



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1828 ELLIS STREET, SUITE 200
FORT CARSON, CO 80913

REPLY TO
ATTENTION OF

May 5, 2011

Directorate of Public Works

Subject: Municipal Separate Storm Sewer System Report for 2010

U.S. Environmental Protection Agency Region 8
Stormwater Compliance (8P-W-WW)
Attn: Amy Clark
1595 Wynkoop St.
Denver CO, 80202

Dear Ms. Clark:

Enclosed is the Municipal Separate Storm Sewer System (MS4) Report for the year 2010 for Fort Carson Military Installation.

Due to uncertainty of the FY11 and FY12 budgets the Installation may seek regulatory relief from less critical permit conditions. We will evaluate and determine if there is a need to do so when budget clarification occurs.

If you have any questions regarding this report, please contact the Directorate of Public Works Environmental Division Point of Contact Jessica Frank at 719-526-1697 or Sarah Eastin at 719-524-2478.

Sincerely,

Carlos Rivero-deAguilar
Chief, Environmental Division

Enclosures:
Garrison Commander Policy Paper #17
Education Tracker

EPA-BAFB-00001151



**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. This form may be submitted electronically provided that a signature is either scanned or provided as a hard copy addendum to the completed report form.

This form can be downloaded from the EPA Region 8 stormwater web site, <http://www.epa.gov/region8/stormwater>

Completed forms may be sent to:

Amy Clark
Mailcode: 8P-W-WW
1595 Wynkoop Street
Denver, CO 80202-1129
Email: Clark.Amy@epamail.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): Fort Carson
Mailing Address: 1626 O'Connell building 813
City, State and Zip Code: Fort Carson, Colorado 80913-4000
Contact Phone Number: 719-526-1697
Permit Certification Number: COR042000F
Have any areas been added to the MS4 due to annexation or other legal means? NO

B. Reporting Period (e.g., Jan 1, 2004 to Dec. 31, 2004): January 1, 2010 to December 31, 2010

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: Jessica Frank
Position/work group title: Stormwater Program Manager
Contact phone number: 719-526-1697
Contact E-mail address: CARSDPWwEDSW@conus.army.mil

Or

Contact name: Sarah Eastin
Position/work group title: Stormwater Program Coordinator
Contact phone number: 719-524-2478
Contact E-mail address: CARSDPWwEDSW@conus.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:

http://sems.carson.army.mil/environmental/water/stormwater/stormwater_home.htm

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:

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.
Describe the methods, frequency, type, and target audience of stormwater outreach performed during the permit term.	Many stormwater outreach activities were conducted in 2010. Personnel that live and work on Fort Carson were targeted with an updated, hands-on stormwater awareness brochure, which was distributed at events such as Earth Day, Eggsperience, Make a Difference Day, and others. 440 of these brochures were distributed in 2010. Construction contractors were targeted with the training, "Fort Carson Stormwater Management at Construction Sites", which was delivered 11 times with 154 people trained in 2010. Fountain Middle School 7 th grade Agriculture class participated in a hands-on classroom stormwater demonstration. The Fort Carson Middle School Science Club participated in a hands-on Stormwater classroom demonstration. Soldiers, civilians, and contractors were targeted with a stormwater awareness and training module in the Environmental Protection Officer classes. This class was given 7 times in 2010. Finally, all personnel at Fort Carson were targeted with 2 stormwater articles published in The Mountaineer, the Fort Carson newspaper that is distributed post-wide.	No, these programs will continue for the duration of the permit term.

<p>Provide a copy or representation of public outreach materials provided to the target audience(s).</p> <p>Provide copies of any educational materials, lesson plans, or presentations provided to school age students and other target audience(s) regarding stormwater runoff and water quality issues.</p> <p>Estimate the number of people expected to be reached by the program over each year of the permit term.</p> <p>Provide the name or title of the person(s) responsible for coordination and implementation of the stormwater public education and outreach program.</p>	<p>Please refer to spreadsheet. These materials can be supplied upon request.</p> <p>Please refer to spreadsheet. These materials can be supplied upon request.</p> <p>An estimated 1,949 people were reached directly by the Stormwater Program in 2010. Please refer to attached spreadsheet. Another 20,000 were reached via indirect means (newspaper articles, etc.) It is estimated 25,000 people will be reached over the 2011-2012 permit term.</p> <p>The responsible party is the Education and Outreach Specialist, Environmental Division Directorate of Public Works Fort Carson, CO 719-524-4925 or CARSDPWwEDSW@conus.army.mil.</p>	
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Public Education and Outreach on Stormwater Impacts (continued)

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

Two articles were written for publication in the post newspaper, the first concerning the use of de-icers and alternatives, published in January 2010. The second was on the topic of car washing, and using the post car wash, which recycles water.

