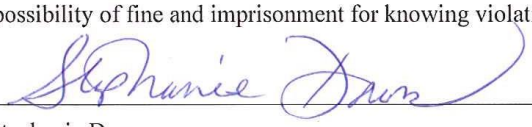
Denver Federal Center, Storm Water Management Plan – Foreword

CERTIFICATION

July 24, 2013

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

Signature	
Name	Stephanie Downs
Title	Director, Denver Federal Center Service Center
Facility	Denver Federal Center, General Services Administration, Public Buildings Services

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Signature

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ABOUT THIS PLAN

Scope and Objective

This Storm Water Management Plan (SWMP) is intended to provide General Services Administration (GSA) Environmental Programs Group (EPG) personnel with guidance for the management of storm water at the Denver Federal Center (DFC) in accordance with Phase II storm water regulations, which were published in the Federal Register (FR) on 8 December 1999 (64 FR 68721).

This SWMP will ensure compliance with the U.S. Environmental Protection Agency (EPA) Region VIII National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Federal Facility Small Municipal Separate Storm Sewer Systems (MS4s) in Colorado (Permit No. COR-042004) (hereinafter referred to as the Colorado Federal Facility Small MS4 General Permit). **NOTE**: Permit effective December 1, 2011.

How This Plan is Organized

The primary requirement of the Colorado Federal Facility Small MS4 General Permit is to develop a SWMP that comprises six MS4 program elements that, when implemented together, are expected to result in significant reductions of pollutants discharged in storm water from the DFC into receiving waters. The six MS4 program elements or "minimum control measures" are listed in Chapter 1 and are discussed in Chapters 2 through 7. Refer to the table below for an outline of the Plan.

CHAPTER	SUBJECT
Chapter 1	Provides an overview of the regulatory background that governs the SWMP, provides a physical description of the DFC, and describes the methodology used to assess the potential for storm water contamination at the DFC.
Chapter 2	Describes best management practices (BMPs) that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through public education and outreach.
Chapter 3	Describes BMPs that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through public involvement/participation.
Chapter 4	Describes BMPs that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through illicit discharge detection and elimination.
Chapter 5	Describes BMPs that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through construction site storm water runoff control.

CHAPTER	SUBJECT
Chapter 6	Describes BMPs that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through post-construction storm water management in new development and redevelopment.
Chapter 7	Describes BMPs that can be implemented to minimize or eliminate the potential for contamination of storm water at the DFC through pollution prevention/good housekeeping for municipal operations.
Chapter 8	Describes reporting, recordkeeping, and SWMP revision requirements.
Chapter 9	Includes a schedule for implementing requirements of this SWMP and assigns responsibility for implementation of BMPs.
Chapter 10	Provides a list of acronyms and definitions.

1.0 INTRODUCTION

1.1 Requirements

Federal installations and personnel must comply with all Federal, State, and Local laws designed to protect the environment. Therefore, the DFC must comply with Federal storm water permitting requirements, which include developing, maintaining, and implementing a written SWMP.

1.1.1 Regulatory Background

Clean Water Act

In 1972, Congress enacted the Clean Water Act (CWA) to prohibit the discharge of any pollutant from a point source unless authorized by a permit. The US EPA established the National Pollutant Discharge Elimination System to implement the CWA and issue discharge permits (i.e., NPDES permits).

NPDES Program

Initially, the NPDES program focused primarily on reducing pollutants in discharges of industrial process wastewater and municipal sewage (i.e., point sources). For many years, it was assumed that storm water, or urban runoff, did not present a significant environmental risk to surface water quality.

Storm Water Runoff

Subsequent studies, including the Nationwide Urban Runoff Program sponsored by the EPA, have shown that storm water runoff from industrial facilities introduces a variety of pollutants into lakes, streams, bays, and oceans. Degradation of surface water bodies was directly linked to storm water runoff and other non-point sources.

Water Quality Act

Congress amended the CWA by adding the Water Quality Act (Section 402(p)) in 1987, requiring a comprehensive approach to address storm water discharges. Beginning October 1, 1993, the Water Quality Act required a NPDES permit for storm water discharges associated with industrial activity. This revision essentially created the regulatory background upon which the present NPDES program is based.

