U.S. AIR FORCE

STORM WATER POLLUTION PREVENTION PLAN

Buckley Space Force Base

COR05F004

7-December-22

STORM WATER POLLUTION PREVENTION PLAN BUCKLEY SFB
December 2022

Template Version June 2020

ABOUT THIS PLAN

This installation-specific Environmental Management Plan (EMP) was developed using the U.S. Air Force's (AF) standardized Storm Water Pollution Prevention Plan (SWPPP) 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 Manuals (AFMANs); AF Playbooks; and federal, state, local, and permit requirements are referenced.

Each section of this SWPPP begins with standardized, AF-wide "common text" language that addresses AF, Department of Defense (DoD), and federal requirements, including the Environmental Protection Agency (EPA) Multi-Sector General Permit (MSGP) 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 installation or Section personnel.

This document is optimized to be accessed and viewed electronically. The eDASH website at https://usaf.dps.mil/teams/eDASH/wpp/homepage/home.aspx is the primary communication tool for AF EMPs.

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

GUIDANCE TEXT: Review and replace with installation-specific content.

If an installation is required to use a state or local regulator SWPPP template, the installation should use that template instead of this AF template.

If an installation is not required to use an existing state or local regulator SWPPP template, the installation should use this AF template and complete the Cross-Reference table below. The table is populated with three examples from the EPA SWPPP template.

If there are no existing state or local regulator SWPPP templates for an installation, the installation should use this AF template and may remove the Cross-Reference table below.

Cross-Reference: AF SWPPP Template and EPA Template

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CERTIFICATION

This section contains the certification, signed by the appropriate Responsible Official. Insert the scanned document into this section, or insert the statement prescribed by the regulator below.

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: _____ Date: _____

Signature: _____ Title: _____

CERTIFICATION

This section contains the certification, signed by the appropriate Responsible Official. Insert scanned document into this section, or insert the statement prescribed by the regulator below.

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Responsible Official Certification

Printed Name: Mark S. Laudenslager Date: 26 April 2021

Signature: _____ Title: Chief, Installation Management Flight

DOCUMENT CONTROL

Standardized SWPPP Template

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

This version of the template is current as of 06/26/2020 and supersedes the 2018 version.

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

Installation SWPPP

Record of Updates – The SWPPP is modified and updated IAW applicable permit requirements.

Page/Section	Nature of Change	Date of Change	Approved By:
Pg 58/References	Updated AFI 32-1067 with AFMAN 32-1067	22-Nov-22	Matthew Cohen
Document	All instances of "Buckley Garrison" and "B GAR" updated to "Space Base Delta 2" and "SBD2"	23-Nov-22	Matthew Cohen
Document	All instances of "December 2021" updated to "December 2022".	23-Nov-22	Matthew Cohen
TOC	Updated/Corrected TOC format	28-Nov-22	Matthew Cohen
52/Indicator Monitoring	Updated outfall sample location from 5A to 5	7-Dec-22	Matthew Cohen

Record of Review – IAW AFMAN 32-1067, *Water and Fuel Systems*, the SWPPP is reviewed based on permit requirements.

Review Date	Review Participants	Notes/Remarks	Results in Plan Update (Yes or No)
8 Feb 2022	Kimberly Bowman & Matt Cohen	No comments/changes	No
22 Nov 2022	Matthew Cohen & Greg Vierra	Formatting and name changes	No

Version Table – A new version of the plan is created when pen and ink changes are incorporated. Below is a list of all versions updated under the current permit.

Version Number	Description	Date
0	Original	26 Apr 2021
1	Revised for AF Template and Changes to Outfall 5	28 Dec 2021

1.0 OVERVIEW AND SCOPE

This SWPPP specifies how installation personnel control pollutants in discharges to storm water from industrial operations. It contains procedures intended to minimize the risk of industrial storm water pollution in drainage areas located within the installation's boundaries. The SWPPP describes installation:

1. Identification and evaluation of activities and potential storm water pollution practices
2. Identification and implementation of storm water Best Management Practices (BMPs)
3. Pollution reduction measures and procedures
4. Monitoring and inspection procedures

The installation Storm Water Pollution Prevention Team (SWPPT) is responsible for developing, implementing, and managing the SWPPP.

Installation Supplement – Overview and Scope

Buckley Space Force Base (SFB) is located on approximately 3,200 acres near the City of Aurora, Arapahoe County, Colorado. A vicinity map showing the base and surrounding area is provided as Figure 1 in Appendix A. Space Base Delta 2 is the host for Buckley SFB. The Space Base Delta 2 provides installation support functions for the resident air operations, space-based missile warning capabilities, space surveillance operations, and space communications missions. In addition, Space Base Delta 2 provides Airmen and Space Professionals that deploy and are deployed in-place, to support Combatant Commanders in order to accomplish warfighting missions globally.

Buckley SFB units with MSGP Subpart S - Sector S – Air Transportation activities are:

- The 140th Wing Colorado Air National Guard (140 WG COANG) operates and maintains the Buckley SFB airfield.
- The Colorado Army National Guard's (COARNG) Army Aviation Support Facility (AASF) maintains aircraft, supports airlift detachment and other mission related activities.

Several other Department of Defense and other organizations operate on Buckley SFB, but do not perform regulated industrial activities exposed to stormwater and are not included in this plan.

The Environmental Element (CEIE) of the 460th Civil Engineer Squadron (460 CES) within the 460th Mission Support Group (460 MSG) of Space Base Delta 2 is responsible for environmental stewardship support to the Space Base Delta 2, to include MSGP compliance and SWPPP development and maintenance. The SWPPP documents the selection, design, and installation of stormwater control measures to meet the permit's effluent limits for industrial activities for the 140 WG COANG and the COARNG AASF facilities.

The current United States Environmental Protection Agency (US EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity (COR05F004) became effective March 1, 2021 and expires February 28, 2026. Buckley SFB was issued its MSGP on 27 September 2021.

Outfall and Receiving Water Description

Surface water drainage on Buckley SFB is identified by four drainage basins: Sand Creek Drainage Basin, Murphy Creek Drainage Basin, Granby Ditch Drainage Basin and East Toll Gate Creek Drainage Basin.

Figure 2 in Appendix A shows the Buckley SFB boundary, outfalls associated with industrial stormwater discharges, and receiving waters. Appendix A contains detailed site maps for Buckley SFB as required by the MSGP and additional details on regulated industrial facilities, potential pollutant sources, and controls. The information contained in Appendix A is considered confidential business information as defined in Appendix A of the 2021 MSGP and Title 40 Code of Federal Regulations (CFR) Part 2.

Stormwater from regulated industrial facilities is conveyed through the Buckley SFB municipal separate stormwater sewer system (MS4) prior to discharging the installation. Drainage from the eastern portion of the Base is part of the Murphy Creek Drainage Basin. Stormwater runoff from the Murphy Creek Drainage Basin flows into Sand Creek at the confluence of Coal Creek and Murphy Creek. Drainage from the northeastern and northern portion is part of the Sand Creek Drainage Basin and flows to Sand Creek via MS4 conveyances. Drainage on the western and southwestern portion of the Base flows directly into East Toll Gate Creek. East Toll Gate Creek also joins Sand Creek to the west of Buckley SFB. Sand Creek generally flows to the northwest and discharges into the South Platte River about 12 miles downstream from Buckley SFB. Granby Ditch Drainage Basin is located on the northwestern portion of the installation. Stormwater from this drainage basin is conveyed through Granby Ditch and takes a convoluted path through City of Aurora MS4 ultimately discharging to the Toll Gate Creek northwest of Buckley SFB. The East Toll Gate Creek Drainage Basin, Granby Ditch Drainage Basin, and Sand Creek Drainage Basin contain the industrial facilities and activities covered by the MSGP and this SWPPP.

Sand Creek is identified as an impaired waterway by the Colorado Code of Regulations Regulation 93 (5 CCR 1002-93) Section 303(d) list. The mainstem of Sand Creek from the confluence of Murphy and Coal Creek in Arapahoe County to the confluence with the Toll Gate Creek (COSPUS16a_A) is impaired for selenium and Escherichia Coli (E. Coli) without Total Maximum Daily Loads (TMDLs) requirements based on June 2020 Colorado Code of Regulations (https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8787&fileName=5%20CCR%201002-93). The Sand Creek segment (COSPUS16a_A) is a category 5 impairment, which means it was 303(d) listed because adequate monitoring and assessment has not been performed to rule out pollutant(s) contributions to the waterbody's failure to meet water quality standards. Sand Creek (COSPUS16a_A) receives stormwater discharge from several areas on Buckley SFB, including industrial activities discharging through Outfall 5A – 5C. Outfall 5A is the primary location which encompasses the largest drainage area and the airfield runoff.

Wetlands at Buckley SFB are mostly associated with East Toll Gate Creek and Williams Lake. Williams Lake is the only surface water body located on the Base and the associated wetlands are non-jurisdictional. This lake, which is man-made, is located on the eastern side of the Base and was previously used by Base personnel for recreational purposes. Williams Lake is no longer being filled and the installation plans to remove the dam structure in the future.

Regulated industrial activities exposed to stormwater are performed in the following four sub-drainage basins on Buckley SFB:

East Toll Gate Creek Drainage Basin - Sub-Drainage Basin 1 and Outfalls 1A, 1B, 1C, 1D, and 1E

Sub-Drainage Basin 1 is located on the southwest portion of Buckley SFB and is a sub-basin of the East Toll Gate Creek Drainage Basin. Regulated industrial activities exposed to stormwater occurring in this drainage basin include aircraft refueler parking, aircraft and ground support equipment storage, aircraft deicing, as well as portions of the runway and taxiways. Stormwater flow is conveyed to East Toll Gate Creek by both sheet flow and through Outfalls 1A, 1B, 1C, 1D and 1E. Outfalls 1A through 1E are pipe end sections that discharge to earthen ditches prior to discharging from the installation or into East Toll

Gate Creek. Potential pollutants generated from regulated industrial activities include petroleum, oils, and lubricants (POLs) from vehicles, refueling trucks, Aerospace Ground Equipment (AGE), and aircraft. Helicopter washing is accomplished in this drainage basin, but all wash waters are diverted through an oil water separator (OWS) to the sanitary sewer system. Other potential pollutants co-mingling with stormwater include propylene glycol from aircraft deicing on the East Deicing Pad, and potassium acetate from runway and taxiway deicing. Outfalls 1A, 1B, 1C, and 1D are substantially similar as each conveys a portion of the runway and taxiway area of Buckley SFB. Appendix C Site Map shows the designated Monitoring Point for each of these outfalls. Designated Monitoring Points are located slightly upstream of the designated outfall. The Monitoring Points were selected based on flow characteristics at the designated locations and each location is representative of stormwater discharges from industrial areas.

East Toll Gate Creek Drainage Basin - Sub-Drainage Basin 2 and Outfall 2

Sub-Drainage Basin 2 is located on the western side of Buckley SFB and is also a sub-basin in the East Toll Gate Creek major drainage basin. Regulated industrial activities exposed to stormwater occurring in this sub-basin include the main aircraft tarmac; aircraft maintenance; equipment storage; equipment maintenance and storage; aircraft refueler parking; fuel storage; the northern portion of the East Deicing Pad; transient aircraft parking and deicing area; and portions of the runway and taxiways. This sub-basin drains through Outfall 2 that consists of a natural drainage channel located 1,500 feet south of the East A-Basin Avenue and Eldora Drive intersection. Stormwater is conveyed to the channel through a 48 inch diameter reinforced concrete culvert at the Base boundary under the perimeter security road and fence. Stormwater flow is conveyed to East Toll Gate Creek by channel flow. Potential pollutants generated from regulated activities include POLs from vehicles and refueling trucks, support equipment, or aircraft. Other potential pollutants co-mingling with stormwater include propylene glycol from aircraft deicing, and potassium acetate from runway and taxiway deicing. Aircraft shelters in this drainage basin are equipped with high expansion foam for fire suppression. Appendix A Site Map shows the designated Monitoring Point for Outfall 2, located slightly upstream of Outfall 2. The Monitoring Point was selected based on flow characteristics and the designated location is representative of stormwater discharges from industrial areas.

