



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917

<http://www.epa.gov/region8/stormwater>

STORMWATER ANNUAL REPORT FORM

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

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

Completed forms should be mailed to:

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

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

Please print or type.

A. Permittee Information

Permittee (Agency Name):

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, 2020 – December 31, 2020

C. Construction Program Contact:

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

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

If Yes:

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

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

D. Implementation of EPA's Stormwater Management Program

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

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

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

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

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PEO-1 Household Hazardous Waste and Stormwater Awareness</u></p> <p>1. Provide stormwater awareness at least twice per year during Newcomers Orientation (Right Start).</p>	<p>COMPLETED</p> <p>In Permit Year 7 environmental awareness materials and information were provided by 460 CES/CEIE Environmental Element staff 2 times (on the third Wednesday of every month: 15 January, and 19 February of 2020). Due to COVID-19 and the health orders instated by the Air Force no additional meetings were held. Materials were provided in person. 460 CES/CEIE staff set up a display table with copies of the environmental awareness information provided for attendees to take. Copies of the environmental materials, slides and information provided are presented on the following pages.</p>	<p>No</p>

<p>2. Provide environmental protection awareness materials to new housing residents, including household hazardous waste.</p>	<p>COMPLETED Copies of the environmental protection awareness materials were provided by 460 CES/CEIE Environmental Element staff 2 times (on the third Wednesday of every month: 15 January, and 19 February of 2020) during the newcomers orientation. Copies of the environmental awareness materials and information provided are presented on the following pages.</p>	<p>No</p>
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460th Space Wing

Environmental Management

Mr. Matt Christensen
EMS/Solid Waste/Hazmat
460 CES/CEIE

UNCLASSIFIED

Environmental Management System

- Environmental Management System (EMS) is the overall umbrella of the environmental programs (Recycling, Hazmat/Hazwaste, Water, Air Emissions Natural Resources, etc.)
- Buckley AFB Environmental Policy
 - Maintain Partnership with Local Community
 - Meet Aggressive Goals for Improvement
 - Embrace Pollution Prevention
 - Ensure Continuous Education
 - Sustaining Compliance
 - Exceeding Expectations

UNCLASSIFIED

Recycling

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

UNCLASSIFIED

Alternate Single-Stream Recycling Collection Point

UNCLASSIFIED

Recycling Turn-in

Scrap Metal Recycling Receiving Yard, a.k.a. North Yard
(Open Thursday from 1300-1500hrs or call Mr. Matt Christensen at ext. 4288 for location appointment)

Recycle energy storage, metal parts and steel at the North Yard.

UNCLASSIFIED

Hazwaste Turn-in

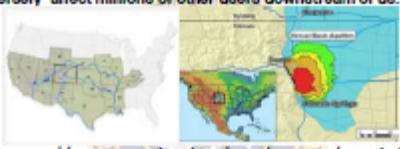
- Environmental holds hazardous waste/universal waste turn-in every Thursday @1300 or by appointment (Bldg 1025)

-Carbide	-Petroleum Oils, Lubricants (POLs)
-Glycerine	-Flammable Liquids
-Acetone	-Composites
-PAVE	-Solvents
-Spent Solvents	-Misc. Chemicals

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Water

- Colorado is a headwaters state and there are large aquifers under Buckley AFB/Denver Metro area – our actions can adversely affect millions of other users downstream of us.



- Do your part to ensure only rainwater enters our storm drains as they flow directly, essentially untreated, to our streams, lakes and other waterways.
- If you do have a spill that has a chance of encountering stormwater, please call the Buckley Fire Department at (720) 847-9117 to clean-up the spill.

UNCLASSIFIED

Natural Resources


- Buckley AFB is home to the Meadowlark, Golden Eagle, Bald Eagle, Burrowing Owl, Red Tail Hawk



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What Exists at Buckley AFB?


- 39 Archaeological Sites
 - Prehistoric temporary Native American camp sites
- 26 Isolated Finds (artifacts)
- 12 Historic Buildings
 - Hangars 801 and 909; Buildings 431, 433, 630, and 814
 - Radomes 402, 403, 404, 405, 432, and 434
- Do not disturb an artifact or the location where you found it
 - Report any artifact findings to the 460th Civil Engineer Squadron-Environmental Flight at 847-0032



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Air Emissions

- Clean Air Act Section 118 (d) requires privately owned or leased vehicles operated by Federal employees on Federal Facilities for 60 or more days per calendar year, **regardless of where your vehicle is registered**, to be in compliance with the emissions standards for the vehicle inspection and maintenance (I/M) program area where the facility is located and Federal Facilities must document compliance
- "Employee Vehicle Certification & Reporting System" (ECARS) is the Air Force's web-based self-certification process used to document compliance
- Buckley/Denver require emissions testing
- System generated email will be sent



The commander must ensure Federal employees provide proof of compliance

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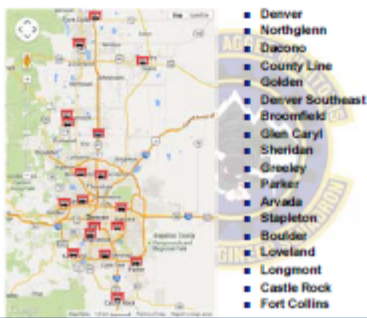
Air Emissions

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

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

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Emissions Testing Stations



- Denver
- Northglenn
- Dacono
- County Line
- Golden
- Denver Southeast
- Broomfield
- Glen Caryl
- Sheridan
- Greeley
- Parker
- Arvada
- Stapleton
- Boulder
- Lowland
- Longmont
- Castle Rock
- Fort Collins

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General Information

- CDPHE Website: <http://www.colorado.gov/cs/Satellite/CDPHE-APICRON/1251594435173>
- Air Car Colorado Emission Testing Locations and Test Times: <http://aircar.colorado.gov/locations-times-and-more/>
- Buckley AFB IM Program Manager
Jeffrey Harrison
460 CES/CEIE
660 S. Aspen Street, MS 86
720-847-9032
460CES_CEIE@us.af.mil or
jeffrey.harrison.6@us.af.mil

UNCLASSIFIED



DEPARTMENT OF THE AIR FORCE
UNITED STATES SPACE FORCE
460TH SPACE WING


FEB 25 2020

MEMORANDUM FOR DISTRIBUTION A, B, C, AND D

FROM: 460 SW/CC

SUBJECT: Buckley AFB Environmental Policy and Commitment Statement

1. Whether directly or indirectly, every activity conducted on Buckley AFB impacts the environment as well as national security. In accordance with AFI 32-7001 *Environmental Management Systems (EMS)*, Buckley AFB 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 AFB 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 AFB community in accordance with his or her roles and responsibilities in all daily operations.
4. Please direct any questions to Mr. Matthew Christensen, Buckley AFB EMS Coordinator, at (720) 847-9268 or matthew.christensen.11@us.af.mil.


DEVIN R. PEPPER, Colonel, USAF
Commander

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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<p><u><i>PEO-2 Hazardous Waste or Stormwater Management Related Article</i></u></p> <p>1. Publish one hazardous waste or stormwater management article on the Buckley AFB website that discusses hazardous waste management and/or stormwater discharge impacts that may include options for disposing of household hazardous waste, pollution prevention, or other related information.</p>	<p>COMPLETED</p> <p>An article on stormwater was distributed via the Buckley AFB Facebook webpage and the BAFB Environmental Page on 11 December 2020.</p> <p>A copy of the informational article is presented on the following page.</p>	<p>No</p>

WHEN IT RAINS, IT DRAINS. AND IT HAS TO GO SOMEWHERE

Water from inside our homes goes to a wastewater facility for purification. But water from roofs, streets, and outdoor spigots goes untreated directly into storm drains – straight to our waterways – picking up all kinds of contaminants along the way!

Excess nutrients, specifically nitrogen and phosphorus, pollute stormwater run-off from urban areas, contributing to the third greatest cause of lake deterioration in the US.

DID YOU KNOW Leaf "litter" and landscape trash accounts for 56% of phosphorus in urban stormwater, not to mention clogging storm drains, causing potential flooding and increasing debris in our waterways.

DID YOU KNOW The amount of phosphorus to grass clippings from mowing your lawn just once can produce up to 500 lbs. of unwanted algae if it ends up in our lakes and ponds.

