



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region8/stormwater>

STORMWATER ANNUAL REPORT FORM

This form is for regulated small MS4s (Municipal Separate Storm Sewer Systems) and may be used to meet the annual reporting requirements for regulated small MS4s as outlined in 40 CFR§122.34g(3). While it is not required for MS4 operators to use this form to meet federal regulations, MS4s are encouraged to use this format to allow for more efficient recordkeeping and to minimize paper consumption.

PLEASE NOTE: This form may not include all of the information required to be submitted in your annual report. Please review your MS4 permit to ensure all required information is reported. Include supplemental pages to this form, if needed.

Completed forms should be mailed to:

Amy Clark
EPA Region 8 Stormwater Coordinator
Mail code: 8WP-CWW
1595 Wynkoop Street
Denver, CO 80202-1129
Email: clark.amy@epa.gov

All sections of this form must be completed and Item I on Page 18 must be signed and certified. Please print or type.

A. Permittee Information

Permittee (Agency Name): **DEPARTMENT OF THE AIR FORCE - BUCKLEY SPACE FORCE BASE (BSFB)**

Mailing Address: **660 S. ASPEN ST, STOP 86**

City, State and Zip Code: **BUCKLEY SFB, CO 80011-9564**

Contact Phone Number: **720-847-7245**

Permit Certification Number: **COR 042003**

Have any areas been added to the MS4 due to annexation or other legal means? **NO**

B. Reporting Period: January 1, 2021 – December 31, 2021

C. Construction Program Contact:

The following information will be provided on the Environmental Protection Agency's (EPA) web site to assist construction site operators in determining municipality-specific requirements for their projects:

Have you assigned an appropriate contact person/work unit to address questions regarding your municipality's construction and post-construction requirements?

If Yes:

Contact name:	Matthew Rodgers
Position/work group title:	Chief, Environmental Element
Contact phone number:	720-847-7245
Contact E-mail address:	matthew.rodgers.7@spaceforce.mil

If a web site has been created with information on complying with your municipality's construction and/or post-construction requirements, list the address:

D. Implementation of EPA's Stormwater Management Program

The purpose of the annual report is to report on the status of your implementation of the permit requirements, including compliance with the standard of reducing the discharge of pollutants from your MS4 to the Maximum Extent Practicable (MEP). Address each of the following items for **each** of the six program areas:

1. Public education and outreach on stormwater impacts;
2. Public participation/involvement;
3. Illicit discharge detection and elimination;
4. Construction site stormwater runoff control;
5. Post-construction stormwater management in new development and redevelopment; and
6. Pollution prevention/good housekeeping for municipal operations

As the permittee, you must collect and maintain adequate information to demonstrate implementation of the six program areas as per your stormwater management program. Note that although the annual report only requires the submittal of certain information as outlined below, additional information may be requested by EPA to audit the implementation of your stormwater management program. For example, construction site inspection reports, outreach materials, and records of maintenance activities performed may be requested by EPA in addition to the annual report.

If another entity does not have its own permit but is instead covered under your permit, the annual report information under Section D of this form must also be provided for each such entity.

1. Public Education and Outreach (PEO) on Stormwater Impacts

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to a Best Management Practice (BMP) or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for public education and outreach on stormwater impacts for the reporting period; including dates and numeric measures:


Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u><i>PEO-1 Household Hazardous Waste and Stormwater Awareness</i></u> 1. Provide stormwater awareness at least twice per year during Newcomers Orientation (Right Start).	COMPLETED In Permit Year 8 environmental awareness materials and information were provided by 460 CES/CEIE Environmental Element 4 times: in March, June, September, and December 2021. Due to COVID-19 and the health orders instated by the Space Force no additional meetings were held. Materials were provided in person. Copies of the environmental materials, slides and information provided are presented on the following pages.	No

<p>2. Provide environmental protection awareness materials to new housing residents, including household hazardous waste.</p>	<p>COMPLETED</p> <p>Copies of the environmental protection awareness materials were provided by 460 CES/CEIE Environmental Element staff in March, June, September and December 2021 during the newcomers orientation. Copies of the environmental awareness materials and information provided are presented on the following pages.</p>	<p>No</p>
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460th Civil Engineering Squadron

UNCLASSIFIED

Environmental Office



Environmental Office
720-847-7245

UNCLASSIFIED

1

Environmental Management System

UNCLASSIFIED

- **What is Environmental Management System (EMS)?**
 - Environmental Management is the overall umbrella of the environmental programs (Hazardous, Hazardous, Recycling, Air, Water, Natural Resources, etc)
 - It is a system to identify how your job can have an impact on the environment
 - Due to these potential impacts Buckley developed an environmental policy that all Newcomers should become familiar with
- **Buckley Environmental Policy:**
 - Value our natural resources and managing them wisely
 - Follow all applicable environmental laws
 - Educate our workforce to be environmentally friendly
 - Develop and maintain programs that limit environmental impact
 - Set and review environmental quality objectives and targets
 - Recognize that environmental impacts from our work processes can also affect national security

2

Recycling

UNCLASSIFIED

- The Buckley SFB recycling program uses single-stream collection. There are marked recycling dumpsters (like this one) near your building

Recycle It Together



UNCLASSIFIED

3

Alternate Single-Stream Recycling Collection Point

UNCLASSIFIED



UNCLASSIFIED

4

Recycling Turn-in

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Scrap Metal Recycling Recycling Yard, a.k.a. North Yard



Recycle scrap metal and metal parts at the North Yard


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Water

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- Colorado is a headwaters state. Our actions can adversely affect millions of other users downstream of us!



- Do your part to ensure only rainwater (no chemicals, oil, fuel, soap) enters our storm drains as they flow directly, essentially untreated, to our streams, lakes and other waterways
- If you have a spill, especially one that has a chance of encountering stormwater, please call the Buckley Fire Dept at (720) 847-8117 to clean-up the spill





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6

 **Natural Resources**


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Buckley SFB is home to many species to include: Ferruginous Hawk, Golden Eagle, Lark Bunting (CO State Bird) and Prairie Rattlesnake


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 **Air Emissions**


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- Clean Air Act, Denver and Buckley require an emissions (smog) test on Federal Facilities if you operate a vehicle more than 60 days per calendar year, regardless of where your vehicle is registered




- You must document compliance and self-certify your requirements in the web-based "Employee Vehicle Certification & Reporting System" (ECARS)
- Testing locations can be found at airoarecolorado.com

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 **Air Emissions Exemptions**


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- List of Exemptions Applicable to Buckley SFB
 - Gasoline Vehicle 7 years old or newer
 - Diesel Vehicle
 - Electric Vehicle
 - Hybrid Electric Vehicles
 - Motorcycle
 - Natural Gas and Propane Vehicles
 - Pre-1975 Collector-Plated Vehicles
 - Two-Stroke Engine Manufactured Prior to 1980

* You are still required to fill out the registration form, even if you are exempt, in the ECARS Program


UNCLASSIFIED

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 **460th Civil Engineering Squadron**

UNCLASSIFIED

Questions?



UNCLASSIFIED

10



**DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
BUCKLEY GARRISON**

MEMORANDUM FOR ALL BUCKLEY PERSONNEL

FROM: B GAR/CC

SUBJECT: Buckley SFB Environmental Policy and Commitment Statement

1. Whether directly or indirectly, every activity conducted on Buckley SFB impacts the environment as well as national security. In accordance with AFI 32-7001 *Environmental Management Systems* (EMS), Buckley SFB is committed to leadership and stewardship in protecting the environment, the prevention of pollution, and for continual improvement. These are primary responsibilities of each person utilizing or working on the installation in any capacity.

2. To this end, Buckley SFB commits to environmental excellence by:

- a. Valuing our natural resources and managing them wisely;
- b. Following all applicable environmental laws;
- c. Educating our workforce to be environmentally friendly;
- d. Developing and maintaining programs that limit environmental impact;
- e. Setting and reviewing environmental quality objectives and targets;
- f. Recognizing that environmental impacts from our work processes can also affect national security.

3. Compliance with this environmental guidance is the responsibility of every member of the Buckley SFB community in accordance with his or her roles and responsibilities in all daily operations.

4. Please direct any questions to Mr. Matthew Christensen, Buckley SFB EMS Coordinator, at 720-847-9268.

JACKSON.MARCUS
US.D.1127568517
Digitally signed by
JACKSON.MARCUS.D.1127568517
Date: 2021.07.08 18:21:28 -08'00'
MARCUS D. JACKSON, Colonel, USSF
Commander

SEMPER SUPRA

Public Education and Outreach on Stormwater Impacts (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

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<u><i>PEO-2 Hazardous Waste or Stormwater Management Related Article</i></u> 1. Publish one hazardous waste or stormwater management article on the Buckley SFB website that discusses hazardous waste management and/or stormwater discharge impacts that may include options for disposing of household hazardous waste, pollution prevention, or other related information.	COMPLETED Request for the article to be published on Buckley SFB and Buckley Facebook webpages was made on 28 Dec 2021. The stormwater article was published on both webpages on 11 Jan 2022. A copy of the informational article is presented on the following page.	No

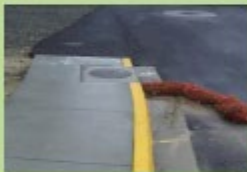
Keep Our Base & Stormwater Clean

Do your part in keeping our base clean from construction runoff.

WHAT TO DO



Do use erosion and sediment control measures to keep sediment on site.



Do protect storm drains and drainage ditches with erosion & sediment control measure (such as rock sock).



Do prevent erosion by stabilizing disturbed steep slopes within construction areas.



Do construct entrances with track-out controls to minimize off-site sediment tracking.



Do restore ground cover as quickly as possible after construction to avoid erosion of disturbed areas.

WHAT NOT TO DO



Do not allow sediment to accumulate past the effective operating condition of erosion & sediment control measures.



Do not leave storm drains and drainage ditches unprotected from construction stormwater pollution.



Do not drive in and out of muddy sites without track-out controls.



Do not track mud and sediment onto the roads at site entrances and exits.



Do not leave sites unstabilized for more than 14 days post construction.