2. Public Participation/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:

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.
Document any events or other activities to clean up MS4 receiving waters.	The October 2010 "Make A Difference Day" was an event used to work with 40 volunteers to clean out all trash and debris, and clear culverts of the drainage ditches.	Yes, The River Watch Program planned to get assistance from middle school students to conduct surface water monitoring. This was discontinued due to transportation infeasibility. Project planning is currently under way to determine best way to get elementary students involved in projects that do not require transportation. The best option at this time is to continue with the clean up at Make a Difference Day, and add an additional clean up day at Earth Day
Document any volunteer activities conducted to help actively engage residents and personnel at Fort Carson in understanding water resources and how their activities can affect water quality.	Storm drain stenciling was conducted in 2010 for a majority of drains in the cantonment. A reconnaissance survey conducted by a local Eagle Scout who identified storm drains that needed to be redone due to faded stencils and missing decals. Supplies have been ordered and activities are scheduled to continue with another Eagle Scout or community group in 2011. Also see Section 1 for information regarding training and other public education and outreach.	No, Will continue for the duration of the permit term.

Provide the name or title of the person(s) responsible for coordination and implementation of the storm water public education and outreach program.	Education and Outreach Specialist, Environmental Division Directorate of Public Works Fort Carson CO 719-524-4925 or CARSDPWwEDSW@conus.army.mil.	
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Public participation/involvement (continued)

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

All Annual Reports are available at building 813, Room 218. Eagle Scout plan for storm drain stenciling is available from the Education and Outreach Specialist.

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:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p>Describe the program used to detect and eliminate illicit discharges into the MS4, including procedures for detection, identification of sources, and removal of non-stormwater discharges from the storm sewer system.</p> <p>Describe the location and method of dry weather screening performed.</p> <p>Describe illicit discharges located and all actions taken to eliminate sources of illicit discharges.</p> <p>Describe training materials used and the frequency at which training was provided to the target audience(s) on how to respond to reports of illicit discharges.</p>	<p>An illicit discharge survey was conducted in 2009 and additionally in the first quarter of 2011. Four watersheds are surveyed; B-Ditch, Clover Ditch (I-ditch), Central Unnamed Ditch and Rock Creek. The 2011 Illicit Discharge Report will be available digitally and hard copy.</p> <p>The illicit discharge survey was conducted in December of 2009 (a time of seasonally low flows) and additionally 1st quarter 2011, and was also used for the dry weather screening. See the above section for details regarding the illicit discharge survey.</p> <p>Will be included in 2011 Report.</p> <p>This is met through the numerous outreach and education tasks described in section 1, Minimum Control Measure 1 (MCM). This information is also given in the EPO classes. A mechanism is given to report illicit discharges on our website. Updates are currently in progress.</p>	<p>No, Illicit Discharge surveys will be conducted yearly for the duration of the permit.</p>