DID YOU KNOW Just one pound of fertilizer over-application on the average lawn can equate to 34.2 lbs. of excess algae growth in streams and lakes.

DID YOU KNOW When you wash your car in the driveway, you're washing about 120 gallons of prime-filled water downstream. The soap, together with the dirt, grease and grime flows untreated into nearby storm drains, which runs directly into lakes and streams.

DID YOU KNOW If dog owners don't clean up after their pooches, 390 million pounds of poop can wash into our waterways every year just in Colorado! Dog waste contains 8% phosphates and 2% nitrates, contributing to algae growth.

WHY IT MATTERS

Too many nutrients in streams and lakes cause rapid growth of algae.

Algae looks bad, smells bad, degrades water quality and can be harmful to your health.

As algae decays, it uses up oxygen in the water, leading to a decline in our drinking water quality – and makes it more expensive to treat.

WHAT YOU CAN DO

Dispose Properly

- Compost or bag your leaves and lawn clippings
- Don't blow leaves or lawn clippings into the street
- Sweep up any spills or overspray of fertilizers on sidewalks or streets

Fertilize Efficiently

- Always follow the manufacturer's application recommendations. More isn't better!
- Fertilizing in the early fall promotes healthy root systems – leading to stronger, more resilient lawns and plants

Be Car Smart

- Use a commercial car wash, where water is recycled and sent to treatment facilities
- Wash your car on the lawn or gravel
- Dump your soapy bucket in the sink

Pick It Up & Pitch It

- Clean up dog waste and dispose properly

CSC
COLORADO STORMWATER COUNCIL

For more information and tips to preserve our natural spaces, visit colorado-stormwater-council.org

Public Education and Outreach on Stormwater Impacts (continued)

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<u>PEO-3 Sediment And Erosion Awareness Training for Industrial Stormwater Personnel</u> 1. Provide training at least once per year and maintain attendance record.	COMPLETED Annual Industrial Stormwater Permit training session was held virtually via email with attached slides and voting button response for attendance recording on 17 November 2020; 8 personnel responded that they had reviewed the slides. The session included sediment and erosion awareness information. Slide presentation and roster are shown below.	No



Annual Stormwater Compliance Training at Buckley Garrison

17 November 2020

Kimberly Bowman

Kimberly.bowman.5@spaceforce.mil

720-847-4655



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

Outdoors: Good Practices

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



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



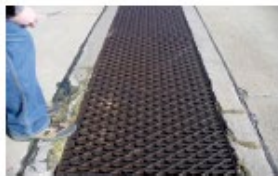
Vehicle/Equipment Maintenance: Washing

- ▶ Vehicle washing runoff is laden with pollutants
- ▶ Dirt, oils, and soap are discharged to the environment
- ▶ At Buckley AFB, 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)



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 Garrison has two EPA Stormwater Permits

- ▶ Buckley Multi-Sector General Permit (MSGP) governs industrial discharges for Sector 5 - Air Transportation
- ▶ Buckley Municipal Separate Storm Sewer System (MS4) covers discharges permitted in stormwater within the base boundary (except Hunt housing)



MSGP Regulated Industrial Activities at Buckley AFB

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

Facility Name	Brief Facility Description	Industrial Activity	Potential Pollutant Source
Consolidated Fuel Facility	All fuel operations at Buckley AFB are located at Building 056. This is the primary storage facility for Consolidated Fuel. Jet fuel used on the installation.	Aircraft fueling support and aircraft debiting. Fuel, Jet fuel, leading equipment, aircraft debiting fuel storage	Fuel, Jet fuel, leading equipment, aircraft debiting fuel storage
Web Ramp, Building 601	Operations at these buildings and areas include routine aircraft maintenance. Flight line maintenance, maintenance of aerospace ground equipment (AGE) equipment, minor aircraft maintenance, aircraft refueling, AGE equipment maintenance, and aircraft debiting. Certain aircraft parking areas, and buildings are defined as Building 601 rather than as the Base 600 (B60).	Aircraft maintenance, maintenance support, aircraft debiting, refueling operations and aircraft debiting	Steel fuel, Jet fuel, leading equipment, aircraft debiting fuel and aircraft debiting chemicals
Building 141 Vehicle Maintenance Facility and Building 141 Vehicle Fueling	Ground vehicle maintenance, fueling, vehicle maintenance and washing are accomplished at Building 141. The government vehicle fueling station is located at this facility and includes diesel and gasoline storage tanks with associated dispensing equipment.	Ground vehicle maintenance, ground vehicle fueling, and vehicle storage, vehicle washing	Used oil, motor oil, transmission fluid, hydraulic oil, antifreeze, lubricants, used air filters, compressed gas cylinders, leaks from vehicles, wash water
AAP Terminal	The AAP Terminal supports long hangar operations supporting the Buckley AFB. Hangars are painted, refueled and washed on the terminal. Mobile locations with secondary maintenance structures.	Aircraft maintenance, aircraft debiting	Steel fuel, Jet fuel, leading equipment, wash water
Base Debiting Fuel	The Base Debiting Fuel is the primary aircraft debiting location for Buckley AFB.	Aircraft debiting	Aircraft debiting fuel, leaks from equipment



MSGP Regulated Industrial Activities at Buckley AFB

Facility Name	Brief Facility Description	Industrial Activity	Potential Pollutant Source
North Yard	The North Yard serves as an auxiliary storage location for untreated water, storm, debris, waste, metal and other items generated on Buckley AFB, including aircraft support activities.	Debris storage of materials	Sediment, used oil, spray metal, antifreeze
Building 614, 142 WIG (2242) Aerospace Council Equipment Maintenance and Storage Facility	Operations at Building 614 include maintenance and storage of various pieces of AGE support equipment.	Equipment maintenance, storage and washing	Leaks from equipment
Building 630, 142 WIG (2242) OMA Engineering Equipment and Storage Yard	Aircraft support equipment including sensors, water active control equipment, and chemicals are stored at this facility.	Debris storage of equipment	Leaks from equipment, aircraft debiting chemicals
Building 1021 Hazardous Waste Management	Building 1021 Hazardous Waste Management serves as the central accumulation point (CAP) for hazardous waste generated on Buckley AFB, including aircraft support activities.	Hazardous waste storage, including auxiliary storage of materials	Hazardous Waste, Unlabeled Waste



MSGP Regulated Industrial Activities at Buckley AFB

- Facility inspections at least monthly during the deicing season (include all months during which deicing chemicals are used).
- Quarterly industrial facility inspections:
 - identify operational changes and issues of non-compliance
 - assess effectiveness of existing stormwater controls
 - identify maintenance requirements for existing stormwater controls
- If a control measure is found to be in need of maintenance, repair or replacement, POC will be issued a control:
 - maintenance action item
 - or corrective action item



MS4 Permit

- Buckley Garrison holds an EPA Municipal Separate Storm Sewer System (MS4) Permit.
- Buckley Garrison must prohibit all types of non-stormwater discharges within its boundary, except for allowable non-stormwater discharges described in Part 1.3.2, and on the next two slides for reference.



- The following sources of non-stormwater discharges are allowable per Part 1.3.2:
 - Discharges authorized by a separate NPDES permit;
 - Discharges in compliance with instructions of an On-Scene Coordinator pursuant to 40 CFR part 300 or 33 CFR 153.10(e);
 - Water line flushing;
 - Landscape irrigation;
 - Diverted stream flows;
 - Rising ground waters;
 - Uncontaminated ground water infiltration;
 - Uncontaminated pumped ground water;
 - Discharges from potable water sources;
 - Foundation drains;
 - Air conditioning condensate;
 - Irrigation water;
 - Springs;
 - Water from crawl space pumps;
 - Footing drains;



The following sources of non-stormwater discharges are allowable per Part 1.3.2 (cont):

- Lawn watering;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Dechlorinated swimming pool discharges;
- Street wash water;
- Power washing where no chemicals are used;
- Roof drains;
- Fire hydrant flushings;
- Non-storm water discharges resulting from a spill which are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge;
- Emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges; and
- Discharges or flows from fire fighting activities occurring during emergency situations.

What To Do If There is a Spill?