Questions? Contact 460 CES/CEIE @ 720-847-6308

Public Education and Outreach on Stormwater Impacts (continued)


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<u>PEO-3 Sediment and Erosion Awareness Training for Industrial Stormwater Personnel</u> 1. Provide training at least once per year and maintain attendance record.	COMPLETED Annual Industrial Stormwater Permit training session was held virtually via email with attached slides and responses for attendance on 17 December 2021; 11 personnel responded that they had reviewed the slides. The session included sediment and erosion awareness information. Slide presentation and roster are shown below.	No



Stormwater Compliance Training for Industrial Operations at Buckley AFB

17 December 2021
 Kimberly Bowman
 Buckley Water Quality Program Manager
 720-847-4655
kimberly.bowman.5@spaceforce.mil

1




Base Water Program POCs

Water Quality Program Manager
 Dr. Kim Bowman, PE, PhD, 460
 CES/CDE
Kimberly.bowman.5@spaceforce.mil
 720-847-4655; DSH 847-4655

Stormwater Program Coordinator
 Mr. Matt Cohen
 CES/CDE
matthew.cohen.3@us.af.mil
 720-847-4306; DSH 847-4306




2



COURSE OBJECTIVES

- Understand what a Multi-Sector General Permit (MSGP) is and why Buckley AFB is required to have one
- Familiarize with stormwater basics
- Review MSGP requirements including our installation
 - ISWPPP
 - Industrial Stormwater BMPs
 - Inspections
 - Corrective and Maintenance Action Items
- Discuss lessons learned in 2019
- What to do in the event of a spill
- Identify BMPs being used at your facility and determine if additional ones are required




3




Clean Water Act (Enacted in 1972)

↓

Environmental Protection Agency (Region 8 for CO) - Program Administrator and Enforcement

↓

National Pollutant Discharge Elimination System (NPDES) requires permit for the discharge of pollutants from any point source into waters of the U.S.

↓

2015 Multi-Sector General Permit (MSGP) governs industrial discharges
 Sector S - Air Transportation (applies at Buckley AFB)

4



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Stormwater is...

- Any precipitation (e.g. rain water & snow melt) that runs off the land and into streams, rivers, and lakes
- Typically not treated before being discharged, so it can carry pollutants to receiving water bodies
- Discharges may be controlled, and treated to an extent, through structural Best Management Practices (BMPs) or Minimum Control Measures (MCMs) such as detention ponds, secondary containment, etc.





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Effects of Stormwater Pollution



- ▶ Hazardous materials: Industrial chemicals such as DEICING FLUIDS, PETROLEUM, OIL, GREASE, insecticides, pesticides, paint, solvents, used oil, etc.
 - ▶ Can poison aquatic life, land animals and people who eat stressed fish or ingest polluted water
 - ▶ Affect drinking water sources

7



- ▶ Debris: plastic bags, bottles, cigarette butts, etc.
 - ▶ Can choke, suffocate, or disable aquatic wildlife and birds
 - ▶ Clog drains and pipes



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- ▶ Sediment: exposed soils and unstabilized areas
 - ▶ Sediment is the #1 source of surface water pollution in the world
 - ▶ Can fill waterways and waterbodies, increasing flooding potential...
 - ▶ Can make the water cloudy, preventing animals from seeing food
 - ▶ Can interfere with aquatic habitat by disrupting the smallest organisms with chain effects to large fish and wildlife
 - ▶ Soils at Buckley are very susceptible to erosion



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- ▶ Excess nutrients: soaps and fertilizers
 - ▶ Can cause algae blooms and consequently dead zones
- ▶ Bacteria and other pathogens create health hazards
 - ▶ Can affect drinking water sources
 - ▶ Can create health hazards such as gastroenteritis, dysentery etc.



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Storm Sewer System

- ▶ Know the drainage of the stormwater runoff at your facility/work area including:
 - ▶ Above ground trench drains outdoors
 - ▶ Inlets and area drains
- ▶ Indoor floor drains - typically not part of the storm sewer system



11

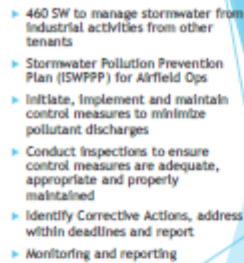


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iSWPPP Basics

- Specifies how installation personnel prevent discharges to storm water of potential pollution from industrial operations.
- Contains procedures intended to minimize the risk of industrial storm water pollution in drainage areas located within the installation's boundaries.
- The SWPPP includes:
 - Identification and evaluation of activities and potential stormwater pollution sources
 - Identification and Implementation of storm water Best Management Practices (BMPs)
 - Pollution reduction measures and procedures
 - Monitoring and Inspection procedures

Stormwater Pollution Prevention Team

- ### Stormwater Pollution Prevention Team Membership

- ### Stormwater Pollution Prevention Team Membership

- Regulated Industrial
Activities at Buckley AFB

*The key is that all of these areas are in some way related to the typing situation either directly or indirectly.

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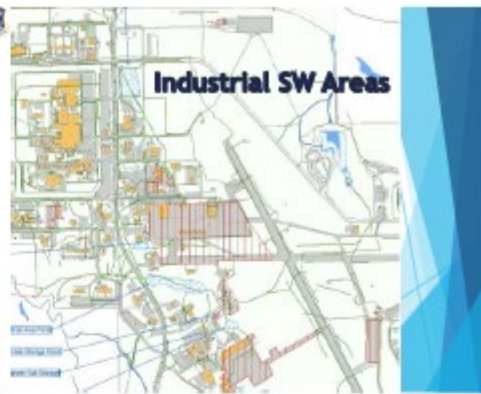
Regulated Industrial Activities at Buckley AFB

Facility Name	Brief Facility Description	Industrial Activity	Potential Pollutant Source
Quartermaster	The main food service facility serving all personnel. This facility is a large, multi-story building with a large parking lot.	Food service activities	Food waste, oil, grease, and other pollutants
Building 100 - 100 100	Building 100 is a large, multi-story building that houses various support functions.	Support functions	Various pollutants from support functions
Building 100 - 100 100	Building 100 is a large, multi-story building that houses various support functions.	Support functions	Various pollutants from support functions
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Industrial SW Areas



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Industrial Operations Potentially Impacting Stormwater

- Aircraft, Ground Vehicle and Equipment - Maintenance, Cleaning and Storage Areas
- Material Storage Areas
- Fueling Systems and Areas
- Aircraft and Runway Deicing
- Equipment and Vehicle Washing



21



Potential pollutant sources

- Fluid transfers: hydraulic fluid, engine oil, radiator fluid, etc.
- Long-term vehicle parking
- Leaking equipment and vehicles - ensure drip pans are installed



22



Material Management

- Outdoors: Good Practices
 - Provide cover
 - Place on pallets
 - Place materials away from storm drains
 - Must be properly labeled



23



Store Hazardous Materials in Areas Where They Cannot Enter Stormwater

- Close containers when not in use
- Use containers in good condition
- Store in areas protected from precipitation
- Provide secondary containment
- Move away from storm drains



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 **Vehicle/Equipment Maintenance: Washing**

- Vehicle washing runoff is laden with pollutants
- Dirt, oil, and soap are discharged to the environment
- At Buckley AFB, vehicle washing is authorized only in approved wash facilities (1014/1006, 8806, 8340/341)
- Water is discharged to sanitary sewer - ask CEIE if you have questions regarding where a drain goes to (sanitary or stormwater)
- Typically water is recycled (50% or more)




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 **Maintenance BMPs**
True or False

- True or False: Spills should be washed into storm drains.
- True or False: Perform routine maintenance and chemical-related activities inside.
- True or False: Place solid waste in authorized dumpsters and keep the lids open until dumpster is full.
- True or False: Secondary containment area valves should be kept closed anytime equipment is being stored inside.
- True or False: If a sheen is found in a secondary containment area, the sheen should be absorbed and/or pumped before any draining occurs.
- True or False: Dispose of mop water in the stormwater sewer system.

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 Facility inspections at least monthly during the deicing season (include all months during which deicing chemicals are used).


- Keep record of the types and monthly quantities used.

Quarterly industrial facility inspections:


- Identify operational changes and issues of non-compliance
- Assess effectiveness of existing stormwater controls
- Identify maintenance requirements for existing stormwater controls

If a control measure is found to be in need of maintenance, repair or replacement, POC will be issued a control:


- maintenance action item
- or corrective action item




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 **Maintenance Action Item or Corrective Action Item**

- Timelines are the same for both.
 - Immediately- reasonable steps to prevent or minimize the discharge of pollutants.
 - As soon as feasible but no later than 14 days for final repair/replacement.
 - If infeasible to repair/replace within 45 days, notify EPA of time and rationale, document in SWPPP.
- Corrective Action Item - Further documentation and follow-up
- An email will be sent to the appropriate facility POC(s) explaining required repairs/replacement and timelines to ensure compliance with the 2015 MSGR.



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 **Example**

Control Measure Maintenance Action

1) Issue Location: Outdoor Equipment Storage Yard
Date of Maintenance Action: 9 March 2016
Reason for Action: ☒ Regular Maintenance ☐ Discovery of Problem

Description of Action Required: Loading equipment stored in an individual secondary containment unit was leaking over the edge of the containment unit. Per section 2.1.2.4 of the 2015 MSGR, exercise precautions for rapidly stopping, containing, and cleaning up leaks, spills, and other releases as soon as possible. At the time of the inspection, no stormwater infrastructure was observed affected. Site POC discussed moving the equipment to completely contain the leak within the secondary containment unit with personnel during the inspection. Follow-up is needed to verify full leak containment and cleanup.

Date Control Measure Returned to Full Function: |
Justification for Extended Schedule, if applicable: N/A
Notes:

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What can we learn from 2019?

Notable Findings from 2019 include the following:



- ▶ Accumulation of significant residual hydraulic fluid in secondary containment unit.
- ▶ Hydraulic leaks
- ▶ Small oil spills from leaking equipment and vehicles that weren't initially contained or properly cleaned up.
 - ▶ Typically occurs from lack of drip pans

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What To Do If There is a Spill?

If you discover a leak or spill that has the potential to contaminate stormwater, you may attempt to stop it but only if it is safe for you to do so; it is safe if:

- You know what the contamination is and how to protect yourself, if necessary
- You have spill response materials and equipment nearby
- No other personnel are in danger

If contaminated water or some other pollutant is flowing to a storm drain,

CALL Fire Department at 730-647-4417

(You can dial 911 from a BAFB phone)

Give the operator as much specific information as possible

Also report to Environmental Services (CEE) at 730-647-4655 (Kris Bonneau)

ALL SPILLS MUST BE REPORTED TO 460th CES/CEIE!



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ACTIVITY

Part A: 10 minutes

1. Identify one area you work in from provided Regulated Industrial Activities at Buckley AFB chart.
2. Use the provided chart to identify the industrial activity and potential pollutant source for your area.
3. Use Industrial Stormwater Fact Sheet Table 2 BMPs and put a checkmark on BMPs that you believe are being used in the area you work.

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ACTIVITY

Part B: 5-10 minutes

1. Get together with other people from your area and compare your checklists.
2. Determine if there is a BMP you should be implementing and are not.

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Summary:

- Facility personnel require training and support to implement BMPs.
- SWPPT members (supervisors) support personnel.
- Inspections, monitoring, and check implementation of BMPs.
- Team effort!
- Ways to Improve?

QUESTIONS?



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Thank You for Your Participation!

Please ensure you have signed the attendance roster.