<p>Describe or cite the established ordinance or other regulatory mechanism used to prohibit illicit discharges into the MS4.</p> <p>Provide a copy or excerpt from the information management system used to track illicit discharges.</p> <p>Describe the categories of non-stormwater discharges evaluated as potentially being significant contributors of pollutants to the MS4 and any local controls placed on these discharges.</p> <p>Describe occasional incidental non-stormwater discharges (See Part 2.4.6) and any controls placed on these discharges.</p>	<p>The Garrison Commander Policy paper directs the entire installation to comply with the MS4 permit. Information is additionally disseminated during the NEPA project review process. Please refer to policy paper included.</p> <p>In progress. ArcMap data provided with the Illicit Discharge Detection and Elimination (IDDE) report tracks findings throughout the various year's surveys. A mechanism is given to report illicit discharges on our website. Updates are currently in progress. The Stormwater Program currently relies on eyes and ears of other departments and environmental programs to keep abreast of any potential concerns. In addition to the website the illicit discharge reporting ability will be discussed through the many education activities discussed in Sections 1 and 2 (MCM 1 and 2).</p> <p>Super-chlorinated water discharge (e.g. swimming pool or water line flushing/disinfection) was identified as a potentially significant contributor of pollutants to the MS4. Any super-chlorinated water discharges must be coordinated through the Stormwater Program office and will adhere to procedures (including treatment and monitoring, discharging to a sanitary or industrial sewer, or trucking effluents to the installation wastewater treatment plant) specified in the SWMP designed to minimize pollutants. See section 10.3.3 of the SWMP for more information. Individual residential car washing policy can be found in the SWMP; Appendix E, page 31.</p> <p>No such events have taken place. The list of allowable non-stormwater discharges is presented in the SWMP, and residents are encouraged to coordinate any future events with the Stormwater Program through educational activities.</p>	<p>No, will continue for the duration of the permit term.</p>
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<p>Describe hazardous waste collection events and summary data which generally covers what was collected.</p>	<p>Household hazardous waste is accepted by the El Paso County Household Hazardous Waste Facility. Numerous other education activities documented earlier in the education and outreach section provides information to residents on this opportunity. An actual collection event was not conducted in 2010.</p> <p>Hazardous wastes generated from training activities are coordinated through the Hazardous Waste Storage Facility (HWSF) on-post. Turning in waste to the HWSF requires training to ensure all their requirements are met. Records of waste are maintained on a daily basis, and are kept at the HWSF.</p> <p>Soldiers are given information on both of these facilities through the Environmental Protection Officer (EPO) course.</p>	<p>No, will continue for the duration of the permit term.</p>
<p>Maintain an inventory of industrial facilities that discharge into the MS4 or to waters of the United States within Fort Carson. The types of industrial activities that must be inventoried are set forth in 40 CFR §122.26(b)(14)(i) through (xi). This inventory must include the location of the activity, the location of its outfall and corresponding receiving water, and the NPDES permit status for its stormwater discharge.</p>	<p>Industrial discharges at Fort Carson are regulated under the Multi Sector General Permit. Through the requirements of this permit, industrial activities are tracked in a spreadsheet that includes a reference to the Stormwater Pollution Prevention Plan for the site (including location of the activity, location of the outfall and corresponding receiving water, as well as permitting information), exposed materials, monitoring requirements, and comments on the facility. Additionally, Fort Carson is in the process of updating this spreadsheet with newly constructed facilities pending facility inspections.</p>	<p>No, will continue for the duration of the permit term.</p>

Illicit Discharge Detection and Elimination (continued)

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

All spill reports are kept by the Installation Spill Coordinator and are available hard copy. Spill Reports have been analyzed and no trends can be identified; one instance in 2010 was operator error, other instances included faulty equipment. Spills have not been found to be the source of any illicit discharge. When a spill does occur it is immediately reported to Fire Department and the Environmental Program then assists in clean up and ensure the site meets standards. The nature of activities at Fort Carson elevates the risk of spills but people are highly trained on spill response and clean up.

The storm sewer map is kept with DPW Operations Support in Microstation format, this system is constantly updated. Geographic Information System (GIS) is also employed and many files are available, but these aren't as current. Hard copies and digital maps are available.

Regarding Flushing and sanitizing new water mains and building plumbing; Contractors are required to discharge these effluents to nearby sanitary or industrial sewers, or to truck the effluents to the installation wastewater treatment plant. Dechlorination of chlorinated effluents is required prior to discharge.

Charity car washes or events of this nature have not been requested through the Wastewater or Stormwater Program in recent years.

