



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 Maybach
EPA Region 8 Stormwater Coordinator
Mail code: 8WP-CWW
1595 Wynkoop Street
Denver, CO 80202-1129
Email: Maybach.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):

Mailing Address:

City, State and Zip Code:

Contact Phone Number:

Permit Certification Number:

Have any areas been added to the MS4 due to annexation or other legal means?

B. Reporting Period: January 1, 2022 – December 31, 2022.

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 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>PEO-1 Household Hazardous Waste and Stormwater Awareness</u> 1. Provide stormwater awareness at least twice per year during Newcomers Orientation	COMPLETED In Permit Year 9 environmental awareness materials and information were provided by 460 CES/CEIE Environmental Element four (4) times in March, June, September, and December 2022. Materials were provided in person. Copies of the environmental materials, slides and information provided are presented on pages 4-5.	No
2. Provide environmental protection awareness materials to new housing residents, including household hazardous waste.	COMPLETED Copies of the environmental protection awareness materials were provided by 460 CES/CEIE Environmental Element staff in March, June, September, and December 2022 during the Newcomers orientation. Copies of the environmental awareness materials and information provided are presented on pages 4-5.	No

 **460th Civil Engineering Squadron**


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 **Environmental Office**
 460 CES/CEE Element Chief
 Matthew Rodgers
 720-843-7245
matthew.rodgers.7@us.af.mil

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Welcome to the Centennial State!



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 **Sustainability and Defense**

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- DoD is the largest institutional consumer of oil in the world (100M+ barrels/year)
- Resources have driven conflict for time immemorial (e.g. salt, oil, gas (nordstream) and likely water)
- Climate change will likely drive additional military burden/conflict due to extreme weather, droughts, mass migrations, and new resources available in the arctic
- Reducing/eliminating fuel reliance reduces logistics burden incalculably and one of the most serious jobs in the military - fuel supply convoys
- Environmental/sustainability issues are now key to ensuring enhancement of the mission in terms of credibility, lethality and safety
- "The conservation of natural resources is the fundamental problem. Unless we solve that problem it will avail us little to solve all others." - JFK



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 **Vehicle Emissions Test**

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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 90 days per calendar year, regardless of where your vehicle is registered
- Testing locations can be found at AirCareColorado.com

Emissions Test Exemptions

- Gas Vehicles 7 years old or newer
- Natural Gas/Propane Vehicles
- Diesel Vehicles
- Pre-1975 Collector-Plated Vehicles
- Electric/Hybrid Vehicles
- Pre-1980 Two-Stroke Engine
- Motorcycles



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 **Employee-Vehicle Certification and Reporting System (ECARS)**

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- You must document compliance and self-certify your requirements in the web-based "Employee Vehicle Certification & Reporting System" (ECARS)
- All vehicles parked on base 60 or more days per year must be registered in ECARS even if vehicle is exempt from emissions test
- Email Jeff Harrison at jeffrey.harrison.6@us.af.mil to register



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 **Recycling**

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- The Buckley SFB recycling program uses single-stream collection, the same type of collection typically used in households. There may be marked recycling dumpsters (like this one) near your building



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Community Recycling Collection Point

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The North Yard

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- The North Yard is a recycling area that accepts scrap metal and pallets for recycling.
- Located about 1/4 mile east on Winter Park Place from Vail and Winter Park Place intersection, there is small pull off to a locked gated area on the left.
- The North Yard is by appointment only. Please contact Ethan Woodard at ethan.woodard@us.af.mil to schedule an appointment.



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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!
- Use Best Management Practices (BMPs) to ensure no chemicals enter storm drains or contaminate soil. Examples of BMPs include secondary containment, storage lockers, spill kits, etc.
- If you have a spill, contact the Environmental Office at 720-947-4655 and the Fire Department at 720-947-9117.



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Natural & Cultural Resources

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- Buckley SFB is home to many species to include: Golden Eagle & Lark Bunting (CO State Bird).




- Buckley SFB has 11 buildings currently eligible for listing on the Nat'l Register of Historic Places and 31 affiliated Tribal Nations.





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Buckley SFB Environmental Commitment Statement

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GOAL 1

Buckley SFB IAW DAFI 32-7001 & AFPD 93-3 shall:

- Promote conservation and sustainable management of land across SFB.
- Follow all applicable environmental laws and policies.
- Reduce waste generation and prevent pollution via innovation, effective facility management, and sound acquisition and procurement practices.
- Set and review environmental quality objectives and targets.
- Recognize that environmental impacts from our work processes can also affect national security.

Address Denver Metro Area concerns of special importance such as air and water quality through best management practices and education across SFB, including contractors and tenants.

Be an exemplary steward of Cultural Resources through protection of historic properties and by contributing to build on a foundation of trust and transparency with our Tribal partners.

Ensure previously contaminated areas are managed and mitigated in a manner that promotes communication and builds consensus between all stakeholders.


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460th Civil Engineering Squadron

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Questions?



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**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.MARC
US.D.1127568517
MARCUS D. JACKSON, Colonel, USSF
Commander

Digitally signed by
JACKSON.MARCUS.D.1127568517
Date: 2021.07.08 16:21:26 -0600

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:

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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<u>PEO-2 Hazardous Waste or Stormwater Management Related Article</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 stormwater article to be published on Buckley SFB and Buckley SFB Facebook webpages was made on 28 November 2022. The article was published on the Buckley SFB website on 28 November 2022. The article was not posted on the Buckley SFB Facebook page. A copy of the informational article is presented on page 8.	No

BETTER CHOICES THIS FALL AND WINTER

Stormwater Awareness Fall/Winter 2022 Edition

The holiday season is upon us and there are many fun Colorado activities to look forward to during this time of year. In preparation for the holiday season, the 2022 stormwater awareness article aims to provide education and outreach to our community about the seasonal stormwater impacts associated with this time of year.

Cooking this holiday?

Many of us will be heading home this holiday season to visit family and friends. One thing we are surely looking forward to is a turkey feast. Remember to properly dispose of all cooking grease. Cooking grease should never be rinsed down the drain or left outside where it can easily leak into the environment, negatively impacting our ecosystem's chemistry. Adding kitty litter, sand or sawdust to the grease will solidify it so that the grease can be placed inside a leak-proof container which can then be disposed of in the trash. Personal trash and recyclable items are not permitted in any Buckley SFB dumpsters and must be disposed of off base. For more information about properly disposing of grease in your county, check here: <https://cdphe.colorado.gov/household-haz-waste-collection>



Snowy or salty?

Coloradans are no strangers to snow but just as we expect our snowfall so should we expect salt and deicer use to increase to keep people safe on the roads and sidewalks. While the road salt is useful, there are some negative implications associated with its widespread use. Some of the negative implications include 1) Toxic to plants and animals; 2) Salt attracts deer and moose, increasing probability of vehicle collisions with wildlife; 3) Large quantities can corrode vehicles, and infrastructure such as roads, bridges, and buildings. The best practice is early shoveling to limiting the amount of ice on walkways in the first place. See the weblink here for a list of deicers that are safer to use:

<https://www.epa.gov/saferchoice/products#type=Deicers§or=Home>

REPORT POLLUTION INCIDENTS/SPILLS TO
460TH CES WATER QUALITY PROGRAM at 720-847-6308 OR 460TH CES
CUSTOMER SERVICE AT 720-847-9913

This article supports compliance with paragraph 2.2 of the Buckley SFB municipal separate storm sewer system (MS4) permit.

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>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 on 1 December 2022 with 11 personnel in attendance. The session included sediment and erosion awareness information. Slide presentation and roster on pages 10-19.	No



Stormwater Compliance Training for Industrial Operations at Buckley SFB

1 December 2022

Matthew Cohen

Buckley Water Quality Program Manager

720-847-4655

matthew.cohen.4@spaceforce.mil

This training supports compliance with paragraph 2.2 of the BSFB MS4 permit



Base Water Program POCs

Water Quality Program Manager

Mr. Matthew Cohen, 460 CES/CEIE

Matthew.cohen.4@spaceforce.mil

720-847-4655; DSN 847-4655

Stormwater Program Coordinator

Mr. Greg Vierra

Gregory.vierra.2.ctr@spaceforce.mil

CES/CEIE

720-847-6308; DSN 847-6308



COURSE OBJECTIVES

- ▶ Understand the Multi-Sector General Permit (MSGP) applicability to Buckley SFB
- ▶ Familiarize with stormwater basics
- ▶ Review MSGP requirements including our installation
 - iSWPPP
 - Industrial Stormwater BMPs
 - Inspections
 - Corrective and Maintenance Action Items
- ▶ Discuss lessons learned
- ▶ Spill response actions
- ▶ Identify & assess BMPs





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.



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 diseased fish or ingest polluted water
 - Affect drinking water sources



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





- ▶ 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



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



Best Management Practices to Minimize Stormwater Pollution



- ▶ 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!