Discharge Prevention and Response Procedures

ALL SPILLS NEED TO BE REPORTED TO 460 CES/CEIE, NO MATTER THE SIZE!

WHAT TO DO:

- Notify Environmental and Pollution Air Force Base Fire Department (BAFFED)
- Put on appropriate Personal Protective Equipment (PPE)
- Place off all sources of spillage
- Attempt to stop or slow the source of the spill to prevent further release
- Contain the source of the spill if possible
- Prevent re-entrance of spillage
- Report the discharge to 460th CES/CEIE Environmental Office

WHAT KIND OF SPILL IS IT?

- MINOR:** Spills that involve an area less than 10 feet in any dimension, do not over 100-gallon level in area, and are not of a continuing nature.
- MAJOR:** Spills that are over 10 feet in any one dimension, over 100-gallon level in 1000 area, or are of a continuing nature. Major spill responses will be carried out by BAFFED and Emergency Management Services (EMS).

DO NOT RESPOND TO A SPILL IF YOU ARE NOT PROPERLY TRAINED OR EQUIPPED!

WHO TO CONTACT:

- BAFFED Air Force Base Fire Department (960-467-5771) (in base)
- 460th CES/CEIE Pollution Control and Environmental Services (PCEES) Program Manager (in AFB SPOC) (960-467-4142)
- or
- 460th CES/CEIE Environmental Office (960-467-4142)

Base Water Program POCs

Water Quality Program Manager
 Dr. Kim Bowman, PE, PhD, 460 CES/CEIE
Kimberly.bowman.5@us.af.mil
 720-847-4655; DSN 847-4655

Stormwater Program Coordinator
 Mr. Charles Beebe, ctr, Certified Stormwater Inspector
charles.beebe_ctr@us.af.mil
 720-847-6308; DSN 847-6308

Thank you!

Please ensure you have voted or respond that you have read the material.

2020 - Virtual Annual Industrial Stormwater Compliance Training Roster 11/17/2020

NAME	ORGANIZATION	EMAIL ADDRESS
David Oenes	OENES, DAVID E WG-10 USSF SPOC 460 LRS/LGRVM	david.oenes.1@spaceforce.mil
Ethan Woodard	WOODARD, ETHAN T CTR USSF SPOC 460 CES/CEIE	ethan.woodard.ctr@spaceforce.mil
Joshua Cardwell	CARDWELL, JOSHUA L WS-10 USSF SPOC 460 LRS/LGRV	joshua.cardwell@spaceforce.mil
Alan Robbs	ROBBS, ALAN G WG-10 USAF ANG 140 LRS/LRS	alan.robbs.1@us.af.mil
Tim Bosco	BOSCO, TIM NRO	boscotim@nro.mil
Jon Eberly	EBERLY, JON NRO	eberlyjo@nro.mil
Ben Hogan	HOGAN, BENJAMIN S CPT USARMY NG COARNG (USA)	benjamin.s.hogan.mil@mail.mil
Matt Rodgers	RODGERS, MATTHEW C GS-13 USSF SPOC 460 CES/CEIE	matthew.rodgers.7@spaceforce.mil

Public Education and Outreach on Stormwater Impacts (continued)

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<p><u>PEO-4 Sediment and Erosion Awareness Training for Facility Managers</u></p> <ol style="list-style-type: none"> 1. Provide facility manager training at least annually and maintain attendance record. 	<p>COMPLETED</p> <p>The Group Facility Manager training was held on 11 February, 4 August, 7 October, and 1 December 2020, with individual Facility Manager trainings provided as needed. Due to COVID-19 and the health orders instated by the Air Force no additional meetings were held. The session included the required sediment and erosion awareness information. The training was presented in person by multi-discipline 460 CES/CEO, /CEIE, and /CEN flight staff using a power point slide presentation. The environmental portion of the training, which is presented by 460 CES/CEIE staff, is shown below.</p>	<p>No</p>

Environmental



Matthew Christensen
Environmental Compliance
847-9268

UNCLASSIFIED

Environmental Management System

- Environmental Management System (EMS) is the overall umbrella of the environmental programs (Hazmat, Hazwaste, Recycling, Water, Storage Tanks, Toxics, Natural/Cultural Resources, etc.)
- Buckley AFB Environmental Policy
 - Maintain Partnership with Local Community
 - Meet Aggressive Goals for Improvement
 - Embrace Pollution Prevention
 - Ensure Continuous Education
 - Exceeding Expectations
 - Sustaining Compliance

UNCLASSIFIED

Recycling

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



UNCLASSIFIED

Recycling Turn-in

Scrap Metal Recycling Receiving Yard, a.k.a. North Yard
 Open: Thursday thru 1300 (1300hrs or call Mr. Matt Christensen at ext. 9268 to make an appointment)



Recycle scrap metals, wood pallets and tires at the North Yard.

UNCLASSIFIED

Hazwaste Turn-in

- Environmental holds hazardous waste/universal waste turn-in every Thursday @1300 or by appointment (Bldg 1025)

- Lamps
- Batteries
- Aerosols
- Paint
- Spent Solvents



- Petroleum, Oils, Lubricants (POL's)
- Flammable Liquids
- Corrosives
- Sealants
- Misc Chemicals



UNCLASSIFIED

Water Quality

Sanitary Sewer -



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

Tap Water -

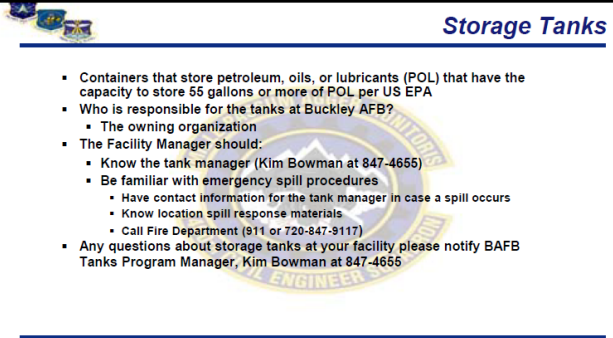
- If tap water looks or smells different than usual,
 - Call Bioenvironmental Engineering at 847-6384 to test the water.
 - If appears urgent, call CE Customer Service, 847-3913.

Storm Water -

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

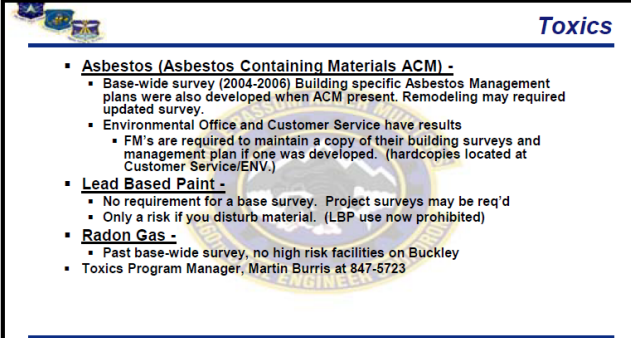
UNCLASSIFIED



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 AFB?
 - The owning organization
- The Facility Manager should:
 - Know the tank manager (Kim Bowman at 847-4655)
 - Be familiar with emergency spill procedures
 - Have contact information for the tank manager in case a spill occurs
 - Know location spill response materials
 - Call Fire Department (911 or 720-347-9117)
- Any questions about storage tanks at your facility please notify BAFB Tanks Program Manager, Kim Bowman at 847-4655

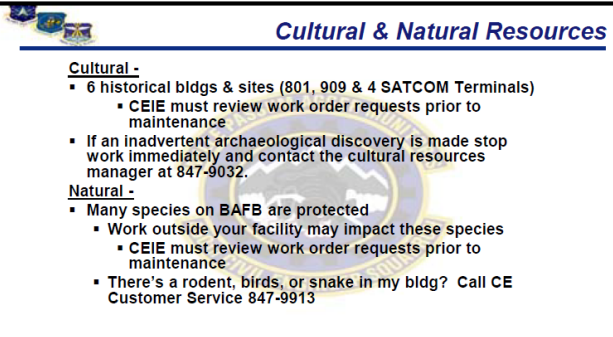
UNCLASSIFIED



Toxics

- **Asbestos (Asbestos Containing Materials ACM) -**
 - Base-wide survey (2004-2006) Building specific Asbestos Management plans were also developed when ACM present. Remodeling may require updated survey.
 - Environmental Office and Customer Service have results
 - FM's are required to maintain a copy of their building surveys and management plan if one was developed. (hardcopies located at Customer Service/ENV.)
- **Lead Based Paint -**
 - No requirement for a base survey. Project surveys may be req'd
 - Only a risk if you disturb material. (LBP use now prohibited)
- **Radon Gas -**
 - Past base-wide survey, no high risk facilities on Buckley
- Toxics Program Manager, Martin Burris at 847-5723

UNCLASSIFIED



Cultural & Natural Resources

Cultural -

- 6 historical bldgs & sites (801, 909 & 4 SATCOM Terminals)
 - CEIE must review work order requests prior to maintenance
- If an inadvertent archaeological discovery is made stop work immediately and contact the cultural resources manager at 847-9032.