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2021 - Virtual Annual Industrial Stormwater Compliance Training
Roster12/17/2021

<u>NAME</u>	<u>ORGANIZATION</u>	<u>EMAIL ADDRESS</u>
David Oenes	460LRS/LGRVM	david.oenes.1@spaceforce.mil
Dale Lavigne	ADF - NRO	lavigned@nro.mil
Kevin Mattern	460 LRS/LGRF	kevin.mattern.3.ctr@spaceforce.mil
Dennis Burns	CO CLB 453	dennis.burns@usmc.mil
Kevin Perdue	460 CES/CEOFG	kevin.perdue.2@spaceforce.mil
Kirk Marcum	21 LRS/LGRF	kirk.marcum.1@spaceforce.mil
Nicole Lira	21 LRS/LGRO	nicole.lira.1.ctr@spaceforce.mil
Sukju Lee	460 LRS/LGRF	sukju.lee.ctr@us.af.mil
Teresa Steer	NFG NG COARNG	teresa.d.steer.nfg@army.mil
Tim Bosco	ADF - NRO	boscotim@nro.mil

Public Education and Outreach on Stormwater Impacts (continued)

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<p><u><i>PEO-4 Sediment and Erosion Awareness Training for Facility Managers</i></u></p> <p>1 Provide Group Facility Manager trainings at least annually and maintain attendance record.</p>	<p>COMPLETED</p> <p>The Group Facility Manager trainings are held monthly. These trainings occurred on: 17 May, 15 June, 22 July, 3 August, 27 September, 27 October, 2 November, and 9 December for 2021 with on-line individual Facility Manager trainings provided as needed. The session included the required sediment and erosion awareness information. The training was presented by multi-discipline 460 CES/CEO, /CEIE, and /CEN flight staff using a power point slide presentation. The environmental portion of the training, which is presented by 460 CES/CEIE staff, is shown below.</p>	<p>No</p>



Environmental Office

Mr. Matthew Rodgers
DSN 847- 7245



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480th Civil Engineer Squadron

13



Environmental Management System

- Environmental Management System (EMS) is the overall umbrella of the environmental programs (Hazard, Hazwaste, Recycling, Air, Water, Natural Resources, etc)
- Value our natural resources and managing them wisely
- Follow all applicable environmental laws
- Educate our workforce to be environmentally friendly
- Develop and maintain programs that limit environmental impact
- Set and review environmental quality objectives and targets
- Recognize that environmental impacts from our work processes can also affect national security

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14



Recycling

- The Buckley 3FB recycling program uses single-stream collection. There are marked recycling dumpsters (like this one) near your building.



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Alternate Single-Stream Recycling Collection Point



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16



Recycling Turn-in

Scrap Metal Recycling/Receiving Yard, a.k.a. North Yard



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Hazwaste

- Environmental holds government hazardous waste/universal waste turn-in every Thursday at 1300 or by appointment (Bldg 1025 on Camp Hale Court)



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18



Water Quality

Sanitary Sewer:

- Do not pour chemicals or oils down the sink or discharge to the sanitary sewer
- Call the Water Quality Program Manager, 847-4655, if a chemical is discharged into sanitary sewer.

Tap Water:

- If tap water looks or smells different than usual,
 - Call Bioenvironmental Engineering at 847-4394 to test the water.
 - If appears urgent, call CE Customer Service, 847-9913

Storm Water:

- Only rain down the drain.
- Sediment is the #1 source of surface water pollution in the world



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Storage Tanks

- Containers that store petroleum, oils, or lubricants (POL) that have the capacity to store 55 gallons or more of POL per US EPA
- Who is responsible for the tanks at Buckley SFB?
 - The owning organization
- The Facility Manager should:
 - Know the tank manager (Kim Bowman at 847-4655)
 - Be familiar with emergency spill procedures
 - Have contact information for the tank manager in case a spill occurs
 - Know location spill response materials
 - Call Fire Department (911 or 720-847-9117)
- Any questions about storage tanks at your facility please notify BQFB Tanks Program Manager, Kim Bowman at 847-4655

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Toxics

- Asbestos (Asbestos Containing Building Materials ACBM):**
 - Base-wide survey (2004-2006) Building specific: 200, 300, 302, 340, 400, 401, 420, 430, 431, 432, 706, 731, 801, 814, 841, 850, 900, 940, 950, 1101, 1411, 1413, 1500, 1606
 - Unknown: 402, 403, 404, 405, 413, 485 (survey may not include high security or hidden areas of buildings)
 - CEIE must review work order requests prior to maintenance and survey may be required
- Environmental Office and Customer Service have results
 - FM's are required to maintain a copy of their building surveys and management plan if one was developed. (hardcopies located at Customer Services ENV)
- Lead Based Paint:**
 - No requirement for a base survey. Project surveys may be req'd
 - Only a risk if you disturb material. (LBP use now prohibited)
- Radon Gas:**
 - Past base-wide survey, no high risk facilities on Buckley
- Toxics Program Manager, Martin Burns at 847-5723

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Cultural and Natural Resources

Cultural:

- 12 historical bldgs & sites (801, 909, 402, 403, 404, 405, 431, 432, 433, 434, 630, and 814)
 - CEIE must review work all order requests prior to maintenance on any of these buildings
- If an inadvertent archaeological discovery is made stop work immediately and contact the cultural resources manager at 847-9032.

Natural:

- Most bird species on BQFB are protected
- Work outside your facility may impact these species
 - CEIE must review work order requests prior to maintenance
- There's a rodent, birds, or snake in my bldg? Call CE Customer Service 847-9913

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Public Education and Outreach on Stormwater Impacts (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>PEO-5 Post-Construction Stormwater Control Awareness Training</u> 1. Develop post-construction stormwater control awareness training materials. (Year 2)	COMPLETED Completed on 28 December of 2021. Training materials consist of a handout that identifies appropriate and inappropriate stormwater BMP utilization at Buckley SFB. See below.	No
2. Provide post-construction stormwater control awareness training materials to 460 CES/CEN and CEIE, as well as the 460 CONF. (Year 2-5)	COMPLETED Training materials were distributed via email to 37 primary points of contact for 460 CES/CEN, 460 CES/CEIE, 460 CES/CEC, 460 CES/CENP, 460 CES/CEO, 460 CES/CONS, COANG, COARNG, Navy, Marines, ADF-C and Buckley contractors on 28 December 2021.	No

Keep Our Base & Stormwater Clean



U.S. SPACE FORCE
Buckley Space Force Base

Do your part in keeping our base clean from construction runoff.

WHAT TO DO



Do use erosion and sediment control measures to keep sediment on site.



Do protect storm drains and drainage ditches with erosion & sediment control measure (such as rock sock).



Do prevent erosion by stabilizing disturbed steep slopes within construction areas.



Do construct entrances with track-out controls to minimize off-site sediment tracking.



Do restore ground cover as quickly as possible after construction to avoid erosion of disturbed areas.

WHAT NOT TO DO



Do not allow sediment to accumulate past the effective operating condition of erosion & sediment control measures.



Do not leave storm drains and drainage ditches unprotected from construction stormwater pollution.



Do not drive in and out of muddy sites without track-out controls.



Do not track mud and sediment onto the roads at site entrances and exits.



Do not leave sites unstabilized for more than 14 days post construction.

Questions? Contact 460 CES/CEIE @ 720-847-6308

Public Education and Outreach on Stormwater Impacts (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

All information used to implement the program has been provided under the Measurable Goals.

2. Public Participation/Involvement (PIP)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u><i>PIP-1 Public Notice Requirements</i></u> 1. The 460 CES/CEIE Water Quality Program Manager (WQPM) and 460 SW/JA will review and document the public notice requirements, if any, associated with the public involvement and participation program.	COMPLETED Per MS4 permit requirements, the 460 CES/CEIE WQPM and 460 SW/JA conferred in Permit Year 1 regarding public notice requirements associated with the PIP program. No public notification requirements were identified at the time.	No
2. Public notices are provided and documented for required public involvement and participation activities.	NOT APPLICABLE No activity required.	No

Public Participation/Involvement (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

5. The BMP/Measurable goal for which a change is proposed;
6. Any proposed changes to the BMP description;
7. Any proposed changes to the measurable goals (including specific dates and measures); and
8. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u><i>PIP-2 SWMP Public Review</i></u> 1. Make MS4 annual reports available on the Buckley SFB website (www.buckley.spaceforce.mil) within 15 days of submitting the annual report to the EPA.	COMPLETED The Permit Year 8 Annual Report was requested to be posted on the Buckley SFB website on 26 May 2021. To locate the report on the Buckley SFB website, highlight the "Units" tab, and click on "Environmental" in the drop- down list (URL: https://www.buckley.spaceforce.mil/Units/Environmental/); a narrative in regard to the MS4 Permit is provided along with links to applicable environmental documentation including the complete MS4 Permit, the SWMP Plan, and the Annual Report.	No

Public participation/involvement (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

9. The BMP/Measurable goal for which a change is proposed;
10. Any proposed changes to the BMP description;
11. Any proposed changes to the measurable goals (including specific dates and measures); and
12. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u><i>PIP-3 Stormwater Action Line and Email Address</i></u> 1. Maintain the stormwater action line email address. Document action line emails received from the public and actions taken in public participation log.	COMPLETED The stormwater action line email address, 460 CES/CEV Water (460ces.cevwater@us.af.mil) is active and is being maintained. The email address (along with the 460 CES/CEIE WQP staff and 460 CES Customer Service direct telephone numbers) is published in a variety of sources including the Space Force Global Address List (GAL) and the stormwater awareness brochures (see BMP PEO-1). No emails using the 460 CES/CEV Water address were submitted during Permit Year 8. In 2022, the email address will be distributed for spill notification purposes, to supplement the existing call notification list. A spill log is maintained with the 460 CES Environmental Office files.	No

Public Participation/Involvement (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

13. The BMP/Measurable goal for which a change is proposed;
14. Any proposed changes to the BMP description;
15. Any proposed changes to the measurable goals (including specific dates and measures); and
16. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>PIP-4 Annual Meeting with City of Aurora</u> 1. The 460 CES/CEIE WQPM will conduct a meeting between appropriate Buckley SFB and City of Aurora stormwater/water quality managers at least once per year to discuss water quality and discharges to East Toll Gate Creek (ETGC).	COMPLETED No in-person meeting was held in 2021 due to COVID-19. Emails were exchanged between 460 CES/CEIE WQPM and City of Aurora (CoA) Water in March of 2021 discussing the completion of ETGC Restoration Project Construction 1 November 2020 but IP NWO-2019-01044-DEN (Reach 9) and the status of open permits. The second Annual Mitigation Monitoring Report for the 404 IP was submitted to USACE on 29 December 2021. EPA CGP for ETGC Restoration Project will remain open until final stabilization criteria are met. Coordination emails were exchanged with CoA Water, CoA Real Property (RP) and CoA Parks, Recreation & Open Space (PROS) in June, November and December 2021 for a project to repair Outfall 2 (on Buckley and CoA property tributary) that discharges to ETGC.	No

Public Participation/Involvement (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

17. The BMP/Measurable goal for which a change is proposed;
18. Any proposed changes to the BMP description;
19. Any proposed changes to the measurable goals (including specific dates and measures); and
20. The rationale for the proposed changes.