Material Management

▶ Good Practices

- ▶ Provide cover
- ▶ Place on pallets/secondary containment
- ▶ Place materials away from storm drains
- ▶ Must be properly labeled



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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, oils, and soap are discharged to the environment
- ▶ At Buckley SFB, vehicle washing is authorized only in approved wash facilities (1014/1006, B806, B340/341)
- ▶ 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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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



Buckley SFB holds two EPA Stormwater Permits

- ▶ Buckley Multi-Sector General Permit (MSGP) governs industrial discharges for Sector S - Air Transportation
- ▶ Buckley Municipal Separate Storm Sewer System (MS4) covers discharges permitted in stormwater within the base boundary (except Hunt Housing)

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MSGP Industrial Activities at BSFB

- ▶ 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 measures 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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MS4 Permit

- ▶ Buckley SFB holds an EPA Municipal Separate Storm Sewer System (MS4) Permit
- ▶ Buckley SFB must prohibit all types of non-stormwater discharges within its boundary, except for allowable non-stormwater discharges described in Part 1.3.2
- ▶ Contact the BSFB Water PM about allowable non-stormwater discharges.

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Buckley SFB's MSGP Permit requirements:



- ▶ 460 SW to manage stormwater from industrial activities from other tenants
- ▶ Stormwater Pollution Prevention Plan (iSWPPP) for Airfield Ops
- ▶ Initiate, implement and maintain control measures to minimize pollutant discharges
- ▶ Conduct inspections to ensure control measures are adequate, appropriate and properly maintained
- ▶ Identify Corrective Actions, address within deadlines and report
- ▶ Monitoring and reporting

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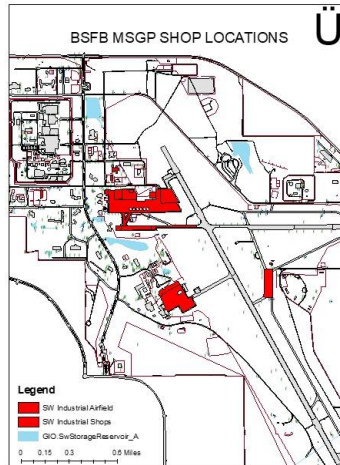


iSWPPP Basics

- ▶ 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

Note: The installation Stormwater Pollution Prevention Team (SWPPT) is responsible for developing, implementing, and managing the SWPPP.

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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



Maintenance BMPs True or False

1. **True** or **False**: Storm drains are useful for collecting and routing spills to a treatment plant.
2. **True** or **False**: Perform routine maintenance and chemical-related activities inside.
3. **True** or **False**: Place solid waste in authorized dumpsters and keep the lids open until dumpster is full.
4. **True** or **False**: Secondary containment area valves should be kept closed anytime equipment is being stored inside.
5. **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.
6. **True** or **False**: Dispose of mop water in the stormwater sewer system.



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 2021 MSGP.



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Past mistakes are great teachers

Notable Findings from 2021/2022 include the following



- ▶ Active spill occurred during an inspection at the military vehicle fueling station (B-341)
- ▶ Hydraulic leaks
- ▶ Diesel spills
- ▶ 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 720-847-9117

(One can dial 911 from a BAFB phone)

Give the operator as much specific information as possible

Also report to Environmental Element (CEIE) at

720-847-4655 (Matt Cohen)

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





Time to Practice

1. Assign yourselves the roles of:
 - a. Identifier (1 person)
 - b. Notifier (1-2 persons)
 - c. Response (2-3 persons)
2. Identifier: You notice the spill first, your decisions lead the way.
3. Notifier: You are second to know and must make necessary reporting.
4. Responders: Your actions determine the outcome.

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Thank You for Your Participation!

Please ensure you have signed the attendance roster.

This training supports compliance with paragraph 2.2 of the BSFB MS4 permit

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Annual Industrial Stormwater Compliance Training Roster - 1 December 2022

<u>NAME</u>	<u>ORGANIZATION</u>	<u>EMAIL ADDRESS</u>
Juan Ramirez	AASF CONG	juan.a.ramirez.mil@army.mil
Miguel Bernal	AASF CONG	miguel.bernalesquivel.mil@army.mil
Paul Wright	Amazon Web Services (AWS)	palwr@amazon.com
Jack Thrash	Amazon Web Services (AWS)	thrashja@amazon.com
Greg Vierra	460 CES/CEIE	gregory.vierra.2.ctr@spaceforce.mil
Teresa Steer	CFMO/ENV	teresa.d.steer.nfg@army.mil
Lonnie Funk	CFMO/ENV	lonnie.r.funk.nfg@army.mil
Matt Hulbert	460 CES/CEIE	matthew.hulbert.1@spaceforce.mil
Dylan Quinn	460 LRS/Fuels	Dylanquinn1112@gmail.com
Jdel Ledbetter	460 LRS/Fuels	jdel.ledbetter.1.ctr@usspacecom.mil
Shane Gaule	460 LRS/Fuels	shane.gaule.1.ctr@usspacecom.mil

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>PEO-4 Sediment and Erosion Awareness Training for Facility Managers</u> 1. Provide Group Facility Manager trainings at least annually and maintain attendance record.	COMPLETED The Group Facility Manager trainings are held monthly. These trainings occurred on: 20 January, 17 February, 17 March, 21 April, 12 May, 23 June, 21 July, 24 August, 22 September, 20 October, 3 November, and 1 December 2022 with 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 available below.	No



Environmental Office

Mr. Matthew Cohen
(720) 847- 4655



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Persistent Global Surveillance

460th Civil Engineer Squadron



Environmental Management System

- Environmental Management System (EMS) is the overall umbrella of the environmental programs (Hazmat, 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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Persistent Global Surveillance



Recycling

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



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Persistent Global Surveillance



Alternate Single-Stream Recycling Collection Point



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Persistent Global Surveillance



Recycling Turn-in

Scrap Metal Recycling Receiving Yard, a.k.a. North Yard
(Call Mr. Ethan Woodard at (720) 845723 to make an appointment)



Recycle scrap metals and wood pallets at the North Yard.

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Hazwaste

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



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Persistent Global Surveillance



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, (720) 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 (720) 847-6384 to test the water.
 - If appears urgent, call CE Operations Support, Customer Service (720) 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 (Mr. Matt Cohen at (720) 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 BSFB Tanks Program Manager, Mr. Matt Cohen at (720) 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, 429, 430, 431, 432, 706, 731, 801, 814, 841, 850, 909, 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)
 - Environmental (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 Environmental (CEIE).
- **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, Mr. Matthew Christensen at (720) 847 -5723

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Persistent Global Surveillance



Cultural and Natural Resources

Cultural -

- 12 historical buildings & sites (801, 909, 402, 403, 404, 405, 431, 432, 433, 434, 630, and 814)
 - Environmental (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 (720) 847-9059.

Natural -

- Most bird species on BSFB are protected
- Work outside your facility may impact these species
 - Environmental (CEIE) must review work order requests prior to maintenance
 - There's a rodent, birds, or snake in my building call CE Operations Support, Customer Service (720) 847 -9913

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Questions?



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460th Civil Engineer Squadron

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 17 November 2022. Training materials consist of a handout that identifies appropriate and inappropriate stormwater BMP utilization at Buckley SFB. See page 28.	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 49 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 SFB contractors on 17 December 2022.	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 or 720-847-4655

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:

The Buckley SFB stormwater program host military, civilian, contractor, military dependents, and retired military personnel who work and utilize services on Buckley SFB. Buckley SFB supports 3,100 active-duty members from every service, 4,000 National Guard personnel and reservists, 2,400 civilians, 2,500 contractors, 36,000 retirees and approximately 40,000 veterans and dependents. The Buckley SFB stormwater program regularly interacts with tenant organizations including 140th Colorado Air National Guard, Navy, Marines, Colorado Army National Guard, Aerospace Data Facility of Colorado, and Amazon Web Services through regular business-related items, and cross functional team networks where information is readily shared and further disseminated in support of Buckley SFB NPDES permits.

Over the course of permit year 9, Buckley conducted: forty (40) industrial stormwater shop-level inspections as part of its Multi-Sector General Permit (MSGP) routine industrial facility inspections with fourteen (14) shop leads; forty-four (44) construction site oversight inspections involving seventy (70) different personnel; twelve (12) facility manager trainings averaging about five (5) personnel per training session; four (4) newcomer orientation sessions averaging about thirty (30) personnel per session; four (4) stormwater trainings with ninety-nine (99) total participants; two (2) public postings that estimate to have reached up to one-hundred (100) people total; three (3) meetings with about five (5) participants from City of Aurora departments; one (1) public participation event with six (6) participants; eight (8) SWPPP reviews for eight (8) points of contact. Between the six minimal control measures, the Buckley SFB stormwater program conservatively estimates to have reached 482 people in permit year 9.

