UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region8/stormwater

STORMWATER ANNUAL REPORT FORM

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

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

Completed forms should be mailed to:

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

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

A. Permittee Information

Permittee (Agency Name):	Department of the Air Force - Buckley Space Force Base (BSFB)
Mailing Address:	660 S. ASPEN ST, STOP 86
City, State and Zip Code:	BSFB, CO 80011-9564
Contact Phone Number:	720-847-7245
Permit Certification Number:	COR042003
Have any areas been added to the MS4 due to annexation or other legal means?	NO

B. Reporting Period: January 1, 2024 – December 31, 2024

C. Construction Program Contact:

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

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

If Yes:

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

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

D. Implementation of EPA's Stormwater Management Program

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

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

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

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

1. Public Education and Outreach on Stormwater Impacts

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
PEO-1 Distribute Water Quality Educational Material to Target Audience Identify the frequency and dates for all Facility Manager (FM) trainings, Newcomers Orientations and the dates other informational material was distributed to target audience.	**COMPLETED** BSFB provided informational material to target audiences during the Newcomers Orientation 10 times on the following dates: 17 January, 21 February, 20 March, 17 April, 15 May, 19 June, 17 July, 21 August, 18 September, and 16 October 2024. In 2024, the Newcomers slides were updated to contain information on spill and illicit discharge recognition and procedures for minimization, and reporting. The Newcomers Orientation will be provided on the 3rd Wednesday of every month in 2025. See the following pages for a copy of the educational information provided.	No

460th Civil Engineering Squadron

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Environmental Office

460 CES/CEIE Element Chief
Matthew Rodgers
720-847-7245
matthew.rodgers.7@spaceforce.mil

UNCLASSIFIED

Welcome to the Centennial State!

Sustainability and Defense

UNCLASSIFIED

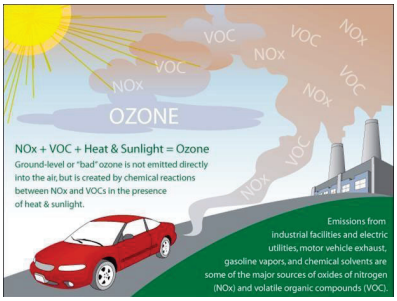
- DoD is the largest institutional consumer of oil in the world (100M+ barrels/year)
- Resources have driven conflict for time immemorial (e.g. salt, oil, gas (nordstream) and likely water)
- Climate change will likely drive additional military burden/conflict due to extreme weather, droughts, mass migrations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

UNCLASSIFIED

Ozone Action Days

UNCLASSIFIED

- **Unlike the good, protective ozone layer you may have heard of, "Surface-level ozone" is a harmful air pollutant that affects all of us by triggering asthma attacks, aggravating pre-existing respiratory conditions, and making breathing difficult**
- **Surface-level ozone is caused by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in the presence of heat and sunlight**



UNCLASSIFIED

Ozone Action Days

UNCLASSIFIED

- Ozone Action Days indicate the air quality will be in either the "Unhealthy" or "Unhealthy-for-Sensitive-Groups" categories according to the EPA's index for reporting air quality.
- With the Denver Metro Area continuing to experience degraded air quality conditions and additional regulatory constraints, Space Base Delta 2 is taking this opportunity to become a community leader in reducing vehicle-related emissions during Ozone Action Day Alerts by authorizing supervisors to approve situational telework on these days
- Telework on Action Days must be tracked and sent to the Environmental office monthly. Trackers can be obtained from and sent to jeffrey.harrison.6@spaceforce.mil
- You can sign up to receive Ozone Action Day notifications via email/text at the following websites (use personal email address): https://www.colorado.gov/airquality/request_alerts.aspx (Email Alerts)
- https://simplestepsbetterair.org/signup-for-alerts/ (Mobile Alerts)

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Vehicle Emissions Test

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

Emissions Test Exemptions

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

Air Care COLORADO

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Employee-Vehicle Certification and Reporting System (ECARS)

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

ECARS
Employee-vehicle Certification And Reporting System

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Recycling

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- The Buckley SFB recycling program uses single-stream collection, the same type of collection typically used in households. There may be marked recycling dumpsters (like this one) near your building. Please note that all dumpsters are for government use only (no personal property)

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The North Yard

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- The North Yard is a recycling area that accepts scrap metal and pallets for recycling
- Located about ¼ mile east on Winter Park Place from Vail and Winter Park Place intersection, there is small pull off to a locked gated area on the left
- The North Yard is by appointment only. Please contact Ethan Woodard at ethan.woodard.1@spaceforce.mil to schedule an appointment

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Water

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- Colorado is a headwaters state. Our actions can adversely affect millions of other users downstream of us!
- Use Best Management Practices (BMPs) to ensure no chemicals enter storm drains or contaminate soil. Examples of BMPs include secondary containment, storage lockers, spill kits, etc.
- If you have a spill, contact the Environmental Office at 720-847-4655 and the Fire Department at 720-847-9117

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Water

Discharge Prevention and Response Procedures

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

WHAT TO DO:

Notify your supervisor and Buckley Space Force Base Fire Department (BSFB FD).	BSFB FD will help you determine if it is a major spill and assist if you are unqualified/uncomfortable cleaning up the spill.
Put on appropriate Personal Protective Equipment (PPE).	At minimum: safety glasses or goggles, gloves, apron, and rubber boots.
Turn off all sources of ignition.	For example: pumps and motors.
Attempt to stop or slow the source of the spill to prevent any further release.	Without risk of injury.
Contain the source of the spill if possible.	Build a dike around the spill using absorbent material. Protect nearby stormwater, sanitary sewer drains, and conveyances using booms and drain mats, if available.
Proceed with cleanup efforts.	Refer to the SDS and the Base's Hazardous Waste Management Plan for procedures on proper packaging and disposal of recovered materials.
Report the discharge to 460th CES/CEIE immediately.	

WHAT KIND OF SPILL IS IT?

- **MINOR:** Spills that involve an area less than 10 feet in any dimension, or not over 50 square feet in area, and are not of a continuing nature.
- **MAJOR:** Spills that are over 10 feet in any one dimension, over 50 square feet in total area, or are of a continuing nature. Major spill response will be carried out by BSFB FD and Emergency Management Services (EMS)

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

WHO TO CONTACT:

1. Buckley Space Force Base Fire Department: 720-847-9117 (911 on base)
2. 460th CES Spill Prevention Control and Countermeasure (SPCC) Program Manager: 720-847-4655
3. 460th CES/CEIE Element Chief: 720-847-7245 or Flight Chief: 720-847-9218
4. 460th Hazardous Waste: 720-847-7795

Natural & Cultural Resources

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

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

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BUCKLEY SPACE FORCE BASE ENVIRONMENTAL COMMITMENT STATEMENT

ENVIRONMENTAL MANAGEMENT SYSTEM

The process by which we improve our environmental performance. This system follows a cyclical procedure of plan, do, check and act.

At BSFB we strive for continual improvement by:

- Being exemplary stewards of Cultural Resources through protection of historic properties/sites and by continuing to build on a foundation of trust and transparency with our Tribal partners
- Addressing Denver Metro Area concerns of especial importance, such as air and water quality, through best management practices and education across BSFB, including contractors and tenants
- Ensuring previously contaminated areas are managed and mitigated in a manner that promotes communications and builds consensus between all stakeholders

SBD 2 and its installations are dedicated to protect the environment while fulfilling its mission to "Deliver unrivaled combat support to our Joint mission partners and Allies, enabling uninterrupted missile warning, intelligence, and cyber operations." Every military member, civilian and contract employee at SBD 2 shall comply with relevant environmental laws and regulations, Executive Orders, DoD and DAF policy. To ensure Environmental Management System (EMS) success, SBD 2 shall:

- **Integrate environmental compliance & planning with SBD 2 mission at all levels of management and decision-making.**
- **Reduce waste generation and prevent pollution via innovation, effective facility management, and sound procurement practices.**
- **Maximize CFT participation by appointed organizations listed in the SBD 2 CFT Membership Memorandum**

For questions, contact 460 CES/CEIE at (720) 847-9268

EMS General Awareness Training

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- **EMS General Awareness training is a mandatory one-time training for all installation personnel**
- **The training can be accessed without a CAC and is available on The Environmental Awareness Course Hub (TEACH) at https://usaf.learningbuilder.com/account/login under the course number EMS100AFIT00004**

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460th Civil Engineering Squadron

UNCLASSIFIED

Questions?

UNCLASSIFIED

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.
PEO-2 Training for Facility Managers Provide annual training to building managers, maintenance workers, and tenants on how to minimize, report, and recognize spills and illicit discharges. This training may be incorporated into a larger program to educate tenants and building managers related to environmental compliance or environmental awareness	**COMPLETED** BSFB Facility Manager trainings were held on 14 February, 6 March, 3 April, 15 May, 5 June, 10 July, 7 August, 11 September, and 9 October 2024. During each FM training, spill and illicit discharge recognition and procedure for minimization, reporting were incorporated into this training. See the following pages for environmental awareness compliance material provided. Facility Manager training will occur quarterly in 2025.	No

Environmental Office

Mr. Matthew Cohen
(720) 847- 4655

Environmental Management System

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

Vehicle Emissions Test

- Clean Air Act, Denver and Buckley require an emissions (smog) test on Federal Facilities if you operate a vehicle more than 60 days per calendar year, regardless of where your vehicle is registered
- Testing locations can be found at AirCareColorado.com
- Email Jeff Harrison at jeffrey.harrison.6@spaceforce.mil to register

Emissions Test Exemptions

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

Air Care COLORADO

Recycling

- The Buckley SFB recycling program uses single-stream collection. There are marked recycling dumpsters (like this one) near your building , no shredded paper.

Recycling Turn-in

Scrap Metal Recycling Receiving Yard, a.k.a. North Yard
(Call Mr. Ethan Woodard at (720) 847-9268 to make an appointment)

Recycle scrap metals and wood pallets at the North Yard.

Haz Waste

- **Environmental holds government hazardous waste/universal waste turn-in every Thursday at 1300 or by appointment, call (720) 847-7795 (Building 1025 on Camp Hale Court)**

Water Quality

Sanitary Sewer -

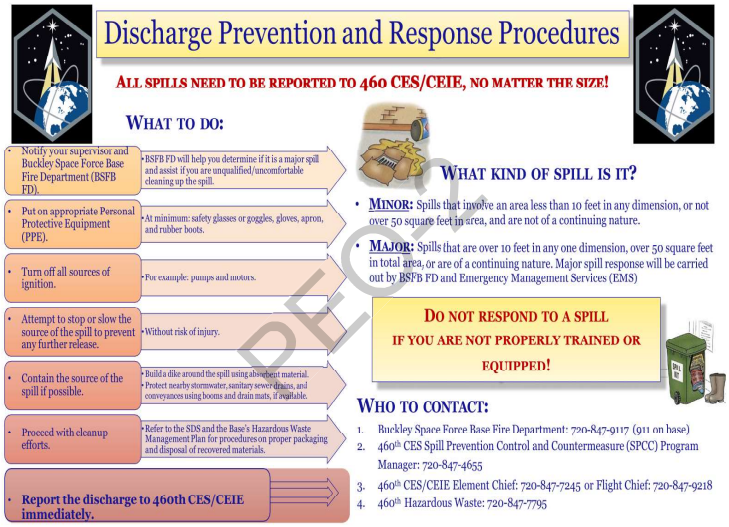
- **Do not pour chemicals or oils down the sink or discharge to the sanitary sewer**
- **Call the Water Quality Program Manager, (720) 847-4655, if a chemical is discharged into sanitary sewer.**

Tap Water -

- **If tap water looks or smells different than usual,**
  - **Call Bioenvironmental Engineering at (720) 847-6384 to test the water.**
  - **If appears urgent, call CE Operations Support, Customer Service (720) 847-9913**

Storm Water -

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



Storage Tanks

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

Toxics

- Asbestos (Asbestos Containing Building Materials ACBM) -
  - Base-wide survey (2004-2006) Building specific: 200, 300, 302, 340, 400, 401, 429, 430, 431, 432, 706, 731, 801, 814, 841, 850, 909, 940, 950, 1101, 1411, 1413, 1500, 1606
  - Unknown: 402, 403, 404, 405, 413, 485 (survey may not include high security or hidden areas of buildings)
    - Environmental (CEIE) must review work order requests prior to maintenance and survey may be required
  - Environmental Office have results
    - FM's are required to maintain a copy of their building surveys and management plan if one was developed. Hardcopies located at Environmental (CEIE).
- Lead Based Paint -
  - No requirement for a base survey. Project surveys may be req'd
  - Only a risk if you disturb material. (LBP use now prohibited)
- Radon Gas -
  - Past base-wide survey, no high-risk facilities on Buckley
- Toxics Program Manager, Mr. Matthew Christensen at (720) 847-5723

Cultural and Natural Resources

Cultural -

- 12 historical buildings & sites (801, 909, 402, 403, 404, 405, 431, 432, 433, 434, 630, and 814)
  - Environmental (CEIE) must review work all order requests prior to maintenance on any of these buildings
- If an inadvertent archaeological discovery is made stop work immediately and contact the cultural resources manager at (720) 847-9059.

Natural -

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

Questions?

PEO-3: NPDES and Pesticide Training	**COMPLETED** On 16 October 2024, BSFB distributed a stormwater pollution control educational handout to approximately 500 recipients. The handout was developed to assist project managers, engineers, contractors, and all other relevant stakeholders with reducing water quality impacts associated with reduction efforts include responsible fertilizer application, installing xeriscaping, proper disposal of leaves and lawn waste, and evaluating alternatives to deicers containing phosphorus nitrogen and phosphorus in discharges from BSFB's Municipal Separate Storm Sewer System (MS4). A copy of the handout can be seen on the following page. Additional training will be scheduled for 2025.	

Buckley Space Force Base

MS4 Stormwater Permit Program

Preventing Stormwater Pollution is Possible

Rainfall and snow melt becomes stormwater which flows across sidewalks and streets and can come in contact with pollutants including Nitrogen and Phosphorous. These pollutants in stormwater can originate from fertilizer application on turfgrass and in planter beds, from pet waste, or an illicit discharge.

Stormwater flows into the Base Municipal Separate Storm Sewer System or MS4. Nitrogen and Phosphorus in stormwater discharges from the MS4 have the potential to impact water quality downstream.

Base stormwater discharges eventually flow to state waters where pollution can impact wildlife and water used for drinking and recreation. These discharges can contain Nitrogen and Phosphorous but there are steps to prevent or reduce pollutant levels.

Ways to Prevent or Reduce Water Quality Impacts Associated with Nitrogen and Phosphorous in MS4 Discharges

- **Responsibly apply herbicides and pesticides.**
- **Convert to xeriscape landscaping.**
- **Pick up pet waste and dispose of it in the trash.**
- **Use alternatives to deicers containing phosphorus.**
- **Do not dispose of unused chemicals on the ground or in a storm drain.**
- **Properly dispose of leaves and lawn waste.**

Help prevent stormwater pollution by reporting potential problems. Stormwater pollution indicators include discoloration, sheen, suspended sediment and debris, or an odor coming from a storm drain or outfall pipe. If you suspect pollutants are entering a Base storm drain or illegal dumping is occurring, please contact the BSFB Water Quality Program Manager at (720) 847-4655 and report the location and nature of the issue. All annual reports and Stormwater Management Plan updates as required by this MS4 Permit can be found here: https://www.buckley.spaceforce.mil/Units/Environmental/ -- Email 460ces.cevwater@us.af.mil for more information.

Public Education and Outreach on Stormwater Impacts (continued)

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

The BSFB stormwater program host military, civilian, contractor, military dependents, and retired military personnel who work and utilize services on BSFB. BSFB supports 3,100 active-duty members from every service, 4,000 National Guard personnel and reservists, 2,400 civilians, 2,500 contractors, 36,000 retirees and approximately 40,000 veterans and dependents. The BSFB stormwater program regularly interacts with tenant organizations including 140th Colorado Air National Guard, Navy, Marines, Colorado Army National Guard, Aerospace Data Facility of Colorado, and Amazon Web Services through regular business-related items, and cross functional team networks where information is readily shared and further disseminated in support of BSFB NPDES permits. The target audience for the BSFB PEO MCM is the entire installation but outreach materials specifically target grounds maintenance personnel, facility managers, tenants, residents, project managers, contract managers, and workers engaging in commercial, industrial and municipal operations.

During the 2024 Permit Year, BSFB conducted: Forty (40) industrial stormwater shop-level inspections as part of its Multi-Sector General Permit (MSGP) routine industrial facility inspections with twelve (12) shop leads; fifty-six (56) construction site oversight inspections involving ninety-one (91) different personnel; nine (9) facility manager trainings averaging about twenty (20) personnel per training session; ten (10) newcomer orientation sessions averaging about thirty (30) personnel per session; four (4) stormwater trainings with seven hundred and fifty-two (752) total participants; two (2) public postings that reached approximately one hundred (100) people in total; one (1) meeting with nine (9) participants from City of Aurora department; six (6) SWPPP reviews for six (6) points of contact. Between the six minimal control measures, the BSFB stormwater program conservatively estimates to have reached 1450 personnel during the 2024 Permit Year.