Describe any measurable goal(s) for public participation and involvement on stormwater impacts for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>PIP-5 Volunteer and Cleanup of MS4 Receiving Water Activities</u> 1. Buckley SFB will maintain a log of public participation activities related to water quality protection and cleanup of MS4 receiving waters.	COMPLETED In Permit Year 8 public participation activities for Earth and Arbor Day activities were limited due to COVID-19 state restrictions; stormwater education activities typical of the event did not occur. A volunteer cleanup event was held on 3 November 2021 with 8 participants cleaning up an off-base section of East Toll Gate Creek that runs adjacent to the southwest boundary of the base on City of Aurora property. Photos and roster of the MS4 receiving waters cleanup activity can be found below.	No

Event: MCM 2 Public Involvement and Participation (PIP-5) Volunteer and Cleanup of MS4 Receiving Water Activities			
Date: 3 November 2021			
Name	Organization	Phone	Email
Dustin Casady	CES/CEIE	847-6937	dustin.casady@spaceforce.mil
Matt Christensen	CES/CEIE	847-9058	matthew.christensen.11@spaceforce.mil
Matt Rodgers	CES/CEIE	847-7245	matthew.rodgers.7@spaceforce.mil
Jeff Harrison	CES/CEIE	847-9032	jeffrey.harrison.6@spaceforce.mil
Kimberly Bowman	CES/CEIE	847-4655	kimberly.bowman.5@spaceforce.mil
Ethan Woodard	CES/CEIE	847-5296	ethan.woodard.ctr@spaceforce.mil
Tyler Walnoha	CES/CEIE	847-5578	Tyler.Walnoha@chenegars.com
Matt Cohen	CES/CEIE	847-6308	matthew.cohen.3.ctr@us.af.mil





Public Participation/Involvement (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

All information used to implement the program has been provided under the Measurable Goals.

3. Illicit Discharge Detection and Elimination (IDE)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for illicit discharge detection and elimination for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>IDE-1 Storm Sewer System Map</u> 1. Updated the complete storm sewer system map in the Buckley SFB Geographic Information Systems (GIS) (Year 3).	COMPLETE The update process is organized by installation areas, called tiles; there are 35 tiles that cover the entire installation. Each tile covers a specific portion or area of the installation and a certain number of tiles are scheduled to be covered by the update process each calendar quarter, so progress toward the goal can be measured. The update process involves staff from engineering, operations, and environmental within 460 CES who systematically conducts field inspections and surveys to validate/correct existing system maps and to add missing features. The update is 96% complete with no anticipation of ever being 100% as there is always construction occurring on base and occasionally errors are found through the process described above. It is Buckley SFB base's opinion that it has met the intent of this requirement and an MFR dated 13 February 2017 has been issued by the 460 CES/CEIE WQPM documenting completion of this task shown below.	No



DEPARTMENT OF THE AIR FORCE
460TH SPACE WING (AFSPC)

13 February 2017

MEMORANDUM FOR RECORD

FROM: 460 CES/CEIE

SUBJECT: Documentation of Completion of the Buckley AFB Storm Sewer System GIS
Update per IDE-1 (Permit Year 3)

1. Mr. Matt Rodgers, the Buckley AFB Water Quality Program Manager (WQPM) met with 460 CES/CENM representatives Mr. Delbert Brown and Mr. Juanito Canon on 6 Feb 2017 to discuss the status of the IDE-1 task identified in the Stormwater Management Program Plan and within paragraph 2.4.8 of the Buckley AFB MS4 Permit. Mr. Brown and Mr. Canon explained that the vast majority (Approx. 96%) of stormwater infrastructure has been reviewed and updated within the Buckley AFB Geobase system as applicable over the past (3) years via efforts staffed by engineering, operations, and environmental personnel through field maintenance and compliance inspections along with various surveying tasks. Due to the ongoing nature of construction projects being conducted base-wide, there is essentially never a discrete moment when Geobase is 100% up-to-date and it is believed that the intent of this MS4 permit tasking has been met.
2. Please contact Matt Rodgers at matthew.rodgers.7@us.af.mil or at (720) 847-4655 with any questions or comments in regard to this tasking.

Matthew C. Rodgers, GS-12, DAF
Water Quality Program Manager, 460 CES/CEIE

PERSISTENT GLOBAL SURVEILLANCE

Illicit Discharge Detection and Elimination (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

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4. The rationale for the proposed changes.

Describe any measurable goal(s) for illicit discharge detection and elimination for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>IDE-2 Dry Weather Screening of Major Outfalls</u> 1. Conduct dry weather screening of Buckley SFB outfalls once per year. Document findings of dry weather screening and erosion evaluation. Document results of any follow up illicit discharge investigation or assessments.	COMPLETED The visual dry weather screenings for MS4 Permit Year 8 were completed on 18 August 2021. Major industrial and municipal outfalls were inspected. No dry weather discharges were observed; therefore, no actions to investigate / assess potential illicit discharges were implemented. The erosion and sediment control concerns were documented and recommended for work orders.	No

Illicit Discharge Detection and Elimination (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

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3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for illicit discharge detection and elimination for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<i>IDE-3 Illicit Discharge Detection and Elimination Program</i>	COMPLETED A hardcopy of the US EPA IDDE Manual is in place on the 460 CES/CEIE Stormwater library shelves.	No
1. Maintain one printed copy of the EPA Illicit Discharge Detection and Elimination (IDDE) Manual in the Environmental Element's library.		
2. At a minimum, the Water Quality Program Manager (WQPM), Spill Program Manager, and Environmental Element Chief will conduct an annual review of the EPA IDDE Manual. This review will serve as training for illicit discharge investigation and response techniques.	COMPLETED The 460 CES/CEIE WQPM conducted a review by email on 17 December 2021 of the EPA IDDE Manual and information relevant to the illicit discharge elimination program with the Element Chief and the Stormwater Program Coordinator, documented in the Memorandum For Record below.	No



DEPARTMENT OF THE AIR FORCE
460TH SPACE WING (AFSPC)

28 December 2021

MEMORANDUM FOR RECORD

FROM: 460 CES/CEIE

SUBJECT: Documentation of Completion of Illicit Discharge Detection & Elimination (IDDE)
Program Requirements per Section IDE-3 of the SWMP, Rev 7 for Permit Year 7 (PY8)

1. Buckley SFB (BSFB) maintains one printed copy of the EPA Illicit Discharge Detection and Elimination Manual (October 2004 version) in the Environmental Element's library, which is located in the 460 CES/CEIE commons area, Room 178 of Building 1005.
2. An annual review of the EPA Illicit Discharge Detection and Elimination Manual was conducted by email on 22 December 2021 with Matt Cohen (Stormwater Program Coordinator), Kim Bowman (Water Quality, Tanks & Spill Program Manager) and Matt Rodgers (460 CES/CEIE chief). Familiarity with the IDDE manual was attained and a review of key takeaways from the aforementioned manual as they apply to BAFB was conducted.
3. Pertinent points in the review included:
 - a. Dry weather screening as a primary means to detect illicit discharges
 - b. A review of 2021 illicit discharges at Buckley: description and timeline of illicit discharges, the illicit discharge root causes, reporting timeline and process, corrective actions taken to eliminate illicit discharge and status of corrective actions.
 - c. A review of allowable non-stormwater discharges and verification was made that they are not a significant pollution contributor.
4. Please contact Kimberly Bowman at kimberly.bowman.5@us.af.mil or at (720) 847-4655 with any questions in regard to this tasking.

BOWMAN.KIMBERLY.S.1035192987
LY.S.1035192987

Digitally signed by
BOWMAN.KIMBERLY.S.1035192987
Date: 2021.12.28 07:51:21 -07'00'

Kimberly S. Bowman, GS-12, DAF
Water Quality Program Manager, 460 CES/CEIE

PERSISTENT GLOBAL SURVEILLANCE

Illicit Discharge Detection and Elimination (continued)

<p>3. Document the time required to investigate, plan, and correct confirmed illicit discharges identified on Buckley SFB. For confirmed illicit discharges, Buckley SFB will develop a Corrective Action Plan (CAP) within 15 business days and implement the corrective action within 45 business days of discovery. If corrective action will require more than 45 business days, permission must be obtained from Region 8 USEPA.</p>	<p>COMPLETED</p> <p>One confirmed illicit discharge occurred in Permit Year 8 on 16 February 2021. This discharge was caused by an overflow of the Aerospace Data Facility-Colorado (ADF-C) E-Chiller plant basin resulting in ~100,000 gallons of domestic water and ~20,000 gallons of cooling tower sump water with corrosion inhibitors and biocides being released.</p> <p>A corrective action plan (CAP) was developed within 15 business days and implemented within 45 days of discovery for the illicit discharge. None of the confirmed discharges went off base. The illicit discharge root cause investigation, CAP details, CAP progress and CAP completion report was communicated with EPA Region 8 Stormwater Coordinator (Amy Clark) and Region 8 NPDES and Wetlands Enforcement Section (Kristin Ratajczak) via email. See EASIER (Air Force information management system for reporting spills) documentation below for details of illicit discharges to include responses described in Corrective Actions.</p>	<p>No</p>
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Installation Details

Installation:	Buckley	Service/Command:	AFSPC	State:	CO
Sub Location:		Branch:	Midwest Branch	EPA Region:	8
		ISS:	Peterson		

Spill

Details

Fiscal Year:	2021
Classification:	Reviewable
Closed Date:	01/27/2022 15:12:51
Reported to HAF?:	No
Report to HAF Determination Date:	01/27/2022
Read/Received Date:	02/19/2021
Estimated Clean-up Date:	02/16/2021
Updated in EASIER:	01/27/2022
Entered in EASIER:	02/18/2021
Spill/Release Date:	02/16/2021 19:00
Was the release cleaned up within 24 hours?:	No
Did process owner have sufficient clean-up capabilities?:	No
Class:	N/A
Overall Root Cause:	(I) Infrastructure
Specific Root Cause:	(I2) Defective or failed equipment
Equipment/Facility Involved:	shutoff valve didn't close when sump was full
Equipment Type:	Other (Add Description Below)
Aircraft Type	N/A
FES Incident Number	N/A
Cause of Release	Accidental Discharge due to Equipment Failure

Description:

~120,000 gallons of cooling tower water overflowed from the B495 sump on Tuesday night, 16 February 2021. The sump was being filled with makeup domestic water that didn't shut off when the sump was full. The cause is being investigated. The cooling tower sump water flowed from the sump to the cobble field ditch west to the ADF detention pond, as shown by the red arrows on the map.

Approximately 20,000 gallons of sump water with treatment chemicals was in the sump when the domestic water was added.