Granby Ditch Drainage Basin and Outfall 3

The Granby Creek Drainage Basin is located on the northwestern corner of Buckley SFB and discharges stormwater through Outfall 3 into Granby Ditch. Granby Ditch flows northwest through City of Aurora MS4 to East Toll Gate Creek. Regulated industrial activities exposed to stormwater occurring in this subbasin include vehicle maintenance and washing. The outfall consists of stormwater flow from a detention pond located approximately 850 feet west of Telluride Street and approximately 450 feet south of East Steamboat Avenue. Stormwater from the pond flows over a concrete slab at the Buckley SFB boundary into Granby Ditch, ultimately discharging into the East Toll Gate Creek. Potential pollutants generated from regulated industrial activities include POLs from ground support vehicle maintenance and outdoor storage. Appendix A Site Map shows the designated Monitoring Point for Outfall 3. Monitoring Point 3 is located at Outfall 3.

Sand Creek Drainage Basin - Sub-Drainage Basin 5 and Outfalls 5A – 5C

Sub-Drainage Basin 5 is located on the northern edge of Buckley SFB in the Sand Creek major drainage basin. Activities exposed to stormwater in this sub-basin include portions of Air Transportation runway. The area due west of Outfall 5A was developed in 2020/2021 for the addition of a data center (Amazon

Data Center) and supporting infrastructure to include backup generators and double walled fuel tanks for fueling the generators, located within containment areas described in its Spill Prevention, Control and Countermeasures (SPCC) Plan. The data center is not associated with MSGP regulated industrial activity. Stormwater from this area of the base discharges through Outfalls 5A – 5C into an unnamed tributary of Sand Creek, but 5A is the primary outfall with the largest tributary area by far. Appendix A Site Map shows the designated Monitoring Point for Outfall 5A. The designated Monitoring Point is located slightly upstream of the designated outfall. The Monitoring Point was selected based on flow characteristics at the designated locations and the location is representative of stormwater discharges from industrial areas.

2.0 INSTALLATION PROFILE

Installation Profile and Permit Information

Scope of Plan	Buckley Space Force Base
Facility Operator	Office Symbol: Space Base Delta 2 Address: 510 S. Aspen Street City, State, Zip Code: Buckley Space Force Base, CO 80011 Telephone Number: 720-847-7245 Latitude/Longitude: 39.707682, -104.770257
OPR	OPR: 460th Civil Engineer Squadron Installation Management Flight, Environmental Element (460 CES/CEIE The OPR has overall responsibility for implementing the SWPPP and is the lead organization for monitoring compliance with applicable federal, state, and local storm water regulations.
Responsible Official/ Legally Responsible Person	Office Symbol: Space Base Delta 2 Commander - SBD2/CC Name: Marcus D. Jackson, Colonel, USAF Telephone Number: See Appendix F
Water Quality Program Manager (SWPPP Contact)	Name: Matthew Cohen Title: Environmental Engineer – Water Quality and Tanks Program Manager (WQPM) Telephone Number: 720-847-4655 Email address: matthew.cohen.4@spaceforce.mil
Permitting Authority	Federal Environmental Protection Agency (EPA) EPA Region 8 is Primary
Permit Type	Multi-Sector General Permit
Permit Number/Permit Tracking Number	COR05F004
Permit Expiration Date	28 February 2026
SIC Code(s)	4581 for Regulated Industrial Activities
NAICS Code(s)	488119

General Location Map	Located in Appendix A.
Site Map(s)	Located in Appendix A.

3.0 ENVIRONMENTAL MANAGEMENT SYSTEM

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

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

4.0 GENERAL ROLES AND RESPONSIBILITIES

The SWPPP requires the involvement of multiple organizations and varied personnel on the installation, including contractors and other DoD organizations. The major roles/organizations involved in supporting the SWPPP at a typical installation include:

- Installation Commander
- Base Civil Engineer
- Environmental Element Chief
- Water Quality Program Manager
- Storm Water Pollution Prevention Team (identified below)
- Installation Personnel
- AFCEC
- Unit Environmental Coordinator (UEC, see AFI 32-7001)

Organizational and personnel roles and responsibilities are described throughout this SWPPP and in referenced documents. Detailed information regarding typical AF SWPPP guidance and policy is available in AFI 32-1067 and the Water Quality Playbook. Installation-specific roles and responsibilities are documented in the BMPs below.

Installation Supplement – General Roles and Responsibilities

The Buckley SFB SWPPT is responsible for developing, implementing, maintaining, and revising this SWPPP to ensure stormwater pollution is minimized and MSGP requirements are met. The SWPPT reports to the Environmental, Safety and Occupational Health Council (ESOHC), the Buckley SFB executive steering group for environmental, safety, and occupational health matters. The SWPPT will update the ESOHC concerning this SWPPP and stormwater pollution prevention efforts as appropriate. The following Buckley SFB staff comprise the SWPPT.

The SWPPT will meet as needed to review SWPPP implementation within each organization and determine if any SWPPP or BMP changes are required within each organization. The SWPPT Leader will

determine the meeting format. The SWPPT Leader may choose to conduct meetings with individual SWPPT members to coincide with other SWPPP activities, such as quarterly facility inspections or annual report generation. Records of SWPPT meetings, as required, will be maintained in Appendix L.
SWPPT members are identified by name or title, along with their individual responsibilities in the Storm Water Pollution Prevention Team Members table below.

Storm Water Pollution Prevention Team Members

Job Title	Organization	Responsibilities	Contact Information
Water Quality Program Manager and Support Contractor	460 CES/CEIE	Serve as the SWPP Leadership Team. The Water Quality Manager and Support Contractor have the primary responsibility for maintenance and administration of the SWPPP. The Water Quality Program Manager or Support Contractor will perform visual inspections and participate in routine facility inspections.	**Refer to Appendix F**
Chief, Environmental Element	460 CES/CEIE	Advocates for and approves environmental projects/activities required to implement this SWPPP.	**Refer to Appendix F**
Heavy Repair/Horizontal Shop	460 CES/CEO	Advise the SWPPT of changes to industrial operations including stormwater conveyance system maintenance projects and maintain non-airfield structural BMPs on the installation.	**Refer to Appendix F**
Program Development	460 CES/CENP	Represent planning and development organization on base in regards to SWPPP development and implementation. Advise the SWPPT, as needed, of upcoming facility and infrastructure projects that may include potential stormwater pollutants and identify planned structural stormwater BMPs for future development.	**Refer to Appendix F**

Transportation Environmental Manager	460 LRS/LVS	Represent fuel management, vehicle maintenance and vehicle operation organizations in regards to SWPPP development and implementation. Advise the SWPPT of changes in vehicle maintenance and operations.	**Refer to Appendix F**
Job Title	**Organization**	**Responsibilities**	**Contact Information**
140th Wing Environmental Manager	140 WG COANG	Represent Colorado Space National Guard units operating on Buckley SFB including aircraft maintenance, vehicle maintenance, and airfield snow and ice control organizations in regards to SWPPP development and implementation. Advises the SWPPT of changes to industrial operations related to aircraft maintenance and operations, including deicing operations and Spacecraft/equipment washing.	**Refer to Appendix F**
Army Aviation Support Facility (AASF) Environmental Manager	COARNG	Represents Army helicopter maintenance organizations in regards to SWPPP development and implementation. Advise the SWPPT of changes to industrial operations related to helicopter maintenance and operations, including washing.	**Refer to Appendix F**
Judge Advocate Office	460 SW/JA	Provide as-needed legal support to the SWPPT.	**Refer to Appendix F**
Public Affairs Office	460 SW/PA	Provide as-needed public outreach support to the SWPPT.	**Refer to Appendix F**

5.0 TRAINING

The installation implements storm water training programs to ensure installation personnel, contractors, and visitors are aware of their roles in the program and the importance of their participation in its success. DoDI 4715.10, *Environmental Education, Training, and Career Development*, implements policy and provides

the procedures to obtain environmental education, training, and career development programs for DoD personnel. Installation leadership ensures that appropriate personnel complete required education, training, and certification necessary to perform their jobs. Priority for training is given to the use of AF- approved education/training sources such as the Air Force Institute of Technology (AFIT) training courses and official AF-approved computer-based training resources (e.g., The Environmental Awareness Course Hub [TEACH], Advanced Distributed Learning Service [ADLS], ArcNet, etc.) to meet training needs.

Specific training requirements are outlined in Employee Training Control Measure in Section 7 below. Training records are maintained IAW the Recordkeeping and Reporting section of this plan.

Installation Supplement – Training

Buckley SFB implements a comprehensive environmental training program for installation personnel to avoid pollution through preventive measures and, in the event of a pollutant release, to react according to ensure the safety of personnel and protection of the environment. The following personnel must understand the requirements of the MSGP and their specific responsibilities with respect to those requirements:

- Personnel responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures)
- Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in storm water discharges
- Personnel responsible for conducting monitoring and inspections
- Personnel responsible for documentation requirements for monitoring and inspections
- Personnel responsible for implementing and documenting corrective actions

Personnel must be trained in at least the following as related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

- An overview of what is in the SWPPP
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices
- The location of all BMPs and structural controls on the site required by the permit, and how they are to be maintained
- The proper procedures to follow with respect to the permit's pollution prevention requirements
- When and how to conduct inspections, record applicable findings, and take corrective action
- Proper emergency procedures in case of spills

The following training programs have been implemented at Buckley SFB and support the overall stormwater management program:

- Industrial Stormwater Pollution Prevention Training is provided at least once per year to all personnel associated with implementing this SWPPP, including members of the SWPPT and employees working in industrial areas who are responsible for implementing stormwater BMPs. The Industrial Stormwater Pollution Prevention Training includes the overall goals of the Buckley SFB industrial stormwater program, the components of this SWPPP, and stormwater controls. The training is provided by the Buckley SFB Water Quality Manager, the 140 WG COANG Environmental Manager, and the COARNG Environmental Branch who maintain

training attendance rosters. The current Industrial Stormwater Pollution Prevention Training materials and attendance records are included as Appendix C of this SWPPP.

- Hazardous Waste Management Training is provided to all Buckley SFB personnel whose job entails working with hazardous waste or who are exposed to hazardous wastes as required by EPA, Occupational Safety and Health Administration (OSHA) and Colorado regulations. The hazardous waste training program is dependent on employee responsibilities, but generally includes the following topics:
    - Identification of hazardous waste,
    - Accumulation point management,
    - Container use, marking and labeling, and on-site transportation,
    - Waste turn-in procedures,
    - Manifesting and transportation of hazardous waste, and
    - Personnel safety and health and fire safety.

  This training supports the overall stormwater program by providing proper hazardous material management, storage, and spill response procedures. The Buckley SFB Hazardous Waste Management Plan specifies who must receive hazardous waste training. Hazardous Waste Management Training is provided at least once per year by the Buckley SFB Hazardous Waste Manager, or their contractor, who also maintains the attendance roster and current training materials.

- Spill Prevention, Control and Countermeasures (SPCC) Training is provided to appropriate oil handling and spill response personnel as specified in the plan. This training supports the industrial stormwater program by clearly defining spill prevention and response procedures to minimize potential stormwater and water quality impacts associated with a spill on Buckley SFB. The Buckley SFB SPCC maintains current training materials and attendance rosters for spill prevention and response training. This training is provided at least annually to spill response personnel.

6.0 RECORDKEEPING AND REPORTING

Installation personnel as identified in this SWPPP implement measures to ensure compliance with applicable permit recordkeeping and reporting requirements. Records are stored and maintained IAW Air Force Manual 33-363, *Management of Records*, and records are archived and disposed IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The installation complies with permit reporting requirements.

The installation maintains the following permit, inspection, monitoring, and certification records with the SWPPP. Overseas installations may have different requirements than the list below. When possible, an electronic version of the record is made available in the references section of this plan.