The BSFB Civil Engineer Squadron Installation Management Flight (460 CES/CEIE) Water Quality Program Manager (WQPM) is responsible for coordination and implementation of the stormwater PEO outreach program.

2. Illicit Discharge Detection and Elimination (IDDE)

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.
IDDE-1 Illicit Discharge Detection and Elimination Program 1. Maintain one printed copy of the EPA Illicit Discharge Detection and Elimination (IDDE) Manual in the Environmental Element's library.	**COMPLETED** A hardcopy of the US EPA IDDE Manual is in place on the 460 CES/CEIE Stormwater library shelves.	No
2. Implement IDDE program. The program shall include procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system.	**COMPLETED** The program addresses dry weather discharge screening annually, maintains illegal dumping, pollution prevention programs, and includes spill response training for staff. An annual review of the EPA Illicit Discharge Detection and Elimination Manual relevant to the illicit discharge elimination program was conducted via email by the 460 CES/CEIE WQPM on 15 October 2024. Six (6) representatives from 460 CES/CEIE, 460 CES/CEF, AFCEC, Colorado Army National Guard, and Amazon Web Services participated in the review. Documentation of the completion of Illicit Discharge Detection & Elimination (IDDE) Program is	No

	documented in the 7 November 2024 Memorandum For Record located on page 18. The categories of non-stormwater discharges evaluated as potentially pollutant contributors include hazardous waste & POL storage areas, pesticide storage and use, vehicle/roadway maintenance areas and sediment from active construction sites. BSFB closely monitors these categories and conducts frequent shop-specific trainings and inspections. No local controls were needed in 2024.	
3. Provide spill contact information and mechanism for reporting of illicit discharges to appropriate point of contact.	**COMPLETE** On 15 October 2024, spill response informational handout was provided to 223 personnel. This handout is also referenced in PEO training materials. A copy of the handout is provided on page 17.	
4. Document the time required to investigate, plan, and correct confirmed illicit discharges identified on BSFB. For confirmed illicit discharges, BSFB will investigate any illicit discharge within two (2) business days of detection and take action to eliminate the source of the discharge within fifteen (15) business days of its detection.	**COMPLETED** Two (2) illicit discharges occurred at BSFB in 2024. Descriptions of the illicit discharges and all actions taken to eliminate sources of illicit discharge are provided in the copies from the BSFB Enforcement Actions, Spills, and Inspections Environmental Reporting (EASIER) database which is the information management system used to track illicit discharges. A copy of the discharge reports can be seen on pages 19-32. 1. B-495, Cooling Water (50 gallons), 20 March 2024. 2. B-495, Cooling Water (231 gallons), 18 June 2024.	No

Discharge Prevention and Response Procedures

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

WHAT TO DO:

- Notify your supervisor and Buckley Space Force Base Fire Department (BSFB FD).
  - BSFB FD will help you determine if it is a major spill and assist if you are unqualified/uncomfortable cleaning up the spill.
- Put on appropriate Personal Protective Equipment (PPE).
  - At minimum: safety glasses or goggles, gloves, apron, and rubber boots.
- Turn off all sources of ignition.
  - For example: pumps and motors.
- Attempt to stop or slow the source of the spill to prevent any further release.
  - Without risk of injury.
- Contain the source of the spill if possible.
  - Build a dike around the spill using absorbent material.
  - Protect nearby stormwater, sanitary sewer drains, and conveyances using booms and drain mats, if available.
- Proceed with cleanup efforts.
  - Refer to the SDS and the Base's Hazardous Waste Management Plan for procedures on proper packaging and disposal of recovered materials.
- **Report the discharge to 460th CES/CEIE immediately.**

WHAT KIND OF SPILL IS IT?

- **MINOR:** Spills that involve an area less than 10 feet in any dimension, or not over 50 square feet in area, and are not of a continuing nature.
- **MAJOR:** Spills that are over 10 feet in any one dimension, over 50 square feet in total area, or are of a continuing nature. Major spill response will be carried out by BSFB FD and Emergency Management Services (EMS)

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

WHO TO CONTACT:

1. Buckley Space Force Base Fire Department: 720-847-9117 (911 on base)
2. 460th CES Spill Prevention Control and Countermeasure (SPCC) Program Manager: 720-847-4655
3. 460th CES/CEIE Element Chief: 720-847-7245 or Flight Chief: 720-847-9218
4. 460th Hazardous Waste: 720-847-7795

7 November 2024

MEMORANDUM FOR RECORD

FROM: 460 CES/CEIE

SUBJECT: Documentation of Completion of Illicit Discharge Detection & Elimination (IDDE) Program Requirements per Section IDE-1 of the SWMP, Rev 1 for Permit Year 1

1. Buckley SFB (BSFB) maintains one printed copy of the EPA Illicit Discharge Detection and Elimination Manual (October 2004 version) in the Environmental Element's library, which is 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 15 October 2024 with six (6) representatives from 460 CES/CEIE, 460 CES/CEF, AFCEC, Colorado Army National Guard, and Amazon Web Services. Familiarity with the IDDE manual was attained and a review of key takeaways from the manual as they apply to BSFB was conducted.

3. Pertinent points in the review included:

   a) Possible sources of illicit discharges.
   b) How to respond to and report a spill.
   c) A review of the U.S. EPA IDDE Manual.
   d) A review of allowable non-stormwater discharges and verification was made that they are not a significant pollution contributor.

4. Please contact Matt Cohen at matthew.cohen.4@spaceforce.mil or at (720) 847-4655 with any questions regarding this tasking.

Matthew E. Cohen, GS-12, DAF
Water Quality Program Manager, 460 CES/CEIE

Installation Details

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

Spill Details

Fiscal Year:	2024
Classification:	Reviewable
Closed Date:	05/15/2024 13:56:29
Reported to HAF?:	No
Report to HAF Determination Date:	05/15/2024
Read/Received Date:	03/20/2024
Estimated Clean-up Date:	03/26/2024
Updated in EASIER:	05/15/2024
Entered in EASIER:	03/20/2024
Spill/Release Date:	03/20/2024
Was the release cleaned up within 24 hours?:	No
Did process owner have sufficient clean-up capabilities?:	Yes
Class:	CLASS II: Area < 10 lineal ft in any plane dimension, or < 50 sq ft and not a continuous nature.
Overall Root Cause:	(I) Infrastructure
Specific Root Cause:	(I2) Defective or failed equipment
Equipment/Facility Involved:	B-495 cooling tower 3
Equipment Type:	Other (Add Description Below)
Aircraft Type	N/A
FES Incident Number	N/A
Cause of Release	Accidental Discharge due to Equipment Failure

Description:

At approximately 0530 hrs on 20 March 2024, Tower 3 of the Building 495 Chiller Plant was found spraying water from the top of the northeast section of the tower structure. Snow melt and portions of the spray re-entering the tower structure makes determining spilled amount difficult. It appeared at around 0630 when ESH observed the site, only minor amounts of water left the equipment slab. Tower 3 was shut down and removed from operations. Follow up investigation has not revealed a leak. It is currently speculated that the south valve closed slower than normal causing water to flow at higher than normal pressure through the north valve causing the spray. At least some of the water entered the vegetated swale, constituting an illicit discharge. A 2023 wastewater characterization of B-495 cooling tower water revealed trace amounts of PFAS chemicals.

Investigation of root cause was immediately initiated and a correction action plan was implemented by 26 March 2024.

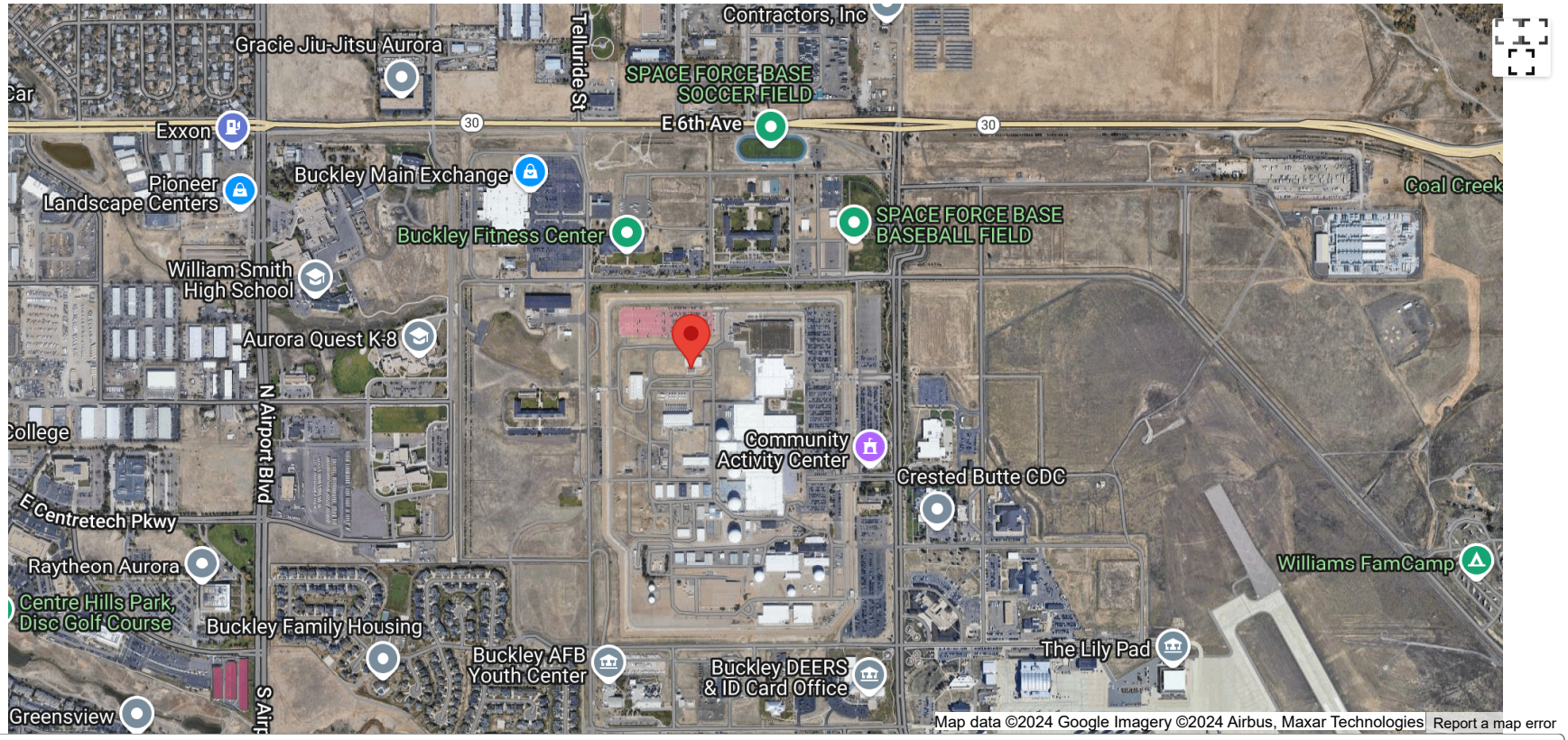
Points of Contact

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

Location Map

Latitude:
39.7200837181637

Longitude:
-104.778511135693



Materials

Material Released	Qty Released	Qty Recovered	Reportable Quantity
Cooling tower water	50 Gallon(s)	0 Gallon(s)	N/A

Release Details

Question	Answer	Details
Did the release result in injury or loss of life?	No	
Did the release cause the loss of aircraft, spacecraft, or facility, or was the release caused by the loss of aircraft, spacecraft, or facility?	No	

Question	Answer	Details
Did the release interrupt installation mission operations?	No	
Did the release extend beyond installation boundaries at concentrations detectable visually, by odor, or in amounts expected to exceed state, federal or overseas FGS/OEBGD threshold concentrations based on environmental professional judgement?	No	
Did the release cause an estimated financial impact exceeding $50,000?	No	
Did the release result in or is expected to result in litigation, negative publicity, or coverage by a major media outlet?	No	
Did the release reach waters of the US (or host nation) or a storm drain connected to such?	No	
Did this spill occur on a vessel?	No	
Did the release involve 110 gallons or more of petroleum, oils, or lubricants (POL) on soil?	No	
Did the release involve petroleum, oils, or lubricants (POL) AND cause a film or sheen on nearby surface water?	No	
Is the release estimated to be equal or greater than the Reportable Quantity (RQ) as defined in 40 CFR §355.33 (includes CERCLA Hazardous Substances in 40 CFR 302.4 and EPCRA Extremely Hazardous Substances in 40 CFR 355 Appendix A) or overseas FGS/OEBGD?	No	
Did the release involve sewage AND it caused or is expected to cause an imminent and substantial threat to public health, safety or the environment?	No	
Do you believe this release should be reported to HAF, regardless of the spill quantity?	No	
Did the release result in political/host nation involvement?	No	
Did the release involve Aqueous Film Forming Foam (AFFF)?	No	
Did the release involve certain non-regulated emerging contaminant, similar to hazardous substances, including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane?	Yes	
Does the release present a continuing threat to the environment?	No	
Do you anticipate the release to result in an Enforcement Action?	No	
Did the release enter the sanitary sewer?	No	

External Communications

Question	Answer
Was the Fire Department notified?	No
Has the Fire Department visited the release site?	No
Was the NRC notified?	No
Has the NRC visited the release site?	No

Question	Answer
Was an environmental regulatory agency notified?	No
Has an environmental regulatory agency visited the release site?	No
Was an OPREP submitted?	No
Release Notification Made to Supported entity for off-base mutual response	N/A

Attachements

File	Document Type	Description	Sent/Received	Upload Date

No Attachments have been added.

Related Events

Event ID	Event Type	Details	Classification	Installation	Sub Location	Status	Occurred	Entered	Updated

No Related Events have been added.

Corrective Actions

Corrective Action 1

Status: Complete

Corrective Action: Tower 3 was shut down and removed from operations. Follow on investigation has not revealed a leak. It is currently speculated that the south valve closed slower than normal causing water to flow at higher than normal pressure through the north valve causing the spray. In order to identify the root cause of the illicit discharge, the Integrated Operations Control Center (IOCC) cycled the plant back to tower 3 while maintenance personnel observed tower operation. The team observed the south condensate inlet valve failing to operate. It was decided the valve failed to open during the initial issue likely due to a jammed scroll in the actuator. An emergency maintenance activity (MA) approval was submitted and approved. The Critical Maintenance team then began replacing the actuator. The actuator was successfully installed and wired by the afternoon of 20 March. Operational checks were then performed. The actuator and valve was successfully cycled manually once and remotely twice passing operational checks. Tower 3 was then returned to service.

Notes:

Air Force POC: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE

Additional POC:

Additional Funding Required:

Est. or Act. Completion Date: 03/26/2024

Project/Work Order Title:

Project/Work Order Number:

Notifications

To	CC	Subject	Message	Sent Date	Generated By
james.farris.3@us.af.mil; jarrod.case@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; breton.frazer.1@us.af.mil; brandon.fellner.3@us.af.mil; jakob.rice.1@us.af.mil; harry.eisenhauer.3@usspacecom.mil; brilana.troublefield.ctr@us.af.mil; michelle.cason.1@us.af.mil; savannah.pollard.1.ctr@us.af.mil; katherine.need.1@us.af.mil; james.zott.1@us.af.mil;	matthew.cohen.4@spaceforce.mil; kevin.leachman@us.af.mil; karla.meyer.1@us.af.mil; julia.mireles.1@us.af.mil; james.sato.ctr@us.af.mil; charlton.hedden.3@us.af.mil;	EASIER: New Spill Submitted (Buckley)	A new Spill has been submitted in EASIER for Buckley by COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE. The Spill was classified as "Reviewable" so Installation Support Section (ISS) and Regional Support Branch (RSB) personnel are required to review the Spill at the link below and either ISS or RSB can mark it as "Read and Received". Comments: None View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=5493	03/20/2024	System
matthew.cohen.4@spaceforce.mil;	james.farris.3@us.af.mil; jarrod.case@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; breton.frazer.1@us.af.mil; brandon.fellner.3@us.af.mil; jakob.rice.1@us.af.mil; harry.eisenhauer.3@usspacecom.mil; brilana.troublefield.ctr@us.af.mil; michelle.cason.1@us.af.mil; savannah.pollard.1.ctr@us.af.mil; katherine.need.1@us.af.mil; james.zott.1@us.af.mil;	EASIER: Spill Read and Received (Buckley)	A Spill has been marked as Read and Received by FELLNER, BRANDON A CIV USAF AFMC AFCEE/AFCEC/CZOM. Spill POCs should continue to update the Spill report until closure. Prior to closure, all corrective actions must be complete. Comments: None View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=5493	03/20/2024	System

History

Date	Action	Description / Comments	Generated By
05/15/2024, 16:56	Report HAF Determination Added	Report To HAF Determination: No CZO Business Rule 39 link is not working.	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
05/15/2024, 16:56	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
05/15/2024, 16:56	Event Closed		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:24	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:22	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:22	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:21	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE (In Progress) modified Status modified to Complete	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:19	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/27/2024, 09:16	Event Edited	Event Coordinates Updated	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 14:28	Event Read and Received		FELLNER, BRANDON A CIV USAF AFMC AFCEE/AFCEC/CZOM
03/20/2024, 13:59	Corrective Action Added	Assigned To: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 13:59	Event Submitted		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 13:58	External Communications Questionnaire Answered		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 13:57	Release Details Questionnaire Answered		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 13:57	Event Edited	Classification: Reviewable	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE

Date	Action	Description / Comments	Generated By
03/20/2024, 13:53	Event Created		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/20/2024, 13:53	POC Created	Author: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE	System

Installation Details

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

Spill Details

Fiscal Year:	2024
Classification:	Reviewable
Reported to HAF?:	
Report to HAF Determination Date:	
Read/Received Date:	07/01/2024
Estimated Clean-up Date:	06/18/2024
Updated in EASIER:	03/31/2025
Entered in EASIER:	07/01/2024
Spill/Release Date:	06/18/2024
Was the release cleaned up within 24 hours?:	No
Did process owner have sufficient clean-up capabilities?:	Yes
Class:	CLASS II: Area < 10 lineal ft in any plane dimension, or < 50 sq ft and not a continuous nature.
Overall Root Cause:	(I) Infrastructure
Specific Root Cause:	(I2) Defective or failed equipment
Equipment/Facility Involved:	B-495 Cooling Tower
Equipment Type:	Other (Add Description Below)
STAR Tank ID:	
Aircraft Type	N/A
FES Incident Number	N/A
Cause of Release	Accidental Discharge due to Equipment Failure

Description:

As maintenance was being performed on the cooling tower, a check valve failed in the 'open' position at cooling tower #4. This valve has been isolated and locked out until replacement can be completed. This caused make-up water to fill the sump to the point that 231 gallons overflowed onto the ground in the surrounding area. The release entered the riprap-lined swale to the south of B-495.

