



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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

<http://www.epa.gov/npdes/npdes-stormwater-program>

**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 emailed to:

Email: [clark.amy@epa.gov](mailto:clark.amy@epa.gov)

AND/OR mailed to:

Amy Clark  
EPA Region 8 Stormwater Coordinator  
Mailcode: 8WD-CWW  
1595 Wynkoop Street  
Denver, CO 80202-1129

**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): Fort Carson

Mailing Address: 1626 Evans Street, Building 1219

City, State and Zip Code: Fort Carson, Colorado 80913-4000

Contact Phone Number: 719-526-1697

Permit Certification Number: COR042001

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

**B. Reporting Period: Jan 1, 2022 to Dec. 31, 2022**

### **C. Construction Program Contact:**

The following information will be provided on EPA's 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? Yes

If Yes:

Contact name: Richard Yohn  
Position/work group title: Chief, Environmental Compliance  
Contact phone number: 719-526-1697  
Contact E-mail address: Richard.e.yohn.civ@army.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:

Fort Carson DPW Stormwater information: <https://www.carson.army.mil/organizations/dpw.html>

### **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 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:

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal?</b> (Yes/No). If yes, provide information on proposed changes and rationale.
2.2.1 - Implement an education and outreach program for Fort Carson that targets project managers, contractors, tenants, and environmental staff to provide education and outreach about the impacts of stormwater discharges on local water bodies and the steps that can be taken to reduce pollutants in stormwater runoff.	<p>Fort Carson's main focus of education is through the Environmental Protection Officer (EPO) course, which is offered on a monthly basis to Soldiers and civilians who are responsible for compliance at the installation's motor pools and maintenance facilities.</p> <p>Additionally, the stormwater program conducts training with contractors and Soldiers who are executing construction projects on the installation to educate them on protecting water quality during construction.</p> <p>Attachment 3 provides the environmental training events for 2022.</p> <p>Attachment 4 provides the training slides for the EPO course and Certificate of Completion.</p> <p>Attachment 5 provides training dates and rosters of the 2022 EPO course participants.</p> <p>Attachment 6 provides the 2022 PE&amp;O tracker spreadsheet.</p>	Yes. Annual revision and update to training materials reflecting current stormwater topics and issues.

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
<p>2.2.2 - Produce and disseminate informational material to inform the public (i.e.; project managers, contractors, tenants, students, and environmental staff) of the effects of erosion and runoff on water quality. Informational materials shall be updated and distributed as necessary throughout the duration of this permit and should provide a location where all annual reports and/or SWMP updates, as required by this permit, may be viewed.</p> <p>2.2.3 - Provide and document training to appropriate planning staff, project managers, contracting officers and other parties, as applicable, to learn about LID practices, green infrastructure (GI) practices, and to communicate the specific requirements for post-construction control and the associated SCM laid out with the SWMP.</p>	<p>Fort Carson uses three main ways to disseminate information to the public:</p> <ol style="list-style-type: none"> <li>1. The Fort Carson Stormwater Brochure (Attachment6) is provided to EPO and Construction Stormwater class attendees, as well as to attendees of outreach programs.</li> <li>2. The Fort Carson Resident's Guide (Attachment 7) provides information for protecting water quality in the installation housing areas.</li> <li>3. The Fort Carson Directorate of Public Works homepage provides public information on the Stormwater Program.  <a href="https://www.carson.army.mil/organizations/dpw.html">https://www.carson.army.mil/organizations/dpw.html</a></li> </ol> <p>Low Impact Development training is accomplished during the EPO and Construction Site training and provides general information LID features installed on Fort Carson and the procedures for requesting maintenance. Maintenance training is provided on an as needed basis for the installation service contractor. The FT Carson LID Operation and Maintenance Manual (Attachment 8) along with the FT Carson BMPs for Winter Maintenance Guide (Attachment 9) is distributed to the contractor element tasked to perform LID maintenance and winter maintenance such as sand and salt application. Beginning permit year 2023, O&amp;M training will be documented and tracked using the O&amp;M Training Certification Signature document (Attachment 10).</p>	<p>Yes. Facebook posts were added as a method of information dissemination to reach more members of the public.</p> <p>No.</p>

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
2.2.4 - Provide a stormwater awareness brochure and track its distribution.	A copy of the Fort Carson Stormwater Brochure is provided in ( <u>Attachment 7</u> ). Numbers of distributed brochures can be found in spreadsheet in ( <u>Attachment 6</u> ). During 2022, 589 brochures were distributed to students and residents and active-duty soldiers.	No.
2.2.5 - Ensure, to the extent feasible, that any new resident guides include terms for occupancy that relate to household waste management, pet policy, lawn watering, petroleum management, fertilizer/pesticide management, and car washing.	The Fort Carson Resident's guide provided information for protecting water quality in the installation housing areas. The guide is available to new residents on a secure portal. The guide is included in ( <u>Attachment 8</u> ).	No.
2.2.6 - At minimum, produce and disseminate informational material to inform employees and contractors working onsite of the proper hazardous waste collection processes. These materials should be updated and distributed throughout the duration of the permit, as necessary.	<p>The Fort Carson DPW Homepage provides information on the proper collection and disposal of household hazardous waste.</p> <p>The Fort Carson Environmental Battle book provides information to Soldiers and installation workforce on the proper hazardous waste collection processes.</p> <p>Fort Carson DPW also provides the 40-hour and 8-hour refresher employee training for the Hazardous Waste Operations and Emergency Response (HAZWOPER) training, which specially addresses proper hazardous waste handling processes.</p>	No.