Phase I Regulations

On November 16, 1990, the EPA published its Phase I storm water regulations (55 FR 47990) as the first phase of the comprehensive national program for addressing storm water discharges. Phase I storm water regulations require NPDES permits for storm water discharges from large MS4s (serves a population of 250,000 or more), medium MS4s (serves a population of at least 100,000 but less than 250,000), and 11 categories of industrial activity, including large construction activity where five (5) or more acres of land are disturbed. The DFC was not required to obtain a permit under the Phase I regulations.

Phase II Regulations

On December 8, 1999, Phase II storm water regulations were promulgated (64 FR 68721) as the second phase of the storm water program, expanding the Phase I program to include discharges of storm water from smaller MS4s in urbanized areas and from construction activities that disturb between one (1) and five (5) acres of land ("small" construction sites). In addition, the Phase II regulations allow certain sources, including storm water discharges from industrial facilities, to be excluded from the national storm water program based on the ability to demonstrate a lack of impact on water quality. However, the Phase II storm water regulations also allow other sources not automatically regulated on a national basis under the Phase I or Phase II storm water regulations to be designated for inclusion based on increased likelihood for an adverse impact on water quality.

Phase II Regulations and the DFC

Because the DFC is located within an urbanized area (UA), as defined by the 2010 Census, and maintains its own small MS4, the DFC was required to obtain coverage under the Colorado Federal Facility Small MS4 General Permit. The DFC could not obtain coverage under the Colorado Department of Public Health and Environment's (CDPHE) Small MS4 General Permit because the State of Colorado does not yet have permitting authority for Federal facilities.

Therefore, a Notice of Intent (NOI) for coverage under the Colorado Federal Facility Small MS4 General Permit was submitted for the DFC to EPA Region VIII in March 2003. Upon expiration of the first permit, a renewal permit received on October 20, 2011 and effective December 1, 2011 was granted. Discharges authorized under this permit are effective to midnight, November 30th, 2016. See Appendix A for a copy of the NOI and a copy of the most recent Colorado Federal Facility Small MS4 General Permit. **NOTE:** In accordance with Part 2.1.2 of the Colorado Federal Facility Small MS4 General Permit, should the operator of the DFC change or should a new operator be added, a new NOI must be submitted to EPA Region 8.

Basic Permit Requirements

Other than reporting and recordkeeping requirements, which are discussed in Chapter 8 of this Plan, the sole requirement of the Colorado Federal Facility Small MS4 General Permit is to develop a SWMP that comprises six MS4 program elements that, when implemented together, are expected to result in significant reductions of pollutants discharged in storm water from the DFC into receiving waters. The six MS4 program elements or "minimum control measures" are as follows:

NO.	MINIMUM CONTROL MEASURE
1.	Public Education and Outreach on Storm Water Impacts
2.	Public Involvement/Participation
3.	Illicit Discharge Detection and Elimination
4.	Construction Site Storm Water Runoff Control
5.	Post-Construction Storm Water Management in New Development

NO.	MINIMUM CONTROL MEASURE
	and Redevelopment
6.	Pollution Prevention/Good Housekeeping for Municipal Operations.

Program Requirements

In accordance with Part 3.1 of the Colorado Federal Facility Small MS4 General Permit, operators of regulated small MS4s are required to design their SWMP for the six minimum control measures to:

- Reduce the discharge of pollutants to the "maximum extent practicable (MEP)";
- Protect water quality; and
- Satisfy Colorado's water quality standards.

1.1.2 SWMP Methodology

Development

This SWMP was developed to serve as a compliance management tool for GSA EPG personnel. Implementation of the MEP standard typically requires the development of BMPs and the achievement of measurable goals to satisfy each of the six minimum control measures listed above.

BMPs

Section 6.1 of the Colorado Federal Facility Small MS4 General Permit defines BMP as:

"Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage."

Therefore, BMPs have been developed for each of the six minimum control measures, and are addressed in this SWMP. The SWMP should be referred to as often as necessary and must be evaluated annually to ensure BMPs outlined in the Plan are followed and implemented according to the Implementation Schedule provided in Chapter 9. Refer to Chapter 8, Reporting and Recordkeeping Requirements, for annual reporting requirements.

