the MS4.

P2-2 SNOW AND ICE CONTROL TRAINING

Implementation Details

- 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 460 CES Operations Flight is responsible for providing and documenting this training.

Documentation and Report Procedures

- Dates and attendance rosters for annual snow and ice control training will be maintained by the 460 CES/CEO. 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 Buckley SFB personnel who operate snow and ice control equipment, including deicing and traction equipment. Training includes equipment operation, priorities, and snow dump locations. Training must be provided prior to the deicing season, typically in September.

P2-3 INLET INSPECTION AND MUNICIPAL MAINTENANCE SCHEDULE

Implementation Details

- A minimum of 5% of the total 2,361 stormwater features (approximately 118 features will be inspected each quarter.
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- Inspect storm drain inlets and culverts. Document cleaning activities, waste disposal practices.
- Develop maintenance schedule based on inspection results. Perform an annual evaluation of the schedule and document the evaluation.

Documentation and Report Procedures

- The MS4 Annual Report requires a description of any evaluations performed on cleaning operations or any new measures taken related to cleaning to minimize the negative impacts to water quality. Any evaluations performed as well as completion progress will be reported in the MS4 Annual Report.
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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 Buckley SFB water quality protection program. It is Buckley SFB'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 Buckley SFB at minimum, comply with applicable public notice requirements when implementing a public involvement/participation program.

The following BMPs will be implemented by Buckley SFB within the permit term and period of administrative continuance. These BMPs will involve several departments and groups to raise awareness and gain the community's input as it relates to Buckley SFB's stormwater management program, water quality challenges, and implementation efforts. The following sections discuss PIP BMPs that comprise the SWMP. The Water Quality Program Manager is responsible for coordination and implementation of the PIP program.

PIP-1 PUBLIC NOTICE REQUIREMENTS

Implementation Details

- Buckley SFB will maintain a Public Involvement and Participation process that complies with public notice requirements for actions conducted, when applicable.

Documentation and Report Procedures

- Copies of any required public notices will be maintained by the Water Quality Program Manager to document compliance with the MS4 Permit.

PIP-2 SWMP PUBLIC REVIEW

Implementation Details

- The SWMP will be posted on the Buckley SFB website along with contact information for the Water Quality Program.

Documentation and Report Procedures

- Maintain copies of documents used to provide public notice and any public comment received.
 - Document mechanism used to allow public comment.
 - Maintain records of information submitted by the public.
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MONITORING

Buckley SFB is required to perform dry weather phosphorus monitoring at outfalls 1A, 1B, 1C, 2, 3, 6D, and 11. During the first year of the permit, the Permittee must identify which outfalls contain dry weather flows greater than 5 gallons per minute (gpm). No discharge occurring shall be a result of surface runoff from stormwater. Upon identification, the Permittee must begin semi-annual (twice per year) total phosphorus monitoring for a minimum of 8 semi-annual samples from each outfall with dry weather discharge. The samples shall be analyzed using a 40 CFR Part 136 approved analytical method.

Buckley SFB is required to perform per- and polyfluoroalkyl substances (PFAS) monitoring for outfalls 1A, 1B, 1C, 2, 3, 6D, 11 and the Industrial Detention Pond and the Army Aviation Support Facility (AASF) Pond. PFAS monitoring shall begin by 1 November 2025. Buckley SFB will provide PFAS monitoring results with its annual report for each year of permit coverage.

PFAS monitoring will begin by 1 November 2025 and will be conducted semi-annually thereafter. Phosphorus monitoring will commence semi-annually for any outfall where dry weather flows greater than 5 gallons per minute are identified.

ANNUAL REPORT

Buckley SFB is required to submit the results of the quarterly monitoring with its annual report required in Part 6.2. Buckley SFB will report PFAS monitoring results with its annual report for each year of permit coverage. Buckley SFB is required to develop and submit an annual report to EPA Region 8. The first annual report is due to EPA Region 8 by 1 April each year and will cover actions taken during the period beginning on the effective date of the Permit through 31 December. Each subsequent annual report is due on 1 April of each year following 2024 for the remainder of the Permit term. The Buckley SFB Annual Report will be reviewed for Anti-terrorism/Force Protection concerns. Any information that cannot be released to the public will be marked “confidential” or “for official use only.”

Each annual report must be signed by 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.

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.”

RECORDKEEPING

Buckley SFB must retain records of all applicable monitoring information, including, all calibration and maintenance records and all original data for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the EPA at any time. Buckley SFB must submit these records to EPA only when specifically asked to do so. The Environmental Element’s Water Quality Program Manager will retain a description of the SWMP, annual reports, and monitoring report associated with complying with this permit.