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.2.7 - Document education and outreach activities in the SWMP, including documents created for distribution and a training schedule which notes the dates that training occurred, and the target audiences reached.	(Attachment 6) provides a log of the installation's public education and outreach events. During 2022, Fort Carson conducted 3 stormwater construction training sessions to USACE representatives and contractors operating on post. Fort Carson provided 7 Environmental Protection Officer (EPO) courses to active-duty personnel assigned to locations where there are potential pollution sources. Throughout 2022, 159 persons were trained. Factoring in Facebook postings and the Pollution Prevention Quarterly Newsletter (Attachment 12), this figure increases significantly to an undetermined amount. (Attachment 13) provides slides, training rosters and certificate of completion for all 2022 Construction Stormwater Trainings.	No.

## 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:

During the 2022 permit year, various PE&O training courses and events were conducted on Fort Carson. Melinda Norris, the Stormwater Program Manager was responsible for the coordination and implementation of the PE&O program. During 2022, the stormwater program conducted outreach using direct and indirect measures with a goal to target active-duty soldiers, their families, and all federal and contracted employees on post.

7 EPO courses and 3 Construction Stormwater Trainings were held in classrooms located in the Fort Carson DPW office. During these times, information brochures were distributed to all attendees. LID O&M manuals and the “BMPs for Winter Maintenance Guide was distributed to Fort Carsons maintenance contractors. Facebook posts were used as indirect outreach to pass along vital information regarding pollution prevention. The P2 Quarterly Newsletter was distributed digitally to several sources on the Mountain Post. Figures for Dates, Course Rosters, Information Distribution, and copies of all outreach materials can be found in the attachments section at the end of this report.

## 2. Public Participation and Involvement

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:

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.3.1 - Comply with applicable state and local public notice requirements when implementing a public involvement/participation program.	Public notice for projects with stormwater management impacts are handled through the National Environmental Policy Act (NEPA) review process. During 2022, 2 public notices were posted form public involvement for Environmental Assessments (EA's) through the NEPA process.	No.
2.3.2 - Make all relevant Annual Reports available on the permittee web site or on another platform that is available to the public in an electron format.	MS4 Annual Reports are publicly available on the Fort Carson Stormwater Homepage. The homepage can be accessed at the URL provided on page 2.	No.
2.3.3 - Provide volunteer activities (e.g., cleanup days) as practicable to help actively engage residents and personnel at Fort Carson in understanding water resources and how their activities can affect water quality.	Fort Carson conducts two community activities annually, which engage residents and personnel on the importance of water resources- Earth Day and Make a Difference Day. Fort Carson conducted a Fall Clean Up Event to maintain stormwater basins around the installation. Summaries of these activities are included in Attachments 14, 15, and 16.	No.



<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.3.4 - Maintain a log of public participation and outreach activities performed in the permittee's SWMP.	Attachment 6 provides a log of the installation's public participation and involvement programs. During 2022, Fort Carson conducted 3 outreach events, which involved 500 people.	No.
2.3.5 - Maintain a copy of the most recent version of the facility SWMP and permit in the publicly accessible format (e.g., available in electronic format, online or in a publicly accessible location)	The current Installation Stormwater Management Plan (SWMP) is posted to the Fort Carson Directorate of Public Works homepage, which can be accessed at the URL provided on page 2.	No.

### **Public participation/involvement (continued)**

Narrative description. Provide any descriptions which may further describe the implementation of this minimum measure.

Such narrative may include descriptions of efforts which overlap several minimum measures or descriptions of documents or programs which have been created in an effort to implement this minimum measure:

1. Fort Carson Earth Day Celebration. This event is held annually in April and highlights the things residents can do to enhance and protect the environment.
2. Make a Difference Day (MADD). MADD is a nation-wide day of volunteer service where residents complete projects to enhance the community. On October 22, 2022, 150 volunteers provided 750-man hours of labor doing various tasks.
3. Public Notices were posted for public involvement for Environmental Assessments (EAs) through the NEPA process regarding the expansion of a recreational vehicle storage lot and the Energy Resilience Project at Fort Carson. All of Fort Carson EA's can be found via the Directorate of Public works homepage <https://www.carson.army.mil/organizations/dpw.html>

### **3. Illicit Discharge Detection and Elimination**

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:

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.4.1 - Implement a program, policies, and/or procedures to detect and eliminate illicit discharges into its MS4. The program shall include procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system. This program shall address illegal dumping to the storm sewer system, shall include inventories and investigations of interior floor drains in buildings for evidence of cross connections between the storm and sanitary sewer systems, and shall include training for staff on how to respond to reports of illicit discharges.	<p>Fort Carson's illicit discharge program consists of education and training, spill response guidance and procedures, routine inspections, and illicit discharge surveys. Fort Carson's spill response guidance is provided via the Directorate of Public works homepage accessible by the URL provided on page 2.</p> <p>The Fort Carson spill response procedure is included in Attachment 14.</p> <p>The 2022 Spill Line Log is found in Attachment 17</p> <p>11 Spill Reports were submitted I 2022. Attachment 18 shows an example.</p> <p>Wash rack cleanout tracker is found in Attachment 19</p>	No.