Points of Contact

Type	Name	Email	Phone
Author	<u>BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE</u>	kimberly.bowman.5@spaceforce.mil	

Location Map

Latitude:
39.7199789203821

Longitude:
-104.778540167187



Materials

Material Released	Qty Released	Qty Recovered	Reportable Quantity
Cooling Tower Sump Water with Treatment Chemicals (Biocides and Corrosion Inhibitors)	120000 Gallon(s)	0 Gallon(s)	120000 Gallon(s) or more

Release Details

Question	Answer	Details
Did the release result in injury or loss of life?	No	
Did the release result in or cause loss of aircraft or facility?	No	
Did the release interrupt flying operations?	No	
Did the release extend beyond installation boundaries?	No	

Did the release cause an estimated financial impact exceeding \$50,000?

No

Question	Answer	Details
Did the release result in or could it result in litigation, publicity, or media coverage?	No	
Did the release reach a body of water or storm drain?	Yes	120000 gallons
Did the release involve 25 gallons or more of petroleum, oils, or lubricants (POL) AND extend beyond a hard surface?	No	
Did the release involve petroleum, oils, or lubricants (POL) AND cause a film or sheen on nearby surface water?	No	
Is the release estimated to be equal or greater than the Reportable Quantity (RQ) as defined in 40 CFR §302.4?	No	
Did the release involve sewage AND it may cause an imminent and substantial threat to public health, safety or the environment?	No	
Do you believe this release should be reported to HAF, regardless of the spill quantity?	No	
Did the release result in political/host nation involvement?	No	
Did the release involve Aqueous Film Forming Foam (AFFF)?	No	
Did the release involve PFOS/PFOA or 1, 4-dioxane?	No	
Does the release present a continuing threat to the environment?	No	
Do you anticipate the release to result in an Enforcement Action?	No	
Did the release enter the sanitary sewer?	No	
External Communications		

Question	Answer
Was the Fire Department notified?	No
Has the Fire Department visited the release site?	No
Was the NRC notified?	No
Has the NRC visited the release site?	No
Was an environmental regulatory agency notified?	Yes
What environmental regulatory agency was notified?	EPA Region 8
Has an environmental regulatory agency visited the release site?	No
Was an OPREP submitted?	No
Release Notification Made to Supported entity for off-base mutual response	N/A
Attachments	

File	Document Type	Description	Sent/Received	Upload Date
B495CoolingTowerRelease_16-17Feb2021.pdf	Supporting Document	Map showing where cooling tower water flowed	02/18/2021	02/18/2021
Bldg 495 Overflow _Corrective Action Report_Final.pdf	Supporting Document	Bldg 495 Overflow _Corrective Action Report_Final	08/30/2021	01/27/2022
IOI_Buckley 16 Feb 21_Cooling Tower Spill.docx	Supporting Document		02/19/2021	02/19/2021
Related Events				

Event ID	Event Type	Details	Classification	Installation	Sub Location	Status	Occurred	Entered	Updated
SPILL-001496	Spill		Reviewable	Buckley		Closed	10/25/2019	11/14/2019	01/27/2022
SPILL-001585	Spill		Reviewable	Buckley		Closed	01/07/2020	01/08/2020	01/27/2022
SPILL-001602	Spill	Cooling tower water with treatment chemicals	Reviewable	Buckley		Closed	01/14/2020	01/16/2020	01/27/2022
BUCKLEY 2489 - 05-NOV-18	Spill		Reviewable	Buckley		Legacy	11/05/2018		02/18/2021
BUCKLEY 2506 - 27-NOV-18	Spill		Reviewable	Buckley		Legacy	11/28/2018		02/18/2021
BUCKLEY 2534 - 30-OCT-18	Spill		Reviewable	Buckley		Legacy	10/30/2018		02/18/2021

Corrective Actions

Corrective Action 1

Status:	Complete
Corrective Action:	Root cause of failure and follow-up TBD
Air Force POC:	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
Additional POC:	
Additional Funding Required:	
Est. or Act. Completion Date:	08/30/2021
Project/Work Order Title:	
Project/Work Order Number:	

Corrective Action 2

Status:	Complete
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Corrective Action: See attachment for the Building 495 Overflow Final Corrective Action report from the ADF-C that describes their in-depth investigation into the root cause of the 16 February 2021 cooling tower sump water illicit discharge and their compendious response actions, which are now complete. Additionally, the construction project to build a Containment Pond to capture accidental overflows from Building 460 Evaporative Cooling Towers is complete and fully operational. Last Friday (27 August) I went to look at the final product and witnessed a functional test of the system. The ADF connected hoses to the closest fire hydrant and released water into the area under the cooling towers, that is now entirely concrete lined. The water was completely contained and flowed to the Containment Pond as designed. Alarms were triggered when the water reach the Containment Pond sump. The water in the Containment Pond was pumped back into the Building 460 Evaporative Cooling Tower sump through a hose. The construction project will close out when the hose ordered to pump the Containment Pond water back into the Evaporative Cooling Tower Sump is received; it has not arrived due to a manufacturing issue but a temporary one is in place until the new one is delivered.

Air Force POC:

BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE

Additional POC:

Additional Funding Required:

Est. or Act. Completion Date: 08/30/2021

Project/Work Order Title:

Project/Work Order Number:

Notifications

To	CC	Subject	Message	Sent Date	Generated By
kimberly.bowman.5@spaceforce.mil;	james.farris.3@us.af.mil; lynn.sherman@us.af.mil; andrea.bishop@us.af.mil; ronald.dell@us.af.mil; verna.payne@us.af.mil; elizabeth.wade.2@us.af.mil; james.moncrief.1@us.af.mil; janet.houthoofd@us.af.mil; william.grannis@us.af.mil; j.ingoglia@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; sean.palmer.16@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; tyler.dugan.1@spaceforce.mil; lisa.powell@us.af.mil; brandon.fellner.3@us.af.mil;	EASIER: Spill Read and Received (Buckley)	A Spill has been marked as Read and Received by HOUSEWORTH, SEAN S GS-13 USAF AFCEC AFCEE/CZOM. Spill POCs should continue to update the Spill report until closure. Prior to closure, all corrective actions must be complete. Comments: None View Event: https://cs2.eis.af.mil/sites/14074/Module/SpillDetails.aspx?SID=2450	02/19/2021 10:03	System

To	CC	Subject	Message	Sent Date	Generated By
james.farris.3@us.af.mil; lynn.sherman@us.af.mil; andrea.bishop@us.af.mil; ronald.dell@us.af.mil; verna.payne@us.af.mil; elizabeth.wade.2@us.af.mil; james.moncrief.1@us.af.mil; janet.houthoofd@us.af.mil; william.grannis@us.af.mil; j.ingoglia@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; sean.palmer.16@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; tyler.dugan.1@spaceforce.mil; lisa.powell@us.af.mil; brandon.fellner.3@us.af.mil;	kimberly.bowman.5@spaceforce.mil; kevin.leachman@us.af.mil; katelyn.bries.1@us.af.mil; karla.meyer.1@us.af.mil; russell.perry.1@spaceforce.mil; julia.mireles.1@us.af.mil;	EASIER: New Spill Submitted (Buckley)	A new Spill has been submitted in EASIER for Buckley by BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE. The Spill was classified as "Reportable" so Installation Support Section (ISS) and Regional Support Branch (RSB) personnel are required to review the Spill at the link below and either ISS or RSB can mark it as "Read and Received". Comments: None View Event: https://cs2.eis.af.mil/sites/14074/Module/SpillDetails.aspx?SID=2450	02/18/2021 19:33	System

History

Date	Action	Description / Comments	Generated By
01/27/2022 8:12:51	Event Closed		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
01/27/2022 8:12:41	Corrective Action Edited	CA Assigned To BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE (In Progress) modified Status modified to Complete	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
01/27/2022 8:12:24	Corrective Action Edited	CA Assigned To BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE (In Progress) modified	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
01/27/2022 8:11:21	Attachment Added	Supporting Document: Bldg 495 Overflow _Corrective Action Report_Final.pdf (08/30/2021)	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
01/27/2022 8:09:07	Corrective Action Added	Assigned To: BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE (Complete)	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE

01/27/2022 8:03:19	Report HAF Determination Added	Report To HAF Determination: No The release did not meet the HAF reporting criteria.	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
Date	Action	Description / Comments	Generated By
02/19/2021 14:15:23	Attachment Added	Supporting Document: IOI_Buckley 16 Feb 21_Cooling Tower Spill.docx (2/19/2021)	HOUSEWORTH, SEAN S GS-13 USAF AFCEC AFCEE/CZOM
02/19/2021 10:02:58	Event Read and Received		HOUSEWORTH, SEAN S GS-13 USAF AFCEC AFCEE/CZOM
02/18/2021 19:33:35	Event Submitted		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:21:31	Corrective Action Added	Assigned To: BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE (In Progress)	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	BUCKLEY 2489 - 05-NOV-18	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	BUCKLEY 2506 - 27-NOV-18	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	BUCKLEY 2534 - 30-OCT-18	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	SPILL-001496	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	SPILL-001585	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:20:22	Related Event Added	SPILL-001602	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:19:17	Attachment Added	Supporting Document: B495CoolingTowerRelease_16-17Feb2021.pdf (2/18/2021)	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:17:16	Release Details Questionnaire Answered		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE

02/18/2021 19:17:02	External Communications Questionnaire Answered		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:16:07	Release Details Questionnaire Answered		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:14:26	Event Edited	Classification: Reportable	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:14:25	Released Material Added	Cooling Tower Sump Water with Treatment Chemicals (Biocides and Corrosion Inhibitors)	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
Date	Action	Description / Comments	Generated By
02/18/2021 19:13:05	Event Edited	Event Coordinates Updated	BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE
02/18/2021 19:10:50	POC Created	Author: BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE	System
02/18/2021 19:10:49	Event Created		BOWMAN, KIMBERLY S GS-12 USSF SPOC 460 CES/CEIE

Illicit Discharge Detection and Elimination (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for illicit discharge detection and elimination for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>IDE-4 Illegal Dumping and Non-Compliance Enforcement Procedures</u></p> <ol style="list-style-type: none"> 1. Document any illicit discharge and illegal dumping enforcement actions taken. 	<p>COMPLETED</p> <p>No enforcement actions (EAs) were required in Permit Year 8. In 2021, non-recyclable waste was illegally dumped at the household free recycle containers on base. The wastes were solid and included large furniture, yard wastes and wood. All waste was evaluated, removed upon discovery and moved to a proper solid waste disposal roll-off container. There were no hazardous wastes or liquids dumped at the site. In response, game cameras were installed at the location and the base was notified of regulatory requirements. No illicit discharge incidents occurred that resulted in enforcement actions (see BMP IDE-3).</p> <p>As a military installation, all personnel working, assigned, visiting, or otherwise having access to the installation are subject to specific laws, regulations, and policies while on Buckley SFB. Existing illegal dumping and non-compliance enforcement procedures for non-compliance with laws, regulations, and policies include the Uniform Code of Military Justice, contracts subject to Federal Acquisition Regulations (FAR), Air Force Instruction (AFI) 51-201</p>	<p>No</p>

	<p>Law Administration of Military Justice, and AFI 36-704 Discipline and Adverse Actions of Civilian Employees.</p> <p>Enforcement procedures vary based on specific situations; military and civilian employees can receive verbal reprimands, written reprimands placed in employment records, demotions, loss of pay, discharge from Federal service, and the Installation Commander has the authority to bar individuals from accessing Buckley SFB.</p>	
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Illicit Discharge Detection and Elimination (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for illicit discharge detection and elimination for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>IDE-5 Allowable Non-Stormwater Discharges and Controls</u> 1. Conduct an annual review of allowable non-stormwater discharges listed in Paragraph 1.3.2 of the MS4 Permit. Identify if any category of allowable, non-stormwater discharge is a significant contributor of pollutants to the MS4. If a category of allowable, non-stormwater discharge is determined to be significant, the category is then considered an illicit discharge and controls must be enacted to minimize or eliminate the discharge.	COMPLETED A review of authorized, non-stormwater discharge sources listed in Part 1.3.2 of the Permit was conducted on December 17 2021 during the IDE-3 IDDE Manual Review. Of the 26 sources listed, only 9 were identified as occurring on Buckley SFB during Permit Year 8. Of those 9 occurring during Permit Year 8, none have been determined to be a significant contributor of pollutants to the storm drain system.	No

Illicit Discharge Detection and Elimination (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

All information used to implement the program has been provided under the Measurable Goals.