Corrective actions consist of a 2-phase effort. Phase 1 involves control system upgrades and is 85% complete, with more work scheduled for the near future. Phase 2 includes replacing four check valves for exterior cooling tower. Once order is placed, the delivery time is 8 to 9 weeks.

Points of Contact

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

Location Map

Latitude:
39.7200452859645

Longitude:
-104.778517116953

Materials

Material Released	Qty Released	Qty Recovered	Reportable Quantity
Cooling tower water	231 Gallon(s)	0 Gallon(s)	N/A

Release Details

Question	Answer	Details
Did the release result in injury or loss of life?	No	
Did the release cause the loss of aircraft, spacecraft, or facility, or was the release caused by the loss of aircraft, spacecraft, or facility?	No	
Did the release interrupt installation mission operations?	No	

Question	Answer	Details
Did the release extend beyond installation boundaries at concentrations detectable visually, by odor, or in amounts expected to exceed state, federal or overseas FGS/OEBGD threshold concentrations based on environmental professional judgement?	No	
Did the release cause an estimated financial impact exceeding $50,000?	No	
Did the release result in or is expected to result in litigation, negative publicity, or coverage by a major media outlet?	No	
Did the release reach waters of the US (or host nation) or a storm drain connected to such?	No	
Did this spill occur on a vessel?	No	
Did the release involve 110 gallons or more of petroleum, oils, or lubricants (POL) on soil?	No	
Did the release involve petroleum, oils, or lubricants (POL) AND cause a film or sheen on nearby surface water?	No	
Is the release estimated to be equal or greater than the Reportable Quantity (RQ) as defined in 40 CFR §355.33 (includes CERCLA Hazardous Substances in 40 CFR 302.4 and EPCRA Extremely Hazardous Substances in 40 CFR 355 Appendix A) or overseas FGS/OEBGD?	No	
Did the release involve sewage AND it caused or is expected to cause an imminent and substantial threat to public health, safety or the environment?	No	
Do you believe this release should be reported to HAF, regardless of the spill quantity?	No	
Did the release result in political/host nation involvement?	No	
Did the release involve Aqueous Film Forming Foam (AFFF)?	No	
Did the release involve certain non-regulated emerging contaminant, similar to hazardous substances, including perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane?	Yes	
Does the release present a continuing threat to the environment?	No	
Do you anticipate the release to result in an Enforcement Action?	No	
Did the release enter the sanitary sewer?	No	

External Communications

Question	Answer
Was the Fire Department notified?	No
Has the Fire Department visited the release site?	No
Was the NRC notified?	No
Has the NRC visited the release site?	No
Was an environmental regulatory agency notified?	No

Question	Answer
Has an environmental regulatory agency visited the release site?	No
Description of any coordination with relevant local and State environmental protection agencies	N/A
Use in Mutual Aid Response	No
Was an OPREP submitted?	No
Release Notification Made to Supported entity for off-base mutual response	N/A

Attachements

File	Document Type	Description	Sent/Received	Upload Date
6261 SDS - Copy.pdf	Supporting Document	Cooling water treatment		07/01/2024
Chemtex 3560-OT.PDF	Supporting Document	cooling water treatment		07/01/2024
Chemtex AA-4015.PDF	Supporting Document	cooling water treatment		07/01/2024
Chemtex Bromex-16.PDF	Supporting Document	cooling water treatment		07/01/2024

Related Events

Event ID	Event Type	Details	Classification	Installation	Sub Location	Status	Occurred	Entered	Updated

No Related Events have been added.

Corrective Actions

Corrective Action 1

Status: In Progress

Corrective Action: Corrective actions consist of a 2-phase effort. Phase 1 involves control system upgrades and is complete. Phase 2 corrective actions are underway and funded with estimated completion to be the first quarter of CY 2025.

Notes:

Air Force POC: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE

Additional POC:

Additional Funding Required:

Est. or Act. Completion Date: 10/30/2024

Project/Work Order Title:

Project/Work Order Number:

Notifications

To	CC	Subject	Message	Sent Date	Generated By
james.farris.3@us.af.mil; jarrod.case@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; breton.frazer.1@us.af.mil; brandon.fellner.3@us.af.mil; jakob.rice.1@us.af.mil; harry.eisenhauer.3@usspacecom.mil; brilana.troublefield.ctr@us.af.mil; savannah.pollard.1.ctr@us.af.mil; william.haas.10.ctr@us.af.mil; katherine.need.1@us.af.mil; james.zott.1@us.af.mil;	matthew.cohen.4@spaceforce.mil; kevin.leachman@us.af.mil; karla.meyer.1@us.af.mil; julia.mireles.1@us.af.mil; james.sato.ctr@us.af.mil; charlton.hedden.3@us.af.mil;	EASIER: New Spill Submitted (Buckley)	A new Spill has been submitted in EASIER for Buckley by COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE. The Spill was classified as "Reviewable" so Installation Support Section (ISS) and Regional Support Branch (RSB) personnel are required to review the Spill at the link below and either ISS or RSB can mark it as "Read and Received". Comments: None View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=5802	07/01/2024	System
matthew.cohen.4@spaceforce.mil;	james.farris.3@us.af.mil; jarrod.case@us.af.mil; lynn.sherman@us.af.mil; ronald.dell@us.af.mil; william.barry@us.af.mil; monte.mcvay@us.af.mil; lana.hubbard@us.af.mil; scott.webb.5@us.af.mil; kristy.rouse@us.af.mil; curtis.frye@us.af.mil; laura.wilson.21.ctr@us.af.mil; amy.tegethoff.1@us.af.mil; sean.houseworth.4@us.af.mil; breton.frazer.1@us.af.mil; brandon.fellner.3@us.af.mil; jakob.rice.1@us.af.mil; harry.eisenhauer.3@usspacecom.mil; brilana.troublefield.ctr@us.af.mil; savannah.pollard.1.ctr@us.af.mil; william.haas.10.ctr@us.af.mil; katherine.need.1@us.af.mil; james.zott.1@us.af.mil;	EASIER: Spill Read and Received (Buckley)	A Spill has been marked as Read and Received by HOUSEWORTH, SEAN S CIV USAF AFCEC AFCEE/CZOM. Spill POCs should continue to update the Spill report until closure. Prior to closure, all corrective actions must be complete. Comments: Reviewed, ISS will keep appraised of corrective actions with CEIE. View Event: https://usaf.dps.mil/teams/14074/Module/SpillDetails.aspx?SID=5802	07/01/2024	System

History

Date	Action	Description / Comments	Generated By
03/31/2025, 13:06	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/31/2025, 13:05	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/31/2025, 13:05	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
03/31/2025, 13:03	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
11/07/2024, 19:54	Corrective Action Edited	CA Assigned To COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE (In Progress) modified	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 18:41	Event Read and Received	Reviewed, ISS will keep appraised of corrective actions with CEIE.	HOUSEWORTH, SEAN S CIV USAF AFCEC AFCEE/CZOM
07/01/2024, 18:02	Attachment Added	Supporting Document: Chemtex AA-4015.PDF	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 18:02	Attachment Added	Supporting Document: Chemtex Bromex-16.PDF	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 18:02	Event Submitted		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 18:01	Attachment Added	Supporting Document: 6261 SDS - Copy.pdf	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 18:01	Attachment Added	Supporting Document: Chemtex 3560-OT.PDF	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 17:59	External Communications Questionnaire Answered		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 17:59	Corrective Action Added	Assigned To: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE (In Progress)	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 17:58	Release Details Questionnaire Answered		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 17:58	Event Edited	Classification: Reviewable	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
07/01/2024, 17:57	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE

Date	Action	Description / Comments	Generated By
06/18/2024, 19:54	Event Edited		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
06/18/2024, 19:10	Event Created		COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE
06/18/2024, 19:10	POC Created	Author: COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE	System
06/18/2024, 19:10	Event Edited	Event Coordinates Updated	COHEN, MATTHEW E CIV USSF SpOC 460 CES/CEIE

Illicit Discharge Detection and Elimination (continued)

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.
IDDE-2 Dry Weather Screening of Major Outfalls 1. Conduct dry weather screening of BSFB outfalls once per year. Document findings of dry weather screening and erosion evaluation. Document results of any follow up illicit discharge investigation or assessments. BSFB performs dry weather screening annually at all base outfall points.	**COMPLETED** Screenings occurred on 1 August, 20 August, and 21 August 2024 during the Permit Year with no dry weather discharges detected and no follow up illicit discharge investigations or assessments required. The dry weather screening process is described by the blank dry weather screening form on the following pages. Dry weather screenings are performed at all 21 BSFB stormwater outfalls.	No

Illicit Discharge Detection and Elimination (continued)

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.
IDDE-3 Illegal Dumping and Non-Compliance Enforcement Mechanisms 1. Document any illicit discharge and illegal dumping enforcement actions taken.	**COMPLETED** No enforcement actions (EAs) were required during the Permit Year. BSFB has established ordinances and regulatory mechanisms that expressly prohibit illicit discharges into the MS4. 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 BSFB. Existing illegal dumping and noncompliance enforcement procedures for non-compliance with laws, regulations, and policies.	No

	include the Uniform Code of Military Justice, contracts subject to Federal Acquisition Regulations (FAR), Air Force Instruction (AFI) 51-201 Law Administration of Military Justice, and AFI 36-704 Discipline and Adverse Actions of Civilian Employees. 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 BSFB.	

Illicit Discharge Detection and Elimination (continued)

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.
IDDE-4 Storm Sewer System Map 1. Develop and maintain an updated map of the stormwater drainage system within BSFB property showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls.	**COMPLETED** The update process is organized by installation areas, called tiles; there are 35 tiles that cover the entire installation. Each tile covers a specific portion or area of the installation, and a certain number of tiles are scheduled to be covered by the update process each calendar quarter, so progress toward the goal can be measured. The update process involves quarterly check-ins between 460 CES Geobase and the WQPM. The stormwater drainage system shows the location of all outfalls and the names and locations of all waters of the US that receive discharges from those outfalls.	No

Dry Weather Outfall Screening Form

460TH CIVIL ENGINEER SQUADRON/ENVIRONMENTAL ELEMENT
460TH SPACE WING, BUCKLEY SPACE FORCE BASE

Section 1: General Information

Outfall ID:	Investigator:		
Today's date/time:	Form completed by:		
Rainfall in last 72 hours: ☐ Y ☐ N (If yes, evaluate only outfall and not dry weather screening)	Type of Day:	☐ Sunny ☐ Grey ☐ Cloudy ☐ Clear	Outside Temperature:

Section 2: Outfall Description

Location	Material	Shape	Dimensions (in.)	Submerged
Closed Pipe	☐ RCP-reinforced concrete ☐ CMP-corrugated metal ☐ PVC-polyvinyl chloride ☐ HDPE-high density polyethylene ☐ Steel ☐ Other:	☐ Circle ☐ Elliptical ☐ Box ☐ Single ☐ Double ☐ Triple	Diameter: N/A Width: N/A Height: N/A Depth*: N/A *note surface if aboveground	In Water: ☐ No ☐ Partially ☐ Full With Sediment: ☐ No ☐ Partially ☐ Full
Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:	Depth: N/A Top Width: N/A Bottom Width: N/A	Standing Water: ☐ No ☐ Partially ☐ Full Sediment: ☐ No ☐ Partially ☐ Full

Flow Present? (if none, skip to Section 5)	☐ None ☐ Trickle ☐ Moderate ☐ Substantial

Section 3: Field Observations and Measurements (Complete only if flow present)

Flow Temperature (˚F):	Flow pH:	pH meter calibrated? ☐ No ☐ Yes (date):

Indicator	Description	Relative Severity Index (0-3)			
Odor	☐ Musty ☐ Chlorine ☐ Ammonia ☐ Sewage ☐ Sour Milk ☐ Petroleum/Gas ☐ Solvents ☐ Fishy ☐ Sour/Rotten Egg ☐ Other:	☐ 0-None	☐ 1-Faint	☐ 2- Easily Detected	☐ 3- Noticeable From a Distance
Color	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ White ☐ Other:	☐ 0-None	☐ 1- Faint colors in sample bottle	☐ 2- Clearly visible in sample bottle	☐ 3- Clearly visible in outfall flow
Clarity	☐ Silty ☐ Muddy ☐ Other:	☐ 0- Clear	☐ 1- Slight cloudiness	☐ 2 - Cloudy	☐ 3 - Opaque
Floatables	☐ Sewage (toilet paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Litter ☐ Other:	☐ 0-None	☐ 1-Slight	☐ 2- Easily Detected	☐ 3- Noticeable From a Distance
Biological	☐ Fish ☐ Algae ☐ Eggs ☐ Bacteria ☐ Larvae ☐ Iron Bacteria ☐ Other:	☐ 0-None	☐ 1-Slight	☐ 2- Easily Detected	☐ 3- Noticeable From a Distance

Dry Weather Outfall Screening Form

460TH CIVIL ENGINEER SQUADRON/ENVIRONMENTAL ELEMENT
460TH SPACE WING, BUCKLEY SPACE FORCE BASE

Section 4: Source Identification (Complete only if flow present)

Is upstream portion of outfall identified correctly on map?	☐ Yes ☐ No	Could visual inspection of the catch basin in the storm line above the outfall be performed? If not explain:		☐ Yes ☐ No
Was a source identified?	☐ Yes ☐ No	Source:	☐Wash Water ☐Sanitary Sewer ☐Potable Water Leak ☐Illegal Dumping ☐Spring Water ☐Animal Contamination ☐Other:	
Location of Source:		Generator Notified:	☐ Yes ☐ No	

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Indicator	Present?	Description	Comments
Outfall Damage	☐ Yes ☐ No	☐Cracking/Chipping ☐Corrosion ☐Clogged	
Deposits/Stains	☐ Yes ☐ No	☐Oily ☐Sedimentation ☐Mineralization ☐Algae ☐ Other:	
Abnormal Vegetation	☐ Yes ☐ No	☐Excessive ☐ Inhibitive ☐Bare	
Poor Pool Quality	☐ Yes ☐ No	☐Odor ☐Color ☐Floatables ☐Oil Sheen ☐Suds ☐Excessive Algae ☐Other:	
Pipe Benthic Growth	☐ Yes ☐ No	☐Brown ☐Orange ☐ Green ☐Other:	

Outfall Potential for Illicit Discharge (circle appropriate answer):	☐Unlikely/No flow ☐Possible (presence of two or more indicators) ☐Suspect (one or more indicators with severity of 2 or 3) ☐Obvious/Confirmed
Additional detail of conditions or comments:	
Detail of any corrective actions taken or to be taken:	

Certification by Responsible Official

Person Conducting Dry Weather Screening: Signature:_____

Printed Name:

Title:

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

Certifying Official: Signature:_____

Printed Name:

Title:

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.

3. 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.
CON-1 Construction Project Oversight Program 1. Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. 2. Maintain a list of policies and/or procedures which can be used to enforce construction site compliance within the BSFB.	**COMPLETED** 1. The construction oversight program and inspection plan were developed under the previous BSFB MS4 Permit. The plan was reviewed, updated and distributed to personnel on 16 December 2024. 2. Description of the enforcement mechanism used to require sediment and erosion controls and address noncompliance is provided in the following section.	No

REGULATORY MECHANISM TO REQUIRE SEDIMENT AND EROSION CONTROLS

The regulatory mechanism used to require sediment and erosion controls on construction projects located on BSFB is the 2022 Construction General Permit (CGP), under the National Pollutant Discharge Elimination System (NPDES), a federal permitting program, under the authority of the Clean Water Act (CWA). In the State of Colorado areas subject to construction activity by a Federal Operator (i.e., a federal facility) are not under the State's authority but are permitted under the authority of the Region 8 US EPA NPDES stormwater permitting under general Permit No. COR10F000.