2. Public Involvement and Participation

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>PIP-1 Public Notice Requirements</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:

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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 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-2 SWMP Public Review</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 9 Annual Report was requested to be posted on the Buckley SFB website on 30 March 2022. 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:

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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-3 Stormwater Action Line and Email Address</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). No emails using the 460 CES/CEV Water address were submitted during Permit Year 9. In 2023, 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:

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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 Meetings occurred on 19 January, 9 February, and 24 March 2022. Virtual meetings between 460 CES/CEIE, 460 CES/CENM and City of Aurora (CoA) focused on design review, analysis, and feedback concerning the repair of outfall 2 which discharges to East Toll Gate Creek. This project aims to improve water quality and mitigate erosion that is occurring downstream on city of Aurora's property. Follow up emails were exchanged with CoA Water, CoA Real Property (RP) and CoA Parks, Recreation & Open Space (PROS).	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:

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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 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.
<p><u>PIP-5 Volunteer and Cleanup of MS4 Receiving Water Activities</u></p> <ol style="list-style-type: none"> 1. Buckley SFB will maintain a log of public participation activities related to water quality protection and cleanup of MS4 receiving waters. 	<p>COMPLETED</p> <p>In Permit Year 9 public participation activities included a volunteer cleanup held on 25 October 2022. Six (6) participants removed trash and debris along 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. Buckley maintains a log of all public and participation and outreach activities performed on its internal share drive.</p>	<p>No</p>

Event: MCM 2 Public Involvement and Participation (PIP-5) Volunteer and Cleanup of MS4 Receiving Water Activities			
Date: 25 October 2022			
Name	Organization	Phone	Email
Matt Christensen	CES/CEIE	847-9058	matthew.christensen.11@spaceforce.mil
Matt Cohen	CES/CEIE	847-4655	matthew.cohen.4@spaceforce.mil
Jeff Harrison	CES/CEIE	847-9032	jeffrey.harrison.6@spaceforce.mil
Matt Hulbert	CES/CEIE	847-9059	matthew.hulbert.1@spaceforce.mil
Greg Vierra	CES/CEIE	847-6308	gregory.vierra.2.ctr@spaceforce.mil
Ethan Woodard	CES/CEIE	847-5296	ethan.woodard.1@spaceforce.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.
<p><u>IDE-1 Storm Sewer System Map</u></p> <p>1. Updated the complete storm sewer system map in the Buckley SFB Geographic Information Systems (GIS) (Year 3).</p>	<p>COMPLETED</p> <p>The update process is organized by installation areas, called tiles; there are 35 tiles that cover the entire installation.</p> <p>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.</p> <p>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 on page 39.</p>	<p>No</p>



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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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-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 9 were completed on 28-29 September 2022, 19 October 2022, 2 November 2022, and 9 November 2022. 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:

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-3 Illicit Discharge Detection and Elimination Program</u> 1. Maintain one printed copy of the EPA Illicit Discharge Detection and Elimination (IDDE) Manual in the Environmental Element's library.	COMPLETED A hardcopy of the US EPA IDDE Manual is in place on the 460 CES/CEIE Stormwater library shelves.	No
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 15 December 2022 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 on page 42.	Yes. As recommended by EPA during the October 2022 NPDES MS4 Stormwater, Phase II Audit, Buckley SFB will expand review and dissemination of the EPA IDDE manual to improve this MCM in permit year 10.



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

15 December 2022

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 8 for Permit Year 8 (PY9)

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 7 December 2022 with Greg Vierra (Stormwater Program Coordinator), Matt Cohen (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 BSFB 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 Matt Cohen at matthew.cohen.4@spaceforce.mil or at (720) 847-4655 with any questions in regard to this tasking.

Matthew E. Cohen, 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>Two confirmed illicit discharges occurred in Permit Year 9 on 10 September and 4 November 2022.</p> <p>1. <u>Building 1510 AASF HEF</u></p> <p>At 0615 on 10 September 2022, B-1510 fire suppression system erroneously released 900-gal of water - high expansion foam (HEF) mixture into the hangar. The source of the release was a 900-gal tank that contains a 55-gal bladder containing HEF. The discharge lasted about 20-min. The release filled the hangar, spilled out onto the tarmac, entered the storm drain through the tarmac trench drain where it travelled to the AASF detention pond and the OWS. Fire department was notified by a pressure sensor alarm and responded by evacuating the building, shutting down the drainage system and placing spill absorbent materials around the tarmac drainage entry points. No personnel were injured. The release did not enter any surface waters of the US. The cause for the erroneous release remains unknown after the system installer investigated the system on 13 September 2022. EPA, Metro Water Recovery and the NRC were notified immediately of the release. The NRC report number is 1346941. The foam residue on the concrete and hangar surfaces was allowed to dry before being containerized. The foam that entered the Tarmac trench drains, OWS and AASF detention pond was pumped out and containerized. Cleanup operations started on 19 September and were completed by 23 September 2022. The waste was collected and disposed of off-site at a TSDF in Grover, CO (Pawnee Waste). A signed manifest of removal was received from COARNG on 29 September 2022. This removal method was communicated with the base's wastewater regulator, Metro Water Recovery. To prevent recurrence of this event, AASF leadership did not refill the foam. The AASF fire suppression</p>	<p>No</p>
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	<p>system is still operation with only the water sprinkler component.</p> <p>2. <u>Building 495 ADF-C Condenser Water</u></p> <p>On 4 November 2022 at 0530, B-495 chiller tower 3 experienced a system error that caused the release of chiller water. System erroneously changed tank capacity for sumps which caused an overflow of condensed water to be released from the top of the tower. 600-gallons of condensed water spilled onto the surrounding pavement and entered the adjacent riprap-lined swale. The water made its way about 10 feet before personnel responded with spill materials to stop the condensed water from travelling further. The damming of the condensed water inside the swale caused the condensed water to fill the swale and infiltrate into the soil. The release did not enter WOTUS but did infiltrate stormwater conveyance. EPA was notified of the spill which was an MS4 illicit discharge on 10 Nov 2022.</p> <p>A corrective action plan (CAP) was developed within 15 business days and implemented within 45 days of discovery for these illicit discharges. Neither of the confirmed discharges went off base. Both illicit discharges were communicated with EPA.</p> <p>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>	
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Installation Details					
Installation:	Buckley	Service/Command:	USSF	State:	CO 8
Sub Location:		Branch:	Midwest Branch	EPA Region:	
		ISS:	Peterson		
Spill Details					

Fiscal Year:	2022
Classification:	Reviewable
Closed Date:	10/25/2022 8:46:01
Reported to HAF?:	No
Report to HAF Determination Date:	09/12/2022
Read/Received Date:	09/12/2022
Estimated Clean-up Date:	09/23/2022
Updated in EASIER:	02/23/2023
Entered in EASIER:	09/12/2022
Spill/Release Date:	09/10/2022 6:15
Was the release cleaned up within 24 hours?:	No
Did process owner have sufficient clean-up capabilities?:	No
Class:	CLASS III: Area > 10 lineal ft in any plane dimension, or > 50 sq ft, or of a continuous nature.
Overall Root Cause:	(I) Infrastructure
Specific Root Cause:	(I2) Defective or failed equipment
Equipment/Facility Involved:	Fire Suppression System
Equipment Type:	Other (Add Description Below)
Aircraft Type	N/A
FES Incident Number	2022-345
Cause of Release	Accidental Discharge due to Faulty Procedure
Description:	

At 0615 on 10 September 2022, B-1510 fire suppression system erroneously released 900-gal of water - high expansion foam (HEF) mixture into the hangar. The source of the release was a 900-gal tank that contains a 55-gal bladder containing HEF. The discharge lasted about 20-min. The release filled the hangar, spilled out onto the tarmac, entered the storm drain through the tarmac trench drain where it travelled to the AASF detention pond and the OWS. Fire department was notified by a pressure sensor alarm and responded by evacuating the building, shutting down the drainage system and placing spill absorbent materials around the tarmac drainage entry points. No personnel were injured. The release did not enter any surface waters of the US. The cause for the erroneous release remains unknown after the system installer investigated the system on 13 September 2022. 3 chinooks and 4 black hawks were inside the tarmac and exposed to the foam.