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

<p>2.4.2 - Effectively prohibit, through ordinance or other regulatory mechanism available under the legal authorities of the MS4, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions.</p>	<p>Fort Carson's spill response guidance is provided via the Directorate of Public Works homepage, accessible by the URL provided on page 2.</p> <p>Fort Carson maintains an installation-wide Spill Prevention, Control, and Countermeasure Plan, as required by 40 CFR part 112 which addresses the storage and management of petroleum oil and lubricant (POL) products.</p> <p>The Installations Stormwater Pollution Prevention Plan (SWPPP) addresses spills and illicit discharges in Section 3.1.4.</p>	<p>No.</p>
<p>2.4.3 - Provide a mechanism for reporting of illicit discharges and provide this number on the Fort Carson stormwater website and any outreach materials, as appropriate.</p>	<p>Fort Carson has a spill line (526-0973) for the reporting of spills and illicit discharges which occur on the installation. The phone number for the spill line is posted to a variety of locations, including the Directorate of Public Works homepage, accessible by the URL provided on page 2. A copy of the Fort Carson Spill Response Procedure is included in <u>Attachment 14</u>.</p>	<p>No.</p>

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
<p>2.4.4 - Investigate any illicit discharge within 15 days of its detection and take action to eliminate the source of the discharge with 45 days of its detection (or obtain permission from USEPA for such longer periods as may be necessary).</p>	<p>Upon notification of a spill of illicit discharge, an investigation of the situation is made within 24 hours to determine the source and cause of the discharge. If required, temporary control measures may be installed until a service order is executed to fix the problem.</p>	<p>No.</p>
<p>2.4.5 - Maintain an updated storm sewer system map. At a minimum, the map or system of maps maintained within a Geographic Information System (GIS) shall show jurisdictional boundaries, the location of all inlets and outfalls, names and locations of all waters that receive discharges from those outfalls, locations of post-construction BMPs installed since the effective date of this permit, and locations of all facilities operated by the permittee, including any public or private snow disposal sites. The map shall be available in electronic or digital format, as appropriate.</p>	<p>The Fort Carson Directorate of Public Works Geographic Information System (GIS) section maintains and updates the installation's storm sewer system map. The map contains the pertinent data for the installation's storm sewer system and is updated as collection systems change, or new construction is completed.</p>	<p>No.</p>

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.4.6 - Develop and maintain an Illicit Discharge Detection and Elimination (IDDE) tracking mechanism which tracks dry weather screening efforts and the location of remediation efforts to address identified illicit discharges.	The annual dry-weather screening was completed in November 2021. The screening identifies potential illicit discharge or other conditions which require attention (e.g., debris, erosion, etc.). The results of the screening are incorporated into the IDDE tracker, which tracks the problems and corrective actions.	No.
2.4.7 - Conduct dry weather screening annually at each of the major drainages within Fort Carson (B-Ditch, Clover Ditch, Infantry Creek, Rock Creek) for the presence of non-stormwater discharges.	The 2022 dry-weather screening was completed in November 2022. The screening identifies potential illicit discharges, and identifies other conditions which require attention (e.g., debris, erosion, etc.)._Dry weather screening is conducted throughout the permit year and is found in the 2022 Illicit Discharge and Qualitative Assessment Report. This is a large	No.
2.4.8 - Have a household hazardous waste collection day, as needed or as practicable, either as a separate Fort Carson activity or in conjunction with nearby civilian jurisdictions.	Fort Carson provides avenues for soldiers to turn in their hazardous wastes.	No.
2.4.9 - Stencil all storm drains (e.g., paint, placards, stenciling), as practicable, in all areas with industrial uses and residential uses by the end of year four of this permit.	During 2022, Fort Carson continued marking of storm drains, as needed, throughout the installation. New construction requires marking.	No.

## Illicit Discharge Detection and Elimination (continued)

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

1. Spill reports are kept on the Fort Carson internal server inside the designated stormwater folder. Spill reports are analyzed based on size, location, and circumstances to determine trends and recommend improvements in procedures and best management practices. Prevention procedures and best management practices are communicated to the Fort Carson community through the Environmental Compliance Assistance Team (ECAT), Environment Protection Officer (EPO) training, EPO refresher training and the installations Environmental Quality Control Committee (EQCC).
2. During 2022, Fort Carson DPW responded to 12 spills, none of which met the requirements to be reported to the EPA. All spills were contained and mitigated appropriately and in a timely fashion.
3. The storm sewer map is electronically managed and updated by the Fort Carson DPW GIS Department.
4. Fort Carson no longer holds household hazardous waste collection events and now provides a different avenue for soldiers to turn in their hazardous waste. Soldiers can turn in their household hazardous wastes all year to the PX recycle yard, where it is collected and turned into the El Paso County throughout the year instead of holding one single large event.

Fort Carson implements a robust program for identifying and eliminating illicit discharges. Through the Environmental Compliance Assessment Team (ECAT), Education and Outreach trainings, Spill Trackers, the Semi-Annual Water Quality Sampling Report, the Illicit Discharge and Qualitative Assessment Report, Fort Carson is up to date with permit requirements outlined in section 2.4 of the MS4 permit.

Fort Carson turns to the EPO course as the regulatory mechanism to deter and prohibit illicit discharges. During this course, training is provided on the CWA and the legal parameters of violating this act.

Through the Illicit Discharge program, the Hazardous Waste Program, and the Pollution Prevention Program categorical descriptions are given to allowable non-stormwater discharges that have the potential to be on Fort Carson. Many of these occur in the housing areas, such as landscape irrigation and individual residential car washing. Control measures are provided through direct and indirect resources, Fort Carson residents receive a quarterly pollution prevention newsletter which highlights various residential sources and how to prevent them.