- Copy of the Notice of Intent (NOI)
- Copy of the acknowledgement letter containing the permit tracking number
- Copy of the permit

- Description and dates of any significant spills, leaks, or other releases. Note: the installation maintains this information in the Enforcement Actions, Spills, and Inspections (EASI) database, and a link is available in the references section of this SWPPP
- Employee training records
- Documentation of maintenance and repairs of control measures
- Inspection reports
- Documentation of deviations from the schedule for monitoring or assessments and the reason for the deviation
- Documentation of corrective actions taken
- Documentation of benchmark exceedances and any response actions
- Documentation to support determination that pollutants of concern are not expected to be present above natural background levels if water is discharged directly to impaired waters when required by the permitting agency

Additional state, local, or host nation recordkeeping and reporting requirements are described in the Installation Supplement, as necessary.

Installation Supplement – Recordkeeping and Reporting

The following recordkeeping and reporting procedures have been established at Buckley SFB to meet the requirements of the 2021 MSGP.

- Appendix A contains detailed site maps of Buckley SFB as well as additional information on individual industrial operations and facilities.
- Appendix B contains the significant spills list and significant spill location map for the qualifying industrial areas on Buckley SFB. This appendix will be updated as required throughout the permit if significant spills occur at any qualifying industrial areas on Buckley SFB. Significant spills are defined as spills which require regulatory notification.
- Appendix C contains the Industrial Stormwater Pollution Prevention Training materials and training rosters. Other applicable Air Force training records, including EMS and environmental awareness, are maintained within employees personnel file; an approved Air Force training platform (ADLS; etc.); or via sign in rosters as appropriate.
- Appendix D contains Routine Facility Inspection Reports. These reports must be certified and signed by duly authorized representative. These reports must be retained for at least 3 years from the date that permit coverage expires or is terminated. Reports are not required to be submitted to the EPA unless otherwise requested. However, findings from facility inspection reports must be summarized in the annual report submitted to the EPA.
- Appendix E contains copies of Discharge Monitoring Reports (DMRs) submitted to EPA.
- Appendix F shows the Buckley SFB SWPP Team and contact information.
- Appendix G contains the Safety Data Sheets (SDS) and estimate of monthly usage for aircraft and airfield deicing chemicals as required for Sector S facilities.
- Appendix H contains Stormwater Sampling Results and Quarterly Visual Monitoring Reports. These reports must be certified and signed by a duly authorized representative. These reports must be retained with the SWPPP for at least 3 years from the date that permit coverage expires or is terminated. Reports are not required to be submitted to the EPA unless otherwise requested

- Appendix I contains a copy of the Buckley SFB NOI; information utilized to complete the NOI; Acknowledgement Letter containing the permit tracking number; and delegation letters for duly authorized representatives.
- Appendix J contains completed Corrective Actions Reports. These reports must be certified and signed by a duly authorized representative. These reports must be retained for at least 3 years from the date that permit coverage expires or is terminated. Reports are not required to be submitted to the EPA unless otherwise requested. However, corrective action details must be summarized in the annual report submitted to the EPA.
- Appendix K contains copies of submitted Annual Reports. These reports must contain the results or a summary of the past year's routine facility inspections and quarterly visual assessments performed at Buckley SFB; summaries of corrective actions taken, or the status of corrective actions in progress at the time of the Annual Report generation; and any incidents of noncompliance observed or, if there is no noncompliance, a certification stating the facility is in compliance with this permit. Annual Reports must be submitted electronically to the EPA by 30 January of each year of permit coverage. A blank copy of the Annual Report form required by EPA is included in Appendix L.
- Appendix L contains copies of SWPP Team meeting minutes.
- Appendix M contains documentation of Endangered Species Act and Critical Habitat Protection evaluation completed as part of the Buckley SFB NOI submittal.

- Appendix N contains documentation of past spills and leaks that occurred on Buckley SFB. As required by the 2021 MSGP, the SWPPP and all updates to the SWPPP must be in accordance with good engineering practices and to industry standards by a qualified person. The SWPPP and all reports required by the 2021 MSGP, must be certified and signed by a duly authorized representative. All reports and records required by the MSGP must be retained for at least 3 years from the date that permit coverage expires or is terminated. The SWPPP, all reports, forms, and documents required by the MSGP will 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 contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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."

Stormwater Pollution Prevention Plan Maintenance and Updates

This SWPPP is a "living" document and will be periodically reviewed and updated. This SWPPP will be reviewed at least annually, but more frequent reviews may be required if operational changes or inspection results dictate. This SWPPP will be updated whenever one of the following activities occur:

- There is a change in design, construction, operation, or maintenance at Buckley SFB which has a significant effect on stormwater discharge, or potential for discharge, of pollutants from Buckley SFB. This does not include preventative maintenance or minor maintenance conducted on sites routinely or as a result of inspections, but will only include major maintenance operations meeting the qualification statement herein.

- There is an unauthorized release or discharge discovered.
- Visual assessments indicate obvious signs of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, and foam).
- Inspection, monitoring, or investigation by Buckley SFB personnel, local, State or Federal officials, determines that this SWPPP is ineffective in eliminating or significantly minimizing pollutants. If any of the facility investigations indicates that a SWPPP modification is required, the SWPPP must be updated within 14 calendar days of completion of the corrective action.

The EPA Director notifies Buckley SFB in writing that the SWPPP does not meet one of more of the minimum requirements of the 2021 MSGP. Changes required by the EPA Director must be incorporated into the SWPPP and implemented within 30 days of receipt of the notification.

7.0 MINIMUM CONTROL MEASURES AND BEST MANAGEMENT PRACTICES

7.1 Potential Pollution Sources

Areas at the installation where industrial materials or activities are exposed to storm water are described in the Installation Supplement below.

Documentation of significant spills is maintained in the AF EASIER database. A link to EASIER is available in the references section of this plan and required information may be maintained in an appendix.

Installation Supplement – Potential Pollution Sources

Activities, Associated Pollutants, and Potential Spills

Buckley SFB is primarily engaged in airport and aircraft maintenance operations which are regulated industrial activities under the NPDES stormwater program and covered by Sector S, Air Transportation of the 2021 MSGP. Air transportation related activities covered by Sector S include vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations and deicing operations. Table 1 provides a summary of industrial activities on Buckley SFB, potential pollutant sources, and summary of control measures. Appendix A includes facility site maps that depict potential pollutant sources exposed to stormwater, flow direction, and facility specific controls.

Industrial Activities and Associated Pollutants

SIC and Name of Industrial Activity	Associated Pollutants	BMP(s)

4581 and 5171 Aircraft, Vehicle and Equipment Fueling	Oil & grease Diesel Gasoline Aviation Fuel Antifreeze Hydraulic Fluids Transmission Fluid Batteries	• Fueling operations are conducted on an impervious surface • Spill kits are kept on-site in close proximity to potential spill areas • Personnel are trained in proper fueling procedures and spill clean-up methods • Any spill will be cleaned-up immediately using dry clean-up methods
4581 and 4212 Aircraft, Vehicle and Equipment Washing	Oil & grease Diesel Gasoline Aviation Fuel Antifreeze Hydraulic Fluids Transmission Fluid Batteries Surfactants	• Washing operations are conducted indoors as much as possible. Helicopters are washed outdoors in a designated area. All wash waters from indoor and outdoor washing operations are sent to wastewater conveyance and disposal system
SIC and Name of Industrial Activity	**Associated Pollutants**	**BMP(s)**
4581 Aircraft and Pavement Deicing	Propylene glycol Pavement deicers (complex chlorides, sodium chloride)	• Personnel are trained in proper material management and application methods prior to applying chemical deicers • Physical and mechanical methods are utilized to the maximum extent possible prior to chemical usage • Deicing chemicals from airfield surfaces are diverted to grassy swales prior to discharge • Deicing fluids from aircraft deicing operations are diverted to containment tank
4581 and 4212 Aircraft, Vehicle and Equipment Maintenance	Oil & grease Diesel Gasoline Aviation Fuel Antifreeze Solvents Used oil Reclaimable Fuel Hydraulic Fluids Transmission Fluid Batteries	• Good housekeeping • Maintenance operations are conducted on an impervious surfaces • Hazardous materials and waste appropriately stored on secondary containment as required • Maintenance performed indoors as much as possible • Drip pans/trays used during maintenance activities • Spill kits are kept on-site in close proximity to potential spill areas • Personnel are trained in proper maintenance procedures and spill clean-up methods

		• Any spill will be cleaned-up immediately using dry clean-up methods

Areas of Site Where Potential Spills/Leaks Could Occur

Location	Outfall(s)	BMP(s)
AASF Tarmac	2A/2C	• Outdoor Washing Facility with Automatic Diverter Valve to direct wash waters to sanitary sewer system • Oil/Water Separator • Refueler Storage (East Side) Secondary Containment • Refueler Storage (South Side) Secondary Containment (Inactive) • Detention Pond
Building 1025 Hazardous Waste Area	2A/2C	• Exterior Secondary Containment Spill • Containment Pond with liner and control valves
Location	**Outfall(s)**	**BMP(s)**
Consolidated Fuels Facility near Building 1054	2A/2C	• Secondary Containment Basin 1 • Secondary Containment Basin 2 • Secondary Containment Basin 3 • Jet-A AST Secondary Containment
COARNG Building 340 and LRS Building 340	2A/2C	• Vehicle Fuel Area Secondary Containment Basin • Building 344 Secondary Containment
Building 808 AGE Yard and Building 813	2A/2C	• Outer Yard Secondary Containment • Inlet Protection Berms (asphalt) • Individual Secondary Containment Units • Building 813 Covered Storage with Secondary Containment
Building 830 Equipment and Storage Yard	2A/2C	• Outdoor Equipment Storage Yard Inlets with Minor Spill Protections • Secondary Containment Berm along East Fence
East Ramp Deicing Area	1D/2A/2C	• Spent Deicing Fluid Collection Tank (Damaged and Inactive)

140 COANG Tarmac Area (Buildings 801, 909, Fuel Pod Storage, AGE, and Deicing)	2A/2C/3	• Fuel Pod Storage Secondary Containment with Valve Control • AGE Storage (South Side) with Angle Iron Secondary Containment • West Building 909 AGE Storage and Deicing ASTs and Secondary Controls • Building 961 Covered Chemical Storage with Secondary Containment • Designated Deicing Area
Runways	1A/1B/1C/1D/5A	• Detention Ponds

Unauthorized Non-Storm Water Discharges Documentation

Evaluations for Unauthorized Non-Storm Water Discharges

Buckley SFB personnel complete annual dry weather screening of all stormwater outfalls and stormwater control ponds observed for the presence of non-stormwater discharges. Appendix K contains dry weather screening reports including dates and results of evaluations. No dry weather flow has been observed during historical visual assessments, including assessments made from 2015 to 2021 under the 2015 MSGP.

Additionally, Buckley SFB has completed several studies of the base's sanitary and storm sewer systems. Though these assessments were not directly related to determining if sanitary or other wastewater sources were being inadvertently cross-connected to the stormwater system, limited investigation by smoke and dye testing of select drains was accomplished to determine discharge location. No cross-connections were identified as part of these evaluations and locations that were evaluated appropriately discharged to the sanitary sewer system.

Date of Evaluation	*Annually*
Description of the Evaluation Criteria Used	*Dry Weather Screening*
List the Outfalls or Onsite Drainage Points Observed	*All Industrial and Non-Industrial Outfalls*
Different types of Unauthorized Non-Storm Water Discharge(s) and Source Locations	*Refer to Appendices J and K*
Actions Taken	*Refer to Appendix J*

Sampling Data Summary

Appendix A of the USEPA MSGP, indicator monitoring will be performed twice per year for PAHs beginning the first and fourth year of the permit coverage as discussed in Section 7.3 of this SWPPP. Impaired water monitoring will be performed at Outfall 5 on an annual basis during the first and fourth year of permit coverage as discussed in Section 7.3 of this SWPPP.