EPA, Metro Water Recovery and the NRC were notified immediately of the release. NRC report number is 1346941. On 13 September 2022, the system installer visited the site but could not identify the reason the system erroneously discharged the water-HEF mix. Leadership decided to not refill the HEF. The AASF fire suppression system is still operational with just the water sprinkler system. A contractor was hired to clean up the HEF residue by collecting, containerizing, and disposing of the waste at a landfill. A waste manifest of removal was received on 29 September 2022

Points of Contact

Type	Name	Email	Phone
Author	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE	matthew.cohen.4@spaceforce.mil	
Additional	RODGERS, MATTHEW C CIV USSF SPOC 460 CES/CEIE	matthew.rodgers.7@spaceforce.mil	(720)-847-7245

Location Map

Latitude	Longitude
39.7044070879694	-104.762582699929



Materials

Materials Released	Qty Released	Qty Recovered	Reportable Quantity
HEF	900 Gallon(s)	0 Gallon(s)	N/A

Release Details

Question	Answer	Details
Did the release result in injury or loss of life?	No	
Did the release cause the loss of aircraft, spacecraft, or facility, or was the release caused by the loss of aircraft, spacecraft, or facility?	No	
Did the release interrupt installation mission operations?	No	
Did the release extend beyond installation boundaries at concentrations detectable visually, by odor, or in amounts expected to exceed state, federal or overseas FGS/OEBGD threshold concentrations based on environmental professional judgement?	No	
Did the release cause an estimated financial impact exceeding \$50,000?	No	
Did the release result in or is expected to result in litigation, negative publicity, or coverage by a major media outlet?	No	
Did the release reach waters of the US (or host nation) or a storm drain connected to such?	Yes	Unknown
Did the release involve 110 gallons or more of petroleum, oils, or lubricants (POL) on soil?	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 or overseas FGS/OEBGD?	No	
Did the release involve sewage AND it caused or is expected to 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 certain non-regulated emerging contaminant, similar to hazardous substances, including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and 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?	Yes	Unknown

External Communications

Question	Answer
Was the Fire Department notified?	Yes
Has the Fire Department visited the release site?	Yes
Was the NRC notified?	Yes
Has the NRC visited the release site?	No
Was an environmental regulatory agency notified?	Yes
What environmental regulatory agency was notified?	Environmental Protection Agency, Metro Water Recovery
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	NA

Attachments

File	Document Type	Description	Sent/Received	Upload Date
Jet - X HEF SDS.pdf	Supporting Document	Safety Data Sheet	09/12/2022	09/12/2022
PW 14741 - 170876.pdf	Supporting Document		09/29/2022	10/20/2022

Related Events

Event ID	Event Type	Details	Classification	Installation	Sub Location	Status	Occurred	Entered	Updated
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No Related Events have been added.

Corrective Action

Corrective Action 1

Status:	Complete
Corrective Action:	At the time of release, spill materials were applied to the tarmac storm drains to prevent HEF residue from entering the stormwater/sanitary sewer system. Contractors started cleanup operations on 19 September and completed hangar and maintenance bay cleanup by 23 September 2022. The waste was collected and disposed of off-site at a TSDF in Grover, CO (Pawnee Waste). A signed manifest of removal was received from COARNG on 29 September 2022. This removal method was communicated with the base's waste water regulator, Metro Water Recovery.
Notes:	
Air Force POC:	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
Additional POC:	

Additional Funding Required:**Est. or Act. Completion Date** 09/23/2022**Project/Work Order Title:****Project/Work Order Number:**

Notifications

To	CC	Subject	Message	Sent Date	Generated By
matthew.cohen.4@spaceforce.mil; matthew.rodgers.7@spaceforce.mil;	james.farris.3@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; verna.payne@us.af.mil; janet.houthoofd@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; shannon.gray.9.ctr@us.af.mil; breton.frazer.1@us.af.mil; lisa.powell@us.af.mil; brandon.fellner.3@us.af.mil; angelia.binder@us.af.mil; carol.gaudette@us.af.mil; harry.eisenhauer.3@usspacecom.mil; katherine.need.1@us.af.mil;	EASIER: Spill Read and Received (Buckley)	A Spill has been marked as Read and Received by FELLNER, BRANDON A GS-12 USAF AFMC AFCEE/AFCEC/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://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx? SID=3943	09/12/2022 11:30	System
james.farris.3@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; verna.payne@us.af.mil; janet.houthoofd@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;	matthew.cohen.4@spaceforce.mil; matthew.rodgers.7@spaceforce.mil; kevin.leachman@us.af.mil; katelyn.bries.1@us.af.mil; karla.meyer.1@us.af.mil; julia.mireles.1@us.af.mil; james.sato.ctr@us.af.mil;	EASIER: New Spill Submitted (Buckley)	A new Spill has been submitted in EASIER for Buckley by COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE. The Spill was classified as "Reviewable" 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: Information is still being gathered about this spill. This report will be reopened and modified as more information is learned.	09/12/2022 11:23	System

To	CC	Subject	Message	Sent Date	Generated By
curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; shannon.gray.9.ctr@us.af.mil; breton.frazer.1@us.af.mil; lisa.powell@us.af.mil; brandon.fellner.3@us.af.mil; angelia.binder@us.af.mil; carol.gaudette@us.af.mil; harry.eisenhauer.3@usspacecom.mil; katherine.need.1@us.af.mil;			View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=3943		

History

Date	Action	Description	Generated By
02/23/2023 8:58:19	Event Closed		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:58:15	Released Material Edited	HEF modified Quantity Released modified to 900 Gallon(s)	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:58:01	Event Re-opened		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:54:30	Event Closed		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:47:46	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:47:25	Event Re-opened		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:46:46	Event Closed		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/23/2023 8:46:18	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
02/21/2023 8:56:53	Event Re-opened		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
10/27/2022 4:51:41	Event Closed		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/27/2022 4:51:36	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (Complete) modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE

Date	Action	Description	Generated By
10/27/2022 4:49:29	Event Re-opened		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/25/2022 2:46:01	Event Closed		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/25/2022 2:45:52	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/25/2022 2:45:21	Event Edited	Event Coordinates Updated	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/20/2022 10:50:43	Attachment Added	Supporting Document: PW 14741 - 170876.pdf (09/29/2022)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/20/2022 10:48:19	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress) modified Status modified to Complete	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
10/20/2022 10:48:13	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress) modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:15:38	Report HAF Determination Added	Report To HAF Determination: No Not reporting to HAF	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:15:13	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:14:42	Release Details Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:14:03	Release Details Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:12:36	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:09:07	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress) modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:08:34	Corrective Action Deleted	Assigned To: COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:08:14	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 6:01:11	Attachment Added	Supporting Document: Jet - X HEF SDS.pdf (09/12/2022)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:30:56	Event Read and Received		FELLNER, BRANDON A GS-12 USAF AFMC AFCEE/AFCEC/CZOM
09/12/2022 5:23:53	Event Submitted	Information is still being gathered about this spill. This report will be reopened and modified as more information is learned.	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:23:03	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress) modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE

Date	Action	Description	Generated By
09/12/2022 5:22:38	Corrective Action Added	Assigned To: COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:21:05	Corrective Action Added	Assigned To: COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:19:16	External Communications Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:17:02	Event Edited	Classification: Reviewable	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:17:01	Release Details Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:08:52	Released Material Edited	HEF modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:08:41	Released Material Added	HEF	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 5:08:19	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 2:46:03	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 2:44:50	POC Added	Additional: RODGERS, MATTHEW C GS-13 USSF SPOC 460 CES/CEIE	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
09/12/2022 2:43:55	POC Created	Author: COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE	System
09/12/2022 2:43:54	Event Created		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE

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

Fiscal Year:	2023
Classification:	Non-Reviewable
Closed Date:	11/23/2022 14:17:21
Reported to HAF?:	
Report to HAF Determination Date:	
Read/Received Date:	
Estimated Clean-up Date:	11/04/2022
Updated in EASIER:	11/23/2022
Entered in EASIER:	11/04/2022
Spill/Release Date:	11/04/2022 5:30
Was the release cleaned up within 24 hours?:	Yes
Did process owner have sufficient clean-up capabilities?:	Yes
Class:	CLASS III: Area > 10 lineal ft in any plane dimension or > 50 sq ft, or of a continuous nature.
Overall Root Cause:	(I) Infrastructure
Specific Root Cause:	(I2) Defective or failed equipment
Equipment/Facility Involved:	Chiller Tower 3 in ADF-C
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:	