As part of the Fort Carson Water Quality Program, an annual sanitary survey is conducted which assesses evidence of any cross connections between storm and sanitary sewer systems. As part of Fort Carson's ECAT Wastewater/Stormwater Checklist, inspections are conducted to ensure these

areas are visually clean and clear of any debris, evidence of spills or foreign smells emitting from the drains. If the survey revealed a possible cross connection, the storm sewer would be immediately traced to find the outfall and assess the potential discharge. The sanitary line would be closed to prevent further contamination. Depending on the results of the assessment, Fort Carson would report the finding to the EPA. Mitigation and remediation actions following, would be site specific but would include all efforts to contain and divert the sanitary discharge from exiting or traveling further.

Located in the IDDE Qualitative Assessment Report is information regarding location and method of dry weather screening. These locations include B-Ditch, Clover Ditch, Infantry Creek, and Rock Creek. Qualified personnel physically inspect the drainages looking for illicit discharge pipes, seeps, or other suspected flows. This report is large and available upon request. Fort Carson conducts various types of system investigations including collection system surveys, oil water separator surveys, sanitary sewer inflow and infiltration surveys, and smoke tests. These surveys investigate system connections and functionality; and provide another mechanism for identifying potential illicit discharges and cross connections.

#### **4. Construction Site Stormwater Runoff Control**

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:



<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
<p>2.5.1 - Require all contractors having a potential of disturbing one or more acres of land within the boundaries of Fort Carson to obtain NPDES permit coverage for their construction stormwater discharges under an applicable USEPA permit, and to comply with other applicable state or local construction stormwater requirements. For sites disturbing less than one acre, contractors shall comply with requirements as determined by the facility in its SWMP.</p>	<p>This requirement is fulfilled through several steps in Fort Carson's planning processes. Design plans for any new project go through a NEPA review. The Stormwater Program Manager reviews this data and makes determinations based on the scope of work laid out in the plans. Projects expected to disturb 1 or more acres of land are required to submit a SWPPP, which then must be reviewed and approved prior to obtaining a NPDES permit. SWPPP review template can be found in Attachment 21. For projects expected to disturb less than 1 acre, contractors are made aware of the requirements to install and maintain control measures throughout the life of the project.</p>	<p>No.</p>

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal?</b> (Yes/No). If yes, provide information on proposed changes and rationale.
<p>2.5.2 - Use an ordinance or other regulatory mechanism available under the legal authorities of Fort Carson to require erosion and sediment controls and sanctions to ensure compliance with the terms of the NPDES General Permit for Discharges from Construction Activities (Construction General Permit). This shall include working with contract officers to determine methods for stopping work or penalizing contractors who violate the terms of the aforementioned construction stormwater permit.</p>	<p>Fort Carson's stormwater program uses an SOP for construction site non-compliance. This memorandum for record outlines the procedures that Fort Carson will follow to ensure compliance during construction. This SOP references the GC Policy #17 and the determination to execute it when non-compliance become recalcitrant. Fort Carson's Garrison Commander's Policy Letter #17 is the installation's construction site stormwater program policy. It applies to all construction activities on post and provides potential sanctions for violations.</p> <p>A copy of the GC Policy #17 letter is included as Attachment 20.</p> <p>A copy of the SOP for CGP No-Compliance is included in Attachment 22</p>	<p>No.</p>
<p>2.5.3 - Maintain a list of policies and procedures that can be used to enforce construction site compliance within Fort Carson, independent of USEPA staff directly enforcing the CGP.</p>	<p>Fort Carson's Garrison Commander's Policy Letter #17 is the installation's construction site stormwater program policy. It applies to all construction activities on post and provides potential sanctions for violations.</p> <p>A copy of the GC Policy #17 letter is included as Attachment 20.</p> <p>The policy letter is posted to the Fort Carson Directorate of Public Works Homepage, accessible by the URL provide on page 2. Fort Carson's stormwater program uses an SOP for construction site non-compliance. This memorandum for record outlines</p>	<p>No.</p>

	<p>the procedures that Fort Carson will follow to ensure compliance during construction. This SOP references the GC Policy #17 and the determination to execute it when non-compliance become recalcitrant.</p> <p>A copy of the SOP for CGP No-Compliance is included in Attachment 22</p>	
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<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal?</b> (Yes/No). If yes, provide information on proposed changes and rationale.
2.5.4 - Implement procedures for site plan review that incorporate consideration of potential water quality impacts.	<p>The Fort Carson Stormwater Program is integrated in the design review process and provides input on water quality at the 30%, 60%, 90% and 100% design reviews. Specific erosion and sediment control plans are reviewed separately and must be approved prior to an NOI being submitted by the contractor. Design reviews for Low Impact Development and compliance with EISA Section 438 are included in the process. Licensed Professional Engineers (PE) review design plans for all permanent water quality structures, using, among other programs, the Army LID Planning and Cost Tool. This software assists by determining the EISA runoff value calculations, through inputs of soil types, impervious surfaces, historic rainfall etc. Fort Carson PE's also reference the UDFCD Drainage Criteria Manual V3C3 to calculate WQCV or LID structures. The Stormwater Program Management Team holds multiple certifications regarding control measure design and implementation. This team utilizes GIS models and imagery of stormwater infrastructure throughout Fort Carson when reviewing site plans. The US Army Core of Engineers (USACE) utilizes the MRSI Team for control measure design including LID and Green Infrastructure.</p>	No.
2.5.5 - Implement procedures for receipt and consideration of	The CGP requires all construction sites with a NPDES permit to post a sign indicating where	No.