7.2 Storm Water Control Measures

The installation implements control measures to meet all applicable permit effluent limits. The categories of control measures include:

- Minimize exposure

- Good housekeeping
- Maintenance
- Spill prevention and response
- Erosion and sediment controls
- Management of runoff
- Salt piles
- MSGP sector-specific non-numeric effluent limits
- Employee training
- Waste, garbage, and floatable debris
- Dust generation and vehicle tracking of industrial materials

Installation-specific control measures are further described in the Installation Supplement below, along with applicable additional state or local sector-specific measures.

Installation Supplement – Storm Water Control Measures

Minimize Exposure BMPs

Minimize exposure control measures are applicable to all industrial areas on Buckley SFB. Numerous Department of Defense policies and procedures dictate material management practices that are rigorously enforced at all levels of management. Generally, minimize exposure practices involve maintaining orderly work areas, minimizing use of chemicals and controlling exposure of pollutant sources to stormwater. The following minimize exposure measures are implemented at Buckley SFB.

Control Measure	*Minimize Exposure General*
Description	*Buckley SFB must take actions to minimize the exposure of potential sources of pollutants (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff. When possible, Buckley SFB shall either locate these industrial materials and activities inside or protect them with storm resistant coverings.* *Note: Industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving waters or if discharges are authorized under another NPDES permit.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All Industrial Areas o*
Control Measure	*Divert Run-On and Runoff*
Description	*Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run- on away from these areas.*
Responsible Individual(s)	*Contractors; Planning Personnel*
Status	*Currently in Practice*
Associated Activities	*Construction and Site Design*

Control Measure	*Secondary Containment*
Description	*Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*Vehicle and equipment maintenance, storage of materials*
Control Measure	*Prompt Clean-up of Spills*
Description	*Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial activities on base*
Control Measure	*Spill Equipment*
Description	*Use spill/overflow protection equipment such as level gauges, automatic level readers, etc.*
Responsible Individual(s)	*Fueling Personnel*
Status	*Currently in Practice*
Associated Activities	*Fueling*
Control Measure	*Drain Fluids*
Description	*Drain fluids from equipment and vehicles prior to on-site storage or disposal.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*Vehicle and equipment maintenance and disposal*
Control Measure	*Vehicle and Equipment Cleaning Operations*
Description	*Perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray. Ensure that all wash water drains to a proper collection system (i.e., not the stormwater drainage system).*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*Vehicle and equipment maintenance*
Control Measure	*Vehicle and Equipment Maintenance Outdoors*
Description	*Outdoor maintenance activities that involve use of lubricants, hydraulic fluid, or fuels are performed over drip pans or spill pads.*

Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*Vehicle and equipment maintenance*
Control Measure	*Disposal Prohibition*
Description	*Disposal of any rinse/wash water or industrial materials into the storm drain system is prohibited.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Covered Storage of Materials*
Description	*Drums shall be placed on elevated surfaces (e.g., PVC footings, pallets, storage rack, or other suitable materials), thereby keeping the drums out of containment water and reducing the potential for corrosion by preventing moisture contact with drum bottoms. Drums shall be covered to prevent standing water from accumulating on the tops of the drums.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*

Good Housekeeping BMPs

Good housekeeping measures are applicable to all industrial areas on Buckley SFB. Numerous Department of Defense policies and procedures dictate good housekeeping practices that are rigorously enforced at all levels of management. Generally, good housekeeping practices involve maintaining orderly work areas, minimizing use of chemicals and controlling exposure of pollutant sources to stormwater. The following good housekeeping measures are implemented at Buckley SFB.

Control Measure	*General Maintenance and Work Area Cleanliness*

Description	*The following steps shall be implemented:* • *Maintain clean and dry floors void of spills, leaks, debris, and trash;* • *Regularly pick up and dispose of garbage and waste material;* • *Routinely inspect for leaks or conditions that could lead to discharges of pollutants including chemicals, raw materials, intermediate materials, waste materials, and/or products;* • *Ensure that spill cleanup procedures are understood and implemented by personnel;* • *Trash and solid wastes are placed in dumpsters or other authorized receptacles that are collected at regular intervals;* • *Trash dumpsters on Buckley SFB are equipped with lids which are to remain closed at all times;* • *Roll-off trash containers will be structurally sound to prevent leaks;* • *Overflowing trash receptacles and loose trash and debris are not permitted on Buckley SFB;* • *Provide adequate aisle space to facilitate material transfer and easy access for inspections;* • *Work areas are regularly swept or vacuumed;* • *Store containers, drums, and bags away from direct traffic routes to prevent accidental spills;* • *Stack containers according to manufacturer's instructions to avoid damaging the containers from improper weight distribution;* • *Store containers on pallets or similar devices to prevent corrosion of the containers that can result when containers come in contact with moisture on the ground;* • *Incorporate information sessions on good housekeeping practices into the facility's employee training program;* • *Discuss good housekeeping at employee meetings;* • *Publicize pollution prevention concepts through posters and mailings;* • *Post updated good housekeeping procedures, tips, and reminders on bulletin boards.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Recycling/Reuse*

Description	*Recycling is in use throughout the industrial areas. Oil and other fluids shall be drained and recycled along with containers. The following are examples of how waste management through recycling is being practiced on Buckley SFB:* • *Reuse of fluid cleaner or wash water through filtering;* • *Reuse of absorption material; and* • *Reapplication of herbicide spillage/waste.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*

Control Measure	*Material Handling and Storage Practices*
Description	*Uniform materials handling policies, procedures, and responsibilities are used in accordance with Air Force Joint Manual 23-210 "Joint Service Manual for Storage and Materials Handling." The following material handling and storage practices are implemented at the Buckley SFB:* • *Adequate aisle space is provided to facilitate material transfer and easy access for inspections.* • *Containers, drums, and bags are stored away from direct traffic routes to prevent accidental spills.* • *Containers are stacked according to manufacturer's instructions to avoid damaging the containers due to improper weight distribution.* • *Proper storage containers are used for flammable and/or hazardous materials.* • *Containers are stored on pallets or similar devices to prevent corrosion of the containers that can result when containers are exposed to moisture on the ground.* • *Hazardous material inventory responsibility is limited to a small number of people trained in the handling of hazardous materials.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Spill Kits*

Description	*Spill kits shall be strategically placed on the apron and in maintenance facilities to quickly contain and clean up any minor releases before they reach drainage ways or exposed to stormwater. Used spill kit components shall be containerized, transported, and disposed of properly at satellite collection points. Spent components should be replaced daily so the spill kit is available for the next mishap. If a large release occurs, procedures are in place, and implemented under the Buckley SFB SPCC, to respond to the specific components of the spill, including remediation and reporting procedures.* *Spill kit sizes and supplies vary depending on need.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities where liquids are used*
Control Measure	*Drip Pans*

Description	*Temporary drip pans shall be used to catch drips from valves, pipes, hoses, and drains, etc., pending maintenance, so that the materials or chemicals can be easily cleaned up or recycled before they can contaminate stormwater. Drip pans shall be used as a preventive measure.* *Although drip pans are useful as temporary solutions for containing leaks, the necessary repairs must be performed as soon as possible.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Facility Security*
Description	*Buckley SFB is a secured facility (i.e., the perimeter is fenced and guards are posted at all entrances and exits). These measures effectively prevent unauthorized access of personnel to the facility. Most hazardous waste satellites and accumulation points are located in locked sheds or controlled work areas. Accesses to materials located in areas of concern are restricted to authorized personnel through the use of signs, lockable doors/containers, and/or locked gates.* *Waste drum storage containers or sheds shall be locked to prevent access by personnel without the proper authorization. By limiting access to materials, the chance for spills, mixing of materials or chemicals, and improper handling can be reduced.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*

Associated Activities	*All industrial Activities*
Control Measure	*Labeling of Product and Waste Containers*
Description	*Drums, tanks, pipes, and equipment shall be clearly labeled. Labels on tanks and drums should indicate material type and container contents. Two effective labeling methods include color- coding and Department of Transportation labeling. Accurate labeling can help personnel to quickly identify the type of material so that, in the event of a release, personnel can respond accordingly.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Material Inventory Tracking*
Description	*The base uses the U.S. Air Force Enterprise Environmental, Safety, and Occupational Health Management Information System (EESOH-MIS), a comprehensive web-based automated information system for the aggregation and collection of environmental, safety, and occupational health data, which is used to maintain an annual listing of materials used at each building. Tracking materials helps maintain control over the type and quantity used, and reduces excessive amounts of materials stored on site, thus reducing the risk of spills. Maintaining a material inventory also provides data that are useful in efforts to eliminate or minimize chemical usage.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Proper Disposal of Accumulated Stormwater from Secondary Containment*
Description	*Stormwater that accumulates in secondary containment structures is visually examined to ensure no contamination is present prior to discharge. If contamination is observed in the water collected in the secondary containment structure, then the contaminant is removed before the water is discharged to the stormwater system.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*

Maintenance BMPs

Maintenance control measures include activities to inspect, maintain and/or repair equipment, including structural BMPs and the storm drainage system, to prevent or reduce pollution in the base stormwater discharges. The Water Quality Program Manager serves as the Maintenance coordinator for the base stormwater system. Vehicle, equipment, and secondary containment structures/devices (such as curbs and

spill pallets) are regularly inspected by facility personnel to identify any items that require maintenance or replacement to prevent releases to storm drains. Aboveground and underground storage tanks at Buckley SFB are regularly inspected by the designated tank custodian.

Control Measure	*General Preventative Maintenance Program*

Description	*The base's preventative maintenance program should include:* • *Timely inspection and maintenance of stormwater management devices (e.g., catch basins, culverts, inlets);* • *Identification and inspection of all equipment and systems used outdoors that may spill or leak pollutants in accordance with existing Air Force inspection procedures contained in technical orders and other environmental plans;* • *Inspections are conducted regularly by facility personnel and maintenance/repair actions are initiated if required;* • *Proper maintenance of facility equipment and systems, including identification of equipment that needs to be inspected, scheduled periodic inspections, timely adjustment, and maintenance of complete records. "Equipment and systems" includes any vehicle, machinery, storage tank, or monitoring device, the operation of which creates a potential for stormwater contamination;* • *Aggressive maintenance and upkeep of flanges, valves and piping; and* • *Enhanced training to reduce fuel-handling spills attributable to human error.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Tank Inspections and Maintenance*
Description	*Inspections of tanks and ancillary structures (e.g., transfer pipes, secondary containment, etc.) shall be conducted according to the tank inspection program described in the Buckley SFB SPCC Plan. All permanent tanks in contact with the ground (underground storage tanks and direct-contact aboveground storage tanks) shall be cathodically protected to reduce the potential for corrosion. The general factors that should be considered during visual tank inspections include:* • *Internal corrosion;* • *External corrosion;* • *Condition of welded joints;* • *Tank distortions;* • *Tank settlement;* • *Visible flaws and visible leaks.* *Tanks shall be integrity tested at least once every 10 years or within the first 5 years for new tanks.*

Responsible Individual(s)	*Tank Managers*
Status	*Currently in Practice*
Associated Activities	*Material Storage and Fueling*
Control Measure	*Periodic Visual Inspections of Equipment and Infrastructure*
Description	• *Periodic visual inspections shall be conducted on all equipment and containers to ensure there are no signs of leakage or corrosion. Piping, pumps, storage tanks, pressure vessels, and process and materials handling equipment shall be inspected for leaks, signs of corrosion, support or foundation failure, or other deterioration or non-containment;* • *Inspection of stormwater management devices, including oil water separators, catch basins, and permanent structural controls associated with industrial activities are accomplished at least semi-annually in conjunction with routine facility inspections;* • *Catch basins will be cleaned when the depth of debris reaches two-thirds of the sump depth and keeping the debris surface at least six inches below the lowest outlet pipe when feasible based on design and construction of the catch basin. Some catch basins on Buckley SFB are not equipped with sumps and outlet pipe is located at the bottom of the catch basin. In these situations, cleaning will be accomplished to minimize pollutant discharges and ensure system functionality;* • *Visual evaluations of equipment are performed at least weekly; and* • *The Civil Engineer Recurring Maintenance Program shall provide periodic inspections and maintenance of stormwater management infrastructure, base pavements, grounds, etc.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Government Vehicle Inspection and Maintenance*
Description	*Government vehicles utilized on the flight line are inspected and documented prior to use as required by Air Force and Army policy. Appropriate maintenance/repair actions are initiated for any deficiencies identified during this inspection.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*Vehicle Maintenance*

Spill Prevention and Response

Buckley SFB has developed and implemented a *Comprehensive Emergency Management Plan* that details emergency response operations for the base including spill prevention and response procedures. Additionally, Buckley SFB has also developed both a *Spill Prevention Control and Countermeasure (SPCC) Plan* in accordance with 40 CFR part 112 and an *Oil Spill Contingency Plan*. The *Comprehensive Emergency Management Plan* provides detailed step-by-step descriptions for first responders to spills as well as training requirements for facility personnel and contractors who manage or handle hazardous materials and petroleum products. In addition, the *SPCC Plan* describes all necessary and appropriate oil spill response equipment and its location, and spill response equipment maintenance procedures. The *SPCC Plan* also includes inspection requirements for oil storage and handling areas, and requirements to report and address problems identified during inspections. The *SPCC Plan* provides specifications for training of personnel and contractors who handle hazardous materials and petroleum products in spill prevention and first response activities for spills and hazardous material emergencies. In accordance with the *Comprehensive Emergency Management Plan* and *SPCC Plan*, spills or other discharges of pollutants must be reported and entered into an internal electronic database for tracking purposes.