NOTE: Once BMPs are developed, DFC EPG personnel are required to evaluate the effectiveness of the BMPs to determine if the BMPs are achieving their desired goal (e.g., reducing the discharge of pollutants to the MEP, protecting water quality, satisfying Colorado's water quality standards). If DFC EPG personnel implement the BMPs contained in this SWMP and follow the Implementation Schedule contained in Chapter 9, the MEP will be achieved.

In addition, once a BMP is incorporated into the SWMP, the BMP must be implemented. If a BMP is not implemented for some reason, the reason must be stated in the annual report to the permitting authority (refer to Chapter 8, Reporting and Recordkeeping Requirements).

In order to develop BMPs for each of the six minimum control measures, an assessment of current or potential sources of storm water pollution had to be performed. The following tasks were performed as part of this assessment:

SECTION	SUBJECT
Facility Survey	Review of facility documents, plans, and utility drawings; personnel interviews; and a site evaluation to identify potential source areas and exposed materials that could contribute to storm water contamination.
Storm Water Drainage	Review of DFC site maps that identify the location of outfalls, existing structural controls, surface water bodies, and non-storm water discharges.
Non-Storm Water Discharges	Identification of non-storm water discharges and corrective actions taken or suggested to correct the discharge.

Facility Survey

Common potential sources of storm water contamination include:

- Outdoor storage areas where materials are exposed to the weather;
- Hazardous material/waste storage and handling areas;
- Equipment/vehicle storage areas;
- Construction and post-construction sites; and
- Locations of past spills and leaks of hazardous or other materials.

In order to locate these areas, the following was performed:

TASK	PROCEDURE
Review Facility Documents	Review of DFC documents, including as-built drawings of buildings and the DFC sanitary and storm water sewer systems and existing environmental plans.
Interview Facility	Interview of DFC GSA and tenant personnel about operations performed at the DFC, spill

Personnel	cleanup procedures, materials used, vehicle/equipment washing operations, etc.
Perform a Visual Inspection	Completion of a visual inspection of the DFC, including looking for leaking vehicles/equipment, materials without secondary containment that are exposed to storm water, inadequate or failing secondary containment or cover, etc.

Storm Water Drainage

DFC overall site layout is in Figure 1-1. DFC storm water drainage patterns are identified in Figure 1-2, DFC Site Map. The following areas also are identified in Figure 1-2:

- Facility boundary;
- Storm water outfalls;
- Surface water bodies;
- Storm sewer system; and
- Manholes.

Surface water resources within the DFC include McIntyre Gulch, the Agricultural Ditch, and Downing Reservoir. Surface water drainage at the DFC generally flows in an easterly direction off the property.

The only natural body of water on the DFC property is McIntyre Gulch, which enters the property from the west and flows in an easterly direction until it exits the DFC boundary on the east side.

The majority of stormwater on the DFC is discharged, via the site's stormwater sewer system, to McIntyre Gulch. From the DFC, McIntyre Gulch flows northeasterly to where it joins Lakewood Gulch near West 6th Avenue and Wadsworth Boulevard in the City of Lakewood, Colorado. Lakewood Gulch then flows easterly through Lakewood and Denver until it discharges to the South Platte River near I-25 and West Colfax Avenue in Denver, Colorado.

The South Platte River is the major surface water body (and "water of the U.S.") into which the DFC's storm water drainage eventually discharges.

Stormwater along North Avenue on the DFC is channeled, via the site's stormwater sewer system, to Downing Reservoir. Downing Reservoir, located on the eastern side of the property, is a manmade water retention reservoir. Stormwater captured in Downing Reservoir either infiltrates or evaporates, as there is presently no functional mechanism to discharge water from Downing Reservoir.

A manmade irrigation ditch, the "Agricultural Ditch", enters the property on the northern side and flows in a southeastern direction, crossing McIntyre Gulch and exiting the property's

southeastern corner near the intersection of West Alameda Avenue and South Kipling Street. The Agricultural Ditch does not routinely discharge to McIntyre Gulch. There is a mechanism on the Agricultural Ditch where it crosses McIntyre Gulch, that could allow the ditch to be discharged to McIntyre Gulch in an emergency situation, but this mechanism is not used.

The DFC does receive some storm water run-on from the western side of the property, which generally consists of residential housing, commercial business establishments, and Union Boulevard.