Natural -

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

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Public Education and Outreach on Stormwater Impacts (continued)

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>PEO-5 Post-Construction Stormwater Control Awareness Training</u> 1. Develop post-construction stormwater control awareness training materials. (Year 2)	COMPLETED Completed in December of 2020. Training materials consist of a handout that clarifies Installation Facility Standards (Pre-final 2019) revegetation requirements at Buckley AFB. See below.	No
2. Provide post-construction stormwater control awareness training materials to 460 CES/CEN and CEIE, as well as the 460 CONF. (Year 2-5)	COMPLETED Training materials were distributed via email to 31 primary points of contact for 460 CES/CEN, 460 CES/CEI, 460 CES/CEC, 460 CONS, 460 CES/CONS/CC, COANG, and Buckley contractors on 30 December 2020.	No

Buckley Air Force Base (AFB) Installation Facility Standards (IFS) for Revegetation

IFS Pre-Final, 14 Feb 2019

1. Analyze soils and provide organic amendments as needed to improve plant growth and conserve water (IFS- Section C06.1.4, #5, #18).
 - The general rule is to add 3-4 cubic yards of organic matter per 1,000 square feet of area in addition to appropriate 2-4 inches of topsoil. The amendments should be well integrated into the soil at least 6-8 inches to encourage deep root growth.
 - Compost (IFS- Section C06.1.4, #9):
 - Existing topsoil shall be removed during excavation for new construction and stockpiled at the direction of the Project Manager. The Project Manager shall evaluate the topsoil to determine if it is suitable for reapplication after seeding. A soil analysis shall be performed to identify any additional soil amendments that may be required. Pre-planting fertilizer and pH adjusting agents (e.g., lime and sulfur) may be applied before incorporation as necessary.
 - Organic soil amendments (compost) shall be uniformly applied over the entire landscaped area at a minimum depth of 2 inches and incorporated to a depth of 8 inches (for a 20% to 30% inclusion rate) using a rotary tiller. Compost shall meet or exceed US EPA Class A standard, 40 CFR Section 503. Certificates of Compliance for Compost shall be submitted indicating grade and compliance with state and local regulations.
 - Rake the soil surface smooth prior to seeding. The soil surface shall be free of large clods, roots, stones greater than 2-inches, and other material which might interfere with planting and subsequent site maintenance.
 - Watering (IFS- Section C06.1.4, #9, #16):
 - Water thoroughly after seeding. Top dress newly seeded turf areas with 0.25" layer of fine compost (0.375" screen, minus) after seeding, then water to protect against hot, dry weather or drying winds.
 - Where an irrigation system is unavailable, water shall be provided by the Contractor and hand applied by truck.
 - The Contractor may request permission from the Base to fill water trucks from a Base fire hydrant or from the off-Base reclaimed water station. In either case water usage will be metered and billed to the Contractor.
 - Water the seeded area during the maintenance period only as necessary to maintain a healthy stand of seeded species. Over-watering will not be permitted.
2. Seeding (IFS- Section C04.1 #2, Section C06.1.4, #10, #11, #13)
 - Coordinate with landscaping plans; specifically, the seed mixes for swale, overflow, and detention areas. Seed mix shall be specified by the Project Manager from the Buckley Approved Plant List published in the IFS (Short-grass Prairie Mix; Overflow Seed Mix; Tall-grass Prairie Mix; or Wetland Seed Mix). Seed mixes can be found below. Please use a comparable or similar seed mix if the specified mixes are unavailable.
 - All seed shall be drill seeded using a mechanical power drawn drill followed by packer wheels or drag chain.

- Hydraulic seeding or hydraulic mulching is not permitted. The practice of applying grass seed to the surface of the soil along with a slurry of water and cellulose mulch has proven to have a poor performance record at Buckley AFB.
 - Seeding shall be restricted according to the following timetable and specifications:
 - Spring seeding is allowed from Spring thaw to May 15th, where “spring thaw” is defined as the earliest date in which seed can be buried 0.5-inches into the surface topsoil through normal drill seeding methods.
 - Fall seeding is allowed from September 15th until consistent ground freeze, where “consistent ground freeze” is defined as that date on which frozen surface topsoil prevents burying the seed 0.5-inches through normal drill seeding methods.
 - Seeding accomplished outside the time intervals listed above may be allowed only when the Contractor’s request is approved in writing. The contractor will be responsible for re-seeding, re-mulching, and repairing any areas which fail to produce vegetation.
3. Stabilization (IFS- Section C06.1.4, #14, #15):
- Mulch shall be applied after seeding, consisting of long-stemmed weed-free and seed-free straw or hay, applied at a rate of 2-tons per acre.
 - Mulch shall be crimped into the soil surface.
 - Erosion Control Blankets shall be applied after seeding on all slopes up to 1:4 gradients. Blankets shall be machine-produced mat with a biodegradable agricultural straw matrix (0.5 lbs/sq yd).
 - The blankets shall have a 12-month typical functional longevity and be designed for use on geotechnically stable slopes and channels with a shear stress up to 0.50 pounds per square foot.
4. Vegetation Establishment (IFS- Section C06.1.4, #16):
- Vegetation will be considered established when all seeded areas are assured of developing a satisfactory stand of growth,
 - Dead spots up to 0.5 square feet in size must not exceed ten percent (10%) of the total seeded area. Dead spots greater than 0.5 square feet shall be re-seeded and freshly re-mulched.
 - The site shall be free of eroded areas and free from infestation of noxious weeds.
 - Upon acceptance of the seeded areas, a 90-day maintenance period will commence. During the maintenance period the Contractor is responsible for all aspects of establishment and maintenance to ensure vigorous and healthy growth of seeded species. The Contractor shall inspect weekly for insect damage, nutrient deficiencies, weeds, and disease and take immediate corrective action.

Note: The IFS and EPA’s Construction General Permit requirements must both be met for construction general permit closeout on Buckley. For additional, more detailed information please refer to pages 70 & 71 of the [Buckley Air Force Base IFS 14 February 2019](#) and the specified seed mixes attached below.

Overflow Seed Mix -

Genus species	Common Name	Lb/acre (PLS)	% PLS/ acre	Seeds/Lb of Mix	
<i>Agropyron smithii</i>	Western Wheatgrass - cool	8.453	33.81	37,200	
<i>Andropogon gerardi</i>	Big Bluestem - warm	4.830	19.32	25,100	
<i>Aster novae-angliae</i>	New England Aster	0.120	0.48	5,800	
<i>Bouteloua gracilis</i>	Blue Grama - warm	0.362	1.45	11,900	
<i>Panicum virgatum</i>	Switchgrass - warm	2.173	8.69	33,900	
<i>Puccinellia airoides</i>	Alkali Grass - cool	0.120	0.48	13,400	
<i>Spartina pectinata</i>	Prairie Cordgrass - warm	3.623	14.50	20,800	
<i>Sorghastrum nutans</i>	Yellow Indian Grass - warm	2.898	11.60	19,700	
<i>Stipa viridula</i>	Green Needlegrass - cool	2.415	9.66	17,500	
PLS = Pure Live Seed		Total	25	100%	185,300