Control Measure	*General Spill Prevention and Response*

Description	*Above ground and below ground storage tanks, containers, and piping are routinely inspected under the Buckley SFB SPCC. Spills are quickly responded to and tracked under this same program. The base maintains all of their operational equipment, vehicles, and aircrafts using their mechanics and maintenance shops. All personnel are trained on how to report and respond to leaks, mechanical failures, and accidental spills.* *In the event of a spill of hazardous material or waste, the person discovering the spill is required to follow the reporting procedures outlined in the Buckley SFB SPCC.* *The qualified responder may initiate spill response actions, including:* • *Securing the spill site to prevent unauthorized entry;* • *Containing the spill if possible; and* • *Supporting cleanup efforts as directed by the Incident Commander. Hazard communication training shall be provided to all persons working in an area where potentially hazardous conditions may be found.* *SDSs shall be kept for each hazardous material used in a shop, and shall be posted in the work area or easily accessible for reference in the event of a release.* *All contractors must have an SPCC Plan that will adequately address a spill response in the event a contractor incurs a hazardous material spill. The plan shall not be less stringent than the Buckley SFB SPCC plan.* *The Buckley SFB HWP provides guidance for the generation, handling, storage, and disposal requirements for all hazardous waste on base. The most current version of the document can be found at 460 CES/CEIE, and is accessible upon request. It is also accessible digitally to DoD employees through the eDASH database.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial Activities*
Control Measure	*Aircraft Deicing Procedures*

Description	*Personnel follow detailed procedures found in AFI 32-1002 for installation and airfield snow and ice control; AF Technical Order 42C-1-2 for anti-icing and deicing and defrosting of parked aircraft. Personnel responsible for snow and ice removal receive "De-icer Environmental Training," which familiarizes personnel with BMPs for managing deicing application. The following practices are in place to avoid unnecessary application of aircraft deicing fluid, and to minimize the exposure of deicing fluid to stormwater:* • *Dry-weather deicing involves delaying the flight or placing the aircraft in a hangar to thaw unless it is a priority flight;* • *Manual removal of snow is performed whenever possible;* • *Production supervisors and pilots determine if deicing is necessary. Deicing is normally performed during a freeze, not a frost. When deicing is deemed necessary, personnel applying the deicing chemical, propylene glycol (PG), determine the percentage of PG to be used based on a temperature versus PG table. The range is 10–50 percent;* • *If aircraft are grouped close together, deicing is delayed to prevent high concentrations of deicing fluid runoff;* • *A deicing log is maintained providing the date, time, quantity of fluid, and location of the deicing event; and* • *Purging of the deicing lines back into the system is impractical; therefore, the lines are drained on the flight line away from storm drains onto the vegetated perimeter of the flight line. The fluid that is purged is 90 percent water, which reduces the environmental impact.*
Responsible Individual(s)	*Aircraft Deicing Personnel*
Status	*Currently in Practice*
Associated Activities	*Aircraft Deicing*
Control Measure	*Aircraft, Vehicle and Equipment Washing*

Description	*The following practices are in place to minimize the exposure of cleaning agents, dirt, and grease to stormwater:* • *A non-phosphate-based, biodegradable cleaning detergent is used for washing detergent. Non-toxic or low-toxicity detergents, solvents, and degreasers are used in most places (i.e., non-caustic detergents, non-chlorinated solvents) for degreasing solvents;* • *All aircraft, vehicles, and equipment washing will be conducted at designated wash racks that drain to the sanitary sewer system;* • *All aircraft washing activities are conducted inside designated facilities. Wash water is collected by floor drains, conveyed to an oil/water separator and discharged to the sanitary sewer system;* • *Most ground vehicles owned by the government are cleaned at the Vehicle Transportation Building. The wash facility is under cover and all wash waters are collected, conveyed to an oil/water separator and recycled or discharged to the sanitary sewer;* • *Heavy equipment (snowplows, graders, sweepers) associated with airfield maintenance are stored and washed at Building 830. All washing activities are conducted indoors. Wash waters are collected in floor drains, conveyed to an oil/water separator and discharged to the sanitary sewer system; and* • *AGE cleaning is accomplished indoors at designated facility. All wash water is collected in floor drains, conveyed to an oil/water separator and discharged to the sanitary sewer.*
Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All Washing Activities*
Control Measure	*Pesticide/Herbicide Selection and Application*

Description	*The following practices are in place to minimize the exposure of pesticides and herbicides to stormwater:* • *Only trained and licensed personnel apply pesticides and herbicides.* • *No application takes place prior to forecasted rain events.* • *On-site runoff areas are visually monitored for residual and migrating pollutants to identify potential problem sources.* • *Grass is cut frequently to reduce the need for herbicides.* • *An Integrated Pest Management (IPM) program emphasizing cultural, mechanical, and biological control strategies for the entire Buckley SFB has been developed and implemented to minimize the need for chemical pest control methods. A copy of the IPM can be found at the 460 CES/CEIE natural resource manager's desk, and is accessible at all times.* • *The general use of granulated pesticides and fertilizers at the LRAFB is encouraged.* • *Application activities are scheduled such that similar chemicals are applied to all designated areas within several days to make use of excess and residual from previous applications.* • *Application is performed at or below the manufacturer's suggested rate.* • *Only the necessary amount of herbicides/pesticides is mixed.* • *Broadcast application of herbicides has been eliminated; spot treatment for weeds using portable hand-held units has been substituted.* • *Insect breeding habitats are eliminated wherever possible (i.e., stagnant water accumulation areas) to minimize the need for fogging and similar blanket controls.* • *Personnel are trained on methods of applying personal insect repellents.* • *Fogging applications for mosquito control are based on Military Public Health insect population sampling and disease transmission risk analyses.* • *Pesticides that are or will be listed as "Toxics of Concern" on the local, state, or Federal level are not used on base.* • *Low-volatility carrier liquids are used.* • *The use of atrazine has been eliminated.* • *Bait or rodenticides are used for building treatment.* • *Pre-emergent herbicides that prevent germination and that are typically less toxic are used.* • *Use of phenoxy herbicides that are typically used in postemergent applications has been minimized or eliminated.* • *The use of short half-life compounds having the least proven human toxicity is emphasized.* • *New chemicals on the market that have not been thoroughly tested for human toxicity are avoided.*

	• *Trained pesticide applicators may periodically apply low-toxicity pesticides to control potentially dangerous tick, flea,*

	and mosquito populations. Applications are based on Military Public Health risk data. • *Short half-life herbicides are applied in minimal quantities to roadway shoulders.* • *Host-specific, low-toxicity, bacteriological agents in granular form are sparingly used to control mosquito populations in "wet" ditch areas and areas with standing water.*
Responsible Individual(s)	*Landscape Personnel and Contractors*
Status	*Currently in Practice*
Associated Activities	*General Landscape Maintenance and Construction*

Erosion and Sediment Controls

Buckley SFB has relatively flat topography which allows sediment and erosion to be controlled by structural and vegetative practices. Soils in the developed areas of the installation are protected by pavements, facilities, and landscaping. Stormwater that falls in the developed areas of the installation is conveyed via a storm drainage system to the outfalls described in Section 1.0. Soils in the undeveloped areas of the installation are protected using vegetative stabilization. There are several areas in which riprap has been placed to protect underlying soils particularly in areas of channelized flow.

Control Measure	*General Erosion and Sediment Controls*
Description	*Standard specifications for erosion and sediment controls for use during construction within the Buckley SFB boundary have been issued by Buckley SFB Contracting and are defined in Section 01 57 23 Stormwater Pollution Prevention Measures. These specifications are provided to all contractors working on the base. Specifications cover erosion and sediment controls, such as the following:* • *Stabilization practices: temporary seeding, mulching, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, silt fences, ditch checks, sediment control logs, etc.* • *Structural practices/devices: silt fences, sediment control logs, diversion dikes, drainage swales, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, sediment traps, reinforced soil retaining systems, gabions, sediment basins, and other devices, as the job-site requires.* • *Additional requirements can be found in the Buckley SFB Facilities Excellence Plan, which identifies requirements for zoning, plant selection, planting practices and landscape planning.*
Responsible Individual(s)	*Contractors and CES Maintenance Personnel*
Status	*Currently in Practice*
Associated Activities	*All Construction Activities on Buckley SFB that disturb 1 acre or more*
Control Measure	*Grounds Maintenance*

Description	*Landscape and vegetative areas in the industrial areas of the installation are susceptible to sedimentation, dust generation, and erosion. These areas are maintained by the ground maintenance contractor. The grounds maintenance contract statement of work includes specifications to repair damaged areas where erosion has occurred or may occur, for replacement and regrading of damaged soil or ground cover materials, and reseeding or replacement of plants, where applicable. The statement of work specifies the requirements for preventive maintenance for vegetated areas, including fertilizer application, soil aeration, and removal and/or replacement of plants and trees.*
Responsible Individual(s)	*Grounds Contractor*
Status	*Currently in Practice*
Associated Activities	*All Areas of Buckley SFB*
Control Measure	*Construction Projects*
Description	*Regulated construction activities (construction activities that disturb one or more acres or are part of a larger common plan of development) performed on Buckley SFB require permit coverage under the Federal Construction General Permit. Operators of these construction sites are required to obtain permit coverage, develop a construction site SWPPP, install and maintain BMPs, and comply with all conditions of the Federal Construction General Permit. Buckley SFB quality assurance evaluators (QAEs) oversee construction activities, including oversight of the construction contractor's stormwater program. If deficiencies in the construction contractor's stormwater program are identified, requests for corrective actions are sent to the contractor.*
Responsible Individual(s)	*SWPPP Program Manager, Site Inspection Personnel*
Status	*Currently in Practice*
Associated Activities	*Construction Areas*
Control Measure	*Non-Stormwater Discharge - Dewatering*

Description	*There shall be no turbid discharges to surface waters of the state resulting from dewatering activities. If trench or groundwater operations contain sediment, the water must pass through a sediment settling pond or other equally effective sediment control device prior to being discharged. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag, or using a comparable practice. Groundwater dewatering that does not contain sediment or other pollutant is not required to be treated prior to discharge. However, care must be taken when discharging groundwater to ensure that it does not become pollutant-laden by contact with disturbed soils or other pollutant sources.*
Responsible Individual(s)	*SWPPP Program Manager, Site Inspection Personnel*
Status	*Currently in Practice*
Associated Activities	*Construction Areas*

Management of Runoff

The 2021 MSGP requires a description of stormwater management practices and permanent structural control measures used to meet established effluent limits. Stormwater runoff on Buckley SFB is primarily conveyed through a piping and open channel flow network to the outfalls previously discussed. It should be noted that Buckley SFB has preserved large amounts of vegetated open spaces throughout the installation, particularly near the runway, parking aprons, and taxiways as well as adjacent to East Toll Gate Creek to promote infiltration and protect water quality. In addition to preserving open space, the following discuss additional structural control measures associated with the Buckley SFB outfalls.