Non-Storm Water Discharges

A non-storm water discharge is any discharge other than storm water runoff, snowmelt runoff, and surface water runoff/drainage that enters the storm drainage system. These discharges can originate from a variety of sources, including illicit connections and outside washing of vehicles and equipment. Unless covered by a NPDES permit, non-storm water discharges are prohibited. Non-storm water discharges are further discussed in Chapter 4, which addresses the third minimum control measure, Illicit Discharge Detection and Elimination.

1.1.3 Physical Description of the DFC

Location

The DFC presently consists of 611.5 acres (as of August 2012) within the City of Lakewood, Colorado. A topographic map showing the DFC's location can be found in Figure 1-1. The DFC is located on part of the site of the former Denver Ordnance Plant. This plant was built and operated by the U.S. Government in the early 1940s for the production of small arms ammunition. A number of ammunition manufacturing buildings still remain on the DFC property and have been converted for use as office, laboratory, and storage space.

After World War II ended, the Denver Ordnance Plant site became Federal surplus property, was transferred to the GSA, and was converted into space for Federal agencies. Many of the original buildings were renovated during the late 1940s and early 1950s to accommodate their new uses.

The DFC contains just over 3 million square feet of office, storage, laboratory, and other special purpose space in more than 90 buildings.[1] The majority of this space is office and storage space.

Minimal vehicle maintenance is performed at the DFC, as most vehicles are maintained off-site at commercial establishments. The few charity or public events held at DFC are typically picnics, bicycle races, or "runs", and do not include car washes or any other potential activities that may contribute to non-storm water discharges at the DFC.

Tenants

The DFC houses 28 Federal agencies and approximately 6,000 employees. It is the largest concentration of Federal government agencies outside the Washington, D.C. area.[1] The GSA is

[1] p. 1, "Master Site Plan – Denver Federal Center", prepared for the U.S. GSA, Rocky Mountain Region, by Balloffet and Associates, Inc., of Ft. Collins, CO, January 1997.

custodian of the property and is responsible for operating the majority of the facilities and buildings at the DFC. The other agencies located on DFC property are tenants; among those with the largest presence are the:

- U.S. Geological Society
- U.S. EPA
- Federal Emergency Management Agency
- Bureau of Land Management
- Bureau of Reclamation
- Federal Highway Administration
- U.S. Department of State
- U.S. Social Security Administration
- U.S. Forest Service

A grounds maintenance contractor, hired by the GSA to maintain the premises, also occupies space at the DFC. There are no personal residences at the DFC; however, there is one daycare facility for employees' children. The only commercial enterprises on the property are several snack bars and cafeterias.

1.1.4 DFC Activities

The DFC contains just over 3 million square feet of office, storage, laboratory, and other special purpose space in more than 90 buildings.[2] The majority of this space is office and storage space. The DFC houses 28 Federal agencies and approximately 6,000 employees. It is the largest concentration of Federal government agencies outside the Washington, D.C. area.[3]

Minimal vehicle maintenance is performed at the DFC, as most vehicles are maintained off-site at commercial establishments. The few charity or public events held at DFC are typically picnics, bicycle races, or "runs", and do not include car washes or any other potential activities that may contribute to non-storm water discharges at the DFC.

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[1] http://rockyweb.cr.usgs.gov/frontrange/virtour/fedcen5.htm

[2] p. 1, "Master Site Plan – Denver Federal Center", prepared for the U.S. GSA, Rocky Mountain Region, by Balloffet and Associates, Inc., of Ft. Collins, CO, January 1997.

[3] http://rockyweb.cr.usgs.gov/frontrange/virtour/fedcen5.htm

1.1.5 Storm Water Drainage

The only natural body of water on the DFC property is McIntyre Gulch, which enters the property from the west and flows in an easterly direction until it exits the DFC boundary on the east side. A manmade irrigation ditch, the "Agricultural Ditch", enters the property on the northern side and flows in a southeastern direction, crossing McIntyre Gulch and exiting the property's southeastern corner. Downing Reservoir, located on the eastern side of the property, is a manmade water retention reservoir, as is the retention pond on the northern boundary of the DFC. Most of the storm drainage system discharges to McIntyre Gulch or Downing Reservoir.