<p>Describe the sanctions and enforcement mechanisms used to ensure that all “regulated construction activities” are in compliance with the terms of the Construction General Permit. This should include a description of any methods developed to stop work on construction sites in non-compliance independent of contracting procedures.</p>	<p>The Garrison Commander Policy Paper gives the Stormwater Program authority to issue violations and stop work orders. Please refer to policy paper. To date, no stop work orders have been issued in 2010. A priority has been set on construction site contractor education to ensure awareness with applicable requirements. Problems are identified through site inspections.</p>	<p>No, will continue for the duration of the permit term.</p>
<p>Describe the procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts and applicable contract language.</p>	<p>Every project goes through a NEPA review of which basic information on MS4 requirements and CGP requirements is given, and potential water quality impacts (among others) are assessed. A SWPPP review is conducted before the site is allowed to file its NOI for Construction General Permit coverage. Additionally, construction contractors are required to complete a project information form for the Stormwater Program that describes proposed site conditions, impervious areas, soil erosion potential, and post-construction water quality and volume controls.</p>	
<p>Describe the procedures for receipt and consideration of information submitted by the public.</p>	<p>In progress. The Stormwater Program is working to improve the public comment function of the website that will allow the public to comment on construction site violations. This information will be fed to the stormwater program for consideration on further actions.</p>	<p>No, will continue for the duration of the permit term.</p>
<p>Describe the procedures for site inspection, including how sites will be prioritized for inspection, including documentation of the frequency of site inspections and methods for prioritizing site inspections.</p>	<p>The construction site inspection priority is as follows; first sites in close proximity to a significant drainage are inspected, then sites with past issues or companies with past infractions are inspected, followed by all other sites. Aside from the priority order, inspections are triggered by the initial phase of construction, a runoff inducing rain event, public complaints, and/or visual violations. Construction site inspection frequency is tracked in a spreadsheet at the Stormwater</p>	

<p>Provide the name or title of the person(s) responsible for coordination and implementation of the construction site runoff control program.</p>	<p>Program Office</p> <p>Sarah Eastin, the Stormwater Coordinator is currently in charge of construction site inspections and the construction program. The Stormwater Coordinators contact info is 719.524.2478 or CARSDPWwEDSW@conus.army.mil.</p>	
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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:

All construction projects are reviewed by a team of natural resources and environmental specialists during the NEPA project review process, if there is an issue or concern; it is addressed at that point. Basic information on MS4 requirements and compliance and CGP requirements are given at this time. In addition a SWPPP review is conducted before the site is allowed to file its NOI for Construction General Permit coverage. All NEPA reviews are available upon request.

All construction related requirements and CGP compliance information has successfully been integrated into all RFPs. These RFPs include those sent out by USACE, DPW, AAFES, and Balfour Beatty Construction.

Construction sites are required to have a dewatering plan in place prior to the start of construction. A review of this plan is conducted during the SWPPP review process. Additionally, construction contractors are required to dewater on site and are prohibited from discharging to storm sewers or ditches. We have created a guidance document and can provide if needed.

Coordination between the Stormwater Program, USACE, DPW and other entities conducting construction activities is conducted on a regular basis. These include monthly and weekly scheduling meetings and design reviews. We also provide a monthly Stormwater Management at Construction Site training which is described in Section 1 (MCM1). We rely on Construction Representatives to be our eyes and ears in addition to constant drive by inspections. All Representatives have received Stormwater Management at Construction Sites Training.

Our pest program also maintains a vigorous invasive plant program and is available for consultation to all contractors and construction projects on invasive plant management at their sites.

All construction sites are inspected by the Fort Carson Stormwater personnel before the NOT can be filed. The NOT inspection form is provided in the SWMP. We have additional personnel who are available to provide seeding, mulching and vegetation recommendations if conditions have not been met. Operations Support maintains all As-builts of facilities on Microstation software.

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:

Measurable Goal(s) Including dates and numeric measures, as previously submitted	Status: Including dates and numeric measures	Changes proposed to BMP and/or Measurable Goal? (Yes/No). If yes, provide information on proposed changes and rationale.
<p>Describe the program that ensures the pre-development hydrology is met for new development and re-development projects as required in Part 2.6.1 and the mechanism used to review the adequacy of post-construction BMPs.</p> <p>Describe the ordinance or other regulatory ordinance used to require the installation and maintenance of post-construction stormwater controls.</p>	<p>The project review process described in Section 4 of this report allows for the Stormwater Program to review plans and ensure pre-development hydrology requirements are met and post-construction BMPs are adequate. Contracted stormwater modeling of the project review ensures all volume and rate requirements are met with the post-construction BMPs. Additionally, work is ongoing to ensure contract language adequately addresses these requirements. All NEPA reviews are available upon request.</p> <p>The SWMP and the Garrison Commander Policy paper mandates the installation and maintenance of post-construction stormwater controls. The Policy paper requires installation staff, tenants, activities, contracting offices, and contractors must comply with all the requirements outlined in the sections of Fort Carson's Stormwater Management Plan that address elimination of illicit discharges, construction site runoff control and post-construction site runoff control.</p>	<p>No, will continue for the duration of the permit term.</p>