4. Construction Site Stormwater Runoff Control (CON)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>CON-1 Construction Project Oversight Program</u></p> <p>1. Develop a written construction oversight program and inspection plan for use by Buckley SFB stormwater managers. The construction oversight program will include a list of policies and procedures that can be used to enforce compliance with applicable stormwater discharge permits related to construction activities. The program will be continuously reviewed and updated annually as needed (Years 1–5, and into continuance).</p>	<p>COMPLETED</p> <p>The construction oversight program and inspection plan were developed/prepared in Permit Year 1. The Plan was finalized in Permit Year 2 (rev 0) on 30 April 2015. In Permit Year 3 it was updated on 20 September 2016 (rev 1). In Permit Year 4 the plan was updated on 3 May 2017 (rev 2). In Permit Year 5 the plan was updated on 10 May 2018 (rev 3). In Permit Year 6 the plan was updated on 23 December 2019 (rev 4). In Permit Year 7 the plan was updated on 10 December 2020 (rev 5). In Permit Year 8 the plan was updated on 27 December 2021 (rev 6).</p> <p>Description of the regulatory mechanism used to require sediment and erosion controls is provided in the following section. Description of the procedures used to address noncompliance and enforcement mechanisms is provided in the following section.</p>	<p>No</p>

REGULATORY MECHANISM TO REQUIRE SEDIMENT AND EROSION CONTROLS

The regulatory mechanism used to require sediment and erosion controls on construction projects located on Buckley SFB is the 2017 Construction General Permit (CGP), under the National Pollutant Discharge Elimination System (NPDES), a federal permitting program, under the authority of the Clean Water Act (CWA). In the State of Colorado areas subject to construction activity by a Federal Operator (i.e., a federal facility) are not under the State's authority but are permitted under the authority of the Region 8 US EPA NPDES stormwater permitting under general Permit No. COR10F000.

The construction project contract and standard specifications specify stormwater discharges from construction activities such as clearing, grading, excavating, and stockpiling that disturb one or more acres, or smaller sites that are part of a larger common plan of development, are regulated under the 2017 CGP, for which construction operators must obtain coverage (i.e., prepare a construction Stormwater Pollution Prevention Plan (SWPPP) and obtain an active status Notification of Intent (NOI)) prior to commencing ground disturbing activity.

PROCEDURES TO ADDRESS NONCOMPLIANCE AND ENFORCEMENT MECHANISMS

Government contractors must comply with FAR and contract requirements that include environmental protection. Acquisition regulations and contracts contain specific enforcement provisions for non-compliance by contractors. Enforcement provisions include cure notices, contract termination, stop work orders, liquidated damages, negative contractor performance ratings, and being precluded from future government contracts. Enforcement against a government contractor is a contracting officer responsibility with input and support from quality assurance evaluator and subject matter experts on Buckley SFB.

Construction Site Stormwater Runoff Control (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>CON-2 Construction Project Oversight Inspections</u></p> <ol style="list-style-type: none"> 1. Conduct oversight compliance assistance inspections of permitted construction sites (> 1 acre or part of a larger common plan of development that will cumulatively disturb ≥ 1 acre) at least semi-annually and prior to construction permit termination to verify final stabilization has been met on all areas of the site. Buckley SFB has developed a spreadsheet-based prioritization model to guide additional construction oversight inspections based on project location, size, and nature of construction activity, site characteristics, and the compliance history of construction contractor. 	<p>COMPLETED</p> <p>Oversight construction compliance inspections are conducted on sites with > 1-acre ground disturbance or are part of a larger common plan of development. A summary of construction site inspections conducted in Permit Year 8 follows:</p> <p>A total of 38 inspections were conducted on 16 different permitted project sites with one of those filing a Notice of Termination (NOT) before the end of the year. The model for frequency of inspection planning on a given project is based on several factors including type of project, size of disturbed area, construction timeframe and time of year, natural slope, and previous experience with the contractor.</p> <p>Exceptions to the planned frequency are made by the 460 CES/CEIE WQPM as needed. A copy of the inspection tracking spreadsheet, and planning guide score log is provided in the following section.</p>	<p>No</p>

2017 CGP TRACKING NUMBER	Project Name	Project Manager Contact	Contractor	Contact Info	Construction Status	Date Active	Co-Permittee	Co-Permitte Number	Inspection Frequency (Months)	Last Inspected	Next Scheduled Inspection (Month)	Notes
Active												
COR10F023	Repair Main Apron Access, Batch Plant, Alert Pmt	Chris Van Fleet 720-847-9100	N/A	Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903	Awating Final Stabilization	2/23/2015	n/a		5	1-Dec-21	1-May-22	
COR10F03J	Repair Main Apron Access, Batch Plant, Alert Pmt	Chris Van Fleet 720-847-9100	N/A	Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903	Awating Final Stabilization	7/2/2018	140 CES		5	1-Dec-21	1-May-22	
COR10F022	Runway 32 Extended Safety Area Grading	Chris Van Fleet 720-847-9100	Chris Van Fleet 720-847-9100	Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903	Active Construction	4/21/2014	N/A		5	26-Aug-21	26-Jan-22	
COR10F05W	Blue Marlin	Mike Mont-Eton	DPR	Briana Bailey, 808-634-9404, brbaily@amazon.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Active Construction	2/21/2019	460SW		3	4-Nov-21	4-Feb-22	
COR10F041	Blue Marlin - East Sanitary Line	Mike Mont-Eton	Gray Contracting	Courtney Rapson, 502.526.7276 cfrapson@gray.com; Briana Bailey, 808-634-9404, brbaily@amazon.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Awating Final Stabilization	2/21/2019	460SW		5	4-Nov-21	4-Apr-22	
COR10F04C	CST Vehicle Ready Bay Bldg	Dom Scarimbolo	JE Hurley - Dan Anderson	Dan Anderson, danderson@jehurley.com, 719-433-8388; Dom Scarimbolo, 303-517-9468, domenick.j.scarimbolo.nfg@mail.mil	Terminated	5/7/2019	JE Hurley	COR10F04B	5	24-Jun-21	24-Nov-21	
COR10F04I	Aspen Way Parking Lot	Mike Mont-Eton	Olgoonik: Andrew Haley	Andrew Haley, ahaley@olgoonik.com, (720) 232-6241; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Terminated	8/28/2019	460SW		5	10-Jun-21	10-Nov-21	
	ASE Maintenance Storage Facility	Frank Cuna	Centerre Construction	Frank Cuna, fcuna@centerre.com, 303-910-5701; Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903	Awating NOT Documentation	43717	140 COANG		5	10-Nov-21	10-Apr-22	
COR10F052	Tetra OSP Duct Bank Construction - Buckley AFB	Erik Leis	Technical Services - Chip Young	Erik Leis, 303-677-4407, leiserik@nro.mil; Chip Young, 703-928-7983, chip.young@tsdgon.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Awating Final Stabilization	8/23/2019	460SW		5	8-Sep-21	8-Feb-22	
COR10F056	SIBRS SOF	Josh Walfoort	Mortenson	Josh Walfoort, josh.walfoort@mortenson.com, 816-560-2368; USACE????	Active Construction	12/5/2019	460SW		5	17-Nov-21	17-Apr-22	
COR10F055	East Toll Gate Creek	Mike Mont-Eton	RME	Bruce Gurney, Bruce.L.Gurney@usace.army.mil, 720-859-5048; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042; Daniel Lavigne, daniel@rmecinc.com, 720-470-3817, Stanley Bouse, stan.bouse@elitesi.com	Awating Final Stabilization	1/21/2020	460SW		5	12-Jan-22	12-Jun-22	
COR10F05U	AASF UH60 Hangar Project	Daniel DiLoreto	Iron Mike Construction	Julio Maldonado, 970-471-6987, jmaldonado@ironmikeconstruction.com; Patrick Smith, 303-407-8690, psmith@ironmikeconstruction.com; Daniel DiLoreto, DMVA, (720) 601-3974, daniel.p.diloreto.nfg@mail.mil	Active Construction	9/3/2020	Iron Mike Construction	COR10F07P	5	7-Dec-21	7-May-22	Patrick Smith - PM is very responsive
COR10F05T	B430	McKiya Johnston	Dawson	McKiya Johnston, 719.660.3451, mjohnston@dawson8a.com; Cody W. Ellis, 703.881.1687, cellis@dawson8a.com; Jeff Cochran, jeffrey.cochran.6@spaceforce.mil, 720-847-4702; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Active Construction	10/15/2020	460SW		5	2-Nov-21	2-Apr-22	
COR10F063	Large Vehicle Inspection Point	Mike Mont-Eton	Iron Mike Construction	Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042; Todd Edwards, TEdwards@ironmikeconstruction.com, (303)407-8690; Mike Yaggi, (720) 474-4653, myaggi@IronMikeConstruction.com	Active Construction	12/11/2020	Iron Mike Construction		5	4-Nov-21	4-Apr-22	
COR10F069	COARNG BAFB Drainage Site Improvements	Daniel DiLoreto	Happel Builders	Robert Edmondson <redmondson@happelbuilders.com>; Daniel DiLoreto, DMVA, (720) 601-3974, daniel.p.diloreto.nfg@mail.mil;	Active Construction	1/25/2021	Happel Builders	COR10F024	6	22-Jul-21	22-Jan-22	
COR10F06L	Repair and Replace Fire Hydrants	Alexandra Sines	HHI Corporation	Kris Coccio, kcoccio@hhicorp.com, 719-439-1292; Alexandra Sines, (719)650-9776, asines@hhicorp.com; Jon Gard, jonathan.gard@spaceforce.mil, 303-961-4968	Active Construction	4/6/2021	460SW		5	21-Sep-21	21-Feb-22	
COR10F061	Buckley AFB RV Storage Lot Expansion	Frank Cuna	Centerre Construction	Frank Cuna, fcuna@centerre.com, 303-910-5701; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042	Active Construction	4/6/2021	460SW		5	22-Sep-21	22-Feb-22	
COR10F06D	Convert B1553 to VCC	Jeff Cochran, Michael Hammond	Bristol General Contractors LLC	Richard Tyler(superintendent), (808) 330-7418, rtyler@bristol-companies.com; Morey Engle(quality control manager), (720) 480-3204, mengle@bristol-companies.com	Active Construction	4/14/2021	460SW		5	22-Sep-21	22-Feb-22	
COR10F01Y	Multiple Small Projects - 4 (formerly MSP -3)	Kimberly Bowman/Matt Cohen	N/A	(720) 847-4655	Active	7/20/2017	Multiple Contractors		Project Dependent	N/A	N/A	Monthly inspections of raingarden then remove from SWPPP