Wetland Seed Mix -

Genus species	Common Name	Lb/acre (PLS)	% PLS/ acre	Seeds/Lb of Mix	
<i>Agropyron smithii</i>	Western Wheatgrass - cool	6.944	27.78	30,500	
<i>Carex lauuuosa</i>	Wooly Sedge	0.520	2.08	10,400	
<i>Carex nebrascensis</i>	Nebraska Sedge	0.520	2.08	11,100	
<i>Elocharis palustris</i>	Spikerush	0.520	2.08	12,900	
<i>Elymus trachycanthus</i>	Slender Wheatgrass - cool	2.604	10.42	16,600	
<i>Glyceria grandis</i>	Tall Mannagrass	0.694	2.78	35,600	
<i>Glyceria striata</i>	Fowl Mannagrass	4.340	17.36	31,200	
<i>Panicum virgatum</i>	Switchgrass - warm	2.604	10.42	40,600	
<i>Spartina pectinata</i>	Prairie Cordgrass - warm	5.208	20.83	30,000	
<i>Sporopobute airoides</i>	Alkali Sacaton	1.041	4.17	70,900	
PLS = Pure Live Seed		Total	25	100%	289,800

Shortgrass Prairie Mix -

Genus species	Common Name	Lb/acre (PLS)	% PLS/ acre	Seeds/Lb of Mix	
<i>-Agropyron smithii</i>	Western Wheatgrass - cool	8.426	33.70	37,100	
<i>Boutelona gracilis</i>	Blue Grama - warm	2.527	10.10	83,300	
<i>Boutelona curtipendula</i>	Sideoats Gramma - warm	2.808	11.23	21,300	
<i>Buchloe dactyloides</i>	Buffalograss - warm	8.426	33.70	18,800	
<i>Schizachyrium scoparium</i>	Little Bluestem - warm	1.966	7.86	20,400	
<i>Sporobolus cryptandrus</i>	Sand Dropseed - warm	0.140	0.56	29,700	
<i>Stipa viridula</i>	Green Needlegrass - cool	0.702	2.80	5,000	
PLS = Pure Live Seed		Total	25	100%	215,600

Tallgrass Prairie Mix -

Genus species	Common Name	Lb/acre (PLS)	% PLS/ acre	Seeds/Lb of Mix	
<i>-Agropyron smithii</i>	Western Wheatgrass - cool season	6.944	27.77	30,500	
<i>-Andropogon hallii</i>	Sand Bluestem - warm	2.777	11.10	12,500	
<i>-Andropogon gerardi</i>	Big Bluestem warm	2.777	11.10	14,400	
<i>Boutelona gracilis</i>	Blue Grama warm	1.388	5.55	45,800	
<i>Calamagrostis longifolia</i>	Sand Reedgrass warm	1.111	4.44	12,100	
<i>Elymus canadensis</i>	Nodding Wildrye cool	1.111	4.44	5,100	
<i>Elymus trachycanthus</i>	Slender Wheatgrass - cool	0.555	2.22	3,500	
<i>Panicum virgatum</i>	Switchgrass - warm	0.833	3.33	13,000	
<i>Penstemon grandiflorus</i>	Large Penstemon	0.277	1.11	6,100	
<i>Penstemon strictus</i>	Rocky Mountain Penstemon	0.277	1.11	6,600	
<i>Schizachyrium scoparium</i>	Little Bluestem - warm	1.944	7.77	20,200	
<i>Sorghastrum nutans</i>	Indiangrass - warm	2.777	11.10	18,900	
<i>Sporobolus cryptandrus</i>	Sand Dropseed warm	0.138	0.55	29,100	
<i>Stipa viridula</i>	Green Needlegrass - cool	2.083	8.33	15,000	
PLS = Pure Live Seed		Total	25	100%	232,800

Public Education and Outreach on Stormwater Impacts (continued)

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

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

2. Public Participation/Involvement (PIP)

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>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:

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PIP-2 SWMP Public Review</u></p> <p>1. Make MS4 annual reports available on the Buckley AFB website (www.buckley.af.mil) within 15 days of submitting the annual report to the EPA.</p>	<p>COMPLETED</p> <p>The Permit Year 7 Annual Report was posted on the Buckley AFB website prior to 24 March 2020. To locate the report on the Buckley AFB website, highlight the "About Us" tab, and click on "Environmental" in the drop-down list (URL: https://www.buckley.spaceforce.mil/Portals/13/2019%20MS4%20Annual%20Report%20-compressed_1.pdf); 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.</p>	<p>No</p>

Public participation/involvement (continued)

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PIP-3 Stormwater Action Line and Email Address</u></p> <p>1. Maintain the stormwater action line email address. Document action line emails received from the public and actions taken in public participation log.</p>	<p>COMPLETED</p> <p>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 Air Force Global Address List (GAL) and the stormwater awareness brochures (see BMP PEO-1). No emails using the 460 CES/CEV Water address were submitted during Permit Year 7. In 2021, 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.</p>	<p>No</p>

Public Participation/Involvement (continued)

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PIP-4 Annual Meeting with City of Aurora</u></p> <p>1. The 460 CES/CEIE WQPM will conduct a meeting between appropriate Buckley AFB and City of Aurora stormwater/water quality managers at least once per year to discuss water quality and discharges to East Toll Gate Creek.</p>	<p>COMPLETED</p> <p>No in-person meeting was held in 2020 due to COVID-19. Emails were exchanged between 460 CES/CEIE WQPM and City of Aurora (CoA) Water in January, March, May, and August of 2020 discussing the status of ETGC Restoration Project construction. ETGC Restoration Project construction was completed 1 November 2020. There are two 404 permits for ETGC Restoration Project: NWP14 Permit NOW-2019-01809-DEN for East Toll Gate Creek Crossings Maintenance (Reach 6) and IP NWO-2019-01044-DEN (Reach 9) restoration and stabilization. Certification of Completion for NWP14 (Reach 6) was submitted to USACE on 4 November 2020. The first Annual Mitigation Monitoring Report for the IP (Reach 9) was submitted to USACE on 28 December 2020. EPA CGP for ETGC Restoration Project will remain open until final stabilization criteria are met.</p>	<p>No</p>

Public Participation/Involvement (continued)

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PIP-5 Volunteer and Cleanup of MS4 Receiving Water Activities</u></p> <p>1. Buckley AFB will maintain a log of public participation activities related to water quality protection and cleanup of MS4 receiving waters.</p>	<p>COMPLETED</p> <p>In Permit Year 7 public participation activities for Earth and Arbor Day activities were limited due to COVID-19 state restrictions; stormwater education activities and cleanup of receiving waters typically part of the event did not occur. A volunteer cleanup event was held on 3 November 2020 with 7 participants cleaning up the ADF pond and the stormwater conveyance to the west and north of the Base Exchange (BX). Photos and roster of the various activities can be found below.</p>	<p>No</p>

MS4 Receiving Waters Volunteer Cleanup

3 November 2020

Attendees:

Dr. Kim Bowman

Dustin Casady

Matt Christensen

Grant Rogers

Tim Bosco

Jon Eberly

Charles Beebe

Photos:







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> <ol style="list-style-type: none"> 1. Update the complete storm sewer system map in the Buckley AFB Geographic Information Systems (GIS) (Year 3). 	<p>COMPLETE</p> <p>The update process is organized by installation areas, called tiles; there are 35 tiles that cover the entire installation. Each tile covers a specific portion or area of the installation and a certain number of tiles are scheduled to be covered by the update process each calendar quarter, so progress toward the goal can be measured.</p> <p>The update process involves staff from engineering, operations, and environmental within 460 CES who systematically conduct 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 AFB base's opinion that it has met the intent of this requirement and an MFR dated 13 February 2017 has been issued by the 460 CES/CEIE WQPM documenting completion of this task shown below.</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.

A handwritten signature in black ink, appearing to read "Matt Rodgers", is positioned above the typed name.