<p>Describe the program that ensures the long-term operation and maintenance of post-construction BMPs, including an excerpt from any data management system that includes maintenance requirements and schedules for post-construction BMPs installed during the year.</p> <p>Describe the process used to ensure that all DPW, Military Construction, and downrange contracts initiated after the effective date of the permit contain language which requires the installation of post-construction stormwater controls and an excerpt of applicable contract language.</p> <p>Provide the name or title of the person(s) responsible for coordination and implementation of the post-construction stormwater management program.</p>	<p>In progress. The Stormwater Program is developing an operation and maintenance plan for all post-construction BMPs on post. This plan includes a mapped inventory of post-construction BMPs and maintenance requirements and schedules. In review currently.</p> <p>In progress. Contract language is currently under review and in the update process to incorporate requirements for post-construction stormwater controls. Contract language includes requirements for Low Impact Development BMPs, peak flow and runoff volume mitigation to pre-development levels, water quality capture volumes, and operation and maintenance plans. This includes any project that is implemented on Fort Carson (Military, Downrange, USACE, DPW)</p> <p>The individual responsible for post-construction stormwater management is the Stormwater Program Manager, available at 719-526-1697 or CARSDPWwEDSW@conus.army.mil.</p>	
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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:

Requirements of the MS4 permit, EISA438 and EO 13514 and modeling language are incorporated into all the USACE RFP language in 2010 and updated as needed. In 2010 any project completed which impacted stormwater was reviewed during the NEPA process; these reviews are available upon request. Verification of each project meeting all CWA, NPDES and EISA 438 requirements is done during the NEPA reviews and is a partnership with numerous programs.

Mapping of Post Construction BMPs and development of Operations and Maintenance manual was completed in 2010. Updates to the BMP layer of the BMP inventory map will be conducted in the future as necessary. This map will be kept on file with the DPW mapping section and the Fort Carson Stormwater Program. The O & M manual will be presented to the Operations and Maintenance section along with the map of the facilities.

The NOT Inspection checklist is completed and in use. Construction reviews are conducted during all phases of construction, compliance for permanent stabilization and Post Construction BMP functionality is also achieved through the NOT inspection process. This document is available if needed. The landscaping, permanent stabilization, and post construction BMPs of each construction project is inspected for proper functionality before the NOT can be filed with the EPA. All as built and O & M specifications are given to DPW mapping section.

Hydrologic modeling for cantonment area (B ditch, Clover Ditch, and Unnamed Ditch and Rock Creek) in was conducted 2010, and updates are in progress. Floodplain delineation is expected to be completed in early 2011. This model will be updated as necessary and will integrate any new facilities. Post construction BMP recommendations for different zones are given in the SWMP.

Maintenance of Post Construction BMPs is going to be a challenge in the future because of funding constraints but the Stormwater Program will continue with work with the Operations Division for proper management of these structures. The Stormwater Program will provide training and support for these projects.

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:

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.
Describe the operation and maintenance program intended to prevent or reduce pollutant runoff from municipal operations, including a list of each of the activities evaluated under this program and a description of the controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, snow disposal areas, and salt/sand storage locations.	In progress, evaluations of effectiveness of operations will be completed by the end of the term of the permit this will be a cooperative effort with the Stormwater Program, KIRA and Ops Division. Currently primary streets are swept monthly; secondary streets are swept every two months. Parking Lots are swept two times a year. Some storm sewer systems, culverts and ditches were cleaned in 2010 and this task will be continued in the future indefinitely. The cleaning operations will be conducted as funding is available. Training is provided for the operators, info given below. Additionally, the industrial maintenance and storage yards, waste transfer stations, and maintenance shops are permitted under the MSGP. This program includes inspections and monitoring at these sites. Results from inspections and monitoring events are used to prescribe future BMPs and good housekeeping efforts.	No, will continue for the duration of the permit term.
Describe the contents and frequency of the training program for municipal personnel and a list of the personnel or positions trained during the term of the permit.	An environmental training program for operations was provided to KIRA and the Ops division one time in September 2010. Special presentations were given by the RCRA, Spill, AST / UST, Asbestos,	No, will continue for the duration of the permit term.