MS4 Oversight Inspection Planning Guide

Construction Project Site Score Sheet

Site Name:

Category Description		Score Parameters	The Site	Score
1	Area of Disturbance	0 - 1	1	
		>1 - 3	2	
		>3 - 5	3	
		>5 - 7	4	
		>7 - 9	5	
		>9 to 11	6	
		>11 - 14	7	
		>14 - 17	8	
		>17 - 20	9	
		20+	10	
2	Anticipated Construction Period in months	0 - 1	1	
		>1 - 3	3	
		>3 - 6	5	
		>6 - 9	7	
		>9 - 12	9	
		>12	10	
3	Adjacent to E. Tolgate Creek or its Tributary	No	1	
		Yes	10	
4	Construction Season	Oct thru Mar	1	
		Apr thru Sep	5	
		All year	10	
5	Slope of Site (avg)	1% = 1 thru 10% and greater = 10	1 - 10	
6	Past Experiences with the Owner/Contractor (Note: This is a subjective evaluation)	1 (excellent), 5 (OK) or 10 (Poor)	1, 5, 10	
7	Type of Construction Activity (Note: 10 is maximum)	Landscaping/Reseeding	1	
		Grading	2	
		Road Construction	3	
		Building Construction	3	
		Utility Construction	3	
		Batch Plant	10	
Note: Score sheet is a guideline and may be re-evaluated and adjusted at any time.			Sum	

Results

Score of 56 to 70

Score of 36 to 55

Score of 16 to 35

Score of 7 to 15

Frequency of Oversight Inspections

Every 3 months

Every 4 months

Every 5 months

Every 6 months

In addition to the above frequency an inspection prior to close-out of the permit is required. Advise contracting of the state of revegetation.

MS4 Sect. 2.5.6 Implement an inspection plan and keep a copy of that plan which provides inspection triggers, a priority for order of inspections, and a required timeframe upon which construction sites must be inspected by Buckley AFB. All construction sites within Buckley AFB must be inspected at a minimum semi-annually, and all sites must be inspected prior to construction start/permit termination to verify that 70% vegetation cover has been met on all areas of the site.

Construction Site Stormwater Runoff Control (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
CON-3 Construction Site Stormwater Training 1. Document the number of Buckley SFB construction site quality assurance personnel who have received construction stormwater compliance annual training.	COMPLETED Construction stormwater training was conducted virtually on 29 July 2021 with 11 attendees consisting of Buckley SFB personnel and contractors. A copy of the slides is available through the 460 CES/CEIE office. They have been excluded from this report due to the size of the slide show (approximately 100 slides per training). Roster can be found below.	No

2021 Buckley Annual Construction Stormwater Training Roster
7/29/2021

[illegible]

Construction Site Stormwater Runoff Control (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<i>CON-4 Design Review and Construction Site BMP Information</i> 1. Maintain existing review process for design and construction projects planned for Buckley SFB.	COMPLETED Existing design review processes/practices are being followed. Due to the pandemic and teleworking schedule projects plans/specs/reports are emailed to make the documents available. Once a week a tracking spreadsheet is distributed to the 460 CES review group containing suspense dates and completion of review status. The 460 CES/CEIE WQP review documents for compliance with stormwater permit requirements/regulations applicable to projects located on Buckley SFB such as 2017 CGP and Energy Independence and Security Act (EISA) Section 438. Comments are provided back to the issuing source for incorporation by the project design team. The 460 CES/CEIE WQP staff conducted 107 project design reviews for 20 projects that required stormwater comments in 2021.	No

Construction Site Stormwater Runoff Control (continued)

<p>2. Maintain existing process for identifying construction site BMPs and providing such information to project construction contractors (Year2-5).</p>	<p>COMPLETED</p>	<p>No</p>
<p>3. Hold preconstruction meetings with the contractors and project management staff to ensure BMP related questions and requirements are addressed prior to BMP installation on 50% of new construction projects (Years 4- 5).</p>	<p>COMPLETED 460 CES/CEIE personnel met construction contractors and project management staff prior to groundbreaking to inspect stormwater BMP installation, and to clarify expectations of working on Buckley SFB. Environmental staff met onsite at 2 of the 2 (100%) new construction projects in Permit Year 8. The project preconstruction meeting dates are as follows:</p> <ol style="list-style-type: none"> 1. 6 April 2021, for Repair and Replace Fire Hydrants project 2. 14 April 2021, for the Convert B1553 to VCC project 	<p>No</p>

Construction Site Stormwater Runoff Control (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>CON-5 Site Plan and Construction SWPPP Review</u> 1. Maintain existing site plan and SWPPP review process. Document site plan and SWPPP reviews and record any comments provided to the construction entity pertaining to the contractor's SWPPP. Dates and copies of SWPPP review comments will be maintained by 460 CES/CEIE.	COMPLETED The file of SWPPP reviews and comments provided by 460 CES/CEIE WQP for applicable construction projects conducted in Permit Year 8 is maintained in 460 CES Environmental Office files. A total of 6 SWPPP reviews were conducted for 6 new projects requiring SWPPPs on Buckley SFB. Buckley SFB also reviews SWPPP documentation of active construction sites as part of CON-2.	No

Construction Site Stormwater Runoff Control (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

All information used to implement the program has been provided under the Measurable Goals.

5. Post-Construction Stormwater Management in New Development and Redevelopment (PC)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for post-construction stormwater management in new development and redevelopment for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-1 Post-Construction Stormwater Management Process</u></p> <ol style="list-style-type: none"> 1. Maintain existing review process for new development and re-development projects planned for Buckley SFB. Include evaluation of pre-development and post-development runoff conditions in design review process (Years 2–5). 	<p>COMPLETED</p> <p>In Permit Year 8, there were 7 pre-development projects reviewed for water resource environmental impact analysis (as part of Air Force Form 813) that includes requirements to implement post-construction stormwater management controls. The AF form 813 is an environmental impact analysis that is used as part of the NEPA vetting process on base. Comments are provided to the initiating group so that any necessary controls may be incorporated during the design process. Project evaluations during the design process are maintained by 460 CES/CEN. BMPs are used in all projects with soil disturbances, EISA 438 stormwater criteria are used in projects greater than 5,000 square feet, and a SWPPP is initiated for projects impacting one acre or larger. All projects are considered for predevelopment hydrology.</p>	<p>No</p>

Post-Construction Stormwater Management in New Development and Redevelopment (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for post-construction stormwater management in new development and redevelopment for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>PC-2 Impracticability Determination Documentation for Post-Construction Stormwater Controls</u> 1. Document all impracticability determinations and provide supporting documentation to the Water Quality Program Manager (Years 2–5).	COMPLETED In Permit Year 8, 460 CES/CEN confirmed there were no projects that documented reasons of impracticability for implementing Post-Construction Stormwater Controls.	No

Post-Construction Stormwater Management in New Development and Redevelopment (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for post-construction stormwater management in new development and redevelopment for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><i>PC-3 Inventory, Visual Inspection, and Maintenance of Post-Construction Stormwater Controls</i></p> <p>1. Conduct annual review of the post-construction stormwater controls inventory/map and make required updates (Years 2–5).</p>	<p>COMPLETED</p> <p>In Permit Year 8, the permanent post-construction stormwater controls were inspected and the report submitted on 29 December 2021. The inspection report contained recommendations for work orders. There were no new permanent post-construction stormwater controls completed and accepted by Buckley in 2021.</p>	No
<p>2. Inspections of any permanent post-construction stormwater control measures that are under warranty, typically one year following installation, will be annotated and the appropriate official responsible for warranty enforcement will be notified (Years 2–5).</p>	<p>COMPLETED</p> <p>Buckley SFB currently has a process in place for evaluating projects under warranty for corrections. All projects are assessed during the last month of the warranty period and remaining punch list items are documented and corrected by the contractor. All corrections are documented and maintained by 460 CES/CONF.</p>	No

Post-Construction Stormwater Management in New Development and Redevelopment (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for post-construction stormwater management in new development and redevelopment for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-4 Visual Inspection of New Post-Construction Stormwater Controls</u></p> <ol style="list-style-type: none"> 1. Document inspections of all newly installed post-construction stormwater control measures prior to closing out contracts (Years 2–5). 	<p>COMPLETED</p> <p>In Permit Year 8, there were no new permanent post-construction stormwater controls completed. All projects are assessed during the last month of the warranty period and remaining punch list items are documented and corrected by the contractor; or, by specific items previously accepted by the government but now exceed warranty time limits.</p>	<p>No</p>

Post-Construction Stormwater Management in New Development and Redevelopment (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

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Describe any measurable goal(s) for post-construction stormwater management in new development and redevelopment for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-5 Natural Resource Management Plan Update</u></p> <p>1. Hydrologic performance standards and information related to design and maintenance of permanent post-construction stormwater controls are included in natural resource plans when these plans are updated (Year 5).</p>	<p>COMPLETED</p> <p>In Permit Year 8, the Integrated Natural Resource Management Plan (INRMP) was reviewed and comments were provided to 460th CES/CEIE 22 September 2021. Hydrologic performance standards included in the INRMP are Section 438 of the Energy Independence and Security Act (EISA) requirements for all projects that construct facilities with a footprint greater than 5,000 gross square feet, or expand the footprint of existing facilities by more than 5,000 gross square feet; projects are required to maintain predevelopment hydrology and prevent any net increase in storm water runoff, unless determined to be infeasible. Additionally, information related to design and maintenance of permanent post-construction stormwater controls in the INRMP include design and post-construction maintenance requirements of Low Impact Development Best Management Practices (LID BMPs).</p>	<p>No</p>

Post-Construction Stormwater Management in New Development and Redevelopment (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

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6. Pollution Prevention/Good Housekeeping for Municipal Operations (P2)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

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3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><i>P2-1 Conduct Annual Stormwater Training for All Fleet Maintenance and Civil Engineer Shops</i></p> <ol style="list-style-type: none"> 1. Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date. 	<p>COMPLETED</p> <p>For Permit Year 8, the annual stormwater training for shop personnel was conducted via an educational handout on appropriate stormwater BMP use at Buckley SFB. This training handout was distributed to 37 Buckley SFB personnel on 28 Dec 2021.</p> <p>The handout can be found on the following page.</p>	<p>No</p>

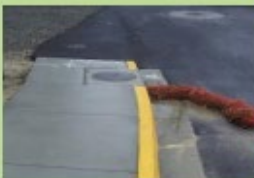
Keep Our Base & Stormwater Clean

Do your part in keeping our base clean from construction runoff.