The construction project contract and standard specifications specify stormwater discharges from construction activities such as clearing, grading, excavating, and stockpiling that disturb one or more acres, or smaller sites that are part of a larger common plan of development, are regulated under the 2022 CGP, for which construction operators must obtain coverage (i.e., prepare a construction Stormwater Pollution Prevention Plan (SWPPP) and obtain an active status Notification of Intent (NOI)) prior to commencing ground disturbing activity.

PROCEDURES TO ADDRESS NONCOMPLIANCE AND ENFORCEMENT MECHANISMS

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

Construction Site Stormwater Runoff Control (continued)

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
CON-2 Construction Site Stormwater Training 1. Provide and document training to staff which perform inspections regarding best management practices (BMPs) stormwater control measures (SCMs) and the terms of the EPA General Permit for Discharges from Construction Activities.	**COMPLETED** Completed on 11 April 2024 with 10 attendees. See the attached training slides on the following pages.	No

Stormwater Compliance for Construction Activities at Buckley Space Force Base

11 April 24

Presented by
Kelly Beck, Oneida Total Integrated Enterprises (OTIE)
Greg Vierra, Oneida Sustainment and Restoration Services (SRS)

Installation Water Program POCs

- Water Quality Program Manager
  - Matthew Cohen,460 CES/CEIE
  - matthew.cohen.4@spaceforce.mil
  - 720-847-4655; DSN 847-4655
- Stormwater Program Coordinator
  - Greg Vierra
  - SRS LLC Contractor, 460 CES/CEIE
  - gregory.vierra.2.ctr@spaceforce.mil
  - 720-847-6308; DSN 847-6308

Course Objectives

- Review NPDES History
- Stormwater Pollution from Construction Activities
- 2022 EPA Construction General Permit Requirements
- Discuss when stormwater permit coverage and a Stormwater Pollution Prevention Plan (SWPPP) is required
- Overview of the components of a Construction SWPPP
- Understand the stormwater issues associated with construction activities
- Discuss Best Management Practices (BMPs) for construction activities
- Identify other base environmental considerations for construction activities
- Understand expectations of BSFB for Permit compliance

Background on NPDES Permitting

- The National Pollutant Discharge Elimination System (NPDES)
  - Originally created as an amendment to the Clean Water Act (CWA) of 1972
  - Established a permit program to control water pollution by regulating the discharge of pollutants into the waters of the United States.
  - Includes Individual and General Permits
- Initial efforts focused on point source pollution from industrial and wastewater treatment discharges
- Passage of the Water Quality Act in 1987 established stormwater pollution prevention

1969 Cuyahoga River Fire

NPDES Program for Storm Water – MS4

- Phase 1 – Large and Medium Municipal Storm Sewer Systems (MS4s)
  - Populations of 100,000 or more
- Phase 2 – Established for smaller communities based on a population density of 1,000 people per square mile based on Census
- MS4 permits require cities to develop six programs to reduce storm water pollution
  - Public Education and Outreach, Public Participation and Involvement, Illicit Discharge Detection and Elimination, Construction Storm Water Runoff Control, Post Construction Site Runoff Control, Pollution Prevention/Good Housekeeping

Buckley SFB has an MS4 Permit

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NPDES for Storm Water – Industrial Activities

- Multi-Sector General Permits (MSGP) (also known as Industrial General Permits (IGPs))
  - Established for different types of activities
  - Goal to reduce pollution from stormwater entering Waters of the U.S. or MS4s
  - Examples of industrial activities include manufacturing, mining, airport and vehicle maintenance, and power generating

Buckley SFB has an MSGP/IGP Permit

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NPDES for Stormwater - Construction

- Purpose – Prevent stormwater pollution by using procedures and physical controls during all phases of construction on entire construction site
- Applicability
  - Sites which will disturb 1 or more acres of land
  - Sites smaller than one acre which are part of a common development > 1 acre
- Two types of Operator
  - Day to day operational control over construction activities (Construction Contractor, base construction office) - sometimes known as the Primary Operator
  - Operational control over plans and specifications (e.g. land owner, Corps of Engineers, Base Commander) – sometimes known as Secondary Operator)
  - Both Operators are responsible for permit compliance
    - Primary Operator by doing the job IAW the permit
    - Secondary Operator by ensuring Primary Operator is complying
    - Base can suspend work if contractor is not in compliance

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Why the EPA CGP when Colorado has its own CGP?

- EPA creates permits for the nation
- States given the opportunity to develop their own permits based on, and no less stringent than, the EPA permit
- EPA must approve the program before states are given "primacy"
- Colorado has been given primacy to develop their own CGP but it stipulates it does not cover Federal operations
- Current EPA permit effective 2/17/22 replaced the 2017 permit
- For more information visit:

https://www.epa.gov/npdes/2022-construction-general-permit-cgp

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Energy Independence and Security Act (EISA) of 2007 Section 438

- What does an energy law have to do with stormwater?
- One small section of this law created a large requirement for storm water compliance for Federal Facilities
- Section 438: STORM WATER RUNOFF REQUIREMENTS FOR FEDERAL DEVELOPMENT PROJECTS. The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

Note: 1 acre is 43,560 square feet

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EISA Relationship to CGP

- EISA does not impact CGP
- EISA requirements are built into the design of the project to achieve post construction stormwater = predevelopment stormwater
- Knowing about EISA gives construction contractors an idea on the reasoning behind stormwater controls which may not be as common on non-Federal Facilities

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Construction activities contributing to storm water pollution

- Clearing and grading
- Excavating
- Stockpiling
- Building roads and other impervious pavement/concrete surfaces
- Constructions of buildings
- Operation and movement of construction related vehicles and equipment
- Personal activities (namely food and drink trash)

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Project Site

- Disturbed area – actual land where surface and vegetation are impacted
  - Land clearing
  - Trenching
  - Lay down and staging areas
  - Parking
  - Construction trailer siting
  - Stockpiles
- Other project areas may not be disturbed but still require actions (e.g. good housekeeping) and may require stormwater controls to prevent outside flow onto disturbed areas

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2022 CPG – Obtaining, Maintaining and Terminating Coverage

- Determine eligibility – determine operator(s) (Sec 1.1.1)
- Site eligibility – size of site and type of work (Sec 1.1.2)
- Ensure discharges not covered by another permit (Sec 1.1.4)
- Develop SWPPP first (Sec 1.4.1 and Sec 7))
- Submit NOI (Sec 1.4)
- Post SWPPP board at construction site (Sec 1.5)
- Establish stormwater controls (e.g. silt fences, site entrance) (Sec 2)
- Meet water quality standards (Sec 3)
- Perform inspections (Sec 4)
- Update SWPPP and maintain controls during construction (Sec 5)
- Establish stormwater team (Sec 6)
- Submit NOT when project complete (Sec 8) with approval from 460 CES/CEIE
- Maintain records for 3 years (Sec 4.74 and 5.4.4)

Authorized Discharges (Sec 1.2)

- Allowable stormwater
  - Stormwater and snow melt runoff from a construction site
  - Stormwater discharges designated by the EPA as needing a permit
  - Stormwater discharges from support activities
- Allowable non-stormwater discharges
  - Emergency fire-fighting discharges and fire hydrant potable line flushing
  - Landscape irrigation and dust control
  - Equipment, building and pavement wash water – no soaps or solvents!
  - Uncontaminated AC condensate, ground water, and foundation drains
  - Uncontaminated flows from construction dewatering

Prohibited Discharges (Sec 1.3)

- Wastewater from concrete washout unless managed by an appropriate control
- Washwater from washout or cleanout of stucco, paint, and other construction materials
- Fuels, oils and other pollutants
- Soaps, solvents, detergent laden washwater
- Toxic or hazardous substances from spill or release

Obtaining Permit Coverage (Sec 1.4)

- Develop SWPPP before submitting NOI
- Submit NOI online at EPA NPDES eReporting Tool (NeT)

  https://npdes-ereporting.epa.gov/net-cgp/action/login
  - New sites - at least 14 days before starting construction
  - Note: Permit number for Federal Facilities in CO is COR10F000 (App B-8)
- NOI updates can be made after submission with "Change NOI" form
- New NOI required for operator and site changes

Submitting NOI for Coverage (Sec 1.4)

- Construction contractors are responsible for obtaining the permit
  - Prepares SWPPP and NOI
  - Provides SWPPP to base for review prior to NOI submission

SWPPP (Sec 7)

- Develop SWPPP
  - Use sound engineering practices
  - Must be specific to the site
  - Certified by operators
  - Kept on site
  - Updated throughout the project (red line documents and maps)
- Post the SWPPP during all phases of construction project
  - Must be readily visible to public (i.e. base personnel)

Required SWPPP Contents

- Site activity and description
- Stormwater Team
- Emergency information
- Sequence and estimated dates of construction activities
- Site map with specific elements
- Construction site pollutants
- Non-stormwater discharges
- Buffer documentation (if required)
- Description of stormwater controls
- Treatment chemicals (if used)
- Stabilization practices to be used

Required SWPPP Contents (cont)

- Pollution prevention procedures
- Procedures for site inspection, maintenance and corrective action
- Staff training
- Documentation of compliance with other federal requirements
- SWPPP certification
- Copy of NOI, acknowledgement letter, and copy of permit
- SWPPP updates and amendments
- Eligibility related to total maximum daily loads (TMDLs)

2024 SWPPP Updates

- Buckley SFB New MS4 Permit has standardized SWPPP expectations for construction activities occurring at Buckley SFB.
- 460 CES/CEIE updated Buckley SWPPP template in response to receiving new EPA MS4 Permit.
- SWPPP 1.2 - Must identify qualified stormwater manager.
- SWPPP 2.1 – Must indicate your method for determining the percentage of undisturbed local vegetation prior to start of construction. Include site pictures in your assessment.
- SWPPP Appendix O – Include copy of Buckley SFB SPCC Response Procedure.

Site Map (Sec 7.2.4)

- Site map (or maps, if necessary to show details) must include:
  - Site boundaries
  - Locations where earth disturbing activities will occur
  - Approx. slopes before and after grading activities (note steep slopes)
  - Location of sediment and/or soil stockpiles and construction materials
  - Receiving waters on or within 1 mile downstream of the site
  - Designated vehicle entry/exit points
  - Any areas of Federally listed critical habitat
  - Type and extent of pre-construction cover (vegetative or man-made)
  - Drainage patterns of stormwater
  - Stormwater discharge locations
  - Locations where stormwater controls will be placed
  - Locations where construction wastes will be kept (including concrete washout)
  - Locations where hazardous materials will be stored

Description of Stormwater Controls (Sec 7.2.6)

- SWPPP must include the following information:
  - Description of the specific controls to be implemented
  - Design specifications for controls
  - Routine maintenance for stormwater controls
  - Projected schedule for activities
  - Information on any natural buffers or equivalent sediment controls
  - Explanation for areas where controls are needed but not feasible
  - Sediment track-out control methods
  - Inlet protection measures
  - Sediment basins
  - Treatment chemicals to be used
  - Stabilization measures (vegetative and non-vegetative) to be used
  - Spill prevention and response procedures
  - Waste management procedures

Stormwater Team (Sec 6.1 and 6.2)

- Operators must assemble a team responsible for conducting activities necessary to comply with the permit
- Team must include personnel responsible for:
  - The for design, installation, maintenance, and repair of stormwater controls
  - Application and storage of treatment chemicals (if used)
  - Conducting inspections and taking corrective actions
  - EPA CGP Training: https://www.epa.gov/npdes/construction-general-permit-inspector-training
- Team members must be identified in the SWPPP
- Team members must be trained and understand permit requirements and their own responsibilities

Monitoring and Inspection Requirements (Sec 7.2.7)

- Select one of two options in your SWPPP
  - (1) At least once every 7 calendar days; or
  - (2) at least once every 14 calendar days AND within 24 hours of the end of a rain event of 0.25 inches or greater (must provide rain gauge)
  - All inspections shall be documented and certified
- Increased inspection frequency for site discharging to sensitive waters
  - Every 7 calendar days **AND** within 24 hours of a storm event 0.25 inches or greater
- Sampling not required
- Inspections must be conducted by "qualified personnel"
  - Knowledgeable in the principles and practice of erosion and sediment controls
  - Has the skills to assess conditions that could impact stormwater quality
  - Able to assess the effectiveness of any control measures
- Inspection for projects where 460 SW is the co-permittee
  - **Provide copies of inspection reports to 460 CES/CEIE**

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Conduction the Inspection

- Include all areas of the site disturbed by construction
  - All stormwater controls
  - Material and equipment storage
  - Waste storage
  - Drainage paths
  - Discharge points

- Record and certify inspection
- Check operation and effectiveness of BMPs
  - If maintenance needed, perform ASAP and before next storm event
- Amend SWPPP within 7 calendar days to reflect changes made due to inspections

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Documenting the Inspection

- Inspection date
- Names and titles of personnel performing the inspection
- Summary of findings covering
  - Installed control measures (operation and maintenance)
  - Presence of spills, leaks, and other pollutants
  - Locations where new or modified control measures are needed
  - Discharge points
  - Discharge information (if discharge occurring)
  - Incidents of non-compliance and any corrective actions needed
  - Weather information if not using 7-day schedule
    - Include rain gauge or weather station readings

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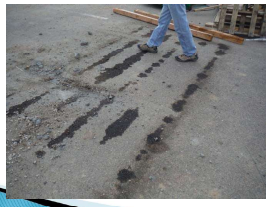
Inspections - Summary

The best test for whether your BMPs are working – what is leaving your site? Check pathways and outfalls



Also look for evidence of oil and other non-sediment pollutants

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Corrective Actions (Sec 5)

- Must report actions taken to:
  - Repair, modify or replace any stormwater control used at the site
  - Clean up and dispose of spills, releases, trash, or other pollutants
  - Remedy any permit violations
- Must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is made
- Must install, modify or repair controls within 7 days of discovery
  - Control never installed, installed incorrectly, or not effective
  - A prohibited discharge is occurring or has occurred

Corrective Action Report

- Create a report for each corrective action taken
  - Within 24 hours document the following
    - Which condition was identified at the site and how it was identified
    - The nature of the condition
    - Date and time of the condition
  - Within 7 calendar days, document the following:
    - Actions taken to review design, installation and maintenance of controls
    - Summary of control modifications taken and dates
    - Notes on whether SWPPP modifications are needed
  - Sign, certify, and maintain corrective action reports
    - Not submitted to EPA but must be kept with SWPPP

Terminating Permit Coverage (Sec 8)

- Submit NOT to EPA within 30 days of completion of construction activities and final stabilization of the site
  - Must coordinate submittal with 460 CES/CEIE prior to submitting
- "Final Stabilization" means all soil disturbing activities have been completed and either of the two conditions are met
  - A uniform, perennial, vegetative cover with a density of at least 70% of the native vegetative cover has been established on all unpaved areas
  - Equivalent permanent, approved stabilization measures (such as use of riprap, gabions, or geotextiles) have been employed
  - Temporary erosion control measures (e.g. degradable rolled erosion control product) can be used with appropriate seed base if it provides erosion control for 3 years without needing active maintenance

Maintaining Records

- Maintain all SWPPP records for 3 years after NOT is filed
  - Inspection results
  - Corrective action reports
  - Signed certification on measures taken to correct problems and return the site to compliance
- A complete record copy of permit and permit related documents to be submitted to 460 CES/CEIE with 30 days of project completion

Common Permitting Issues

- Submitting NOI before SWPPP has been substantially complete and/or not coordinating the SWPPP with the base
  - Contractor should begin SWPPP preparation upon Notice to Proceed (NTP)
- Failing to obtain Buckley standard information for NOI
- Failing to submit NOI two weeks before beginning construction

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Common Compliance Issues

- Inspections
  - Failure to perform
  - Failure to sign and maintain with SWPPP
- SWPPP Updates
  - Failure to update schedules
  - Failure to update procedures and controls
  - Failure to document updates within 7 days
- Site Maps
  - Failure to identify stormwater controls
  - Failure to update maps (red line) when conditions change

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Common Compliance Issues

- BMPs
  - Failure to maintain working BMPs
  - Failure to identify and replace ineffective BMPs
- Failure to keep schedules updated
- Failure to establish and train pollution prevention team

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Common Compliance Issues

- Not achieving proper final stabilization
  - Poor coverage
  - Not sustainable
  - Lacks post-construction BMPs
- Failure to maintain permit requirements until NOT submitted
  - Inspections
  - BMP maintenance
  - SWPPP Updates
- Failure to remove temporary BMPs

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Spill Response Reporting

- Reporting spills
  - Report all spills no matter where and what size
  - Notify base environmental office within 24 hours or next business day
    - POC: Matthew Cohen Phone: 720-847-4655
  - For large spills call Buckley Fire Department at 720-847-9117
    - Provide as much info as possible – material, location, size of spill
  - Base environmental will determine further reporting requirements

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Spill Response Procedures

- Evacuate personnel from area if fire or health risk is present
- When safe to do so
  - Stop spill source
  - Contain spill or block pathway to storm or sanitary sewer system
  - Use spill kit to clean up spill
  - Properly dispose of contaminated materials and soil
    - Call Base environmental for assistance

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Other Base Related Topics

- Base Engineering Work Clearance Request
- Disinfection water
- Solid waste, hazardous waste, and recycling
- Hazardous Materials
- Air Quality
- Natural Resources
- Cultural Resources
- Resources and Training

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Specific Requirements for Buckley SFB

- Some projects may not require a permit or SWPPP but are still under the governance of the MS4 Storm Water Management Program (SWMP)
  - Discuss with base environmental office
- MS4 (as well as base being an operator and “owner”) gives authority for base to perform inspections
- Contact base environmental for a sample NOI with historic property, endangered species, 303(d) information
  - Projects near East Tollgate Creek and Sand Creek have additional requirements

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Coordinating With the Base

- All construction designs must be reviewed by base environmental
  - Grading plan, landscape plan, and erosion control plans
  - Ensure relevant regulatory requirements are included
- For projects ≥ 1 acre which require CGP coverage
  - Buckley-specific SWPPP template available with all required base specific documentation
  - Allow 2 weeks for base to review/revise SWPPP
- 2 week waiting period between NOI submittal and beginning construction
- Base cosigns the SWPPP

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Coordinating With the Base (cont.)