information, including complaints of construction site non-compliance, submitted by the public.	the public can access or request a copy of the SWPPP. The sign used on Fort Carson includes contact information for the stormwater program manager along with the USEPA Region 8. The public is encouraged to contact the Fort Carson stormwater program manager if they have concerns about operations at construction sites. Additionally, the Fort Carson spill line can also be used to report complaints.	
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<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.5.6 - Review the SOW for construction projects to ensure that the SWMP and SCMs for erosion and sediment control and construction dewatering can be determined to be effective given the regulations and environmental conditions at Fort Carson.	Erosion and Sediment Control Plans are included in the design review process and are required in the Stormwater Pollution Prevention Plan, which must be approved by the Fort Carson Storm water program prior to an NOI being submitted by the contractor. A copy of Fort Carson's SWPPP review form, along with a SWPPP template is posted to the Fort Carson Directorate of Public Works homepage, accessible by the URL provided on page 2.	No.
2.5.7 - Implement an inspection plan and keep a copy of that plan in the SWMP which provides inspection triggers and required timeframe upon which construction sites must be inspected by Fort Carson staff. All sites within this plan must be inspected, at a minimum,	Fort Carson executes inspections of construction sites on a quarterly basis to check compliance with the MS4 and CGP permits. Inspection reports are maintained on the Fort Carson internal storage on the R drive. Findings are provided to the projects management team for action, if required. Follow up	No.

quarterly.	<p>inspections are executed, as required, to verify corrective actions. Drive by inspections are also conducted to check on project progress and to maintain situational awareness of construction activities.</p> <p>The CGP Inspection Template can be found in Attachment 24</p>	
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<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.5.8 - Maintain a site inspection form in the SWMP for use by Fort Carson construction management and oversight personnel when performing inspections required by Part 2.5.7.	Fort Carson uses a standardized inspection form to inspect construction sites. Hard copies of the form are used to record notes in the field. The notes are then transferred to electronic inspection forms. Inspection results are provided to the project's management team for action. A copy of the form is included as Attachment 24.	No.
2.5.9 - Maintain and utilize a NOT form or alternative process for Fort Carson, independent of the CGP NOT form, and have Fort Carson stormwater staff inspect all construction sites prior to termination to ensure that 70% vegetative cover has been met at all areas of the site.	<p>Fort Carson uses a Notice of Termination (NOT) form to document compliance with the final stabilization requirements of the CGP. NOT inspections are scheduled with the contractor and the project management team. If all requirements are met, a completed NOT form is issued to the project manager, and the contractor is then authorized to terminate the NPDES construction permit.</p> <p>Changed verbiage in NOT Form from 70% predevelopment vegetative cover" to "70% native undisturbed vegetative cover". A copy of the NOT inspection form is included as Attachment 25.</p>	Yes, change language in SWMP from "70% predevelopment vegetative cover" to "70% native undisturbed vegetative cover" to be accordance with the language in the CGP.

	During 2022, Fort Carson completed 11 NOT Inspections, resulting in successful completion of final stabilization requirements.	
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### **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:

2.5.10.8-Fort Carson's Stormwater Program is coordinated and implemented by the Stormwater Program Manager, Melinda Norris. Required permit items are tasked out to contracted specialist. These tasks include, but are not limited to, outfall sampling, CGP inspections and IDDE reports.

2.5.10.1-Fort Carson's Stormwater Program tracks all regulated construction activity through use of the "CGP Tracker" Spreadsheet (Attachment 26). This tracker, records NPDES ID#, Site Locations, POC, SWPPP Administrators, and Quarterly Inspection Frequencies.

2.5.10.3-To maintain compliance and ensure that proper enforcement actions are taken when non-compliance arises, Fort Carson utilizes the SOP for CGP Non-Compliance (Attachment 23) and the GC Policy #17 (Attachment 20). These documents outline CGP requirements and the processes that Fort Carson conducts when non-compliance becomes recalcitrant.

2.5.10.4-In 2022 one operator was defiant of the CGP requirement among other issues. This contractor held permits for the "SOF Mountaineering Facility" and for a Physical Fitness Center. This contractor was ultimately removed from these projects and a new contractor resumed operations. Existing NOI's were terminated and renewed with new NPDES ID #'s and the contractor SWPPP's were amended to project the changes in operators. Both projects remain in an active status.

2.5.10.5-When new projects are disseminated through USACE, an outside contractor or internally through the DPW, they undergo the same review processes regardless of the potential scope of work. An initial NEPA review act to understand the scope of work and identify the need for a SWPPP draft and an EPA NPDES permit. If a SWPPP is required, the Stormwater Program evaluates it using the SWPPP review checklist located in (Attachment 21). SWPPP maps are

reviewed for control measure locations and compared against our stormwater infrastructure maps to rule out any potential impacts to water quality.

2.5.10.7-The Fort Carson MS4 permit, dictates that permitted projects under an EPA NPDES permit are inspected on a quarterly frequency utilizing the CGP inspection template located in (Attachment 24). This inspection schedule is maintained using the CGP tracker. Between quarterly inspections, the stormwater program conducts unscheduled and drive-by inspections. As is outlined in the SOP for CGP No-Compliance, the operator will be required to make corrections immediately if feasible and by the COB the following, day if not. Priority is established by evaluating the ongoing potential to effect water quality downstream from said corrective action.

## 5. Post-construction Stormwater Management in New Development and Redevelopment

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:

<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.6.1 - Establish and implement a process to ensure that all new and re-development projects that disturb equal to or greater than one acre and that discharge into permittee's small MS4 are designed and constructed with permanent post-construction stormwater control measures designed to prevent or minimize water quality impacts using structural or nonstructural BMPs, appropriate to Fort Carson.	Design reviews for permanent post-construction stormwater control measures and compliance with EISA Section 438 are included in the process. Licensed Professional Engineers review design plans for all permanent water quality structures, using, among other programs, the Army LID Planning and Cost Tool. This software assists by determining the EISA runoff value calculations, through inputs of soil types, impervious surfaces, historic rainfall etc. Fort Carson PE's also reference the UDFCD Drainage Criteria Manual V3C3 to calculate WQCV or LID	No.