WHAT TO DO



Do use erosion and sediment control measures to keep sediment on site.



Do protect storm drains and drainage ditches with erosion & sediment control measure (such as rock sock).



Do prevent erosion by stabilizing disturbed steep slopes within construction areas.



Do construct entrances with track-out controls to minimize off-site sediment tracking.



Do restore ground cover as quickly as possible after construction to avoid erosion of disturbed areas.

WHAT NOT TO DO



Do not allow sediment to accumulate past the effective operating condition of erosion & sediment control measures.



Do not leave storm drains and drainage ditches unprotected from construction stormwater pollution.



Do not drive in and out of muddy sites without track-out controls.



Do not track mud and sediment onto the roads at site entrances and exits.



Do not leave sites unstabilized for more than 14 days post construction.

Questions? Contact 460 CES/CEIE @ 720-847-6308

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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4. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-2 Snow and Ice Control Training</u></p> <ol style="list-style-type: none"> 1. Conduct training once per year and maintain an attendance roster. 	<p>COMPLETED</p> <p>Due to COVID-19, Space Force health orders required limited on-site staff reporting on Buckley SFB in 2021. Snow and ice control training session was conducted by 460 CES/CEO in mid-September 2021 for 26 personnel. The roster of attendees can be found on page 64 of this document. The training included procedures for plowing snow on Buckley SFB and everything that goes into snow operations such as:</p> <ul style="list-style-type: none"> -Plow assembly/ disassembly -Blade change procedures -Dump truck operating/ maintenance procedures -Sidewalk clearing procedures -Sidewalk clearing equipment attachment overview -Street plowing procedures -Parking lot clearing procedures 	<p>No</p>

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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<u>P2-3 Street Sweeping</u>	COVID-19 IMPACTED - PARTIALLY COMPLETED The 460 CES/CEOHP shop reported an average 10.4 hours of street sweeping per month in Permit Year 8. COVID- 19 impacted the overall number of sweeping hours during this permit year due to Buckley SFB implementing a limited on-site staff reporting schedule per Air Force health orders.	No
1. Accomplish an average of 20 hours of street sweeping per month.		
2. Perform an annual evaluation of the schedule and document the evaluation (Years 2-5).	COMPLETED In accordance with Permit Part 2.7.8.2, evaluation of the street cleaning operation in Permit Year 8 determined that sweeping will continue to focus on more highly trafficked areas and locations where sediment and debris accumulate, rather than a set route of streets. Operations are evaluated daily through the Buckley SFB Preventive Maintenance program and visual inspections.	No

Snow and Ice Removal Training 2021	
Rank	Name
TSgt	Ervin Czechan
TSgt	John Wall
TSgt	Christopher Widhalm
TSgt	Edward Eisinger
TSgt	Thomas Wilson
A1C	Wyatt Brewington
SSgt	Forrest Schroeder
SSgt	Brent Buck
SrA	Zachariah Goldsmith
SrA	Maria Mara
SrA	Tate Lawson
SrA	Franklin Epperson
SrA	Anthony Bynum
a1c	Alec Mcconnell
SrA	Nicholas Toiac
SrA	Aeroll Silla
SrA	Antonia Taylor
SSgt	Joshua Taylor
SrA	Nicholas Romans
A1C	Francis Gaulin
SrA	Andres Garza
TSgt	Kirsten Burton
TSgt	Anthony Santiago
CIV	Jacob Stahl
CIV	Ralph Falls
CIV	Sylvain Tardif

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

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4. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-4 Storm Drain Inlet Inspection and Maintenance Schedule</u></p> <ol style="list-style-type: none"> 1. Inspect an average of 5% of storm drain inlets and culverts per quarter. Document cleaning activities, waste disposal practices, and amount of debris collected during maintenance (Year 2-5). 	<p>COVID-19 IMPACTED - INCOMPLETE</p> <p>The inspection schedule was established to meet the 5% per quarter goal and a minimum of 34 culverts/inlets would need to be inspected each month. Due to COVID-19, Air Force health orders required limited on-site staff reporting on Buckley SFB in 2021. The 460 CES/CEOHP, responsible for inspections, was unable to complete the required inspections in 2021 because of a staff shortage and the demands to keep the infrastructure on Buckley operating with limited staffing. Inspections will resume when COVID-19 health directives allow staffing at full-capacity.</p>	<p>No</p>

<p>2. Develop a maintenance schedule based on inspection results. Perform an annual evaluation of the schedule and document the evaluation (Year 2-5).</p>	<p>COMPLETED</p> <p>At the end of 2017, 460 CES/CEOHP personnel determined that Buckley SFB lacks the equipment and the manpower to resolve base wide culvert/inlet issues internally. In 2020, maintenance required for storm culverts/inlets were entered into TRIRIGA; minor maintenance/repair items were directed to 460 CES/CEOHP and major maintenance/repair items (that 460 CES/CEOHP is unable to fix) were programmed for contracted work. In 2021, a contracted project to Maintain Storm Drains and Culverts (CRWU 21-1012) addressed major maintenance/repair items identified during previous annual inspections.</p>	<p>No</p>
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Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-5 Vehicle Washing Limitation</u></p> <ol style="list-style-type: none"> 1. Maintain copy of current policy. 	<p>COMPLETED</p> <p>A copy of the current municipal vehicle washing policy that limits washing to approved vehicle wash racks is maintained in the 460 CES/CEIE Environmental Stormwater library.</p>	<p>No</p>

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

5. The BMP/Measurable goal for which a change is proposed;
6. Any proposed changes to the BMP description;
7. Any proposed changes to the measurable goals (including specific dates and measures); and
8. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-6 Post-Construction Stormwater Control Measure Maintenance</u></p> <ol style="list-style-type: none"> 1. Document post-construction stormwater control maintenance requirements during annual post-construction stormwater control inspection. 	<p>COMPLETED</p> <p>The existing post-construction BMP annual inspection was conducted and submitted on 29 December 2021. The inspection report included documentation of maintenance recommendations on each BMP. The report is maintained in 460 CES Environmental Office files. 15 new detention basin, 1 new bioretention & filtration basin, and 5 new vegetated swale recommended repairs were identified during the inspection.</p>	No
<ol style="list-style-type: none"> 2. Initiate a Work Order using the appropriate work request system/database for any post-construction stormwater control maintenance activity that requires additional equipment, manpower, or resources to accomplish. 	<p>COMPLETED</p> <p>14 new Work Orders resulting from Permit Year 7 inspections were programmed and funded during Permit Year 8. Issues noted during Permit Year 8 inspections are currently being processed as a work order to be resolved by base personnel, the grounds maintenance contract or as a project for an outside contractor.</p>	No

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

Provide the status of any measurable goal scheduled for completion during the reporting period or for which activities have begun. For program elements started, but not completed, any milestones that have been met must be indicated. If a change will be proposed to the BMP or measurable goal as part of the annual report, this must be stated and the proposed changes discussed. For each change proposed, you must provide information on:

1. The BMP/Measurable goal for which a change is proposed;
2. Any proposed changes to the BMP description;
3. Any proposed changes to the measurable goals (including specific dates and measures); and
4. The rationale for the proposed changes.

Describe any measurable goal(s) for pollution prevention/good housekeeping for municipal operations for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-7 Consolidated Wash Rack Evaluation</u></p> <ol style="list-style-type: none"> 1. Document completion of the consolidated wash area evaluation including methodology and recommendations. If a consolidated wash area is recommended, a Form 1391 will be generated (Year 3). 	<p>COMPLETED - PARTIALLY COMPLETED</p> <p>Investigations and general evaluations of requirements were initiated in late fall of 2015. The evaluation was finalized in May 2016. The evaluation covered existing wash racks, large equipment washing requirements, and potential locations. There is general agreement that a consolidated wash rack is needed, and a project will be programmed in accordance with base priorities.</p>	<p>No</p>

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure. Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

All information used to implement the program has been provided under the Measurable Goals.

E. Results of Information Collected and Analyzed.*

If you have collected and/or analyzed information during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants, submit a short summary of the information and any analysis completed.

Measurable Goal	Results of information collected and analyzed that must be reported for this item
N/A	N/A

*Data collected to audit the implementation status of a program element does not need to be reported in the annual report unless required by an established measurable goal or as a requirement or result of an inspection or enforcement action. For example, data such as street miles swept, visitors at an information booth, or visits to a web site do not need to be included in the annual report unless directly related to a measurable goal or committed to be reported and/or analyzed in a program description.

F. Summary of Inspections and Enforcement Actions.

Provide a summary of the number and nature of inspections and formal enforcement actions performed. Site-specific information may also be included, but is not required.

Program Area	Description of Enforcement Actions/ Inspections
All inspections were documented above in the specific program areas.	

G. Proposed Changes to the Stormwater Management Program.

Provide a narrative description of any changes or additions to the stormwater management program.

No changes to the Stormwater Management Program are proposed for Permit Year 9.

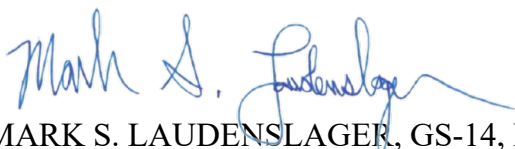
H. Notice of Program Element Operation by a Second Party.

Another government entity may be relied on to perform requirements of your MS4 permit. However, as the permittee, you remain liable for compliance with the terms of the permit if the requirements are not fulfilled. You must complete this annual report for the geographic areas covered under your permit, for all program areas, even if one or more program elements/areas is being performed by another entity. (However, if you are performing a program element for another permittee, you do not need to include that activity in this report.) If you are relying on another government entity to satisfy some of your permit obligations (and if the information has not been previously provided to the EPA in earlier reports or the application), the annual report must include a statement to that effect. If the BMP and/or measurable goal will be modified in addition to the change of operator to another government entity, the change must be included in Item G, above. Example statement: "As of September 15, 2003, Monroe County is performing the construction site plan reviews for the Nixon Air Force Base in accordance with the procedures in the Base's original application."

N/A

I. Certification.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



14 March 2022

MARK S. LAUDENSLAGER, GS-14, DAF

Chief, Installation Management Flight

Name (printed)

Title

**This report may be signed by a duly authorized representative of the permittee in conjunction with the signatory requirements for NPDES permitting provided at 40 CFR§122.22(b).