The DFC Site Map, 1-2, shows the locations of all surface water bodies, the storm water drainage system, and outfalls.

1.1.6 Storm Water Characterization

Samplng of Storm water drainage has shown the following pollutants have been observed:

POLLUTANT	NOTES AND RISK OF EXPOSURE

As noted in the table, most pollutants are not at risk of exposure when the policies within this stormwater management plan are closely followed.

Figure 1-1: DFC Topographic Map

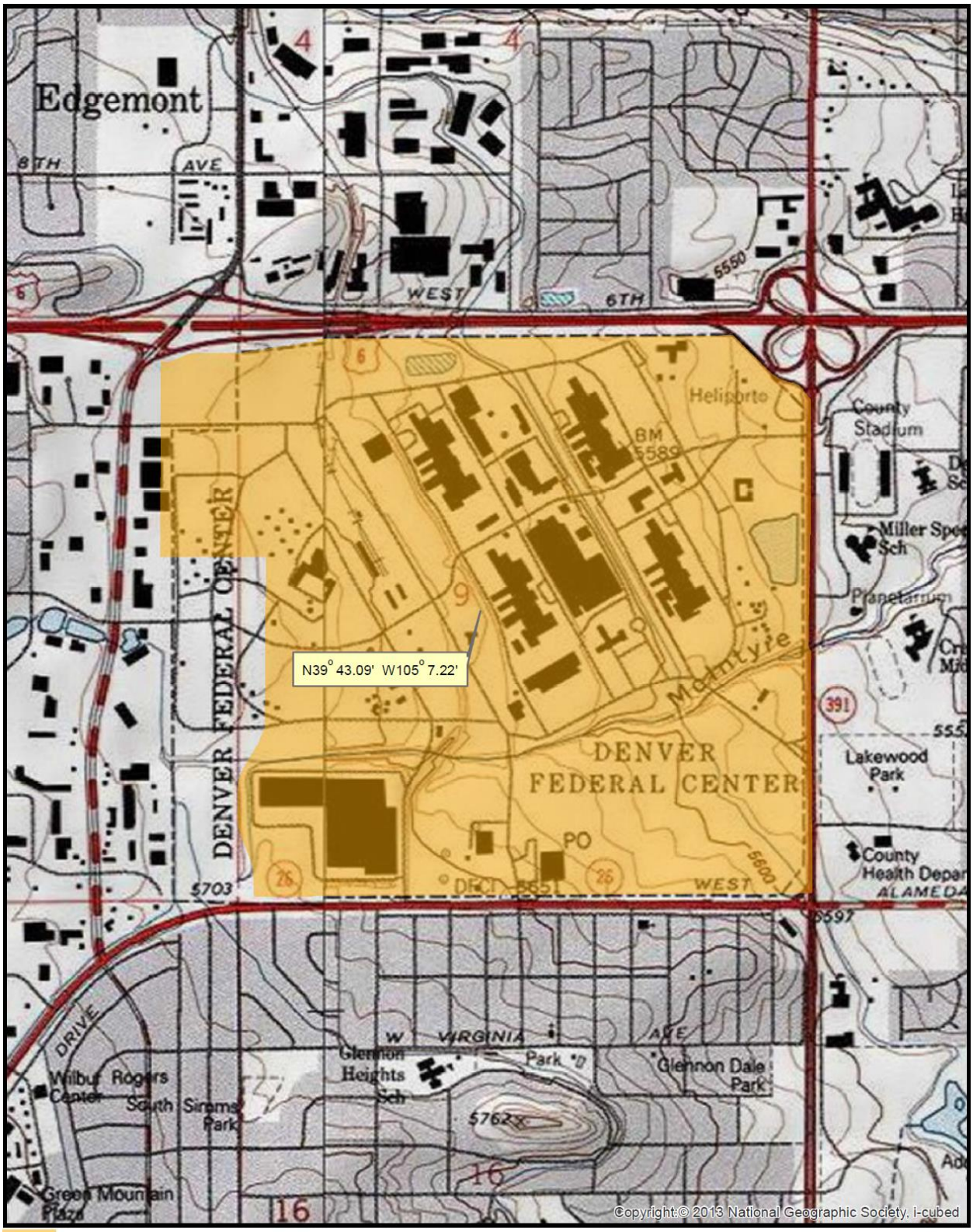

Figure 1-2: DFC Site Map

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2.0 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