Control Measure	*Management of Run-On and Runoff*
Description	*Traditional stormwater management practices should be considered and used to infiltrate, divert, reuse, or otherwise manage stormwater runoff in a manner that reduces pollutants in stormwater discharges from the site. These measures may include:* • *Vegetated swales;* • *Inlet controls;* • *Infiltration;* • *Filtration; and* • *Detention.* *These practices should be appropriately considered whenever routine inspections reveal a need for implementation.*
Responsible Individual(s)	*WQPM, Contracting Site Inspection Personnel*
Status	*Currently in Practice*
Associated Activities	*Construction Areas*
Control Measure	*Infiltration Swales and Vegetated Channels*

Description	*A vegetated swale is a broad, shallow channel with a dense stand of vegetation covering the side slopes and channel bottom. Runoff from impervious areas are discharged into a vegetated swale for filtering of pollutants and infiltration of stormwater into the subsurface. Swales can be natural or manmade and are designed to trap particulate pollutants (suspended solids and trace metals), promote infiltration, and reduce the flow velocity of stormwater runoff.* *Effectiveness: The effectiveness of a vegetated swale can depend on the area, slope, and perviousness of the contributing watershed, as well as the dimensions, slope, and vegetative covering employed in the swale system.* *Swales typically have several advantages over conventional stormwater management practices by reducing peak flows, removing pollutants, and promoting runoff infiltration. However, vegetated swales can be ineffective in areas vulnerable to large storms with high flow velocity that can erode the vegetated cover, and are impractical in areas with flat or steep topography and/or areas with poorly drained soils. They are also impractical in areas with erosive soils or where a dense vegetative cover is difficult to maintain, and standing water can result in potential safety, odor, and mosquito problems.* *Inspections: Vegetated swales shall be inspected during the routine quarterly visual inspections. During these inspections, the stormwater manager or their appointee should evaluate these waterways to determine if excessive erosion or deposition is occurring, if the overall health of the vegetation is acceptable, if staining is occurring at entry points into the swale from an industrial area, and if windblown trash or foreign objects are being deposited in the swale.* *Maintenance: Vegetated swales may require periodic maintenance to maintain an adequate vegetative cover. If excessive vegetation impedes typical discharge rates, vegetation may require trimming and removal of old growth. Deposition and erosion should be evaluated to determine the cause, and additional BMPs should be added if appropriate. Based on the quantity of foreign objects seen during the visual inspections, a community stream walk may be implemented to raise watershed awareness and gain support in the removal of wind blown trash and other foreign objects.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently in Practice*
Associated Activities	*Throughout Buckley SFB*
Control Measure	*Soil Berms (Temporary)*

Description	*A soil berm is a ridge of compacted soil, compost, or sandbags used to intercept, divert or contain runoff from small areas such as stock piles or around roll-offs that do not have lids and are exposed to stormwater. Soil berms can be used to create a secondary containment for non- hazardous materials, which can be allowed to infiltrate into the subsurface instead of discharging to the surface water. They can be used across minor swales and ditches to promote infiltration and for other applications where the structure is of a temporary nature.* *Effectiveness: Soil berms can be effectively used at the base of stockpiles to minimize migration of erosion from the stockpile as a long-term alternative to a silt fence. They can also be effective in small areas that do not receive significant runoff. In cases where they are not maintained or where the berm has been inadvertently broken by vehicle traffic, their effectiveness is poor. Soil berms typically need more maintenance as compared to a concrete berm and are susceptible to erosion.* *Inspections: Soil berms shall be inspected during visual inspections. During these inspections, the stormwater manager or their appointee should evaluate these structures to determine if the berm is actively eroding or if significant deposition is occurring. If staining is occurring within the berm area, additional procedures may be required to minimize overall contaminant migration into the environment.* *Maintenance: Temporary berms should be inspected and repaired periodically as well as after each significant rainfall. When silt reaches 1/3 the height of the berm, the accumulated silt should be removed and disposed of at an approved site in a manner that will not contribute to additional sedimentation. If the height of the berm has been reduced from compaction, or eroded, the berm must be replaced and/or repaired.*
Responsible Individual(s)	*Spill Response Personnel*
Status	*Intermittent Use as Needed During Spill Response*
Associated Activities	*Any area where a spill has occurred that reaches a swale*
Control Measure	*Aircraft Deicing*

Description	*Aircraft deicing is limited at Buckley SFB, occurring 0-4 times annually according to 140 WG COANG personnel (April 2021). The majority of airfield deicing operations takes place on the airfield apron southeast of Building 909. Runoff from the airfield apron deicing area flows into a series of vegetative swales then to the Airfield Apron detention pond. The East Deicing Pad, formerly used for aircraft deicing is equipped with a 2,500-gallons underground storage tank (UST) containment system to collect spent aircraft deicing fluid; the UST is no longer functioning because the valve controls are not operational. Due to the lack of ponding at the UST during precipitation events, it is assumed the valve is turned to direct runoff to stormwater that flows into a large vegetated area east of the ramp. The East Deicing Pad is not likely to be used because aircraft need to be deiced before moving, which means aircraft will already be deiced by the time they reach the East Deicing Pad.*
Responsible Individual(s)	*140 WG COANG personnel*
Status	*Currently In Practice*
Associated Activities	*Aircraft Deicing*
Control Measure	*Aerospace Data Facility (ADF) Pond*
Description	*This detention pond is located on the northwest portion of the base and receives stormwater from Sub-drainage Basin 3 that includes industrial and non-industrial portions of the base including the ADF Complex. The pond outlet consists of stormwater flow from the ADF Pond located approximately 850 feet west of Telluride Street and approximately 450 feet south of East Steamboat Avenue. Stormwater from the pond flows over a concrete slab at the Buckley SFB boundary into Granby Ditch at Outfall 3.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*Hazardous Waste and Material Storage Pond*

Description	*Hazardous materials and hazardous waste are stored inside of Building 1025 with the exception being a small outdoor drum storage area. A lined, containment pond is connected to the floor drain within Building 1025 designed to contain any large spills that might occur within the facility. The floor drain has been plugged to keep chemicals from being discharged to the containment pond and containment pond doesn't currently serve any purpose. Discharge from this pond is controlled by a valve that is maintained in the closed position to contain a spill. Stormwater that accumulates in this pond could be discharged through the outlet structure to a drainage ditch that would ultimately leave the installation through Outfall 2. However, typically the stormwater that collects is left to evaporate.*

Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*Industrial Area Pond*
Description	*This detention pond is located near the Consolidated Fuels Complex. The pond is equipped with a concrete, v-notch weir outlet structure to control flow from the structure. Stormwater exiting this detention pond will flow approximately 0.9 miles before exiting the base at Outfall 2.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*Aspen/Steamboat Pond*
Description	*This detention pond receives stormwater discharges from various open and closed channels that collect stormwater from a large portion of the undeveloped, northern flight line area and developed areas near the corner of Aspen Street and Crested Butte Avenue. Stormwater exiting this pond will flow into the ADF Pond discussed above before discharging through Outfall 3.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*AASF Tarmac Washing Facility*

Description	*Helicopter washing is accomplished outdoors on the AASF Tarmac. Washing is accomplished at designated locations so that wash water is positively controlled and diverted to an OWS, then to the sanitary sewer system. The designated helicopter wash location is equipped with a sump and automatic diversion valve system. The valve system is equipped with a flow switch that controls water discharges whenever washing operations are*
	initiated. When washing operations are initiated, the valve is configured to discharge to the sanitary sewer system. Once washing operations cease, the valve diverts water to the stormwater conveyance system. The system is equipped with an indicator system so the operator can confirm proper wash water management prior to commencing washing operations.
Responsible Individual(s)	*COARNG Personnel*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*AASF Tarmac Refueler Parking Containment Systems*

Description	*There are two mobile refueler storage areas associated with the AASF Tarmac. Each of the storage areas is equipped with containment sumps that provide secondary containment for the mobile refuelers. Stormwater that collects in the containment structures is inspected for visual signs of contamination. If visual inspections do not identify contamination, the water is pumped to grade.*
Responsible Individual(s)	*COARNG Personnel*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*AASF Detention Pond*
Description	*This detention pond is located near Building 1510 and receives stormwater discharges from Building 1510 and the AASF Tarmac. The pond is dual bay with a concrete discharge structure that controls flows leaving the pond. Stormwater leaving this structure flows into a drainage ditch near the Consolidate Fuels Complex then to the Industrial Area Pond.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*Building 1500 Detention Pond*

Description	*This detention pond is located near Building 1500 and receives stormwater discharges from Building 1500 and a small portion of the AASF Tarmac. This pond is not equipped with a specific outlet structure; however, during a large precipitation event in which the pond capacity is exceeded, additional stormwater would be conveyed through an earthen spillway towards Outfall 1D.*
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*
Control Measure	*Airfield Apron Detention Pond*
Description	*This detention pond is located adjacent to the aircraft parking apron near Building 805. This pond receives flow from the aircraft parking apron located northeast of this detention pond. A*
	pipe connects this pond to an existing culvert at Aspen Street through an earthen impoundment. The pond is equipped with a spillway to direct stormwater flows from heavy precipitation events to an existing conveyance ditch, which ultimately flows to Outfall 2. Stormwater exiting this detention pond will flow approximately 0.5 miles before exiting the base at Outfall 2.
Responsible Individual(s)	*460 CES/CEI*
Status	*Currently In Practice*
Associated Activities	*Structural Control*

Salt Piles

140 WG COANG personnel perform pavement deicing of airfield pavements and streets/parking lots to support airfield and aircraft operations. Airfield pavements are deiced primarily with liquid potassium acetate and these operations are discussed later in this SWPPP. Personnel are trained in all equipment operation and implement good housekeeping practices while transferring materials to minimize exposure.