- Must have preconstruction meeting with the base before groundbreaking and before BMP controls are established
  - For both permitted and non-permitted construction sites
- CGP inspection meeting required within one month of groundbreaking to ensure BMPs are installed correctly and are sufficient
- Base will conduct periodic inspections (~ quarterly) and spot inspections if conditions require
- Base will conduct final inspection prior to submittal of NOT

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Coordinating with the Base (cont.)

- Final Stabilization and Landscape Plan
- Buckley SFB Installation Facility Standards (IFS)
  - Zoning
  - Plant selection
  - Planting practices
  - Landscape planning
  - Certified "Weed Free" only!
- Seed mixes to be approved by the base
- Goal to achieve an appropriate level of landscape appearance while maximizing water conservation

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Base Engineering Work Clearance Request

- Commonly called a "dig permit"
  - Submit AF Form 103 (available at AF ePubs) to CE Customer Service
    - Bldg 1005, Room 188, 720-847-9913
  - Required when disturbing more than 4 feet of ground
  - Required when dealing with existing facilities or utilities
- When approved, provides instructions and timelines to follow
- Contractor attends a review meeting prior to work
  - Review meetings conducted every Thursday at 0900
- Must be renewed every 30 days

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Disinfection Water

- New water lines must be disinfected using super-chlorination
- Clean Water Act prohibits discharge of super-chlorinated water into receiving waters (directly or indirectly)
- Land application allowed using evaporation or percolation
  - Ensure volume and rate prevent runoff to drainage system
  - Take care not to kill vegetation with too much chlorine
- Can discharge to sanitary sewer with prior approval from Base environment office at least 72 hours before release
  - Phone 720-847-4655

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Solid Waste

- Apply 3 Rs – Reduce, Reuse, Recycle before Disposal
- Report total amount of waste generated to Base Environmental
  - Identify tons disposed (landfilled) and diverted (recycled, reused)
  - Convert cubic yards to tons before submitting or provide base solid waste manager with predominant type of material disposed
- Contractor is responsible for its own waste
  - Do not place construction site debris in base dumpsters
  - All waste must be collected and disposed at conclusion of project
- Contact base solid waste manager at 720-847-9268

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Hazardous Materials

- Obtain approval for all hazardous materials prior to bringing on base
  - Use AF Form 3000, Material Approval Submittal or AF Form 3952, Chemical Hazardous Material Request Authorization Form (available on AF ePubs)
    - Material, quantity, duration of use
    - Provide Safety Data Sheet (SDS) for each product
  - Reviewed by base environmental, safety, and occupation health professionals
- Store all hazardous materials appropriately
  - Use secondary containment, protect from traffic areas
  - Use flammable cabinets when applicable
- Supply hazardous material usage data to 460 CES/CEIE quarterly
  - Phone 720-847-9268 with any questions

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Air Quality

- Fugitive dust must be minimized for all projects – NTE 20% opacity
  - Air Pollutant Emission Notice (APEN) must be submitted to CO Dept of Public Health and Environment (CDPHE) if a project disturbs >25 acres OR soil is not stabilized within 60 months (including building and parking construction)
  - http://www.cdphe.state.co.us/ap/down/landdevelop.pdf
- Construction generators are required to be in the base annual air emissions inventory
  - Equipment information, fuel usage, hours of operations submitted to base environmental
- Phone 720-847-9032 for more information

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Natural Resources

- Determine if there are any environmental constraints located on the site (e.g. wetlands, floodplains, valuable trees, prairie dogs, burrowing owls or migratory bird nesting sites
  - If any are present, plan on getting additional permits, removals, delays or other actions required to address the issue
  - Avoid such sites if possible
- Burrowing owls and other migratory birds cannot be disturbed while they are nesting or have young still in the nest (Mar through Oct) or until young have fledged
- Phone 720-847-9059 for more info

Natural Resources (cont.)

- Trees and their roots should be worked around, protected, and preserved if possible
- Revegetate ALL disturbed ground as soon as possible after construction is completed as invasive species and weeds will quickly take over a vacant area and may be difficult to remove
- Phone 720-847-9059 for more info

Cultural Resources

- Construction on or adjacent to the six historic buildings must be coordinated with base the State Historic Preservation Office (SHPO)
  - Buildings 402, 403, 404, 405, 801, and 909
  - 3 month minimum for coordination
- Base has 39 archeological sites but IAW the Archeological Resources Protection Act (ARPA), these locations cannot be disclosed
  - Projects are reviewed to determine any impacts
  - If cultural resources (e.g. human remains, Native American artifacts) are found, the project must be stopped immediately
  - Contact base, SHPO and/or Native American Tribal Stakeholders
- Phone 720-847-9059 for more information

Base POCs

Program Area	Name	Phone Number	email
Water and Stormwater	Matthew Cohen	720-847-4655	matthew.cohen.4@us.af.mil
Stormwater (Ctr)	Greg Vierra	720-847-6308	gvierra@oescgroup.com
Natural Resources	Matthew Hulbert	720-847-9059	matthew.hulbert.1@spaceforce.mil
Cultural Resources	Matthew Hulbert	720-847-9059	matthew.hulbert.1@spaceforce.mil
Hazardous Materials	Ethan Woodard	720-847-9268	ethan.woodard.1@spaceforce.mil
Hazardous Waste	Matthew Christensen	720-847-5723	matthew.christensen.11@spaceforce.mil
Solid Waste	Ethan Woodard	720-847-9268	ethan.woodard.1@spaceforce.mil
Spills	Matthew Cohen	720-847-4655	matthew.cohen.4@spaceforce.mil
Air Quality	Jeff Harrison	720-847-9032	jeffrey.harrison.6@spaceforce.mil
CE Customer Service	Olympia Osborne	720-847-9913	olympia.osborne@spaceforce.mil

Erosion and Sediment Control References

- Western Landscape and Geotextile Supply, Denver, CO
  Directory of products, equipment, services, and expertise
  http://www.weedbarrier.com/
- Bowman Construction Supply, Denver, CO
  Stormwater Products, Erosion Control Materials and Equipment
  http://www.bowmanconstructionsupply.com/
- The BMP Store
  http://www.bmpstore.com/
- Erosion Control, the Journal for Erosion and Sediment Control Professionals:
  http://www.erosioncontrol.com/
- Urban Drainage and Flood Control District
  http://www.udfcd.org
  http://udfcd.org/volume-three
- Tensar North American Green
  http://www.tensarnagreen.com/
  Manufacturing quality rolled erosion control products

Erosion and Sediment Control References

- Soiltac.com
  - http://soiltac.com/
  - Soil stabilization, dust control and much more
- Interstate Products, Inc.
  - http://www.interstateproducts.com/stormwater/swm.htm
  - Stormwater Management Products
- International Erosion Control Association (IECA)
  - http://www.ieca.org
- The Stormwater Manager's Resource Center
  - http://www.stormwatercenter.net/
  - Technical assistance on stormwater management issues
- Construction Industry Compliance Assistance Center
  - http://www.cicacenter.org/

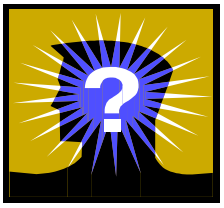
Training

- Red Rocks Community College, Rocky Mt Education Center (RMEC)
  - http://www.rmecosha.com, search for CETC courses
  - CETC 145: Certified Stormwater Management Plan Administrator Training Program
  - CETC 150: Stormwater Management and Erosion Control
  - CETC 154: Construction Dewatering
  - CETC 157: BMPs for Construction in Waterways
- Certified Inspector of Sediment and Erosion Control
  - http://cisecinc.org
  - http://ieca.learnercommunity.com/erosion-sediment-control

Training (cont.)

- CO Dept of Transportation
  - https://www.codot.gov/programs/environmental/water-quality/training.html
- Associated General Contractors of Colorado
  - http://www.agccolorado.org/events/calendar/
- Keep It Clean Partnership
  - http://www.keepitcleanpartnership.org/pollution-prevention/construction/training/
- EnviroCert International, Inc.
  - http://www.cpesc.net/

Questions?



Best Management Practices

What are BMPs?

- Best Management Practices (BMPs) are stormwater control measures used to prevent soil erosion and other pollutants from entering the storm sewer
  - Erosion and sediment controls
  - Stormwater management measures

Erosion and Sediment Controls

- Address pollutants in stormwater generated at the construction site
- Includes two types of practices
  - Structural controls (sediment control)
  - Stabilization practices (erosion control)

Sediment Control

- Install devices to divert, store, or limit runoff causing erosion
  - Sediment logs or silt fences
  - Inlet protection
  - Vehicle tracking
  - Diversion of stormwater from disturbed areas
  - Energy dissipation devices and check dams
  - Runoff sediment and storage basins
- Pick the right tool for the job
- Properly maintain all sediment controls
- Multiple BMPs work better together than one BMP by itself

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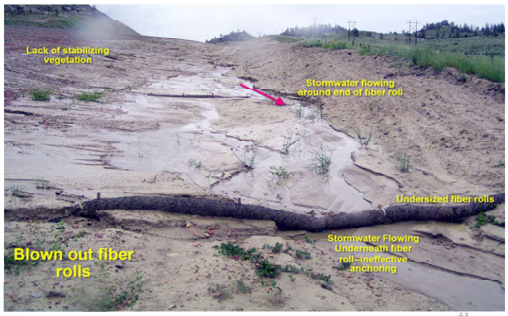
Sediment Log and Fiber Roll

- Engineered for stormwater usage
- Made from excelsior, straw, compost, or coconut
- Able to withstand overtopping
- Trenched (to prevent underflow)
- Staked to the ground

62

Sediment Log Failure

- Too much flow
- Excessive velocity
- Too large an area



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Proper Use of Sediment Logs

- Okay for smaller drainage flows
- Do not use for concentrated flows
- Use rock check dams for high flow
- Can be used instead of silt fence on steep slopes

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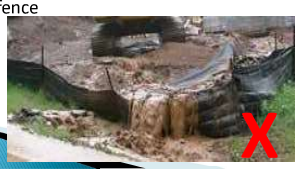
Sediment Control - Silt Fences

- Great for filtering a small amount of debris from small flows on flat areas
- Inappropriate otherwise
- Commonly overused to show visible evidence of a BMP without ensuring it is adequate
- Work best when properly staked and backed with wire fence



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Sediment Control - Straw or Hay Bales

- Historically used as check dams, inlet protection, and sediment fence
- At best ineffective, at worst complete failure
- Doesn't allow water to flow through
- Disintegration leads to more debris

66

Inlet Protection Types

- Excavated drop inlet – an excavated area around the inlet to trap sediment
- Gravel bag barrier – creates small sediment trap upstream of inlets on sloped, paved streets for sheet flow or concentrated flows > .05 cfs and when overtopping is required to prevent flooding
- Block and gravel filter – for flows > 0.5 cfs
- Sediment control logs – placed around the inlet for very small flows
- Other products available – obtain approval before use

67

Good Inlet Protection Examples

Allow water to flow through but also give space for it to flow over if needed without blocking the inlet

68

Poor Inlet Protection

No protection above allows unrestrained flow

Inadequate upstream protection and inability to allow water to flow though

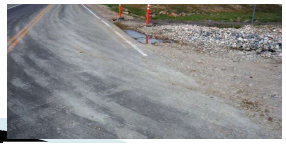
69

Inlet Protection – Which is correct?

70

Sediment Control – Vehicle Tracking

Installed but not maintained



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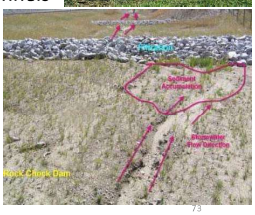
Sediment Control – Vehicle Tracking

Or not installed with random unauthorized access

72

Sediment Control – Energy Dissipation

- Check dams
- In small open channels draining <10 acres
- In steep channels: velocities exceed 5 ft/s
- When establishing grass linings in ditches or channels
- Can be left in place following construction, accumulating sediment and vegetation **when approved** by the Engineer



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Sediment Control - Stockpiles

- Stockpiles should not be staged on paved areas
- Needs containment if present, not actively being worked and composed of soil or sediment
- Perimeter BMPs always required
- Permit requires stabilization if staged >14 days

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Erosion Control

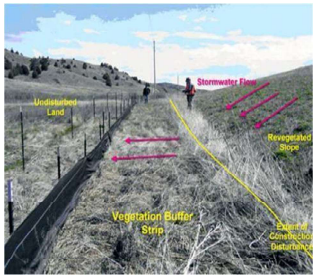
- Covering or maintaining an existing cover over soil
- Vegetation covers include grass, trees, shrubs, etc.
  - Temporary or permanent seeding or sod
  - Vegetative buffer strips
- Non-vegetation controls
  - Geotextiles
  - Riprap
  - Mulches
  - Soil retention fabrics
  - Surface roughening and contouring
  - Compost blanket

Geotextile mats not only protect ground surfaces from wind and storm water erosion but also allow vegetative growth (Source: Rolanka International, 2000)

75

Erosion Control – Vegetated Buffer

- Buffer strips are typically existing or replanted strips of vegetation located at top and bottom of a slope, outlining property boundaries or adjacent to receiving waters such as streams or wetlands
- Consider slopes, vegetation, soils, runoff sediment characteristics, type and quantity of stormwater pollutants, and annual rainfall
- Other BMPs may still be needed
- Inspection and maintenance required
- May have to revegetate



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Erosion Control – Surface Roughening

- Surface roughening
  - Grooves or furrows on the contour
  - Traps rainfall
  - Reduces wind erosion
  - Reduce the formation of rill and gully erosion
- Disturbed surfaces are roughened using ripping or tilling equipment on the contour or tracking up and down a slope using equipment treads

77

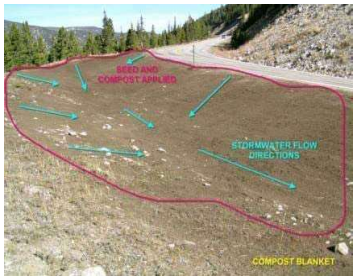
Erosion Control – Rolled Products

- Made from straw, jute, wood excelsior, or coconut material
  - Biodegradable not Photodegradable!
- Trenched in and staked down over prepared, seeded soil
- Protects vegetation from both wind and water erosion

78

Erosion Control – Improving Viability of Final Vegetation

- Place compost or topsoil to improve fertility and allow faster and better growth



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Erosion Control – Seeding and Mulching

- Apply to stabilize exposed soils and to reduce stormwater velocity
- Typically consists of drill seeding disturbed area with grasses and crimping in straw mulch or tackifier
- Hand broadcast / rake small areas
- Any hydromulching must be approved by the Base
- Hydroseeding is prohibited on the Base

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Erosion Control - Revegetation

Successful Revegetation

Poor Erosion and Sediment Control

Missing controls

Controls not maintained

Sediment controls w/o erosion control

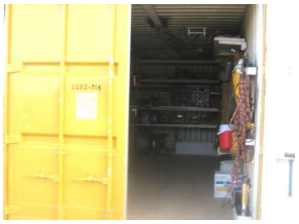
BMPs – Management Measures

- Implementation of non-structural stormwater management practices are also required at construction sites
- Types of management practice BMPs
  - Visual inspections (covered later in the presentation)
  - Good housekeeping practices
  - Source control
    - Waste storage and disposal
    - Heavy equipment cleaning
  - Limit construction area (provide adequate room for the necessary work, while at the same time limiting the disturbed area to the minimum necessary)

Poor Housekeeping Examples

- Improper storage of hazardous materials and inadequate spill control

Good Housekeeping Practices



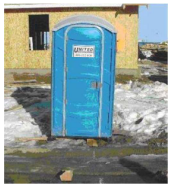
Provide protected storage areas for hazardous materials

Specify equipment wash areas

85

BMPs – Good Housekeeping

- Provide adequate waste receptacles at convenient locations and provide regular collection
  - Keep lids closed when not in use and at end of business day
  - Covers must be provided for containers without lids
- Provide and regularly service sanitary facilities
  - Position on ground (not pavement)at least 3 feet from curb and inlets
  - Properly secure to prevent tipping



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BMPs – Heavy Equipment Cleaning

- Clean by spraying without soap
- Do not clean at a location where the runoff enters a storm drain
- Use wash rack with grit trap and oil/water separator for greasy or oily equipment which discharges to the sanitary sewer (get permission from sewer authority)
- Coordinate cleaning areas in advance with Base Environmental

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BMPs – Street Cleaning

- Required whenever sediment is transported/tracked offsite
  - Clean roads by end of each workday
  - Remove sediment and debris by sweeping or shoveling
  - **Do not** wash streets with water under any circumstance

88

BMPs – Concrete Waste Management

- Use designated concrete wash out area identified on the site plan
- Locate >50 feet from storm drains or receiving waters
- Locate away from construction traffic
- Post signs requiring washout use
- Inform concrete delivery drivers where washout is located
- Size it appropriately
- Allow concrete to dry and dispose regularly
- If location changes, update the site plan

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Concrete Washout Examples

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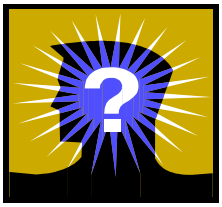
Questions?