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:

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-2 Dry Weather Screening of Major Outfalls</u></p> <ol style="list-style-type: none"> 1. Conduct dry weather screening of Buckley AFB outfalls once per year. Document findings of dry weather screening and erosion evaluation. Document results of any follow up illicit discharge investigation or assessments. 	<p>COMPLETED</p> <p>The visual dry weather screenings for MS4 Permit Year 7 were completed in August 2020. Major industrial and municipal outfalls were inspected. Results of the screening were that 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.</p>	<p>No</p>

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<u>IDE-3 Illicit Discharge Detection and Elimination Program</u> 1. Maintain one printed copy of the EPA Illicit Discharge Detection and Elimination Manual in the Environmental Element's library.	COMPLETED A hardcopy of the US EPA's Illicit Discharge Detection and Elimination Manual is in place on the 460 CES/CEIE Stormwater library shelves.	No
2. At a minimum, the Water Quality Program Manager, Spill Program Manager, and Environmental Element Chief will conduct an annual review of the EPA Illicit Discharge Detection and Elimination Manual. This review will serve as training for illicit discharge investigation and response techniques.	COMPLETED The 460 CES/CEIE WQPM conducted a review by email on 28 December 2020 of the EPA Illicit Discharge Detection and Elimination Manual and information relevant to the illicit discharge elimination program with the Element Chief and the Stormwater Program Coordinator, documented in the MFR below.	No



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

28 December 2020

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 6 for Permit Year 7 (PY7)

1. Buckley AFB (BAFB) 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 28 December 2020 with Charles Beebe (Stormwater Program Coordinator), Kim Bowman (Water Quality, Tanks & Spill Program Manager) and Matt Rodgers (460 CES/CEIE chief). Familiarity with the IDDE manual was attained and a review of key takeaways from the aforementioned manual as they apply to BAFB was conducted.
3. Pertinent points in the review included:
 - a. Dry weather screening as a primary means to detect illicit discharges
 - b. A review of 2020 illicit discharges at Buckley: description and timeline of illicit discharges, the illicit discharge root causes, reporting timeline and process, corrective actions taken to eliminate illicit discharge and status of corrective actions.
 - c. A review of allowable non-stormwater discharges and verification was made that they are not a significant pollution contributor.
4. Please contact Kimberly Bowman at kimberly.bowman.5@us.af.mil or at (720) 847-4655 with any questions in regard to this tasking.

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

PERSISTENT GLOBAL SURVEILLANCE

Illicit Discharge Detection and Elimination (continued)

<p>3. Document the time required to investigate, plan, and correct confirmed illicit discharges identified on Buckley AFB. For confirmed illicit discharges, Buckley AFB 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>Four confirmed illicit discharges occurred in Permit Year 7: 7 January, 14 January, 15 May, and 13 July 2020. Two discharges (7 and 14 January) were Building 460 cooling tower water releases into stormwater conveyance in the Aerospace Data Facility (ADF) restricted area. One discharge (15 May) was high expansion foam (HEF) leaked from the Colorado Army National Guard Building 1510 to a nearby detention pond during an annual water pressure test. The last discharge (13 July) was a radiator leak from a truck at the Mississippi Gate that entered a stormwater drain. Corrective action plans were developed within 15 business days and corrective action implemented within 45 days of discovery for all four illicit discharges. None of the confirmed discharges went off base. See EASI (Air Force information management system for reporting spills) documentation below for details of illicit discharges to include responses described in Corrective Actions.</p>	<p>No</p>
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Illicit Discharge Detection and Elimination (continued)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>IDE-4 Illegal Dumping and Non-Compliance Enforcement Procedures</u></p> <ol style="list-style-type: none"> 1. Document any illicit discharge and illegal dumping enforcement actions taken. 	<p>COMPLETED</p> <p>No enforcement actions (EAs) were required in Permit Year 7. No illicit discharge incidents occurred that resulted in enforcement actions (see BMP IDE-3) and no illegal dumping incidents occurred. 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 AFB. Existing illegal dumping and non-compliance enforcement procedures for non-compliance with laws, regulations, and policies include the Uniform Code of Military Justice, contracts subject to Federal Acquisition Regulations, Air Force Instruction (AFI) 51-202 Non-judicial Punishment, and AFI 36-704 Discipline and Adverse Actions. 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 AFB.</p>	<p>No</p>

Illicit Discharge Detection and Elimination (continued)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>IDE-5 Allowable Non-Stormwater Discharges and Controls</u></p> <ol style="list-style-type: none"> 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. 	<p>COMPLETED</p> <p>A review of authorized, non-stormwater discharge sources listed in Part 1.3.2 of the Permit was conducted on 13 March 2020 during an annual MS4 permit review required by the Air Force and again on 28 December 2020 during the IDE-3 IDDE Manual Review. Of the 26 sources listed, only 9 were identified as occurring on Buckley AFB during Permit Year 7. Of those 9 occurring during Permit Year 7, none have been determined to be a significant contributor of pollutants to the storm drain system.</p>	<p>No</p>

Illicit Discharge Detection and Elimination (continued)

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

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

4. Construction Site Stormwater Runoff Control (CON)

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

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

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

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

REGULATORY MECHANISM TO REQUIRE SEDIMENT AND EROSION CONTROLS

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

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

PROCEDURES TO ADDRESS NONCOMPLIANCE AND ENFORCEMENT MECHANISMS

Government contractors must comply with Federal Acquisition Regulations 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 AFB.

Construction Site Stormwater Runoff Control (continued)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>CON-2 Construction Project Oversight Inspections</u></p> <p>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 \geq 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 AFB has developed a spreadsheet-based prioritization model to guide additional construction oversight inspections based on project location, size, and nature of construction activity, site characteristics, and the compliance history of construction contractor.</p>	<p>COMPLETED</p> <p>Oversight construction compliance inspections are conducted on sites with > 1-acre ground disturbance or are part of a larger common plan of development. A summary of construction site inspections conducted in Permit Year 7 follows: A total of 31 inspections were conducted on 17 different permitted project sites with one of those filing an 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 in the following section.</p>	<p>No</p>