<p>2.6.2 - For purposes of this permit, such BMPs shall be selected based on their ability to maintain onsite predevelopment runoff conditions and be implemented onsite, except to the extent it is impracticable to do so.</p>	<p>structures. The Fort Carson Stormwater Program is integrated in the design review process and provides input on water quality at the 30%, 60%, 90% and 100% design reviews. If the project is over 5,000 square feet in size, the design engineer is required to complete the “Maintaining Hydrology on Army Construction Projects”, which documents what control measures will be used to prevent or minimize water quality impacts resulting from the project.</p> <p>As part of the design process, the design engineer submits the LID Design and Cost tool, which outlines the specific BMPs that will be used to maintain onsite predevelopment runoff conditions.</p>	<p>No.</p>
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<p><b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted</p>	<p><b>Status:</b> Including dates and numeric measures</p>	<p><b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.</p>
<p>2.6.3 - To the extent the permittee determines it is impracticable to maintain predevelopment runoff conditions by implementing such BMPs at a new or redevelopment site, it shall install or utilize, and maintain alternative stormwater control measures to prevent or minimize water quality impacts from runoff from the new or redevelopment site.</p>	<p>If the design engineer cannot meet the requirements of maintaining onsite predevelopment runoff conditions, the reasons why are documented on the “Maintaining Hydrology on Army Projects”, which is maintained in the project file. During 2022, 0 projects were deemed to be impracticable to maintain predevelopment runoff conditions.</p>	<p>No.</p>
<p>2.6.5 - When updated, include hydrologic performance specifications and information related to the design and maintenance of permanent stormwater control measures in natural resource plans.</p>	<p>Hydrologic performance specifications and information is included in the project’s basis of design and is maintained by the project management team.</p>	<p>No.</p>



2.6.6 - Include post-construction BMP “as-builts” for all newly installed permanent stormwater control measures in a georeferenced data management system.	The collection of “as-built” drawings and associated cut sheets are part of project close out. Deliverables are collected by the project management team and are provided to the DPW GIS section for inclusion in the installation’s GIS database.	No.
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<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.
2.6.7 - Ensure all newly installed post-construction stormwater control measures are working as designed prior to closing out contracts.	Stormwater control measures are included in the NOT inspection process. Control measures which are not operating properly are addressed through the warranty process.	No.
2.6.8 - Upon closeout of new construction projects, include maintenance requirements for newly installed permanent post-construction stormwater control measures into a long-term maintenance plan (e.g., the recurring work program).	Newly installed permanent post-construction stormwater control measures are added to the base operations contractor’s technical exhibit for long-term maintenance. The technical exhibit is updated annually.	No.
2.6.9 - Ensure that permanent post-construction stormwater control measures are included in	Stormwater control measures are part of the NOT inspection process. Control measures which	No.

any applicable warranty reviews.	are not operating properly are addressed through the warranty process.	
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## **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:

During permit year 2022, the Stormwater Program Manager was responsible for the coordination and implementation of the post-construction stormwater management program. In 2022, there were no projects that were deemed impracticable as described in part 2.6.4 of the permit. When a permanent post-construction stormwater control measure goes online, there is a procedure to ensure the long-term operation and maintenance.

The stormwater program conducts annual inspections per the MS4 permit. These inspections analyze the components of the water quality structure including but not limited to, inflow points, forebays, outlet structure, embankments, and the overall function. The inspection is then given a letter grade from A-F depending on the assessment:

A – Passed inspection; no deficiencies found; no maintenance required.

B – Passed inspection; minor deficiencies found; functionality not impaired; continue to monitor C

– Minor to moderate deficiencies found; functionality impaired; routine maintenance recommended

D – Moderate to severe deficiencies found; functionality impaired; maintenance recommended

F – Severe deficiencies found; functionality impeded; immediate maintenance recommended

Fort Carson tracks 156 LID features to include bio-retention basins, detention and retention ponds and permeable pavers. LID features are assigned an ID # determined by their watershed and physical location. The LID feature inventory tracker maintains the structures that have been and need to still be inspected for the permit year. When maintenance is needed on a LID feature, a service order is submitted through [armymaintenance.com](http://armymaintenance.com) (ArMA) and is assigned to contracted maintenance organization. The ArMA system tracks the submittal from cradle to grave and notifies the submitter when the action is complete.

Additionally, when a project implements an impervious area larger than 5,000 SF it requires the preparation of the Low Impact Development (LID) Planning and Cost Tool and Report to comply with EISA Section 438. The "Maintaining Hydrology on Army Construction Projects" form must be completed by the LID Designer of Record and submitted to the COR and Fort Carson Stormwater Program Office with the final design package. LID information and the cost tool can be found at <https://mrsi.erdc.dren.mil/sustain/cx/lid/>

The Integrated Natural Resources Plan (INRMP) does not specifically speak to planning of permanent stormwater control measures. When planning for permanent stormwater control measures, the plan of action that Natural Resources uses, begins with a WOTUS determination to maintain compliance with all 404 permit requirements. The the proposed feature is reviewed against the US Army Core of Engineers Regional General Permit No. 14.