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Construction Site Stormwater Runoff Control (continued)

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
CON-3 Design Review and Construction Site BMP Information 1. Maintain existing review process for adequate design, implementation, and maintenance of BMPs at construction sites within the BSFB MS4.	**COMPLETED** BSFB ensures appropriate SCMs are selected, designed, installed, implemented and maintained and meet the requirements of the BSFB MS4 Permit. Project plans/specs/reports/contracts are reviewed weekly by 460 CES to ensure they meet control measure design standards. Comments are provided back to the issuing source for incorporation by the project design team. In 2024 the 460 CES/CEIE WQP staff completed 98 project design reviews in which 31 of the projects required stormwater comments.	No

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
2. Hold preconstruction meetings with construction contractors and project management staff to ensure BMP related questions and requirements are addressed prior to BMP installation on 50% of new construction projects.	**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 BSFB. Environmental staff met on site at 5 of the 6 (83%) new construction projects during the Permit Year. The project pre-construction meeting dates are as follows: 1. 2 April 2024 (Mill and Overlay Base Wide I project) 2. 5 June 2024 (Demo Parking Lots, Sidewalks, and Storm Drains - B841 project) 3. 27 June 2024 (Xcel - Coyote Substation Access Road project) 4. 1 October 2024 (Coyote Connection Distribution Duct Bank project) 5. 29 October 2024 (Xcel - Coyote Substation Pad Construction project) Note: One (1) pre-construction meeting (Mill & Overlay Base Wide II project) was missed during the Permit Year.	No

CON-4 Construction SWPPP Review 1. A description of construction activities which disturbed greater than or equal to one acre of land.	**COMPLETED** A total of six (6) SWPPP reviews were conducted for 6 new projects requiring the Plan on BSFB during the Permit Year. The file of SWPPP reviews and comments provided by 460 CES/CEIE WQP for applicable construction projects is maintained in 460 CES Environmental Office files. BSFB also reviews SWPPP documentation of active construction sites as part of CON-1 to ensure the SWPPP is maintained. There were nineteen (19) active SWPPP construction sites at BSFB in 2024. A general description of each site is below. 1. Repair Main Apron Access and Alert Pavements Project: Development of access, infrastructure, utilities, permanent drainage, and permanent stabilization for an existing apron on the installation. 2. Runway 32 Extended Safety Area Grading Project: Consists of extending the runway to comply with FAA standards through the addition of fill soil. 3. AASF UH60 Hangar Project: Construction of an unheated storage hangar to include a new building, utility installation, and minor site work in the vicinity of the building. 4. BAFB COARNG Enclave Erosion Project: Construct new retaining wall along the Building 1000 motor pool, two new steps with railing, new curb and gutter along buildings, new storm underdrain, and slight regrading/ reseeding. 5. BSFB Stormwater Ponds Repair Project: Stormwater Pond and swale repair at various locations throughout the base.	No

	6. BSFB Underground Water Utility Replacement Project: Installation of a new water main. 7. ADF-C Recapitalization 3 Project: Construction of a new powerhouse for the Aerospace Data Facility – Colorado (ADF-C), retrofit and modification to mission controls, installation and modification of overhead and underground utilities, and fuel storages. 8. Multiple Small Projects - 4: Represents multiple projects that will be individually described in the project specific SWPPP. 9. Coyote Connection Distribution Duct Bank Project: Installation of 2.9 miles of 13,200 V duct bank, cabling, and communications systems. 10. Add/Alter Sewer Main B606 Project: Construction of a new sanitary sewer line. 11. Construct Sidewalk Along Arapahoe Basin Avenue - B331 Project: Construct sidewalk, concrete roads, curb and gutter, and stormwater system. 12. BSFB Joint Cryptologic Center Project: Construct a 30,000 SF structural slab, 2 story building site utilities and asphalt parking lot. 13. APA Force Main (SWPPP Modification)/Blue Marlin Pad 1 Sanitary Line Relocation Project: Force main replacement. 14. BSFB B210 Renovations Project: Install a sanitary sewer line. 15. Mill and Overlay Base Wide I Project: Stabilization and full depth reclamation will be done on one of the roads in the work area, but most of the road work	

	is mill and overlay. Grading and drainage swales will be done on the sides of the road for positive drainage flow. A culvert will be extended with headwalls added. A road curb radius will be increased for large vehicles to make turns. A concrete pan will be installed with curb, gutter, and sidewalk. 16. B841 Site Improvements Project: Repair/replace parking lot and landscaped areas surrounding building 841. Install stormwater drainage RCP throughout parking lot per plan. 17. Xcel - Coyote Substation Project: Provide interconnection and the necessary electric service to a new substation within BSFB, construct a new underground electrical transmission line thru the City of Aurora and unincorporated Arapahoe County, Colorado. 18. Repair Airfield Lighting – BSFB Project: Demolition of onsite pavements, structures and utilities. Subgrade/subbase preparation, placement of Portland cement concrete pavement, placement of bituminous pavement, finish grading, drainage, and related excavation and filling to requirements to bring grade to levels indicated in the specifications. 19. Mill and Overlay Base Wide II Project: Repair multiple sections of roadway across BSFB.	

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:

The BSFB Civil Engineer Squadron Installation Management Flight (460 CES/CEIE) Water Quality and Tanks Program Manager is responsible for coordination and implementation of the construction site runoff control program.

BSFB conducts oversight compliance assistance inspections of permitted construction sites (> 1 acre or part of a larger common plan of development that will cumulatively disturb ≥ 1 acre) at least every 45-days and prior to construction permit termination to verify stormwater compliance obligations are fulfilled, including final stabilization of all areas of disturbance.

Site inspection procedures include BSFB 460 CES/CEIE staff meeting with the project construction contractor and 460 CES/CENM (Engineering) to review the onsite SWPPP binder, project stormwater permit posting, and spill response posting. The documentation inspection is followed by a site walk to identify stormwater compliance findings including BMPs requiring maintenance and sediment and debris track-out. The inspection concludes with BSFB 460 CES/CEIE staff communicating any findings and estimated date in which the inspection report will be sent to all attendees. Before a project may terminate construction stormwater permits, 460 CES/CEIE must perform a site walk with the project representative and confirm in writing that the project has successfully re-stabilized all areas of disturbance including achieving 70% native vegetation cover.

4. 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.
PC-1 Post-Construction Stormwater Management Process Review contracts to ensure control measure design standards are implemented. BSFB 460 CES/CEN has a closeout process whereby BSFB 460 CES/CEN representatives ensure newly installed post-construction stormwater control measures are cleaned and are in working order prior to closing out contracts. Upon closeout of new construction projects, as-built specifications are obtained in the BSFB 460 CES/CEN file system for record and incorporation into the BSFB GeoBase system.	**COMPLETED** BSFB design review process incorporates current MS4 standards. 460 CES/CEIE is responsible for reviewing contracts and providing comments that require either structural or non-structural stormwater control measures where appropriate based on the specific project/contract. Newly installed permanent SCMs are inspected during the project's final site walk to ensure the site and structures are clean and in acceptable order. All maintenance requirements and as-built designs are maintained by 460 CES/CEN. Below is an excerpt of applicable contract language from a 2024 design plan that required installation of a structural SCMs. "All structural erosion control measures shall be installed, at the limits of construction, prior to any ground-disturbing activity. All erosion control measures shall be maintained in good repair by the contractor, until such time as the entire disturbed areas is stabilized with hard surface or landscaping."	No

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

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.
PC-2 Annual Meeting with External Stakeholders	**COMPLETED** BSFB hosted members from the City of Aurora Water Department on 21 November 2024. The meeting included nine (9) attendees from 460 CES and the City of Aurora. The purpose of the visit was to discuss proposed new construction projects and establish relationships between our organizations. The meeting specifically focused on projects, "Outfall 2 Repair" and "Demolish Lake Williams" as these sizeable construction projects, together, will improve downstream water quality for the East Toll Gate Creek and Sand Creek watersheds.	No

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

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.
PC-3 Control Measure Design and Construction Planning Training By Permit Year 2025, conduct training for all staff with construction planning and/or oversight duties to ensure control measure design standards are selected, installed, implemented, and maintained.	**INCOMPLETE** Training was not held during the Permit Year, 2024. The training was completed 20 February 2025 and this will be reported in the 2025 annual report.	No

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

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.
PC-4: Annual Inspection of BSFB SCMs 1. Conduct annual review of the post-construction stormwater controls to ensure they are being maintained. Maintain inspection records to ensure long-term maintenance of SCMs.	**COMPLETED** The permanent SCM annual inspection was completed over 7 days during the Permit Year: 8, 13, 14, 15, 21, 28 August, and 19 November 2024. A copy of the PC-4 inspection record form is available on the following pages. There were no recommendations for SCM maintenance within the inspection report.	No

Dry Detention Basin Operation & Maintenance Inspection Checklist

SCM: _____ Inspector(s}: _____

SCM D#: _____

SCM Locations: _____

Installation Name: BSFB

Date Installed: _____ Inspection Date: _____

Complete the form below by indicating the condition of each component. For items marked MN or CA, indicate when follow-up maintenance was completed.

Dry Detention Basin Component		Condition (N, MN, or ICA)	Date Maintenance Performed	Problem
Inlet and 0utlet	A1.			Trash, debris, or sediment present?
	A2.			Evidence of erosion or undercutting of riprap?
	A3.			Inlet channel, ditch, or outlet shows signs of erosion or undesirable vegetation?
	A4.			Damaged or plugged pipes, inlet, or outlet?
Perimeter of Basin	B1.			Area of bare soil and/or erosive gullies have formed?
Forebay	C1.			Sediment accumulation in forebay?
	C2.			Undesirable species are present in forebay?
	C3.			Erosion protection materials no longer intact?
	C4.			Transition berm shows signs of erosion?
Basin	D1.			Is water standing more than five days after a storm event?
	D2.			Sediment accumulation present?
	D3.			Trash and debris present?
	D4.			Vegetation not withstanding soggy conditions?
	D5.			Erosion and/or channelization present?

Device Ranking	Ranking Description
N	**No Action (N)** -No action is needed at time of inspection related to respective problem.
MN	**Maintenance Needed (MN)** - Maintenance is needed to support functionality of the device and to prevent problem from escalating.
ICA	**Immediate Corrective Action (ICA)** - Functionality of the device is compromised due to the respective problem and action should be taken immediately.

Comments/Recommendations/Other Actions Taken:

Dry Detention Basin Operation & Maintenance Inspection Checklist - Continued

SCM: _____ Inspector(s): _____

SCM ID#: _____ _____

SCM Locations: _____ _____

Installation Name: BSFB _____

Date Installed: _____ Inspection Date: _____

Complete the form below by indicating the condition of each component. For items marked MN or ICA, indicate when follow-up maintenance was completed.

Dry Detention Basin Component		Condition (N, MN, or ICA)	Date Maintenance Performed	Problem
Embankment	E1.			Shrubs or trees have started to grow on the embankment?
	E2.			Grass cover is unhealthy or eroding?
	E3.			Signs of seepage on the downstream face?
	E4.			Evidence of animal activity?
Outlet Drainage System and Emergency Spillway	F1.			Outlet drainage system shows signs of erosion or undesirable vegetation?
	F2.			Trash, debris, or undesirable vegetation is present within emergency spillway?
	F3.			Grass height is not between 6 and 12 inches in emergency spillway?
Outlet Control Structure	G1.			Is water not flowing freely to the outlet control structure?
	G2.			Trash and debris present in or clogging trash rack or trash rack is damaged or corroded?
	G3.			Sluice gate is not operable through intended range of motion?

Device Ranking	Ranking Description
N	**No Action (N)** -No action is needed at time of inspection related to respective problem.
MN	**Maintenance Needed (MN)** - Maintenance is needed to support functionality of the device and to prevent problem from escalating.
ICA	**Immediate Corrective Action (ICA)** - Functionality of the device is compromised due to the respective problem and action should be taken immediately.

Comments/Recommendations/Other Actions Taken:

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:

The BSFB Civil Engineer Squadron Installation Management Flight (460 CES/CEIE) Water Quality and Tanks Program Manager is responsible for coordination and implementation of the post-construction stormwater management program

5. Pollution Prevention/Good Housekeeping for Municipal-Type Federal Operations (P2)

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
P2-1 Municipal Stormwater Training Conduct annual training of fleet maintenance and civil engineer shops. Maintain attendance roster and training date.	**COMPLETED** The training was provided twice on 7 November 2024 with nineteen (19) attendees. The training slides are available on the following pages.	

This Briefing is UNCLASSIFIED

Stormwater Pollution Prevention Training for Municipal Operations at Buckley SFB

6 November 2024
Matthew Cohen
Buckley Water Quality Program Manager

720-847-4655
matthew.cohen.4@spaceforce.mill

This training supports compliance with paragraph 2.6.1, 2.6.2 of the BSFB MS4 permit

Base Water Quality Program POCs

Water Quality Program Manager
Matthew Cohen, 460 CES/CEIE
Matthew.cohen.4@spaceforce.mil
720-847-4655; DSN 847-4655

Stormwater Program Coordinator
Greg Vierra, 460 CES/CEIE
Gregory.vierra.2.ctr@spaceforce.mil
CES/CEIE
720-847-6308; DSN 847-6308

#SEMPERSUPRA U.S. SPACE FORCE

Course Objectives

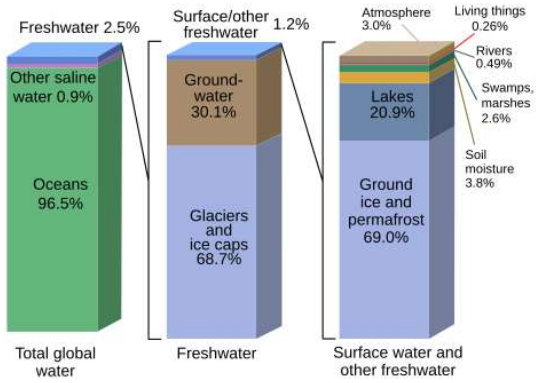
- Information exchange to support new permit requirements.
- Prevent and reduce pollutant runoff from municipal-type federal operations.
- Identify, discuss, develop innovative stormwater control and treatment methods that improve stormwater management.
- Demonstrate implementation of appropriate management actions over time to meet TMDL allocations or pollutant limits.

Target Audience

Includes but are not limited to:

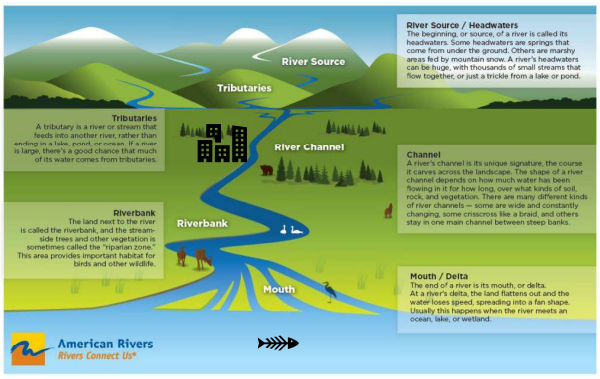
- Grounds Maintenance;
- Facility Managers;
- Tenants;
- Residents;
- Project Managers;
- Contract Managers;
- Workers engaging in municipal operations

Where is Earth's Water?