2017 CGP TRACKING NUMBER	PROJECT_NAME	Project Manager Contact	Contractor	Contact Info	Construction Status	Date Active	Co-Permittee	Inspection Frequency (Months)	Last Inspected	Next Scheduled Inspection (Month)	Notes
Active											
COR10F024	COARNG BAFB Drainage Site Improvements	Evan Pitchford	N/A	Evan Pitchford, 720-250-1365, evan.i.pitchford.mil@mail.mil; CPT Ben Hogan, 720-572-5460, benjamin.s.hogan.mil@mail.mil	Awaiting NOT	12/19/2016	NeZhoni	6	17-Feb-21	17-Aug-21	
COR10F023	Repair Main Apron Access, Batch Plant, Alert Pvmr	Chris Van Fleet 720-847-9100	N/A	Chris Van Fleet, Van Fleet, Christopher V NFG (US) <christopher.v.vanfleet.nfg@mail.mil>, 720-847-9100	Awaiting Final Stabilization	2/23/2015	JE Hurley	4	13-Nov-20	13-Mar-21	
COR10F03J	Repair Main Apron Access, Batch Plant, Alert Pvmr	Chris Van Fleet 720-847-9100	Barlovento	Chris Van Fleet, Van Fleet, Christopher V NFG (US) <christopher.v.vanfleet.nfg@mail.mil>, 720-847-9100	Awaiting Final Stabilization	7/2/2018	140 CES	4	13-Nov-20	13-Mar-21	
COR10F022	Runway 32 Extended Safety Area Grading	Chris Van Fleet 720-847-9100	JE Hurley - Brady Bensen (????)	719-651-7542	Active Construction	4/21/2014	JE Hurley	4	29-Dec-20	29-Apr-21	
COR10F05W	Blue Marlin	Mike Mont-Eton	DPR	Patrick Shockey, 720-793-8394, patricks@dpr.com; Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056	Active Construction	2/21/2019	460SW	3	11-Feb-21	11-May-21	
COR10F041	Blue Marlin	Mike Mont-Eton	Gray Contracting	Courtney Rapson; Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056	Active Construction	2/21/2019	460SW	3	4-Mar-21	4-Jun-21	
COR10F04B	CST Vehicle Ready Bay Bldg	Dom Scarimbolo	JE Hurley - Dan Anderson	Dan Anderson <danderson@jehurley.com> 719-433-8388; Dom Scarimbolo, 303-517-9468, domenickj.scarimbolo.nfg@mail.mil	Awaiting Final Stabilization	5/7/2019	JE Hurley	5	11-Feb-21	11-Jul-21	
COR10F04I	Aspen Way Parking Lot	Mike Mont-Eton	Olgoonik: Andrew Haley	Andrew Haley (720) 232-6241, Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056	Awaiting Final Stabilization	8/28/2019	460SW	5	19-Nov-20	19-Apr-21	
COR10F04M	ASE Maintenance Storage Facility	Frank Cuna	Centerre Construction	Frank Cuna, fcuna@centerre.com 303-910-5701; Chris Van Fleet, Van Fleet, Christopher V NFG (US) <christopher.v.vanfleet.nfg@mail.mil>, 720-847-9100	Awaiting Final Stabilization	9/9/2019	140 COANG	5	11-Feb-21	11-Jul-21	
COR10F052	Tetra OSP Duct Bank Construction - Buckley AFB	Mike Mont-Eton	Technical Services - Chip Young	Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056; Erik Leis, 303-677-4407, leiserik@nro.mil; Chip Young, 703-928-7983 ,chip.young@tsd.gov.com	Awaiting Final Stabilization	8/23/2019	460SW	5	8-Oct-20	8-Mar-21	
COR10F056	SIBRS SOF	Josh Walfoort	Mortenson	Josh Walfoort, josh.walfoort@mortenson.com, 816-560-2368;	Active Construction	12/5/2019	460SW	5	17-Dec-20	17-May-21	
COR10F055	East Toll Gate Creek	Mike Mont-Eton	RME	Bruce Gurney, Bruce.L.Gurney@usace.army.mil, 720-859-5048; Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056; Daniel Lavigne, daniel@rmecinc.com, 720-470-3817	Awaiting Final Stabilization	1/21/2020	460SW	5	19-Nov-20	19-Apr-21	
COR10F05U	AASF UH60 Hangar Project	Daniel Diloreto	Iron Mike Construction	Jesse Goddard <jgoddard@ironmikeconstruction.com>; Daniel Diloreto, DMVA, (720) 601-3974, daniel.p.diloreto.nfg@mail.mil;	Active Construction	9/3/2020	Iron Mike Construction	5	4-Feb-21	4-Jul-21	
COR10F05T	B430	McKiya Johnston	Dawson	McKiya Johnston, 719.660.3451, mjohnston@dawson8a.com; Cody W. Ellis, 703.881.1687, cellis@dawson8a.com	Active Construction	10/15/2020	460SW	5	1-Dec-20	1-May-21	
COR10F063	Large Vehicle Inspection Point	Mike Mont-Eton	Iron Mike Construction	Mike Mont-Eton MONT-ETON, MICHAEL E GS-12 USAF AFSPC 460 CES/CENM <michael.mont-eton.1@us.af.mil>, 847-1056; Todd Edwards <TEdwards@ironmikeconstruction.com> (303)407-8690	Active Construction	12/11/2020	Iron Mike Construction	5	11-Dec-20	11-May-21	
COR10F024	COARNG BAFB Drainage Site Improvements	Daniel Diloreto	Happel Builders	Robert Edmondson <redmondson@happelbuilders.com>; Daniel Diloreto, DMVA, (720) 601-3974, daniel.p.diloreto.nfg@mail.mil;	Active Construction	1/25/2021	Happel Builders	6	22-Jan-21	22-Jul-21	

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	
			Sum	

Note: Score sheet is a guideline and may be re-evaluated and adjusted at any time.

Results

Score of 56 to 70

Score of 36 to 55

Score of 16 to 35

Score of 7 to 15

Frequency of Oversight Inspections

Every 3 months

Every 4 months

Every 5 months

Every 6 months

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

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

Construction Site Stormwater Runoff Control (continued)

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

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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 construction site stormwater runoff control for the reporting period; including dates and numeric measures:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>CON-3 Construction Site Stormwater Training</u></p> <ol style="list-style-type: none"> 1. Document the number of Buckley AFB construction site quality assurance personnel who have received construction stormwater compliance annual training. 	<p>COMPLETED</p> <p>Construction stormwater training was conducted virtually on 18 November 2020 through Microsoft Teams with 9 attendees consisting of Buckley AFB personnel and contractors. A copy of the slides is available through the 460 CES/CEIE office. They have been excluded from this report due to the size of the slide show (approximately 100 slides per training). Roster can be found below.</p>	<p>No</p>










Participants ⋮ ✕

Invite someone or dial a number ✓

Presenters (1) Mute all

-  **Charles Beebe**
Organizer 🔇

Attendees (9)

-  **Frank Cuna (Guest)**
Guest 🔇
-  **Jesse Goddard** 🔇
-  **Josh Walfoort** 🔇
-  **McKiya Johnston** 🔇
-  **Patrick Grimard (Guest)**
Guest 🔇
-  **Patrick Shockey**
Outside your organization 🔇
-  **+1 720-793-8394** 🎤
-  **+1 303-677-0000** 🎤
-  **+1 303-677-0000** 🎤

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-4 Design Review and Construction Site BMP Information</u> 1. Maintain existing review process for design and construction projects planned for Buckley AFB.	COMPLETED Existing design review processes/practices are being followed. Due to the pandemic and teleworking schedule projects plans/specs/reports are emailed to make the documents available. Once a week a tracking spreadsheet is distributed to the 460 CES review group containing suspense dates and completion of review status. The 460 CES/CEIE WQP review documents for compliance with stormwater permit requirements/regulations applicable to projects located on Buckley AFB such as 2017 CGP and Energy Independence and Security Act (EISA) Section 438. Comments are provided back to the issuing source for incorporation by the project design team. The 460 CES/CEIE WQP staff conducted 61 project design reviews for 45 projects that required stormwater comments in 2020.	No

Construction Site Stormwater Runoff Control (continued)

<p>2. Maintain existing process for identifying construction site BMPs and providing such information to project construction contractors (Year 2-5).</p>	<p>COMPLETED</p>	<p>No</p>
<p>3. Hold preconstruction meetings with the contractors and project management staff to ensure BMP related questions and requirements are addressed prior to BMP installation on 50% of new construction projects (Years 4-5).</p>	<p>COMPLETED 460 CES/CEIE personnel met construction contractors and project management staff prior to groundbreaking to inspect stormwater BMP installation, and to clarify expectations of working on Buckley AFB. Environmental staff met onsite at 4 of the 4 (100%) new construction projects in Permit Year 7. The project preconstruction meeting dates are as follows:</p> <ol style="list-style-type: none"> 1. 21 January 2020 for the East Toll Gate Creek project 2. 3 September 2020 for the UH60 hangar project 3. 15 October 2020 for the B430 project 4. 11 December 2020 for the LVIP project 	<p>No</p>

Construction Site Stormwater Runoff Control (continued)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>CON-5 Site Plan and Construction SWPPP Review</u></p> <p>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.</p>	<p>COMPLETED</p> <p>The file of SWPPP reviews and comments provided by 460 CES/CEIE WQP for applicable construction projects conducted in Permit Year 7 is maintained in 460 CES Environmental Office files. A total of 5 SWPPP reviews were conducted for 5 new projects on Buckley AFB. Buckley AFB also reviews SWPPP documentation of active construction sites as part of CON-2.</p>	<p>No</p>

Construction Site Stormwater Runoff Control (continued)

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

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

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-1 Post-Construction Stormwater Management Process</u></p> <ol style="list-style-type: none"> 1. Maintain existing review process for new development and re-development projects planned for Buckley AFB. Include evaluation of pre-development and post-development runoff conditions in design review process (Years 2–5). 	<p>COMPLETED</p> <p>In Permit Year 7, there were 18 pre-development projects reviewed for water resource environmental impact analysis (as part of Air Force Form 813) that includes requirements to implement post-construction stormwater management controls. The AF form 813 is an environmental impact analysis that is used as part of the NEPA vetting process on base. Comments are provided to the initiating group so that any necessary controls may be incorporated during the design process. Project evaluations during the design process are maintained by 460 CES/CEN. BMPs are used in all projects with soil disturbances, EISA 438 stormwater criteria are used in projects greater than 5,000 square feet, and a SWPPP is initiated for projects impacting one acre or larger. All projects are considered for predevelopment hydrology.</p>	<p>No</p>