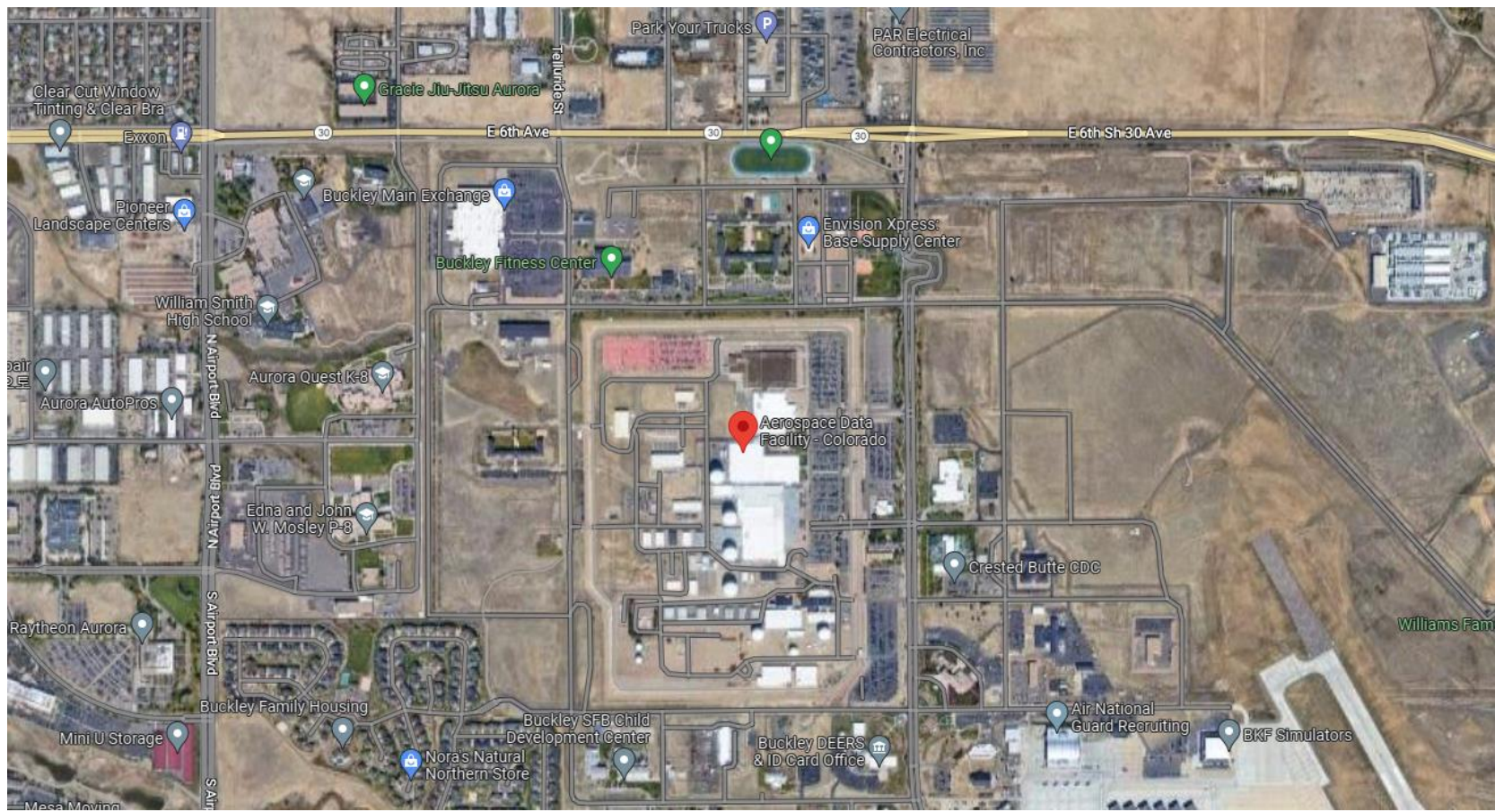
On 4 November 2022 at 0530, B-495 chiller tower 3 experienced system error that cause the release of chiller water. System erroneously changed tank capacity for sumps which caused an overflow of condensed water to be released from the top of the tower. 600-gallons of condensed water spilled onto the surrounding pavement and entered the adjacent riprap-lined swale. The water made its way about 10 feet before personnel responded with spill materials to stop the condensed water from travelling further. The damming of the condensed water inside the swale caused the condensed water to fill the swale and infiltrate into the soil. The release did not enter WOTUS, but did infiltrate stormwater conveyance. EPA was notified of the spill which was an MS4 illicit discharge on 10 Nov 2022.

Points of Contact

Type	Name	Email	Phone
Author	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE	matthew.cohen.4@spaceforce.mil	

Location Map

Latitude	Longitude
39.7200433976495	-104.778503517988



Materials

Materials Released	Qty Released	Qty Recovered	Reportable Quantity
Condenser water	600 Gallon(s)	0 Gallon(s)	N/A

Release Details

Question	Answer	Details
Did the release result in injury or loss of life?	No	
Did the release cause the loss of aircraft, spacecraft, or facility, or was the release caused by the loss of aircraft, spacecraft, or facility?	No	
Did the release interrupt installation mission operations?	No	
Did the release extend beyond installation boundaries at concentrations detectable visually, by odor, or in amounts expected to exceed state, federal or overseas FGS/OEBGD threshold concentrations based on environmental professional judgement?	No	
Did the release cause an estimated financial impact exceeding \$50,000?	No	
Did the release result in or is expected to result in litigation, negative publicity, or coverage by a major media outlet?	No	
Did the release reach waters of the US (or host nation) or a storm drain connected to such?	No	
Did the release involve 110 gallons or more of petroleum, oils, or lubricants (POL) on soil?	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 or overseas FGS/OEBGD?	No	
Did the release involve sewage AND it caused or is expected to 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 certain non-regulated emerging contaminant, similar to hazardous substances, including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and 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	

Question	Answer	Details
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
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
No Attachments have been added.				

Related Events

Event ID	Event Type	Details	Classification	Installation	Sub Location	Status	Occurred	Entered	Updated
No Related Events have been added.									

Corrective Action

Corrective Action 1									
Status:	Complete								
Corrective Action:	Spill materials will be disposed of as appropriately. Personnel are investigating the ECMS system communication error that caused the release. Investigation of condenser water overflow summary 22 Nov- 22 On 3 November at about 2355 hours, the external plant visual alarm/flashing light was observed at the ADF-C Bldg 495 chiller plant. A loss of communication occurred with the chiller plant primary								

programmable logic controller (PLC). Operators responded to stabilize the plant and bring the chillers back on line. - During the comm loss the chiller plant programming reverted to an older version. This caused the cooling tower basin fill level and high level alarm set points to each reset up six inches. - Accordingly, the automatic make-up water valve began to fill the basin levels to the higher set point, without an alarm coming through the industrial control system because the level had not yet reached the "reverted" alarm level - With basin levels approaching the 8'7" set point, the available remaining basin volume would be roughly 4,800 gallons - During the initial recovery activities the operators and EMCS team replaced the control unit DC power supply. This action allowed the controller to recover and operate the chillers to produce closed loop chilled water at set point temperatures necessary for the ADF-C operations facilities - However, the plant was still operating on the old version of the plant operations program - The cooling tower above the basin sump holds roughly 5,500 gallons of water during operations. The overflow incident occurred when the standard automated program changed over from tower to bypass flow. The approximately 5,500 gallons of tower water then drained in to the basin below, exceeding its capacity - This confirms there would have been roughly 600-700 gallons of overflow from the basin when the flow change occurred at approximately 0545 hours Short Term Corrective Actions: 1. Trouble shoot network switches for potential communication issues associated with redundancy/changeover failures. 2. Reprogram the secondary PLC to new program condition ensuring both PLCs mirror each other to the adjusted sump levels and tower discharge procedures. Long Term Corrective Action: 1. Recapitalize plant IT equipment, PLC and switches 2. Provide uninterruptible, battery backed power to the control system

Notes:

Air Force POC: C RODGERS, MATTHEW C CIV USSF SPOC 460 CES/CEIE

Additional POC:

Additional Funding Required:

Est. or Act. Completion Date 11/25/2022

Project/Work Order Title:

Project/Work Order Number:

Notifications

To	CC	Subject	Message	Sent Date	Generated By
matthew.cohen.4@spaceforce.mil;		EASIER: New Spill Submitted (Buckley)	A new Spill has been submitted in EASIER for Buckley by COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE. The Spill was classified as "non-reviewable" so it does not require review by ISS or RSB personnel. 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://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=4081	11/04/2022 10:47	System

To	CC	Subject	Message	Sent Date	Generated By
matthew.rodgers.7@spaceforce.mil;		EASIER: Corrective Action Assignment for Spill (Buckley)	<p>You have been assigned as the POC for a new Corrective Action for a Spill at Buckley by COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE. Please review your Corrective Action and continue to update it in EASIER until completion.</p> <p>Corrective Action: Spill materials will be disposed of as appropriately. Want to fix ECMS (system communication). View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=4081 Tip: If you have multiple Corrective Actions assigned to you for multiple events, you can quickly see all your corrective actions via the "My Events" page under the "Pending Corrective Actions" tab.</p>	11:30	

History

Date	Action	Description	Generated By
11/23/2022 7:18:21	Event Closed		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/23/2022 7:17:51	External Communications Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/23/2022 7:17:36	Event Re-opened		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/23/2022 7:17:21	Event Closed		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/23/2022 7:17:15	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/23/2022 7:15:09	Corrective Action Edited	CA Assigned To RODGERS, MATTHEW C GS-13 USSF SPOC 460 CES/CEIE (In Progress) modified Status modified to Complete	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:47:38	Event Submitted		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:47:29	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:46:52	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE

Date	Action	Description	Generated By
11/04/2022 4:46:27	Corrective Action Edited	CA Assigned To RODGERS, MATTHEW C GS-13 USSF SPOC 460 CES/CEIE (In Progress) modified	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:45:07	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:38:12	Event Edited		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:37:36	Event Edited	Event Coordinates Updated	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:36:16	Corrective Action Added	Assigned To: RODGERS, MATTHEW C GS-13 USSF SPOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:33:53	Event Edited	Classification: Non-Reviewable	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:33:51	External Communications Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:33:26	Release Details Questionnaire Answered		COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:32:09	Released Material Added	Condenser water	COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE
11/04/2022 4:31:20	POC Created	Author: COHEN, MATTHEW E GS-12 USSF SpOC 460 CES/CEIE	System
11/04/2022 4:31:16	Event Created		COHEN, MATTHEW E 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.
<u>IDE-4 Illegal Dumping and Non-Compliance Enforcement Procedures</u> 1. Document any illicit discharge and illegal dumping enforcement actions taken.	COMPLETED No enforcement actions (EAs) were required in Permit Year 9. In 2022, non-recyclable waste was illegally dumped at the free recycle containers on base. The wastes were solid and included large furniture, mattresses, yard wastes and wood. All waste was evaluated, removed upon discovery, and moved to a proper waste disposal roll-off container. There were no hazardous wastes or liquids dumped at the site. In response, game cameras have been 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). 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	No

	<p>Acquisition Regulations (FAR), Air Force Instruction (AFI) 51-201 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 7 December 2022 during the IDE-3 IDDE Manual Review. Of the 26 sources listed, only 9 were identified as occurring on Buckley SFB during Permit Year 9. Of those 9 occurring during Permit Year 9, 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.
<u>CON-1 Construction Project Oversight Program</u> 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).	COMPLETED 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). In Permit Year 9 the plan was updated on 22 December 2022 (rev 7). 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.	No

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 2022 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 2022 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.
<u>CON-2 Construction Project Oversight Inspections</u> 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.	COMPLETED 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 9 follows: A total of 44 inspections were conducted on 19 different permitted project sites with 2 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. 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 on pages 67-68.	No

2022 CGP TRACKING NUMBER	Project Name	Project Manager Contact	Contractor	Contact Info	Construction Status	Date Active	Co-Permittee	Co-Permittee Number	Inspection Frequency (Months)	Last Inspected	Next Scheduled Inspection (Month)	Notes
Active												
COR10F023	Repair Main Apron Access, Batch Plant, Alex Pymt	Chris Van Fleet 720-847-9100	N/A	Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903; Earl Mikula, 140th COANG Environmental	NONE	2/23/2015	NONE	NONE	5	19-Oct-22	19-Mar-23	Pending scheduling
MSP-5 COR10F087	East Toll Gate Creek	Mike Mont-Eton	N/A	Bruce Gurney, Bruce L. Gurney@usace.army.mil, 720-859-5048; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-413-7042; Daniel Lavigne, daniel@rmecinc.com, 720-470-3817; Stanley Bouse, stan.bouse@elitest.com	TERMINATED	1/21/2020	NONE	NONE	1	17-Nov-22	1-Dec-22	8/17: Per Daniel Lavigne the NOI was closed and the SWPPP responsibilities were turned over to Buckley personnel.
COR10F022	Runway 32 Extended Safety Area Grading	Chris Van Fleet 720-847-9100	N/A	Chris Van Fleet, christopher.van_fleet@us.af.mil, 720-847-9100, 303-868-2903	NONE	4/21/2014	NONE	NONE	5	3-Aug-22	3-Jan-23	Pending scheduling
COR10F05W	Blue Marlin	Mike Mont-Eton	DPR	Briana Bailey, 808-634-3404, brbaily@amazon.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-413-7042; Kyle Cotter, KyleCo@dpr.com; Brandi Venning, 303.703.6673, bvenning@amazon.com; Tanner Kent	ACTIVE	2/21/2019	460SW	MSP-5 COR10F087	3	2-Nov-22	2-Feb-23	Pending scheduling
COR10F08Q	Blue Marlin - East Sanitary Line	Mike Mont-Eton	Gray Contracting	Courtney Rapson, 502.526.7276 cfrapson@gray.com; Briana Bailey, 808-634-3404, brbaily@amazon.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-413-7042; Tanner Kent, tkent@amazon.com	ACTIVE	2/21/2019	460SW	MSP-5 COR10F087	5	22-Sep-22	22-Feb-23	Pending scheduling
COR10F052	Tetra CSP 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@tsdgo.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-413-7042; Julio Maldonado, 970-471-6987	ACTIVE	8/23/2019	460SW	MSP-5 COR10F087	5	30-Aug-22	30-Jan-23	Pending scheduling/2 spots still require re-vegetation
Not Available	AASF UH60 Hangar Project	CPT Bailey Bullock	Iron Mike Construction	j.maldonado@ironmikeconstruction.com; Mike Yaggi, President, Iron Mike Construction, (303) 407-8690, myaggi@ironmikeconstruction.com; CPT Bailey Bullock bailey.d.bullock.mil@army.mil, USARMY NG COARNG; Steer, Teresa D NFG NG COARNG, teresa.d.steer.nfg@army.mil	RENEWAL APPROVED	9/3/2020	Iron Mike Construction	COR10F07P	5	8-Nov-22	11-Apr-23	Rescheduled to 8-Nov-22 due to construction contractor calling-out sick; Contractor response pending to report sent 10-Nov-22; Follow-up on 23-Nov-22
COR10F086	COARNG BAFB Drainage Site Improvements	Domenick Scarimbolo	Happel Builders	Brad Silk bsilk@happelbuilders.com; Teresa Steer, DMVA, COARNG; Robert Edmondson, Happel Builders; domenick.j.scarimbolo.nfg@army.mil	ACTIVE	1/25/2021	Happel Builders	COR10F024	5	10-Nov-22	1-Apr-23	Monthly inspection of the BSFB Enclave Drainage project until permit is ready for closeout - currently awaiting final stabilization. Contractor response pending for Sept and Nov 2022 inspection reports; Followed-up with Brad Silk again on 28-Nov-22.
COR10F06I	Repair and Replace Fire Hydrants	Alexandra Sines	HHI Corporation	Alexandra Sines, (719) 650-3776, asines@hhicorp.com; Jon Gard	ACTIVE	4/6/2021	460SW	MSP-5 COR10F087	5	3-Aug-22	3-Feb-23	Pending scheduling for Feb 2023
COR10F06D	Convert B1553 to VCC	Jeff Cochran, Michael Hammond	Bristol General Contractors LLC	Mike Thacker, mthacker@bristol-companies.com; Jeff Hubbard, jhubbard@bristol-companies.com; Darren Fike, dfike@bristol-companies.com; (408) 210-0030; Vicente "Vic" Rebugio (quality control manager), (720) 453-7100; cell: (202) 204-6373	ACTIVE	4/14/2021	460SW	MSP-5 COR10F087	5	7-Sep-22	7-Feb-23	Construction complete/Awaiting final stabilization/Complete contractor response wasn't received from 7-Sept 22 inspection.