RIVER ANATOMY

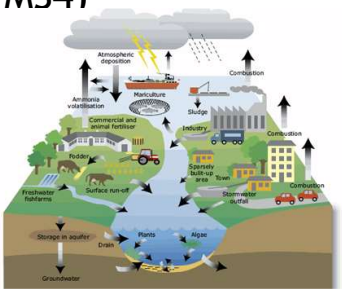
The United States has more than 250,000 rivers — a total of 3.5 million miles. No two of these rivers are the same. Each river is unique to its landscape, winding through low foothills and valleys, rushing clear and cold from mountain forests, or sweeping warm and muddy down desert canyons. No matter how different our rivers are, however, they share some basic features:



Municipal Separate Storm Sewer System (MS4)

MS4 is a conveyance or system of conveyances that is:

- Owned by a state, city, town, public entity that discharges to waters of the US
- Designed or used to collect or convey stormwater (drains, channels, pipes, ditches, ponds)
- NOT a combined sewer
- NOT part of a sewage treatment plant, or publicly/federally owned treatment works (POTW/FOTW)



A Storm Is Coming

What's on our ground?

Chemicals: Vehicle Fluids, Metals, Pharmaceuticals, POL, Bleach, Detergent, Soap, Fertilizer, Pesticide,

Natural Pollution: Grass, Leaves, Pet Waste, Bacteria, Nutrients, Dirt

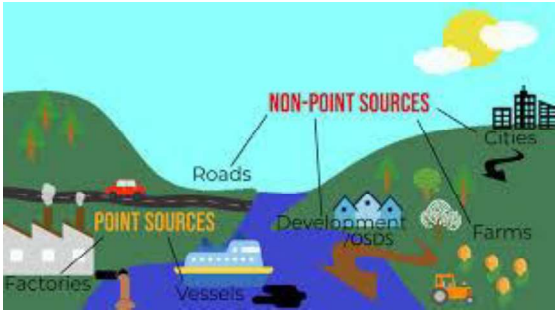
Litter: Plastic, Cigarettes, Styrofoam, Wrappers, Paper, Cans

Common Stormwater Pollutants

+ Sediment
+Excessive Nutrients
+Debris/Litter
+Chemicals

= Polluted Waterways → Poor Human & Environmental Health & Degraded Habitat

Point and Non-Point Sources, Which Is Worse?



Buckley Pollution Sources

Roads, Highways, Parking Lots;
Maintenance and Storage Yard:
Fleet/Maintenance Shops;
Salt/Sand Storage;
Snow Disposal Areas;
Waste Transfer Stations;
New Construction;
Stormwater System

Regulated Buckley Facilities

Procedures and controls must prevent or reduce stormwater pollution from Buckley SFB operations:

1. Outdoor Bulk Storage;
2. Streets, roads, highways, parking lots;
3. Storage yards;
4. Shops with outdoor storage areas;
5. Snow dumps/snow disposal areas;
6. Sites used for temporary storage of sweeper tailings or other waste piles;
7. Park and open space;
8. Building maintenance

Effects of Stormwater Pollution

Excess Nutrients → Algae Blooms and Dead Zones
Destroy gold metal waters for Colorado fish

Pathogens → Harmful Drinking/Recreational Water
Gastroenteritis, Dysentery, Ear Infections

Flooding → Close schools, businesses, homes; damage septic systems, streams, wetlands

Water Shortage → High impervious areas prevent rainfall from recharging groundwater

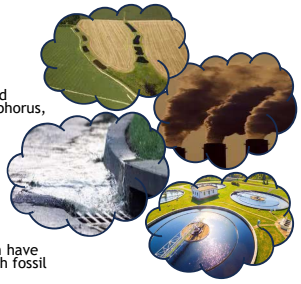
Nitrogen & Phosphorus & Stormwater

Agriculture:
- Animal waste; Fertilizers, Chemicals → Excessive downstream nutrient loading

Stormwater:
- Precipitation hits rooftops, sidewalks and roads and carries off pollutants, including Nitrogen and Phosphorus, into local waterways

Wastewater:
- Sanitary Sewer Overflow discharges Nitrogen and Phosphorus to waterways

Fossil Fuels:
- Electric power generation, industry, transportation have increased the amount of Nitrogen in the air through fossil fuel use



Personal home items
- Fertilizers, Soaps, Latex Paint are harmful pollutants

Total Phosphorus (TP)

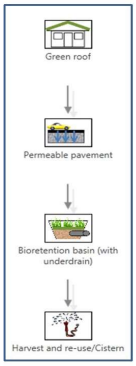
Particle Phosphorus + Dissolve Phosphorus (In-solution)

Urban TP Sources: Plant Litter; Soil; Waste; Road Salt; Fertilizer
Roadways and Lawns = Greatest TP Load Sources

Reduce TP By Identifying Sources & Addressing Treatment Options
- Pollution prevention and source control
- Pretreatment
- Infiltration
- Sedimentation
- Filtration

Practice & Process

- Stormwater **practices** are controls in which pollutant control processes or multiple processes take place.
- Infiltration and evaporation are **processes** for managing stormwater volume.



Low impact development treatment train

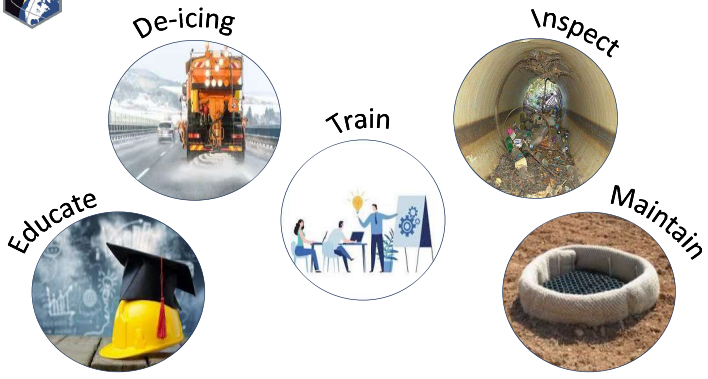
Municipal Pollution Prevention Methods

Outdoor Covers

No overflow allowed

Recycle

Municipal Pollution Prevention Methods

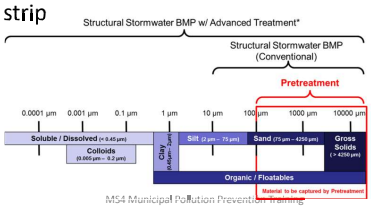


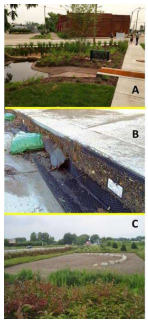
How To Remove Pollutants From Stormwater

Pretreatment:

Protect infiltration and filtration BMPs from build up of trash and larger solids & particles.

(A) Rain garden with forebay
(B) Filter screen
(C) Filter strip





How To Remove Pollutants From Stormwater

Infiltration:

- Capture and temporary storage before allowing infiltration
- Best for sites with permeable soils and suitable distance to groundwater or bedrock

Settling:

- Stormwater Ponds

Filtration:

- Green Roofs, Media Filters, Dry Swales, Filter Strips

Our Stormwater Responsibilities

Maintain vehicles

Use Commercial Car Wash

Xeriscape

Cut Down Fertilizer

What To Do If There is a Spill?

Prevent an illicit discharge and stop the spill only if it is safe for you to do so.

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

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

Call Fire Department at 720-847-9117
(One can dial 911 from a BSFB phone)
Report to Environmental Element (CEIE) at 720-847-4655

ALL SPILLS MUST BE REPORTED TO 460th CES/CEIE THE SAME DAY THE RELEASE OCCURS!

Report stormwater problems here: 460ces.cevwater@us.af.mil

Before New Facilities Become Operational

Ensure new applicable procedures are in place before a new facility becomes operational:

Control Measure Categories:

- Preventive maintenance;
- Good housekeeping;
- Spill prevention and response procedures;
- Structural control measures;
- Evaluation of non-stormwater discharges; and
- Personnel training.

Follow manufacturer's guidelines for maintenance and replacement of control measures

Corrective Actions

Inadequate control measures must be modified or replaced as necessary ASAP.

Notify 460 CES/CEIE if you are unable to modify or replace inadequate control measures.

Must:

1. Develop a plan.
2. Develop a frequent maintenance plan.
3. Install a temporary feature on the inadequate control measure to ensure that it does not fail.

Buckley SFB Municipal-Type Federal Facility Inventory

- Vehicle Maintenance and Washing Facilities
- Motor Pools w/ Vehicle Maintenance, Washing, Loading, Unloading Areas
- Asphalt & Concrete Batch Plants (not covered by separate NPDES permit)
- Solid Waste Transfer Stations
- Outdoor Storage Yards w/ Exposed Stockpiles of Salt, Sand, Rotomill Material, Dirt, Snow, Sweeper Tailings, Spoils, Gravel
- Equipment Storage Yards

More 460 CES/CEIE Program POCs

Hazardous Waste PM: matthew.christensen.11@spaceforce.mil

Hazardous Material PM: ethan.woodard.1@spaceforce.mil

Air Quality PM: jeffrey.harrison.6@spaceforce.mil

Natural Resource PM: matthew.hulbert.1@spaceforce.mil

Environmental Chief: matthew.rodgers.7@spaceforce.mil

When The Well Is Dry, We Know The Worth Of Water

Questions?

Attendee Roster

- Collected through now inactive QR Code

STORMWATER SMART
CONSTRUCTION IN YOUR NEIGHBORHOOD

When water from rain, snow, or sleet flows over the ground, it becomes "stormwater." When stormwater flows through a construction site, it can pick up sediment, oil, and chemicals and carry them downstream to local water bodies. That's why it's important for construction sites to protect the community by putting up special fences, barriers, and truck pads to prevent pollution in our rivers, lakes, and streams.

THE MUD STOPS HERE

Construction entrances should have a pad that keeps mud off the street. Muddy tracks coming out of a site could mean chemicals, dust, and debris will be washed into the storm drain the next time it rains.

GOOD FENCES MAKE CLEAN NEIGHBORS

A fence or other barrier should be installed that keeps soil and construction debris from washing downstream from the site when it rains, especially sites on a slope or those with dirt piles.

PROTECT THE PIPES

All storm drains near a construction site should have a protective barrier around them to prevent debris and muddy water from entering storm sewer pipes.

SOMETHING LOOK WRONG? CALL!

If you see muddy water, chemicals, dirt, or any water that seems polluted flowing from a construction site in your neighborhood, call your local government office that handles construction permits.

EPA

STORMWATER SMART
CONSTRUCCIÓN EN SU VECINDARIO

Cuando el agua de la lluvia, el nieve o la aguanieve fluye sobre el suelo, se llama "agua pluvial". Cuando las aguas pluviales fluyen a través de un sitio de construcción, pueden recoger sedimento, aceite y químicos y arrastrarlos agua abajo hasta cuerpos de aguas locales. Por eso es importante que los sitios de construcción protejan la comunidad instalando cercas especiales, barreras y plataformas para camiones para prevenir la contaminación en nuestros ríos, lagos y arroyos.

AQUÍ SE DETIENE EL LODO

Las entradas de construcción deben tener una plataforma que mantenga el lodo fuera de la calle. Las huellas fangosas que salen de un sitio podrían significar que los químicos, el polvo y los escombros serán arrastrados hacia el desagüe pluvial la próxima vez que llueva.

BUENAS CERCAS HACEN BUENOS VECINOS

Se debe instalar una valla u otra barrera que impida que el suelo y los escombros de construcción sean arrastrados agua abajo desde el sitio cuando llueva, especialmente en sitios en una cuesta o aquellos con montones de tierra.

PRTEGE LAS TUBERÍAS

Todos los desagües pluviales cerca de un sitio de construcción deben tener una barrera protectora alrededor de ellos para evitar que los escombros y el agua fangosa entren en las tuberías del alcantarillado pluvial.

¿ALGO PARECE MAL? ¡LLAMA!

Si ves agua fangosa, productos químicos, tierra o cualquier agua que parezca contaminada fluyendo desde un sitio de construcción en tu vecindario, llama a la oficina de gobierno local que maneja los permisos de construcción.

EPA

STORMWATER SMART
RESTAURANTS

When water from rain, snow, or sleet flows over the ground, it's called "stormwater." Stormwater can pick up grease, oil, or litter from restaurant parking lots or alleys. And when that stormwater flows into street gutters, storm drains, and downstream, it can pollute rivers, lakes, and streams. Follow these simple pollution solutions to help keep local waterways clean and healthy!

PUT WASTE IN A BIN

Grease and oils can clog pipes and pollute our water. Make sure grease is thrown away in used oil containers and grease traps or recycled, and all food waste goes into trash cans or containers with tops.

AVOID OVERFLOWS

Keep outdoor waste containers away from drains, and make sure they are emptied or collected regularly to avoid overflows.

KEEP A LID ON IT

Remember to close lids tightly on outdoor containers and grease traps, so the rain does not wash waste into the storm drain.

WIPE IT UP

If you spill oil or grease outside, soak it up with absorbent materials. Sweep up trash and food scraps, then dispose in a garbage can.

EPA

STORMWATER SMART RESTAURANTES

Cuando el agua de la lluvia, la nieve o el aguanieve fluye sobre el suelo, se llama "agua pluvial". Las aguas pluviales pueden recoger grasa, aceite o basura de los callejones o los estacionamientos de los restaurantes. Cuando esas aguas pluviales fluyen hacia las cunetas de las calles, los desagües pluviales y aguas abajo, pueden contaminar ríos, lagos y arroyos. ¡Siga estas soluciones sencillas contra la contaminación para ayudar a mantener las vías fluviales locales limpias y saludables!

PONER RESIDUOS

Las grasas y los aceites pueden obstruir las tuberías y contaminar el agua. Asegúrese de desechar las grasas en contenedores para aceite usado y en trampas de grasa, o de reciclarlas, y de que todos los desperdicios de alimentos sean depositados en botes de basura o contenedores con tapa.

EVITAR EXCESO

Mantenga los contenedores de desperdicios al aire libre lejos de los desagües y asegúrese de que se vacíen o recolecten regularmente para evitar desbordamientos.

MANTENER PUESTAS LAS TAPAS

Recuerde cerrar herméticamente las tapas de los contenedores exteriores y las trampas de grasa, para que la lluvia no arrastre los desechos al desagüe pluvial.

HACER LIMPIEZA

Si el aceite o la grasa se derrama en el exterior, absórbalo con materiales absorbentes. Barra la basura y los restos de comida, luego deséchelos en un basurero.

EPA

STORMWATER SMART AUTO SHOPS

When water from rain, snow, or sleet flows over the ground, it's called "stormwater." Stormwater can pick up paint, chemicals, antifreeze, and oil from vehicles in your parking lot. And when that stormwater flows into street gutters, storm drains, and downstream, it can pollute rivers, lakes, and streams. Follow these simple pollution solutions to help keep local waterways clean and healthy!

DITCH THE HOSE

Use special oil-absorbing towels or other materials to clean up oil or other fluid from cars instead of hosing it off and dispose of them properly.

CATCH EVERY DROP

Always use drip pans when changing motor oil to ensure fluids do not leak onto hard surfaces and run into storm drains. Never dump fluids from vehicles down storm drains! Engine oil and sludge can clog drains and pollute our water.

STORE STUFF SAFELY

Keep equipment, car parts, batteries, used oil filters, and liquids indoors in a dry, covered place so rain cannot wash pollutants down the drain.

DISPOSE RESPONSIBLY

Dispose of used oil, antifreeze, solvents, filters, tires, and batteries properly to keep pollution out of waterways.

EPA

STORMWATER SMART TALLERES AUTOMOVILÍSTICOS

Cuando el agua de la lluvia, la nieve o el aguanieve fluye sobre el suelo, se llama "agua pluvial". Las aguas pluviales pueden recoger pintura, productos químicos, anticongelante y aceite de los vehículos en su estacionamiento. Cuando esas aguas pluviales fluyen hacia las cunetas de las calles, los desagües pluviales y aguas abajo, pueden contaminar ríos, lagos y arroyos. ¡Siga estas soluciones sencillas contra la contaminación para ayudar a mantener las vías fluviales locales limpias y saludables!

DESCARTAR LAS MANGUERAS

Use toallas absorbentes de aceite especiales u otros materiales para limpiar el aceite u otros fluidos de los automóviles en lugar de limpiarlos con una manguera, y deséchelos adecuadamente.

ATRAPAR CADA GOTA

Siempre use bandejas de goteo cuando cambie el aceite del motor para asegurarse que los fluidos no se filtren sobre superficies duras y corran hacia los desagües pluviales. ¡Nunca arroje fluidos de los vehículos en los desagües pluviales! El aceite de motor y el lodo pueden obstruir los desagües y contaminar nuestra agua.

ALMACENAR COSAS DE FORMA SEGURA

Mantenga el equipo, las partes de automóvil, las baterías, los filtros de aceite usados y los líquidos adentro, en un lugar seco y cubierto para que la lluvia no pueda arrastrar los contaminantes por el desagüe.

DESECHO RESPONSABLE

Deseche el aceite usado, el anticongelante, los solventes, los filtros, los neumáticos y las baterías de manera adecuada para mantener la contaminación alejada de las vías fluviales.

EPA

STORMWATER SMART PARKING LOTS

When water from rain, snow, or sleet flows over the ground, it's called "stormwater." Stormwater can pick up litter and oil from vehicles in your parking lot. And when that stormwater flows into street gutters, storm drains, and downstream, it can pollute rivers, lakes, and streams. Follow these simple pollution solutions to help keep local waterways clean and healthy!