## 6. Pollution Prevention/Good Housekeeping for Municipal Operations

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:

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

2.7.1 - Provide annual training for facility maintenance contracted companies, environmental program managers, and other people identified in line with the SWMP. Each of the categories of municipal activities reference in the SWMP should receive stormwater training.	Annual pollution prevention training is provided through various methods for units, the base operations service contract, and construction contractors. EPO training is given to personnel operating within areas that have the potential to pollute water quality. On the spot “opportunity training” is provided through stormwater and ECAT inspections and engagement with operators and contractors throughout the year. Additionally, each facility is provided a pollution prevention poster, which is included as Attachment 27	No
2.7.3 - Implement a schedule for cleanout of storm sewer inlets in a manner that prevents significant deposition of sediment or other debris to receiving waters and provide data or a description of this schedule and its implementation in the SWMP for the facility.	All storm sewer inlets are inspected and cleaned annually through a schedule maintained by the base operations contractor.	No.
<b>Measurable Goal(s)</b> Including dates and numeric measures, as previously submitted	<b>Status:</b> Including dates and numeric measures	<b>Changes proposed to BMP and/or Measurable Goal? (Yes/No).</b> If yes, provide information on proposed changes and rationale.

<p>2.7.2 - Provide deicing training to minimize the use of and runoff from chemical deicers and traction aggregates.</p>	<p>Fort Carson does not conduct chemical deicing of aircrafts at Butts Army Airfield. Fort Carson does employ chemical deicing of installation roads within the cantonment area to enable the safe operation of military and civilian traffic.</p> <p>Fort Carson conducts annual pollution prevention training for winter maintenance operations a BMP cut sheet is included in Attachment 17.</p>	<p>No.</p>
<p>2.7.4 - Implement a schedule for sweeping streets in a manner that prevents significant deposition of sediment or other debris to receiving waters and provide data or a description of this schedule and its implementation in the SWMP for the facility.</p>	<p>Primary streets are swept monthly; secondary streets are swept every other month. Parking lots are swept twice a year. If an area is identified that requires additional sweeping, a service order is generated to the base operations service contractor to address the condition.</p>	<p>No.</p>
<p>2.7.5 - Consider the need for the application of cover to prevent airborne deposition of particulates from storage piles at the municipal materials storage yard.</p>	<p>Fort Carson employs water to moisten storage piles to reduce the incident of materials being transported in the air and depositing outside of the storage area.</p>	<p>No.</p>

## **Pollution Prevention/Good Housekeeping for Municipal Operations (continued)**

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

On Fort Carson, the Pollution Prevention and Good Housekeeping Program is accomplished through different methods. First, the Directorate of Public Works institutes a training program which targets soldiers and employees operating in locations where the potential for pollution is increased. The Environmental Protection Officer (EPO) course is held every quarter and engages attendees on multiple areas of concern regarding pollution prevention. During the EPO course short lectures on topics such as hazardous waste storage, toxins, spill response and pollution prevention are given. Course attendance is trending upward as the leadership element of Fort Carson becomes more aware of the need for proper pollution prevention training and accountability.

2.7.7.1- Requiring and obtaining a training roster from all trained personnel is unfortunately impractical and virtually infeasible. Fort Carson operates over 75 sites with industrial activities. Between active-duty personnel and auxiliary units there are roughly 30,000 men and women assigned to Fort Carson. The stormwater program will brainstorm ways to accomplish this over the next permit year, but this data is not available at this time.

Fort Carson tracks all open and closed style wash racks. Attachment 18 wash rack cleanouts are arranged on a "as needed" basis. Prior to any cleanout activities, wash rack materials are sampled to determine if they are hazardous or non-hazardous. After a determination is made, the contractor (Twin Environmental, subcontractor to Sol Solutions) has personnel come down and remove sediment/sludge/debris from the rack. For open, "bird bath" style wash racks, they are usually cleaned with front loader, removed material placed in a lined roll-off, and material hauled offsite for disposal. For grated, "sand trap" style wash racks, the contractors usually remove material with a vacuum truck.

Fort Carson contracts out street sweeping to reduce sediment deposition from entering receiving waters. T&H Services implements a maintenance schedule for street sweeping. A copy of the most recent weekly schedule is in Attachment 28. T&H also responds to all service orders submitted by Fort Carson personnel. Service orders are tracked using the Army Maintenance (ArMA online portal). A copy of the 2022 service order tracker is in Attachment 29. Through the permit year, Fort Carson's ECAT members are assigned to different locations across the MS4 permitted area. The members spend time with the boots on the ground, especially with those in command roles, and addresses potential pollution issues at our sites with industrial activities. Many times, ECAT will provide on the spot training to soldiers and civilians, and it is not always practical to have a roster of these training engagements.

Every month ECAT conducts Parking lot monitoring at all parking areas around the barracks on Fort Carson. In attachment 14 the Fort Carson Spill Procedures can be found and in Attachment 30 an educational brochure is distributed to barracks with parking lot that prohibits conducting oil changes in these parking lots. It details where you can change your oil on post and where to dispose of used oil on post. The August 2022 reports are in Attachment 30 for a visual reference. Fort Carson implemented a catch basin program a few years back and ECAT monitors these BMPs monthly and after rainfall events. Attachment 31 shows a timeframe between July and Sept of 2022. Every Thursday on Fort Carson, units provide Leader Troop Training (LTT) which reinstates environmental policies to be followed throughout the Post. Ft. Carson units provide a safety standdown periodically throughout the year to refresh personnel on policy. The environmental concerns covered in the events are commonly based on the advice of the ECAT.