COR10F07D	Buckley SFB SW Ponds Repair	Mike Mont-Eton, Jon Gard	Kodiak Development Group	Vern Rowe, Superintendent, vrowe@olgoonik.com; Shannon Steiner, SWPPP Admin and Inspector, shannon@kodiakdevelopmentgroup.com, cell: (719) 201-0003; Kelsey Larsen, SWPPP Asst Admin, kelsey@kodiakdevelopmentgroup.com; Tom Kjoson, Project Manager, tkjoson@olgoonik.com; Mike Mont-Eton, michael.mont-eton.1@spaceforce.mil, 847-1056, cell: 303-419-7042; Charles Smith, charles.smith.101@spaceforce.mil, 720-847-6377; CONTRACTING OFFICER: Jenny Meadlin, jenny.meadlin@spaceforce.mil, 720-847-6674; Jessica Campos (jessicacampos@tribal.one), Project Manager, 956-367-1519; Ethan Bombardier, ethanbombardier@tribal.one, Project Engineer, 719-821-8274; Aarabhi Varathan, Project Coordinator, aarabhiavarathan@tribal.one	ACTIVE	3/19/2022	460 SW	MSP-5 COR10F087	4	8/3/2022; See Notes	3-Dec-22	Multiple project locations; Pending scheduling/Chapen w/ Pre-con inspection - 24 March 2022; BX Pond last inspected 19-Sept-22
COR10F07W	Buckley B1005 Stormwater Channel	Mike Mont-Eton, Jon Gard	T1 Construction, LLC	Project Manager, 956-367-1519; Ethan Bombardier, ethanbombardier@tribal.one, Project Engineer, 719-821-8274; Aarabhi Varathan, Project Coordinator, aarabhiavarathan@tribal.one	ACTIVE	4/11/2022	460 SW	MSP-5 COR10F087	1	26-Oct-22	22-Nov-22	Project to be inspected monthly.
COR10F08G	Buckley SFB Underground Water Utility Replacement	Erik Leis, Michael Pool	QP Services	Larry Kammerlohn, lkammerlohn@trwromancon.com, 720-253-6251; Michael Pool, Project Manager Flour, michael.s.pool@ilugov.com	ACTIVE	12/1/2022	ADF-C	NONE	1	16-Nov-22	15-Dec-22	Phase 1 is scheduled to conclude at the end of Dec-22 and Phase 2 at the end of Feb-23; Meeting invite pending. Contractor response received on 23-Nov-22.
COR10F07H	RECAP-3	Mark Wika	MCDean	Eric Fuqua@MCDEAN.COM; Project Manager, MCDEAN; Bill Patterson (william.a.patterson@usace.army.mil), Construction Management Specialist, USACE; Mark Wika (Mark.D.Wika@usace.army.mil), Senior Construction Representative, USACE; Caracillo, Joseph M CIV USARMY CEHQ (USA) <Joseph.M.Caracillo@usace.army.mil>; LeMessurier, Philip Allen (Allen) CTR USARMY CEHQ (USA) Philip.A.Lemessurier@usace.army.mil; Scott Calahan, Scott.Calahan@MCDEAN.COM; Duane Bartley, Duane.Bartley@MCDEAN.COM; Kaiwanta Ortiz, Safety Manager, MCDEAN, (720) 234-7456	ACTIVE	8/1/2022	USACE	NONE	1	27-Oct-22	30-Nov-22	23 August 2022: Eric Fuqua of McDean requested a monthly inspection schedule;
COR10F087	Multiple Small Projects - 5	Matt Cohen	N/A	(720) 847-4655	NONE	5/31/2022	Multiple Contractors	NONE	Project Dependent	N/A	N/A	
COR10F08R	BLUE MARLIN APA Force Main Upgrade	Caroline Bonin	Whiting-Turner	Matt Nolan (matt.nolan@whiting-turner.com, Superintendent; Caroline Bonin (caroline.bonin@whiting-turner.com), Project Engineer; Andy Lindberg, Project Engineer, AWS, elindbe@amazon.com; Jon Gard, Construction Manager 460 CES/CENM, jonathan.gard@spaceforce.mil; Mike Mont-Eton, Project Manager 460 CES/CENM, michael.mont-eton.1@spaceforce.mil	ACTIVE	Late August 2022	460 CES/CEIE	PENDING	4	20-Oct-22	8-Dec-22	
COR10F08I	CRWU 16-1021 ADD/ALTER Sewer Main B606	Eric Mayer	ESI	Eric Mayer (eric.mayer@eltes.com), Project Manager, Stan Bouse (stan.bouse@eltes.com), Site Supervisor, Elite Surface Infrastructure, 720-626-4116; Jack Swearingen (Jack.swearingen@eltes.com); Steven Shannon, sshannon@skybluebuilders.com; (303) 656-6001	ACTIVE	Aug-22	NONE	NONE	4	26-Oct-22	23-Feb-23	Construction is completed/Awaiting final stabilization (Oct 2022)
PENDING	CRWU 16-1002 Demolish Supply Warehouse B340	Jon Gard	Orion Services	Emily H., Orion Services, emilyh@orionsvos.com; Josh Rogers, josh@gopromark.com	ACTIVE	22-Sep	NONE	NONE	1	Missed	Dec-22	Site is awaiting final stabilization; Issuance of CGP NDI is pending (23-Nov-22)

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. Tollgate 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 once annually, and all sites must be inspected prior to construction start/master permit construction 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:

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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-3 Construction Site Stormwater Training</u> 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 in-person on 22 March 2022 with 18 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 Power Point slides). Roster can be found on page 71.	No

Stormwater Compliance Training for Construction Activities at Buckley SFB				
Instructors: Paul Mehaffey (OTIE) & Matt Cohen (SRS)				
22-Mar-22				
Name	Email	Phone #	Company	First time attending? (Y/N)
Aarabhi Varathan	aarabhi.varathan@tribal.one	454-643-2177	Tribal One Construction	Y
Jessica Camps	jessicacamps@tribal.one	(956)367-1519	Tribal One Construction	Y
Susan Adams	susanadams@tribal.one	303-746-4387	Tribal One Construction	Y
Kyle Derrick	kylederrick@tribal.one	405-962-8982	Tribal One Construction	N
ETHAN BOMBARDIER	ETHAN.BOMBARDIER@TRIBAL.ONE	719-861-8274	TRIBAL ONE	Y
McKenna Johnston	mjohnston@dawsoniana.com	719-494-4285	DAWSON	N
Kelly Beck			OTIE	Y
Beth Seppala	bseppala@nsscgroup.com	303-717-7902	SRS	N
Bill Patterson	William.A.Patterson@usace.army.mil	301-602-3729	USACE/Martinez	Y
Ervin Czechan	ervin.czechan@US.AF.MIL	x678D	USAF 460 CES/CEOHP	Y
Sylvia Tardif	sylvia.tardif@US.af.mil	6780	CEOHP	N
JACOB STANLEY	JACOB.STANLEY@SPACEBIL.MIL	6780	CEOHP	N
Teresa D. Steele	Teresa.D.Steele@nsscgroup.com	720-260-1986	CCMO	N
Joshua Howard	Jhoward1@olgoonik.com	719-209-7221	Olgoonik	Y
TRAE RUSSELL	TRAE.RUSSELL@GMAIL.COM	303-450-0611	OLGOONIK	Y
Andrew Holey	AHoley@olgoonik.com	720-232-6241	Olgoonik	N
Scott Calahan	Scott.Calahan@mcdean.com		MC DEAN	Y
Steve Falls	Ralph.Falls@us.af.mil	720-247-6780	CEOHP	N

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:

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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-4 Design Review and Construction Site BMP Information</u> 1. Maintain existing review process for design and construction projects planned for Buckley SFB.	COMPLETED Existing design review processes/practices are being followed. Project plans/specs/reports are emailed to make the documents available for review. A tracking spreadsheet is distributed weekly 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 2022 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 70 project design reviews for 18 projects that required stormwater comments in 2022.	No
2. Maintain existing process for identifying construction site BMPs and providing such information to project construction contractors (Year 2-5).	COMPLETED	No

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.
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).	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 4 of the 6 (67%) new construction projects in Permit Year 9. The project preconstruction meeting dates are as follows: <ol style="list-style-type: none"> 1. 1-February-2022 (Recap-3 project) 2. 7-April-2022 (Buckley Building 1005 Stormwater Channel project) 3. 19-September-2022 (Buckley Stormwater Ponds Repair project) 4. 21-September-2022 (Blue Marlin APA Force Main Upgrade project) 5. Add/Alter Sewer Main Building 606. 1 August 2022 preconstruction meeting was missed. Project first inspected 29-September-2022. 6. Demolish Supply Warehouse Building 940. 23-September-2022 preconstruction meeting was missed. Project first inspected 1-November-2022. 	No

Construction Site Stormwater Runoff Control (continued)

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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 9 is maintained in 460 CES Environmental Office files. A total of 8 SWPPP reviews were conducted for 8 new projects requiring the Plan 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.
<u>PC-1 Post-Construction Stormwater Management Process</u> 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).	COMPLETED In Permit Year 9, there were 2 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.	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.
<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 9, 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><u>PC-3 Inventory Visual Inspection, and Maintenance of Post-Construction Controls</u></p> <ol style="list-style-type: none"> 1. Conduct annual review of the post-construction stormwater controls inventory/map and make required updates (Years 2–5). 	<p>COMPLETED</p> <p>In Permit Year 9, the permanent post-construction stormwater controls were inspected and the report submitted on 30 December 2022. The inspection report contained recommendations for work orders. There were three (3) new permanent post-construction stormwater controls completed and accepted by Buckley in 2022. These controls include the COARNG Raingardens, the AWS pond and the SBIRS pond. A sample of the improved Buckley SFB stormwater maintenance tracking sheet is shown on page 80.</p>	<p>Yes. As required corrective action in response to EPA’s October 2022 NPDES MS4 Stormwater, Phase II Audit, Buckley SFB has consolidated its maintenance tracking document. This maintenance tracking system has been improved by consolidating all stormwater infrastructure items (e.g., outfalls, permanent BMP structures etc.) into a single document for ease of reference where annual, quarterly, and random stormwater inspection frequencies are recorded. This consolidated system should prove more capable of tracking and expeditiously executing stormwater maintenance issues as they are discovered. As findings are identified, 460 CES/CEIE will update the tracking document with work order tracking numbers and statuses.</p>

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.
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).	COMPLETED 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.	No