<p>Describe the evaluation performed on the street cleaning operations, catch basin cleaning operations, and street sanding/salt practices and any measures taken as a result of the evaluation to minimize negative impacts to water quality.</p>	<p>Installation Restoration, and Stormwater Programs. As mentioned above the EPO training and monthly stormwater training is available to everyone on Fort Carson as well. Can provide power point slides and sign in sheet if needed. Various courses presented during the EPO training emphasize stormwater pollution prevention, to include "Pollution Prevention", "Recycling at Fort Carson", "Spill Response", "Hazardous Waste Training", "UST/AST Program", "Environmental Performance Assessment System" and "Environmental Inspections". In addition, stormwater pollution prevention is covered in more detail in the "Water Resources Management" course. The monthly stormwater management at construction sites course is open to any employees and contractors as well, information given above.</p> <p>In progress, Sediment and material was sampled from a storm drain sump in 2009. Results from this sampling were used to characterize this type of waste for disposal options. Sediment and materials from catch basins on-post were properly disposed of either at on-site, or El Paso County landfills. This is another item that will be investigated and addressed before the end of the permit term</p>	
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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:

Training for operations conducted by Ops Division and KIRA in the Fall of every year. This training includes information on applications of liquid and granular deicing and training on equipment operation.

The Environmental Compliance Assessment Team (ECAT) currently assesses any impacts to stormwater during their required monthly inspections and assists the stormwater program in corrective actions during the assessment of facilities. Stormwater language was permanently integrated into the ECAT inspection process in 2010. Many of these requirements are also met by activities conducted for MSGP compliance. Temporary BMPs are always used during maintenance, and training and inspections are conducted often.

Coverage of materials in storage areas presents a challenge to cover due to cost and accessibility issues. Temporary stormwater BMPs, good housekeeping measures and inspections are employed to mitigate any potential pollutants from entering the storm sewer system. Granular deicing product is always covered.

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.

Summary

There is no measurable goal to report on monitoring activities, however information on monitoring and sampling is provided. Industrial sites permitted under the MSGP were sampled in 2010, results can be provided upon request. These results were used to evaluate the effectiveness of BMPs on each site and to recommend possible solutions. Continued monitoring is planned for 2011 and 2012 as per requirements of the MSGP.

Surface water sampling required by the SWMP was contracted and completed 2010, these reports are an appendix. This sampling evaluates the 4 major cantonment drainages (B-Ditch, Clover Ditch, Central Unnamed Ditch, and Rock Creek) above and below Fort Carson. Results will determine the MS4's contribution of pollutants to receiving waters and will drive future management decisions. Continued monitoring is planned for 2011 and 2012 as per requirements of the MS4 permit.

*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 Site Stormwater Runoff Control	Fort Carson inspected approximately 40 major construction sites during 2010. These inspections included documentation review and a thorough site walk through. None of the inspections resulted in Fort Carson enforcement actions, although verbal warnings were given. Follow-up to the inspections included site visits. Additionally, the Stormwater Management Trainings at construction sites has been extremely successful. Approximately 156 Contractors, USACE Con Reps, and DPW Engineering and Environmental personnel have attended.
Industrial Sites Permitted Under MSGP	Industrial sites permitted under the MSGP were inspected comprehensively (annually) and routinely (quarterly). Some industrial sites (mostly Motorpools) were sampled for visual inspections as per MSGP requirements. New sites are in the progress of being inspected for required permit coverage. Environmental Compliance Assessment Team (ECAT) inspections of these sites also occur one time per month. Enforcement actions through ECAT are reported and logged internally, and involve follow up actions and inspections.

G. Proposed Changes to the Stormwater Management Program.

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

None anticipated.

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

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

N/A

I. Certification.

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

 5 May 2011

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

Carlos Rivero-deAguilar DPW Environmental Division Chief

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).