2.7.7.3 Evaluations are performed daily as a secondary initiative to the routine visual assessments made by the ECAT, the Stormwater Program and other Program Managers and DPW Staff. Street Cleaning Operations are performed by a third party contractor. This work is not coordinated through the Stormwater Program. T&H, the third party contractor follows a weekly sweeping schedule and reports directly to the Base Operations Contracting Officer Representative. The stormwater program as well as DPW staff will submit service orders which reinforces the regular schedule and T&H will perform the duties required. The stormwater department does not have a formal tracking mechanism as this work takes place outside of this department. 19 Catch Basins are tracked and visually inspected on a monthly basis. Catch basin clean outs are submitted through ArMA and handled by T&H Services. When catch basin clean out operations are complete, the ECAT is notified and does another visual assessment



## E. Results of Information Collected and Analyzed.\*

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

Measurable Goal	Results of information collected and analyzed that must be reported for this item
MSGP Visual Assessments	In 2022, 5 sites were monitored per the MSGP. Each sampling location is assessed quarterly, resulting in 39 visual assessments in 2022. Out of 39 assessments, 5 assessments (12%) failed to yield a sample due to no discharge or inadequate volume to perform an assessment. No new pollutants or areas of noncompliance were identified through the visual assessments. Results were consistent with historical data and with the types of facilities assessed. Results most commonly observed included: sediment accumulation, floating organic material and rare observations of petroleum residue. These assessments indicate that the pollution prevention control measures appear to be working and that operators are complying with the installation stormwater policies.
MSGP Quarterly Analytical Sampling	<p>Analytical sampling was conducted at the following locations at Fort Carson during 2022:</p> <p>Sector K Facilities- Range 121 (Demolition Range) and Hazardous Waste Storage Facility,</p> <p>Sector T Facilities- WWTP</p> <p>Sector P Facilities- Railroad Switching and Termination Establishment, and</p> <p>Sector S Facilities- Arrival/Departure Airfield Control Group.</p> <p>The sampling showed challenges with concentration of Chemical Oxygen Demand (COD) at the Hazardous Waste Storage Facility, which triggered an Additional Implementation measure (AIM) Level 1 response from the EPA during the 1st quarter of 2022. An AIM Exception was claimed, detailing the corrective action implemented and that a COD resample for the location showed the COD parameter had been successfully reduced to within an acceptable range. Fort Carson addresses these issues through implementation of better material handling procedures, storage BMPs, stormwater controls, and pollution prevention. Performance indications for newly added BMPs will be monitored. The results of the sampling are included in the 2022 quarterly discharge monitoring reports in the NetDMR system.</p>

Measurable Goal	Results of information collected and analyzed that must be reported for this item
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MSGP Impaired Waters Sampling	Impaired waters sampling was conducted at 1 location for Year 2 benchmarks for the 2021 MSGP. The presence of <i>E.coli</i> is attributable to natural background in the soil and the presence of wild life (e.g. birds, rabbits). Sampling results are included in the 2022 discharge monitoring reports in NetDMR.
MS4 Semi-Annual Water Sampling	Fort Carson conducted two surface water sampling events during 2022. The sampling evaluates the four major cantonment drainages (B-Ditch, Clover Ditch, Infantry Creek, and Rock Creek). The sampling efforts detected water quality exceedances for ammonia as nitrogen, phosphorous, and <i>E. coli</i> in some areas.

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

## F. Summary of Inspections and Enforcement Actions.

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

Program Area	Description of Enforcement Actions/ Inspections
Construction General Permit-Quarterly Construction Stormwater Inspections	<p>The Fort Carson Stormwater Program conducted 98 construction inspections at 38 CGP sites during 2022.</p> <p>Inspections were conducted quarterly with some sites being inspected subsequently as part of the follow up from previous inspections. The inspections were documented in the DPW R Drive and provided to the project manager and contractor for inclusion with the project SWPPP. While inspections routinely revealed findings of non-compliance with the CGP, generally the findings tended to be minor in nature and were corrected well within the timelines specified by the CGP.</p>
Multisector General Permit-Quarterly Routine Facility Inspections	<p>In 2021, the number of industrial sites from Fort Carson was reduced to 5 sites because of the application of an exemption in the regulation, in accordance with the 2021 renewal of the MSGP. The Fort Carson Stormwater Program conducted a total of 20 routine inspections at 5 sites during 2022. Minor deficiencies identified during the routine inspections were addressed on the spot by the inspector or through Environmental Compliance Assistance Team (ECAT) follow up with the facility operator. Regular inspections performed by the base operations contract observed and corrected more than 68 stormwater issues. See Attachment 20- Base Operations Stormwater Work.</p>
Stormwater Control Measures-LID Feature Annual Inspections	<p>The Fort Carson Stormwater Program conducted performance inspections at ### LID features in the cantonment area during 2021.</p> <p>No features required immediate attention and maintenance is decided on a priority basis.</p>

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**G. Proposed Changes to the Stormwater Management Program.**

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

1. Continuously revise and update training materials to reflect current stormwater topics and issues. Training materials include presentation for the Environmental Protection Officers Course, Construction Stormwater Training, Stormwater Program Brochure, and informational materials.
2. Review and update the Garrison Commander's Policy Letter #17 periodically. Update document to reflect new individual holding the Garrison Commander title.
3. Update the Stormwater Management Plan, as necessary.

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

Another government entity may be relied on to perform requirements of your MS4 permit. However, as the permittee, you remain liable for compliance with the terms of the permit if the requirements are not fulfilled. You must complete this annual report for the geographic areas covered under your permit, for all program areas, even if one or more program

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

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## I. Certification.

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

Signature of Permittee (legally responsible person)**	Date Signed
Joseph Wyka	Director, Public Works
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).