MSGP Sector-Specific Non-Numeric Effluent Limits

Control Measure	*N/A*
Description	*If applicable, describe any sector specific requirements associated with industrial activities and associated control measures.*
Responsible Individual(s)	*Insert responsible individual(s).*
Status	*Insert status.*
Associated Activities	*Insert associated industrial activities.*

Employee Training

Control Measure	*Refer to Section 5.0*

Description	*N/A*
Responsible Individual(s)	*N/A*
Status	*N/A*
Associated Activities	*N/A*

Waste, Garbage, and Floatable Debris

Control Measure	*Base-wide Clean-up*
Description	*Various times throughout each year Buckley SFB will conduct a base-wide mandatory clean-up of trash and debris. Different groups are assigned portions of the base as their responsible area.*
Responsible Individual(s)	*460 SW/CC*
Status	*Currently in Practice*
Associated Activities	*All areas of base*
Control Measure	*Waste Removal Contracts*
Description	*Buckley SFB has contracts in place for general trash and household waste removal as well as hazardous waste removal. The base maintains a Hazardous Waste Program that tracks materials as they come onto the base and as they leave the base to account for all hazardous materials. Hazardous materials that can no longer be used are deposited at satellite accumulation points.*
	Waste from the satellite points are collected and disposed of on a routine frequency as per the Hazardous Waste Program.
Responsible Individual(s)	*460 CES/CC*
Status	*Currently in Practice*
Associated Activities	*All areas of base*

Dust Generation and Vehicle Tracking of Industrial Materials

Control Measure	*Minimization of Dust and Tracking of Industrial Materials*
Description	*Nearly all industrial areas where materials may be tracked are paved which eliminates any potential for contaminated dust generation. It also minimizes the tracking of materials. Potential materials that could be tracked are primarily from leaks or spills. This tracking is minimized by implementing prompt spill response and clean-up.*

Responsible Individual(s)	*Facility Personnel*
Status	*Currently in Practice*
Associated Activities	*All industrial areas*

Additional Control Measures (As Needed)

Control Measure	*Airport Fuel System and Fueling Areas*

Description	• *Aircraft fueling is conducted by mobile refueling trucks. Jet fuel is delivered via commercial tanker trucks and off-loaded to aboveground storage tanks that are located within containment dikes.* • *Fuel off-loading into the aboveground storage tanks and subsequent transfer to mobile refueling trucks is accomplished within secondary containment.* • *Secondary containment systems are controlled and operated by trained personnel who inspect the containment structures prior to releasing accumulated liquids.* • *During certain aircraft maintenance activities, fuel is off-loaded from the aircraft into storage bowsers or tanks.* • *Ground vehicles are fueled at the designated Military Service Station.* • *Standard operating procedures have been established for fuel transfers.* • *Spill response equipment is available to clean up any minor spills.* • *Larger spills from fuel transfers would flow into various storm inlets which are connected to a secondary containment cistern. There is a control valve at the connection to the storm sewer system that is maintained in the closed position to prevent the discharge of any spilled materials.* • *Personnel responsible for fueling operations are trained in proper fueling operations, spill prevention and spill response.* • *Spill kits are available at all fueling locations.* • *Drip pans and trays are utilized, when appropriate, to contain any leaks that may occur during fueling operations.*
Responsible Individual(s)	*Fueling Personnel*
Status	*Currently in Practice*
Associated Activities	*Fueling Areas*
Control Measure	*Aircraft Deicing Operations*

Description	• *Deicing of Air Force aircraft is governed by Air Force wide and aircraft specific technical orders. These technical orders list approved deicing chemicals, physical removal methods, and application techniques that must be used at Buckley SFB.* • *Buckley SFB uses propylene glycol based aircraft deicing fluid as an environmentally friendly substitute to ethylene glycol based deicing fluids;* • *Aircraft deicing fluid is stored in aboveground storage tanks with secondary containment;* • *The SDS for the deicing fluid used at Buckley SFB is provided in Appendix G of this SWPPP;* • *Mobile deicing trucks are used to apply deicing fluid which is mixed at a 50/50 fluid to water ratio;* • *Buckley SFB has implemented numerous source reduction BMPs to reduce the amount of aircraft deicing fluid used and potentially exposed to stormwater including: physical removal of accumulated snow prior to deicing, forced-air deicing, operator training, indoor parking when available and enclosed cab deicing trucks;* • *Residual deicing fluid that accumulates on the pavement surface is left to biodegrade over time and may be transported via stormwater runoff to vegetative areas that surround the parking apron;* • *Runoff from deicing operations at this location will flow southeast into a series of vegetative swales then to the Airfield Apron detention pond. Due to the small amount (much less than 10,000 gallons) of deicing fluid used per year at Buckley SFB, managing runoff from deicing areas by diverting the runoff to vegetative swales/ponds was selected as an appropriate BMP; and* • *There is no dry weather discharge of aircraft deicing fluid from Buckley SFB.*
Responsible Individual(s)	*COANG Personnel*
Status	*Currently in Practice*
Associated Activities	*All Aircraft Deicing Areas*
Control Measure	*Airfield Deicing Operations*

Description	*Management of snow and ice on Air Force airfields is governed by Air Force Instruction (AFI) 32-1002 Snow and Ice Control. This AFI lists approved deicing chemicals, physical removal methods, and application techniques that must be used at Buckley SFB.* • *Buckley SFB has developed an installation specific Snow and Ice Control Plan that details specific airfield snow and ice control practices at Buckley SFB.* • *Buckley SFB uses Cryotech's E-36 potassium acetate-based liquid runway deicer as an environmentally friendly substitute to urea-based airfield pavement deicers.* • *E-36 Runway Deicing liquid is stored in aboveground storage tanks with secondary containment located in the bulk fuels storage yard near Building 1054.* • *E-36 Runway Deicing liquid is also stored in four tanks located at on the airfield on the northeast corner of the former East Deicing Pad, due south of Building 1606. The SDS for the E-36 used at Buckley SFB is provided in Appendix G of this SWPPP.* • *Buckley SFB has implemented numerous source reduction BMPs to reduce the amount of airfield deicing chemical used and potentially exposed to stormwater including: physical removal of accumulated snow prior to deicing, operator training, equipment maintenance, and varying application rates based on conditions.* • *Due to the small amount of airfield deicing chemical used per year at Buckley SFB, managing runoff from airfield pavement by diverting the runoff and deicing agent-impacted snow to vegetative swales was selected as an appropriate BMP.* • *There is no dry weather discharge of airfield deicing chemical from Buckley SFB.*
Responsible Individual(s)	*COANG Personnel*
Status	*Currently in Practice*
Associated Activities	*All Airfield Deicing Areas*

7.3 Schedules and Procedures for Monitoring

The installation implements procedures for conducting the following types of monitoring, as necessary:

- Benchmark monitoring
- Effluent limitations guidelines monitoring
- State or Tribal specific monitoring
- Impaired waters monitoring
- Other monitoring as required

At a minimum, procedures describe:

- Locations where samples are collected
- Pollutant parameters sampled
- Monitoring schedules
- Numeric limits, where applicable
- Sample collection and analysis
- Sampling and Analysis reporting requirements such as a Discharge Monitoring Report (DMR)

Monitoring procedures are documented in the installation supplement below.

Installation Supplement – Schedules and Procedures for Monitoring

The 2021 MSGP requires the implementation of various monitoring programs to review the facility's operations, stormwater program and controls, and compliance with the permit conditions. The following paragraphs discuss these monitoring requirements and implementation at Buckley SFB.

Indicator Monitoring

The 2021 MSGP requires indicator monitoring of stormwater discharges for 16 (naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene) individual pollutant polycyclic aromatic hydrocarbons (PAHs) for Air Transportation Facilities (S1) of Sector S. Indicator monitoring parameters are "report-only", intended to provide a baseline and comparable understanding of industrial stormwater discharge quality and potential water quality problems. No follow-up action is triggered for PAH monitoring because of the lack of thresholds or baseline values for comparison. Failure to conduct and report indicator monitoring is a permit violation.

Per Part 4.2.1.1 of the 2021 MSGP, PAH indicator monitoring will occur biannually (twice per year) in the first and fourth years of permit coverage. Indicator monitoring in the first year begins in the first full quarter of permit coverage. Therefore, indicator monitoring of PAHs will occur the following quarters: Quarter 4: October – December 2021, Quarter 2: April - June 2022 and Quarter 4: October – December 2024, Quarter 2: April – June 2024,

Indicator PAH monitoring will occur at five outfalls representing Buckley SFB's sub-drainage basins exposed to regulated industrial activities (described in detail referencing outfall locations in Section 1.0, Outfall and Receiving Water Description) and assessed in the Visual Quarterly Monitoring: Outfalls 1E, 2, 3 and 5 and one of the substantially similar outfalls (Outfalls 1A, 1B, 1C, or 1D). Indicator PAH monitoring will be accomplished under the supervision of the SWPPT Leader using the following basic procedures:

- Obtain sampling kit from the analytical laboratory (bottles, cooler for shipping, preservatives, etc.)
- Collect grab sample at the final outfall according analytical method procedures
- Follow proper preservation techniques and ship to testing laboratory for analysis consistent with 40 CFR Part 136 analytical methods performed by the selected analytical laboratory.
- Record analytical results and establish a baseline

Monitoring must be performed within 30 minutes of the start and no later than one hour after runoff or snowmelt begins discharging from the facility. The monitoring will be performed during storm events with at least 0.1 inch of precipitation at least 72 hours after the previous precipitation event. Collected samples will be analyzed at a qualified laboratory using analyzed using EPA Method 625.1, or EPA Method 610/Standard Method 6440B, consistent with 40 CFR Part 136 analytical methods. The results of the monitoring shall be included in Appendix H of this SWPPP.

Benchmark Monitoring

In addition to indicator monitoring, the 2021 MSGP requires certain industries and permittees to accomplish benchmark monitoring of stormwater discharges. Benchmark monitoring requires chemical analysis of stormwater discharges for specific pollutants of concern. The permit establishes specific benchmark concentrations for specific pollutants, which are not effluent limitations, but provide an indication of the effectiveness of a facility's stormwater program. If analytical results for a specific parameter exceed established benchmark values, the facility is not in violation of permit conditions, but the exceedance does indicate additional stormwater controls may be needed to protect water quality. However, if Additional Implementation Measures (AIM) are required as a result of a benchmark exceedance, failure to conduct required measures is a permit violation.

Sector S specific requirements, Part 8.S.8, of the 2021 MSGP does contain benchmark values for biochemical oxygen demand, chemical oxygen demand, ammonia and pH; however, only air transportation facilities that use more than 100,000 gallons pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea are required to complete benchmark monitoring. Buckley SFB currently does not use more than 100,000 gallons of glycol-based deicing fluid or more than 100 tons of urea, so benchmark monitoring is not required.

Effluent Limitations Monitoring

Stormwater discharges subject to effluent limitation are authorized for coverage under this permit. An exceedance of the effluent limitation is a permit violation.

Sector S specific requirements, Part 8.S.9, of the 2021 MSGP details effluent limitations. Buckley SFB does not utilize urea for airfield pavement deicing and it does not have 1,000 or more annual non-propeller aircraft departures, therefore effluent limitations monitoring is not required.

Impaired Waters Monitoring

If the first waterbody to which Buckley SFB discharges is identified by the state, tribe, or EPA pursuant to section 303(d) of the CWA as impaired, impaired waters monitoring is required for an outfall to the impaired waters. Sand Creek (section COSPUS16a_A) receives stormwater discharge from several areas on Buckley SFB, including industrial activities discharging through Outfall 5A, and is considered impaired for selenium and E.coli, with no established TMDL (https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8787&fileName=5%20CCR%201002-93). Buckley does not discharge to any other impaired waterbody (https://cdphe.maps.arcgis.com/apps/Viewer/index.html?appid=f1541d2f21834642ba1551c674fd4a79).

Per Part 4.2.5.1.a of the 2021 MSGP, annual outfall monitoring is required for discharges to impaired waters without an EPA-approved or established TMDL in the first year and fourth year of permit coverage, unless a pollutant is detected that is causing the impairment; in that case, annual monitoring is required. Outfall 5A will be monitored for selenium and E. coli in 2021 and 2024, and continued annually if pollutant is causing impairment. Impaired waters monitoring will be accomplished under the supervision of the SWPPT Leader using the following basic procedures:

- Obtain sampling kit from the analytical laboratory (bottles, cooler for shipping, preservatives, etc.)
- Collect grab sample at the final outfall according analytical method procedures
- Follow proper preservation techniques and ship to testing laboratory for analysis using 40 CFR Part 136 approved analytical methods performed by the selected analytical laboratory.
- Review analytical results, and
- Assess BMPs or processes for possible modification or corrective action if results indicate storm water may be contributing to the impairment of receiving waters

Monitoring must be performed within 30 minutes of the start and no later than one hour after runoff or snowmelt begins discharging from the facility. The monitoring will be performed during storm events with at least 0.1 inch of precipitation at least 72 hours after the previous precipitation event. Collected samples will be analyzed at a qualified laboratory using only 40 CRF Part 136 analytical methods. The results of the monitoring shall be included in Appendix H of this SWPPP.