CONTAIN THE RAIN

Add plants and incorporate green infrastructure, such rain gardens, permeable pavement, and trees, to help soak stormwater into the ground where it falls.

MOP IT UP

Use special oil-absorbing towels or other materials to clean up oil and fluid leaks from cars and dispose of them properly.

CUT BACK ON SALT

A little salt goes a long way. Don't put too much on parking lots and sidewalks. Never salt hard surfaces if rain is in the forecast, or if temperatures aren't going to freeze.

LOSE THE LITTER

Always keep parking lots free from litter and debris. Trash can clog drains and contaminate water.

EPA

STORMWATER SMART
ESTACIONAMIENTOS

Cuando el agua de la lluvia, la nieve o el aguanieve fluye sobre el suelo, se llama "agua pluvial". Las aguas pluviales pueden recoger basura y aceite de los vehículos en su estacionamiento. Cuando esas aguas pluviales fluyen hacia las canaletas de las calles, los desagües pluviales y aguas abajo, pueden contaminar ríos, lagos y arroyos. ¡Siga estas soluciones sencillas contra la contaminación para ayudar a mantener las vías fluviales locales limpias y saludables!

CONTENER LA LLUVIA

Agregue plantas e incorpore infraestructura verde, como jardines de lluvia, pavimento permeable y árboles, para ayudar a absorber las aguas pluviales en el suelo donde caen.

HACER LIMPIEZA

Use toallas absorbentes de aceite especiales u otros materiales para limpiar las fugas de aceite y fluidos de los automóviles, y deséchelos adecuadamente.

REDUCIR LA SAL

Un poco de sal hace mucho. No ponga demasiada en estacionamientos y aceras. Nunca agregue sal a las superficies duras si se pronostica lluvia o si las temperaturas no llegan al congelamiento.

DESECHAR LA BASURA

Siempre mantenga los estacionamientos libres de basura y escombros. La basura puede obstruir los desagües y contaminar el agua.

EPA

STORMWATER SMART
LAWN CARE

When water from rain, snow, or sleet flows over the ground, it's called "stormwater." Stormwater can pick up debris, litter, fertilizer, and pesticides used for lawn care. And when that stormwater flows into street gutters, storm drains, and downstream, it can pollute rivers, lakes, and streams. Follow these simple pollution solutions to help keep local waterways clean and healthy!

DON'T MOW TOO LOW

Only remove 1/3 of the grass blade height and leave clippings on lawn to allow nutrients to return to the soil—they act as a natural fertilizer!

CAREFUL WITH CHEMICALS

Read the label when applying pesticides and fertilizers, use them sparingly, and avoid applying them to pavement. When there is rain in the forecast, any chemicals you apply can wash downstream.

ONLY RAIN IN THE DRAIN

Don't rake, sweep, or hose debris down the storm drains. Leaves, yard clippings, and trash can clog storm pipes, causing floods and polluted waterways.

CURB YOUR WATER WASTE

Direct sprinklers toward the lawn and away from pavement to save water and keep chemicals and debris out of storm drains. Check out www.epa.gov/watersense for more tips to save water!

EPA

STORMWATER SMART
CUIDADO DEL CÉSPED

Cuando el agua de la lluvia, la nieve o el aguanieve fluye sobre el suelo, se llama "agua pluvial". Las aguas pluviales pueden recoger escombros, basura, fertilizantes y pesticidas utilizados para el cuidado del césped. Cuando esas aguas pluviales fluyen hacia las cunetas de las calles, los desagües pluviales y aguas abajo, pueden contaminar ríos, lagos y arroyos. ¡Siga estas soluciones sencillas contra la contaminación para ayudar a mantener las vías fluviales locales limpias y saludables!

NO CORTAR DEMASIADO BAJO

Corte solo 1/3 de la altura del césped y deje los recortes en el césped para permitir que los nutrientes regresen al suelo, ¡pues actúan como un fertilizante natural!

CUIDADO CON LOS PRODUCTOS QUÍMICOS

Lea la etiqueta cuando aplique pesticidas y fertilizantes, úselos con moderación y evite aplicarlos al pavimento. Cuando hay pronóstico de lluvia, cualquier producto químico que aplique puede ser arrastrado aguas abajo.

SOLO LLUVIA EN EL DRENAJE

No rastrille, barra ni limpie con manguera los escombros por los desagües pluviales. Las hojas, los recortes de jardín y los botes de basura pueden obstruir las tuberías pluviales, y causar así inundaciones y vías fluviales contaminadas.

FRENAR SU DESPERDICIO DE AGUA

Dirija los rociadores hacia el césped y lejos del pavimento para ahorrar agua y mantener los productos químicos y los escombros alejados de los desagües pluviales. Visite www.epa.gov/watersense para obtener más consejos sobre cómo ahorrar agua.

EPA

STORMWATER SMART
CONSTRUCTION SITES

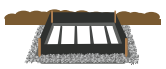
When water from rain, snow, or sleet flows over the ground it's called "stormwater." Stormwater can pick up sediment, chemicals, and oil as it travels over the ground on your job site. And when that stormwater flows into street gutters, storm drains, and downstream, it can pollute rivers, lakes, and streams. Follow these simple pollution solutions to help keep local waterways clean and healthy!

STOP MUD IN ITS TRACKS

Sediment clogs drains and pollutes stormwater. Install and maintain a pad at the construction entrance so vehicles don't track mud and dirt onto roads.

FENCE IN THE FLOW

Install silt fences or other barriers on the downhill portion of construction sites and soil stockpiles to prevent rain from washing soil and sediment downstream.



KEEP INLETS CLEAN

Install inlet protection around storm drains to keep loose sediment and muddy water out of storm sewer pipes.

STORE STUFF SAFELY

Keep paint, fuel, and chemicals in dry, covered storage areas. Properly dispose of these liquids in designated areas and use concrete washout areas for concrete waste.

EPA

STORMWATER SMART
SITIOS DE CONSTRUCCIÓN

Cuando el agua de la lluvia, la nieve o el aguanieve fluye sobre el suelo, se llama "agua pluvial". Las aguas pluviales pueden recoger sedimentos, productos químicos y aceite a medida que fluyen por el suelo en su lugar de trabajo. Cuando esas aguas pluviales fluyen hacia las cunetas de las calles, los desagües pluviales y aguas abajo, pueden contaminar ríos, lagos y arroyos. ¡Siga estas soluciones sencillas contra la contaminación para ayudar a mantener las vías fluviales locales limpias y saludables!

DETENER EL LODO DONDE ESTÁ

Los sedimentos obstruyen los desagües y contaminan las aguas pluviales. Instale y mantenga una plataforma en la entrada de la construcción para que los vehículos no arrastren lodo y tierra hacia las carreteras.

CERCAR EL FLUJO

Instale vallas contra la erosión u otras barreras en la parte cuesta abajo de los sitios de construcción y las reservas de suelo para evitar que la lluvia arrastre el suelo y los sedimentos aguas abajo.

MANTENER LAS ENTRADAS LIMPIAS

Instale protectores en las entradas de los desagües pluviales para mantener los sedimentos sueltos y el agua fangosa alejados de las tuberías de alcantarillado pluvial.

ALMACENAR COSAS DE FORMA SEGURA

Mantenga la pintura, el combustible y los productos químicos en áreas de almacenamiento cubiertas y secas. Deseche adecuadamente estos líquidos en áreas designadas y use áreas de lavado de concreto para desperdicios de concreto.

EPA

BSFB Stormwater Training for Municipal Operations

6-Nov-24

Timestamp	Full Name & Rank	Your Organization
11/6/2024	Gregory Vierra, Contractor	460 CES/CEIE
11/6/2024	Ethan Woodard GS 12	CEIE
11/6/2024	JaCorian Duffield by-03	460 CONS
11/6/2024	Brenda Flickinger, GS-11	460 CES
11/6/2024	Wilber Kyagulanyi	USACE- Contract Resources
11/6/2024	Matthew Rodgers GS-13	460 CES/CEIE
11/6/2024	Matthew Christensen	460 CES/CEIE
11/6/2024	Matthew Hulbert	CEIE
11/6/2024	SSgt Jacqueline S Evans	460 Contracting Squadron
11/6/2024	Andrew Brungardt civilian	460CES/CEOIH
11/6/2024	Jake Thrash	Amazon Web Services (AWS)
11/6/2024	Teresa Steer	DMVA/COARNG
11/6/2024	Msgt ervin czechan	460 ces
11/6/2024	Steven Matkovich	Colorado Army National Guard
11/6/2024	Joshua Lee Cardwell	460 LRS/LGRV (Vehicle Management)
11/6/2024	Tyler Walnoha/ CTR	460 CES/ CEIE
11/6/2024	Christopher Van Fleet - CIV	140 CES
11/6/2024	Christoher Dickerson/WS14/CEOI	460 CES
11/6/2024	Kevin Perdue	460 CES/CEOFG

Pollution Prevention/Good Housekeeping for Municipal-Type Federal Operations (continued)

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.
P2-2 Snow and Ice Control Training 1. Conduct training once per year and maintain an attendance roster.	**COMPLETED** The 460 CES/CEOHP shop completed the training on 18, 19, and 20 September 2024 with thirty-five (35) attendees.	No

Pollution Prevention/Good Housekeeping for Municipal-Type Federal Operations (continued)

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 Storm Drain Inlet Inspection and Maintenance Schedule 1. Inspect storm drain inlets and culverts every quarter. Document maintenance activities.	**PARTIALLY COMPLETED** There are 2361 BSFB stormwater features. During the permit year, 18 separate inspections occurred during which, 32 culverts, 136 storm drain inlets, and 48 stormwater manholes were inspected totaling 216 stormwater features inspected. Measures to be taken as a result of the evaluation to minimize negative impacts to water quality include storm sewer inlet cleanout procedures, catch basin cleaning vegetated swale repair, and street sweeping practices. These inspections will continue to monitor for signs of maintenance issues.	No

A description of how maintenance activities are tracked for permanent stormwater control measures.	**COMPLETED** Stormwater features will continue to be inspected and as findings are documented, maintenance requests will be submitted and repaired in accordance with BSFB work request priorities. Stormwater control measure maintenance activities are submitted to the BSFB customer service organization for appropriate funding and execution pathways. An excerpt of this system can be seen on the following page. In permit year 2024, three (3) work requests were submitted to address general stormwater maintenance items. All work was complete in 2024 except for one request to remove sediment accumulation at the outlet of outfall 1E. This work will be executed by grounds maintenance contractor in spring 2025.	No

Pollution Prevention/Good Housekeeping for Municipal-Type Federal 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:

There were no changes to control measures installed to prevent discharge of pollutants from areas.

Request ID	Created Date/Time	Service Requested	Description	Status
4363434	07/30/2024 15:02:49	Drainage	Outfall 1E located to the east of Aspen street (see notes/docs for location) drains upstream stormwater from the CE and AASF facilities. Outfall 1E is filled with sediment and not draining properly. This work service request was previously sent to horizontal shop (Matt Cohen and Jake Stahl visited the site) and it was determined that the horizontal shop does not have the equipment to vacuum the sediment, remove the water, and regrade the channel to execute the repair. Request this work be contracted out to execute the repair. Please contact Matt Cohen; matthew.cohen.4@spaceforce.mil; 720-847-4655 with questions.	Issued
4363394	07/30/2024 14:54:04	Crack/Joint Seal Repairs	The Texas Crossing that runs through East Toll Gate Creek (ETGC) located along the western perimeter fence is degrading in some areas and presents a road hazard to vehicles driving the perimeter road. Recommend this service request be sent to the Horizontal Shop to fill the degraded road and compact fill to prevent further road degradation. Contact Matt Cohen; matthew.cohen.4@spaceforce.mil; 720-847-4655 with questions. See notes/docs tab for pictures and approximate location.	Completed
3891573	11/17/2023 14:10:08	Drainage	The storm water culvert and outlet point located about 190 feet north of the Aspen street bridge, directly east of Aspen street (see notes and documents tab for location) has abundant sediment build up at the outlet and inside the culvert. Request that the CE Horizontal shop collect and dispose of the excess sediment. Contact Matt Cohen, matthew.cohen.4@spaceforce.mil, 720-847-4655 with questions.	Completed
3889261	11/16/2023 14:18:49	Landscaping	Reach 9 of East Toll Gate Creek is experiencing undercutting bank erosion in a section of the channel that requires earth stabilization. See notes for precise location. To reach the project site, enter Buckley SFB at the Mississippi Gate. After entering the gate, turn right at the first right hand turn and follow the road to the building 1550 Gate. At the gate, turn right onto the gravel road that is the base south perimeter road. Follow the gravel perimeter road along the fence line until the road ends at the flight line fence and where ETGC enters from City of Aurora onto Buckley property. Walk north on ETGC, a little more than 300 feet to the beginning of the project location. Request grounds maintenance address the erosion by installing dirt, seeding and erosion control blankets. Contact Matt Cohen 720-847-4655 for help.	Completed
3889214	11/16/2023 14:00:42	Crack/Joint Seal Repairs	Outside B-1025, there is a large crack in the pavement on the south-side of the building near the large bay door. Request maintenance to seal/repair the crack to mitigate any safety concerns and prevent equipment/vehicle damage. Request CE Roads and Grounds or Horizontal/Pavements repair. POC Matthew Christensen 720-847-5723.	Completed
3682150	07/27/2023 15:42:42	Landscaping	The vegetated swales that run along the west side of Telluride street have severely eroded specifically across the street from B-450 and the north end of the B-450 parking lot. This is currently a safety hazard that could lead to personal injury and roadway accidents if the roadway becomes compromised. Request immediate assessment and repair. Please refer to pictures and map in the notes and documents section. Please contact Matt Cohen matthew.cohen.4@spaceforce.mil or 720-847-4655 with questions.	Completed

6. Public Involvement/Participation

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

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

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

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

Measurable Goal(s) Including dates and numeric measures, as previously submitted	**Status:** Including dates and numeric measures	**Changes proposed to BMP and/or Measurable Goal?** (Yes/No). If yes, provide information on proposed changes and rationale.
PIP-1 Public Notice Requirements 1. Copies of the documents used to provide public notice and any public comment received as part of the public notice process. 2. BSFB must have the ability to accept and respond to information submitted by the public	**COMPLETED** The BSFB 2023 annual report and SWMP were posted to the BSFB website: (https://www.buckley.spaceforce.mil/Units/Environmental/) on 15 April 2024. The BSFB Environmental webpage directs public inquires about MS4 permit implementation to Water Quality Program at 460ces.cevwater@us.af.mil. No public comments were received in Permit Year 2024.	No

Public Involvement/Participation (continued)

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.
PIP-1 SWMP Public Review 1. Make MS4 annual reports available on the BSFB website (www.buckley.spaceforce.mil) within 15 days of submitting the annual report to the EPA.	**COMPLETE** The Permit Year annual report was requested to be posted on the BSFB website on 9 April 2024. To locate the report on the BSFB website, highlight the "Units" tab, and click on "Environmental" in the drop-down list (URL: https://www.buckley.spaceforce.mil/Units/Environmental/); a narrative regarding the MS4 Permit is provided along with links to applicable environmental documentation including the complete MS4 Permit, the SWMP Plan, and the Annual Report.	No

Public Involvement/Participation (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:

In the event BSFB receives public comment/records, BSFB will maintain documentation and respond to public inquiries as appropriate.

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	There were no identified dry weather discharges observed at the Buckley SFB outfalls during the permit year. No semi-annual total phosphorus monitoring has occurred during the term of this permit. PFAS monitoring was scheduled to begin one year after the effective date of the MS4 permit - 1 Nov 2024. Outfall 1A has been buried and rendered inaccessible due to a nearby runway expansion project. Absence of runoff at the designated monitoring points during November and December 2024 prevented PFAS sampling from occurring at Outfalls 1A, 1B, 1C, 2, 3, 6D, 11, the Industrial Detention Pond and the AASF Pond during the permit year. Please note that Buckley SFB finalized a 2024 Remedial Investigation (RI) in which PFAS sampling did occur and which can be found at the following link: https:// ar.cce.af.mil/Search (*Note that the user can access the data by clicking on "Buckley AFB, CO" and then the first entry, "AT006P F16 Crash Site" under the "Sites" field). When considering the vast amount of Buckley-specific PFAS data within this RI, Buckley SFB requests that EPA eliminate any further PFAS sampling requirements at the installation.

*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.

E. 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

F. Proposed Changes to the Stormwater Management Program.

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

BSFB received a new Municipal Separate Storm Sewer System (MS4) Permit on 20 September 2023. In response to the new permit with an active date of 1 November 2023 and expiration date of 31 October 2028, 460 CES/CEIE adapted the Stormwater Management Program to more closely align with the current MS4 permit requirements.

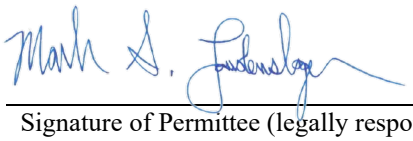
G. Notice of Program Element Operation by a Second Party.

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."

NA

H. 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."



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1 April 2025

Signature of Permittee (legally responsible person) ** Date Signed

MARK S. LAUDENSLAGER, GS-14, DAF Chief, Installation Management Flight

Name (printed) Title

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