CEIE Stormwater Permanent BMP WO Tracking					
Location of Issue	Date Inspected (Type of inspection)	Issue Description	Work Order Status	Funding Mechanism	Work Task Number (Date submitted)
Detention Basin Recommended Repairs					
Permanent BMP: 1MW Pond					
East inlet	12/20/2022 (annual inspection)	Moderate amount of sediment observed.	WO Needed	Repair - TRIRIGA	Opportunity: 1134324 (1/12/2023)
Inlet channel and within rip rap	12/20/2022 (annual inspection)	Moderate amount of sediment observed.	WO Needed	Repair - TRIRIGA	Opportunity: 1134324 (1/12/2023)
Permanent BMP: AASF Pond					
Just to the NW of the SE inlet	1/24/2023 (2023 Q1 inspection)	Minor erosion was observed just to the west of the riprap pad present; repair is recommended before further damage occurs.	WO Needed	Repair - TRIRIGA	Opportunity: 1134324 (1/12/2023)
Channel between B-1025 and B-1054	1/24/2023 (2023 Q1 inspection)	Bank erosion observed.	WO Needed	Repair - TRIRIGA	Opportunity: 1134324 (1/12/2023)
Just to the North of the south-central inlet.	1/24/2023 (2023 Q1 inspection)	Weeds are growing within the forebay.	WO Needed	Repair - TRIRIGA	Opportunity: 1134324 (1/12/2023)
Permanent BMP: ADF Pond					
East inlet of pond adjacent to Telluride St.	1/24/2023 (2023 Q1 inspection)	Rill formed from street at east inlet on the Southeast corner of ADF pond.	WO Needed	Repair - TRIRIGA	Opportunity: 1133914 (12/12/2022)

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-4 Visual Inspection of New Post-Construction Stormwater Controls</u> 1. Document inspections of all newly installed post-construction stormwater control measures prior to closing out contracts (Years 2–5).	COMPLETED In Permit Year 9, there were three new permanent post- construction stormwater control completed the COARNG Raingardens, the AWS pond and the – the SBIRS pond. 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.	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.
<u>PC-5 Natural Resource Management Plan Update</u> 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)	COMPLETED In Permit Year 9, the Integrated Natural Resource Management Plan (INRMP) was reviewed and comments were provided to 460th CES/CEIE 4 March 2022. 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).	No

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:

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

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:

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>P2-1 Conduct Annual Stormwater Training for All Fleet Maintenance and Civil Engineer Shops</u></p> <p>1. Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date.</p>	<p>COMPLETED</p> <p>For Permit Year 9, 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 49 Buckley SFB personnel on 11 November 2022.</p> <p>The handout can be found on page 85.</p>	<p>Yes. As required corrective action in response to EPA's October 2022 NPDES MS4 Stormwater, Phase II Audit, Buckley SFB will organize a permit year 10 classroom training opportunity for leadership personnel from 460 CES/CEO (Operations Flight), 460 LRS (Logistics Readiness Squadron) fleet maintenance, 140 CES Operations Flight, 140 LRS fleet maintenance, Colorado Army National Guard (COARNG), Marines, Navy and Aerospace Data Facility of Colorado (ADF-C). This training will be recorded and train leadership personnel in stormwater runoff impacts, controls, and maintenance of onsite pollution control measures related to specific fleet maintenance operations while also preparing leadership personnel for providing their own subsequent classroom training opportunities related to the aforementioned. Attendance rosters are being tracked and subsequent shop-level stormwater training attendance rosters provided by shop leadership personnel will be tracked as well and reported in all future MS4 annual reports.</p>

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 or 720-847-4655

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>P2-2 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>Snow and ice control training session was conducted by 460 CES/CEO on 20 September 2022 for 20 personnel. The roster of attendees can be found on page 88 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)

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 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.
<u>P2-3 Street Sweeping</u> 1. Accomplish an average of 20 hours of street sweeping per month.	COMPLETED The 460 CES/CEOHP shop reported an average of 20 hours of street sweeping per month in Permit Year 9. 140 CES/CE COANG completed 366 hours of street sweeping or an average of 30.5 hours of street sweeping per month in Permit Year 9.	Yes. As required corrective action in response to EPA's October 2022 NPDES MS4 Stormwater, Phase II Audit, 460 CES/CEIE met and confirmed with 460 CES/CEO that 20 hours per month average of street sweeping will continue to be the prescribed rate. 140 CES/Colorado Air National Guard (COANG) street sweeping schedule was not reported in previous permit years but is reported in this year's annual report and will be reported in all future MS4 annual reports.
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 9 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 Control Training 2022	
Rank	Name
TSgt	Czechan
SrA	Goldsmith
A1C	Muns
SrA	Thomas
SrA	Ripley
SSgt	Taylor
SrA	Silla
A1C	Raines
SrA	Brady
SrA	Brew
SrA	Bynum
AMN	Cruz
Tsgt	Rundell
AMN	Daletari
SrA	Lockhart
Tsgt	John Wall
Tsgt	Smith C.
SrA	Mara
SrA	Schnedler
Tsgt	Rojas

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>P2-4 Storm Drain Inlet Inspection and Maintenance Schedule</u></p> <p>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>	<p>PARTIALLY COMPLETED</p> <p>The inspection schedule was established to meet the 5% per quarter goal and a minimum of 34 culverts/inlets to be inspected monthly. The 460 CES/CEOHP, and 460 CES/CEIE completed only 100 inlet inspections in permit year 9 due to a staff shortage. These inspections will resume as a joint effort between 460 CES/CEO and 460 CES/CEIE to ensure these inspections continue at the prescribed inspection rate of 5% of storm drain features per quarter for a minimum of 34 culverts/inlets each month. In an effort to meet our 100% inspection per every 5 years goal early, inspections have resumed, a new progress tracking sheet has been implemented and the prescribed monthly rate will be exceeded as weather and personnel numbers permit. A section of this tracking spreadsheet is shown below on page 90.</p>	<p>Yes. As required corrective action in response to EPA's October 2022 NPDES MS4 Stormwater, Phase II Audit, 460 CES/CEO and 460 CES/CEIE will ensure these inspections continue at the prescribed inspection rate of 5% of storm drain features per quarter for a minimum of 34 culverts/inlets each month. To meet our 100% inspection per every 5 years goal early, inspections have resumed, a new progress tracking sheet has been implemented and the prescribed monthly rate will be exceeded as weather and personnel numbers permit. Buckley SFB will report its completion rate progress in all future MS4 annual reports.</p>

P2-4 Storm Drain Inlet Inspection and Maintenance Tracker					
<u>Date</u>	<u>Inspector</u>	<u>Culvert/Manhole/Inlet</u>	<u>Noted on Map?</u> <u>Y/N</u>	<u>WO Needed?</u> <u>Y/N</u>	<u>Notes</u>
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25
6/30/2022	Oscar H.	Inlet	Y	N	Page 4/25

2. Develop a maintenance schedule based on inspection results. Perform an annual evaluation of the schedule and document the evaluation (Year 2-5).	COMPLETED 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.	No
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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.
<u>P2-5 Vehicle Washing Limitation</u> 1. Maintain copy of current policy.	COMPLETED 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.	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:

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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.
<u>P2-6 Post-Construction Stormwater Control Measure Maintenance</u> 1. Document post-construction stormwater control maintenance requirements during annual post-construction stormwater control inspection.	COMPLETED The existing post-construction BMP annual inspection was conducted and submitted on 30 December 2022. The inspection report included documentation of maintenance recommendations on each BMP. The report is maintained in 460 CES Environmental Office files. 13 new detention basin and 8 new vegetated swale recommended repairs were identified during the inspection.	No
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.	COMPLETED 12 new Work Orders resulting from Permit Year 8 inspections were programmed and funded during Permit Year 9. Issues noted during Permit Year 9 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.	No

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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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 Consolidate Wash Rack Evaluation</u></p> <p>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>	<p>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. However, programming this project has been and continues to remain a lower priority than competing projects. A Work Order was drafted and submitted to the Buckley SFB programming office on 24 February 2023. The 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
MS4 NPDES Permit No. COR042003	Michael Boeglin (U.S. EPA Region 8 NPDES and Wetland Enforcement Section Supervisor) and Michael Prescott (EPA Contractor) conducted a NPDES MS4 Stormwater, Phase II Audit at Buckley SFB on 25-27 October 2022 under the authority of Section 308 of the Clean Water Act. The audit resulted in five (5) findings requiring corrective actions and was received by Buckley SFB on 25 January 2023. Buckley SFB reviewed the audit report and responded to EPA with corrective actions on 24 February 2023. There were no enforcement actions associated with this audit.

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 10.

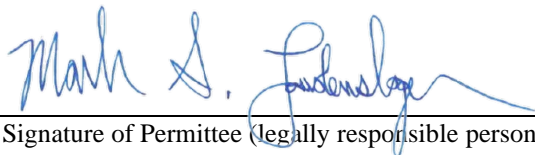
H. Notice of Program Element Operation by a Second Party.

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."



30 March 2023

Signature of Permittee (legally responsible person) **

Date Signed

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).