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-2 Impracticality Determination Documentation for Post-Construction Stormwater Controls</u></p> <ol style="list-style-type: none"> 1. Document all impracticability determinations and provide supporting documentation to the Water Quality Program Manager (Years 2–5). 	<p>COMPLETED</p> <p>In Permit Year 7 confirmed with 460 CES/CEN, there were no projects that documented reasons of impracticality for implementing Post-Construction Stormwater Controls.</p>	<p>No</p>

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><i>PC-3 Inventory, Visual Inspection, and Maintenance of Post-Construction Stormwater Controls</i></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 In Permit Year 7, the permanent post-construction stormwater controls were inspected and the report submitted in December 2020. The inspection report contained recommendations for work orders. There were no new permanent post-construction stormwater controls completed and accepted by Buckley in 2020.</p>	<p>No</p>
<ol style="list-style-type: none"> 2. Inspections of any permanent post-construction stormwater control measures that are under warranty, typically one year following installation, will be annotated and the appropriate official responsible for warranty enforcement will be notified (Years 2–5). 	<p>COMPLETED Buckley AFB currently has a process in place for evaluating projects under warranty for corrections. All projects are assessed during the last month of the warranty period and remaining punch list items are documented and corrected by the contractor. All corrections are documented and maintained by 460 CES/CONF.</p>	<p>No</p>

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>PC-4 Visual Inspection of New Post-Construction Stormwater Controls</u></p> <ol style="list-style-type: none"> 1. Document inspections of all newly installed post-construction stormwater control measures prior to closing out contracts (Years 2-5). 	<p>COMPLETED</p> <p>In Permit Year 7, there were no new permanent post-construction stormwater controls completed. All projects are assessed during the last month of the warranty period and remaining punch list items are documented and corrected by the contractor; or, by specific items previously accepted by the government but now exceed warranty time limits.</p>	<p>No</p>

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

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

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-5 Natural Resource Management Plan Update</u></p> <ol style="list-style-type: none"> 1. Hydrologic performance standards and information related to design and maintenance of permanent post-construction stormwater controls are included in natural resource plans when these plans are updated (Year 5). 	<p>COMPLETED</p> <p>In Permit Year 7, the Integrated Natural Resource Management Plan (INRMP) was reviewed and comments were provided to 460th CES/CEIE 14 August 2020. Hydrologic performance standards included in the INRMP are Section 438 of the Energy Independence and Security Act (EISA) requirements for all projects that construct facilities with a footprint greater than 5,000 gross square feet, or expand the footprint of existing facilities by more than 5,000 gross square feet; projects are required to maintain predevelopment hydrology and prevent any net increase in storm water runoff, unless determined to be infeasible. Additionally, information related to design and maintenance of permanent post-construction stormwater controls in the INRMP include design and post-construction maintenance requirements of Low Impact Development Best Management Practices (LID BMPs).</p>	<p>No</p>

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

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

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:

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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>P2-1 Conduct Annual Stormwater Training for All Fleet Maintenance and Civil Engineer Shops</u></p> <ol style="list-style-type: none"> 1. Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date. 	<p>COMPLETED</p> <p>For Permit Year 7, the annual stormwater training for shop personnel was held virtually via email on 17 November 2020 with eight personnel confirming review of the training slides. The slides and attendance roster can be found on page 12-16 of this report.</p>	<p>No</p>

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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

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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><i>P2-2 Snow and Ice Control Training</i></p> <ol style="list-style-type: none"> 1. Conduct training once per year and maintain an attendance roster. 	<p>COVID-19 IMPACTED - PARTIALLY COMPLETED</p> <p>Due to COVID-19, Air Force health orders required limited on-site staff reporting on Buckley AFB in 2020. Snow and ice control training session was conducted by 460 CES/CEO to one or two individuals at a time over the course of a couple of months. No attendance roster was created for the individual training exercises. The training included procedures for plowing snow on Buckley AFB 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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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.
P2-3 <i>Street Sweeping</i> 1. Accomplish an average of 20 hours of street sweeping per month.	COVID-19 IMPACTED - PARTIALLY COMPLETED The 460 CES/CEOHP shop reported an average 7.5 hours of street sweeping per month in Permit Year 7. COVID-19 impacted the overall number of sweeping hours during this permit year due to Buckley AFB implementing a limited on-site staff reporting schedule per Air Force health orders.	No
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 7 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 AFB Preventive Maintenance program and visual inspections.	No

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-4 Storm Drain Inlet Inspection and Maintenance Schedule</u></p> <ol style="list-style-type: none"> 1. Inspect an average of 5% of storm drain inlets and culverts per quarter. Document cleaning activities, waste disposal practices, and amount of debris collected during maintenance (Year 2-5). 	<p>COVID-19 IMPACTED - INCOMPLETE</p> <p>The inspection schedule was established to meet the 5% per quarter goal and a minimum of 34 culverts/inlets would need to be inspected each month. Due to COVID-19, Air Force health orders required limited on-site staff reporting on Buckley AFB in 2020. The 460 CES/CEOHP, responsible for inspections, was unable to complete the required inspections in 2020 because of a staff shortage and the demands to keep the infrastructure on Buckley operating with limited staffing. Inspections will resume when COVID-19 health directives allow staffing at full-capacity.</p>	<p>No</p>

<p>2. Develop a maintenance schedule based on inspection results. Perform an annual evaluation of the schedule and document the evaluation (Year 2-5).</p>	<p>COMPLETED At the end of 2017, 460 CES/CEOHP personnel determined that Buckley AFB 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.</p>	<p>No</p>
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Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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

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

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

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

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p><u>P2-6 Post-Construction Stormwater Control Measure Maintenance</u></p> <ol style="list-style-type: none"> 1. Document post-construction stormwater control maintenance requirements during annual post-construction stormwater control inspection. 	<p>COMPLETED</p> <p>The existing post-construction BMPs annual inspection was conducted and submitted in December 2020. The inspection report included documentation of maintenance recommendations on each BMP. The report is maintained in 460 CES Environmental Office files. 12 new detention basin, and 3 new vegetated swale recommended repairs were identified during the inspection.</p>	<p>No</p>
<ol style="list-style-type: none"> 2. Initiate a Work Order using the appropriate work request system/database for any post-construction stormwater control maintenance activity that requires additional equipment, manpower, or resources to accomplish. 	<p>COMPLETED</p> <p>Nine new Work Orders resulting from Permit Year 6 inspections were initiated during Permit Year 7. Issues noted during inspections are currently being processed as a work order to be resolved by base personnel, the grounds maintenance contract or as a project for an outside contractor.</p>	<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.
<p><u>P2-7 Consolidated Wash Rack Evaluation</u></p> <ol style="list-style-type: none"> 1. Document completion of the consolidated wash area evaluation including methodology and recommendations. If a consolidated wash area is recommended, a Form 1391 will be generated (Year 3). 	<p>COMPLETED</p> <p>Investigations and general evaluations of requirements were initiated in late fall of 2015. The evaluation was finalized in May 2016. The evaluation covered existing wash racks, large equipment washing requirements, and potential locations. There is general agreement that a consolidated wash rack is needed, and a project will move forward as funding becomes available.</p>	<p>No</p>

Pollution Prevention/Good Housekeeping for Municipal Operations (continued)

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

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

E. Results of Information Collected and Analyzed.*

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

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

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

F. Summary of Inspections and Enforcement Actions.

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

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

G. Proposed Changes to the Stormwater Management Program.

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

BAFB will be changing Measurable Goal CON-4 #3, the percent of new project preconstruction meetings between CES/CEIE, construction contractors and project management staff prior to groundbreaking from 50% to 75% of new projects. This change is reasonable and obtainable for Buckley and will allow for greater compliance oversight and contact with project managers and construction site superintendents. BAFB believes creating stronger relationships with construction personnel will allow for more effective and fluid workflows, ultimately creating better odds for permit compliance at less cost to the PMs and contractors.

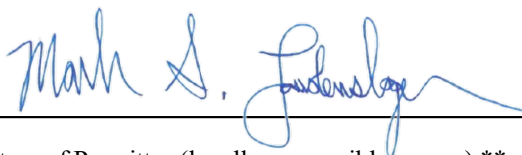
H. Notice of Program Element Operation by a Second Party.

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."



19 March 2021

Signature of Permittee (legally responsible person) **

Date Signed

MARK S. LAUDENSLAGER, GS-13, 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).