Note that sampling for the impaired waters was completed in February 2016 and March 2021 for selenium and E. coli at Outfall 5. The selenium levels were consistent with natural occurring levels based on a previous study, "Selenium and Other Elements in Water and Adjacent Rock and Sediment of Toll Gate Creek, Aurora, Arapahoe County, Colorado, December 2003 through March 2004, Scientific Investigations Report 2007-5018 (https://pubs.usgs.gov/sir/2007/5018/). This information was documented in a memo by the former Water Quality Program Manager (WQPM), Doug Chase that was addressed to Amy Clark of EPA Region 8 on 16 June 2016. She responded with general concurrence on that selenium would no longer be required to be sampled. A copy of Doug Chase's memo regarding selenium and Amy Clark's response is in Appendix E. A memo was sent by Doug Chase to Amy Clark on 19 January 2017 stating that due to the low E. coli results, Buckley SFB would sample again in 2019. A copy of Doug Chase's memo regarding E. coli sampling is in Appendix E. EPA Region 8 (Akash Johnson) in Feb 2018 removed any further Buckley SFB requirements for monitoring for selenium and E. coli for the remainder of the 2015 MSGP NPDES ID No. COR05F004 permit cycle. Sampling for impaired waters monitoring will restart for the 2021 MSGP cycle.

Monitoring Schedules and Logistics

The schedule and logistics, including laboratory, SWPPT Member participant, and/or contractor support selection, for each type of monitoring discussed in this section will be established by the SWPPT throughout the course of the year and as weather dictates. All monitoring required on a quarterly basis will be performed according to the following basic schedule, provided adequate storm events occur:

- Quarter 1: 1 January through 31 March
- Quarter 2: 1 April through 30 June

- Quarter 3: 1 July through 30 September
- Quarter 4: 1 October through 31 December

All analytical monitoring results must be reported to EPA using their electronic NetDMR tool no later than 30 days after receiving the complete laboratory results for all monitored outfalls for the reporting period.

7.4 Inspections

The installation implements procedures for conducting the following types of inspections, as necessary:

- Routine facility inspections
- Quarterly visual assessment of storm water discharges
- Comprehensive site inspections At a minimum, procedures include:
    - Person(s) or position(s) responsible for inspection
    - Schedules for conducting inspections
    - Specific items to be covered by the inspection

All other inspections are conducted IAW AFI 90-201, *Air Force Inspection System*, and the Commander's Self Inspection Program. Inspection procedures are documented in the Installation Supplement below.

Installation Supplement – Inspections

Routine Facility Inspections

In accordance with the 2021 MSGP, Buckley SFB must conduct quarterly routine facility inspections during normal operating hours. The quarterly facility inspections must be completed by qualified personnel from Buckley SFB or by a consultant hired by Buckley SFB, with at least one member of the inspection team comprised of a member of the SWPPT. Quarterly facility inspections will consider the results of visual and analytical monitoring for the previous year when planning and conducting inspections. Furthermore, at least one of the quarterly inspection must be accomplished during a period when stormwater discharge is occurring. Quarterly facility inspections will be accomplished based on a calendar year quarter.

The routine facility inspection team will assess the conditions at the facility to determine if any operational changes have occurred that may require implementation of storm water controls; assess the effectiveness of existing storm water controls; and identify maintenance requirements for established storm water controls. In accordance with the 2021 MSGP, the inspections must include all of the following areas:

- Areas where industrial materials are exposed to storm water;
- Areas identified in this SWPPP and potential pollutant sources;
- Areas where spills and leaks have occurred within the past 3 years;
- Control measures, and
- Discharge points.

During the inspection the team will examine or look out for the following:

- Industrial materials, residue or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Erosion of soils at the facility, channel and streambank erosion and scour in the immediate vicinity of discharge points;
- Non-authorized non-stormwater discharges;
- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance or repair.

During those facility inspections taking place during a stormwater discharge, control measures will be observed to ensure they are functioning correctly. Discharge points will also be visually inspected. If discharge locations are inaccessible due to stormwater discharge, nearby downstream locations will be inspected instead.

Each routine facility inspection will be documented. Inspection summaries will contain all findings, including but not limited to, the following information:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of control measures, including: ○ A description of any discharges occurring at the time of the inspection; ○ Any previously unidentified discharges and/or pollutants from the site; ○ Any evidence of, or the potential for, pollutants entering the drainage system; ○ Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water; and
  - Any control measures needing maintenance, repairs, or replacement.
- Any additional control measures needed to comply with the permit requirements; and
- Any incidents of noncompliance observed.

At the completion of each routine facility inspection, housekeeping or maintenance issues identified will be provided to the Buckley SFB Water Quality Program Manager for corrective action. The results of the routine facility inspection shall be included in Appendix D of this SWPPP.

Based on the results of the routine facility inspections, Buckley SFB must implement corrective actions and potentially modify this SWPPP as described in Section 6.3. If the inspection identifies BMPs that need to be modified or if additional BMPs are necessary, implementation must be completed before the next anticipated storm event (if practicable), but not more than 45 days after completion of the inspection.

Monthly Facility Inspections During Deicing Season

In according with the 2021 MSGP, Sector S specific requirements Paragraph 8.S.6, routine facility inspections will be performed monthly during deicing season. Deicing season is defined as October through April for Buckley SFB.

Quarterly Visual Assessment of Stormwater Discharge

The 2021 MSGP requires all permitted facilities to perform quarterly visual monitoring of stormwater discharges associated with industrial activity from each outfall, or from a representative outfall for substantially similar outfalls. There are eight stormwater outfalls associated with industrial activities on Buckley SFB that must comply with quarterly visual monitoring requirements. Outfalls 1A, 1B, 1C, and 1D are considered substantially similar and quarterly visual monitoring will be accomplished at one of these outfalls on a rotating basis. Buckley SFB will rotate the monitored representative outfall on an annual basis.

The visual monitoring of industrial stormwater outfalls must be accomplished during day light hours, during normal facility working hours. The visual monitoring will include an examination for color, odor, clarity, presence of floating, suspended or settled solids, foam, oil sheen and other obvious indications of stormwater pollution. Appendix H contains the visual monitoring report form that will be used to document the results of quarterly visual monitoring at Buckley SFB.

Each quarterly monitoring event must be performed within 30 minutes of the start of and no later than one hour after runoff or snowmelt begins discharging from the facility. The monitoring will be performed during storm events with at least 0.1 inch of precipitation at least 72 hours after the previous precipitation event. If no qualifying storm events occur within a given quarter, a statement that no events occurred will be certified and maintained in Appendix H and the monitoring will be performed during the next qualifying storm event. All efforts will be made to collect the requisite sets of samples annually from the designated outfalls.

Corrective Actions

As required by the 2021 MSGP, the following conditions require implementation of Corrective Actions:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the U.S.)
- A discharge violates a numeric effluent limit.
- Control measures are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in this permit.
- A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8 of the MSGP, or is not being properly operated or maintained.
- A visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

Any corrective actions, as identified during any facility investigation or monitoring activity, shall be immediately implemented to minimize or prevent the discharge of pollutants from Buckley SFB. Once a

corrective action is identified, Buckley SFB shall take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational. In terms of the MSGP, immediately is defined as the same day the problem is identified. If a problem is identified at a time in the work day when it is too late to initiate corrective action, the initiation of corrective action shall begin on the following work day.

If additional changes are needed beyond those that can be immediately implemented, Buckley SFB will attempt to install a new or modified control and make it operational, or complete the repair, before the next storm event if possible, and within 14 calendar days from the time of discovery. If it is not feasible to complete the installation or repair within 14 calendar days, documentation will be generated to detail why the installation or repair could not be completed within the 14-day timeframe. The schedule for completing the work will be identified, and all work should be done as soon as practicable but no longer than 45 days after discovery. If implementation of the Corrective Action will exceed 45 days, Buckley SFB personnel must notify EPA Region 8 of the intention to exceed 45-days.

All corrective actions will be documented within 24 hours of discovering the issue. Records of all corrective actions will be retained in Appendix J. Corrective action records will include the following, at a minimum: identification and description of the condition triggering the need for corrective action: date, the immediate and subsequent corrective actions taken, and the dates when each corrective action was initiated and completed. Corrective action reports must be certified by a duly authorized individual. When corrective actions result in changes to any of the controls or procedures, this SWPPP will be updated within 14 calendar days.

7.5 Documentation to Support Eligibility Considerations Under Other Laws

Where applicable, the installation maintains documentation supporting determination of eligibility under other federal laws (Endangered and Threatened Species and Critical Habitat Protection, Historic Properties Preservation and/or National Environmental Policy Act [NEPA]) or host nation laws separately from this SWPPP. Such documentation is available through the References section or as appendices below.

Installation Supplement – Documentation to Support Eligibility

Documentation of Permit Eligibility Related to Endangered Species

Paragraph 1.1.4 of the 2021 MSGP provides five possible criteria related to eligibility for coverage under the MSGP with respect to endangered species and critical habitat protection. Buckley SFB has selected Criterion C3 as the appropriate criteria in accordance with Criterion Selection Worksheet procedures outlined in Appendix E of the 2021 MSGP. Appendix M contains additional documentation of permit eligibility related to endangered species and selection of Criterion C.

Documentation of Permit Eligibility Related to Historic Places

Paragraph 1.1.5 of the 2021 MSGP provides four possible criteria related to eligibility for coverage under the MSGP with respect to historic property protection. No facilities on Buckley SFB are listed on the National Register Information System. However, 12 buildings are considered eligible for the list and treated as if they were listed. None of these facilities will be impacted by industrial stormwater discharges. Additionally, Buckley SFB does not plan to construct new stormwater controls to meet the

effluent limitations required by the MSGP. Buckley SFB has an established Integrated Cultural Resources Management Plan (ICRMP) and future development activities on the installation will comply with this plan as well as historic property review requirements of the Construction General Permit for projects greater than 1 acre in size or part of a common plan of development that will cumulatively disturb more than 1 acre.

8.0 REFERENCES

Standard References

(Applicable to all AF Installations)

- Federal Water Pollution Control Act (Clean Water Act)
- AFMAN 32-1067, Water and Fuel Systems
- AFI 32-1002, *Snow and Ice Control*
- AFI 32-7001, *Environmental Management*
- AFI 90-201, *Air force Inspections System*
- Water Quality Program Management Playbook
- eDASH AFLOA Water Quality Legal and Other Requirements
- eDASH Water Quality Program Page
- eDASH Training Matrix
- ADLS
- EASIER
- Water Enterprise Tracker (WET)

Installation References

1. US EPA National Pollutant Discharge Elimination System MSGP for Stormwater Discharges Associated with Industrial Activity COR05F004, March 1, 2021. https://www.epa.gov/sites/default/files/2021-01/documents/2021_msgp_-_permit_parts_1-7.pdf

9.0 ACRONYMS

Standard Acronyms

(Applicable to all AF Installations)

- eDASH Acronym Library
- Water Quality Playbook Acronym Section
- U.S. EPA Terms and Acronyms

Installation Acronyms

- SFB Space Force Base

10.0 DEFINITIONS

Standard Definitions

(Applicable to all AF Installations)

- Water Quality Playbook Definition Section

Installation Definitions

- None

11.0 INSTALLATION – SPECIFIC CONTENT

Appendices Note: Missing appendices can be found on the BAFB 460 CES/CEIE Shared Drive, with the physical copy of the SWPPP located in the Buckley 460 CES/CEIE office, or can be requested from the BSFB Water Quality Program Manager or Water Quality Program Support Contractor listed in Section 2.0.

APPENDICES

Appendix

A. General Location Map and Site Maps

Appendix

B. General Location Map and Site Maps

Appendix

C. Training Records

Appendix

D. Inspection Records

Insert discharge monitoring reports or identify location where maintained.

Appendix

E. Discharge Monitoring Reports

Appendix

F. Buckley SFB SWPP Team

Appendix

G. Safety Data Sheets and Monthly Deicing Chemical Use Estimates

Appendix

H. Stormwater Sampling Results and Quarterly Visual Monitoring Reports

Appendix

I. Buckley SF NOI

Appendix

J. Corrective Action Reports

Insert discharge monitoring reports or identify location where maintained.

Appendix

K. Annual Reports

Appendix

L. SWPP Team Meeting Minutes

Appendix

M. Endangered Species Act and Critical Habitat Protection Documentation

Appendix

N. Installation Supplement – Description of Past Spills/Leaks