Purpose

As discussed in Chapter 1, the primary requirement of the SWMP is to outline the BMPs that will be implemented under each of the six minimum control measures. The purpose of this chapter is to discuss the BMPs that DFC EPG personnel will implement under the Public Education and Outreach Program, the first of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.2 of the NPDES permit DFC Staff will:

- Continue with education and outreach programs for the DFC which target project contracting officers (COs) contracting officer representatives (CORs), project managers, building/property managers, and environmental staff
- Emphasize the central point of contact for each tenant at the DFC for the purposes of communication and training, including the research labs and the Army Reserve center
- Produce and disseminate informational material to CORs, project managers, contractors, building and property managers, tenants, 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.
- Provide annual training to all building managers and tenant points of contact related to the applicable requirements of the Sustainability and Environmental Management System (SEMS), the dig permit, and how to report and recognize spills and illicit discharges. This training may be incorporated into a larger program to educate tenants and building managers related to environmental compliance or environmental awareness
- Document education and outreach activities, including documents created for distribution and a training schedule which notes the dates that trainings occurred and the target audiences reached
- Provide and document training to all planning staff and contracting officers concerning Low Impact Development (LID) practices, green infrastructure practices, and to communicate the expectations for meeting pre-development hydrology within the context of the Energy and Independence Security Act of 2007.

Examples

Examples of strategies include distributing brochures or fact sheets, providing public service announcements, implementing educational programs, and conducting DFC-based projects such as storm drain stenciling and watershed cleanups.

BMPs

The two BMPs that will be implemented as part of the Public Education and Outreach program at the DFC are as follows:

- Educational Material Distribution
- Storm Drain Stenciling

Forms for the Educational Material Distribution Storm Drain Stenciling can be found in Appendix B.

2.1 Educational Material Distribution

Implementation

GSA EPG personnel will continue to develop educational brochures as needed on storm water pollution prevention and distribute it annually throughout the DFC with specific emphasis on contracting officer representatives (CORs), project managers, building/property managers, environmental staff, and those that maintain DFC grounds and/or those who are likely to routinely encounter potential sources of storm water contamination. As mentioned previously, there are approximately 6,000 employees within 28 Federal agencies at the Denver Federal Center. It is the goal of the GSA EPG to provide the means by which the brochure can be distributed to each GSA DFC COR, project manager, and building/property manager. The brochure will cover the following basic information:

- DFC-specific and general sources of storm water pollution and erosion and sediment control
- Effects of storm water pollution,
- Where DFC's storm water goes,
- Illicit connections and non-storm water discharges,
- Prevention of storm water contamination at work,
- BMPs currently in place at the DFC, and
- The DFC environmental hotline.

Potential Sources of Storm Water Contamination to be Addressed in the Brochure

As discussed in Chapter 1, a thorough facility survey was performed in order to assess the potential for storm water contamination. Potential sources of storm water contamination at the DFC include:

- Outdoor storage areas where materials are exposed to the weather;
- Hazardous material/waste storage and handling areas;
- Equipment/vehicle storage areas;
- Construction and post-construction sites; and
- Locations of past spills and leaks of hazardous or other materials.

Hotline

The hotline is currently in place for personnel to report hazardous materials spills or suspicious activity, and will be included in the brochure as a method by which personnel can also report non-storm water discharges, illegal dumping, and/or other activities that may pose a threat to storm water quality at the DFC. Therefore, the brochure will also inform employees of the hazards associated with illegal dumping and other non-storm water discharges to the storm drainage system.

Methods of Distribution

Methods by which the brochure may be distributed include:

- E-mail;
- Hard copies delivered to tenant agencies for distribution;
- Hard copies provided in common areas such as cafeterias and snack bars; and
- Hard copies provided to Property Managers for distribution to building occupants.

The Brochure Development and Distribution Form at the end of this chapter will be used to document brochure development and distribution. Completed forms and a copy of the brochure will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

2.1.1 Storm Drain Stenciling

Implementation

GSA EPG personnel have surveyed storm drains and catchment basins at the DFC to assess the surface area available on each drain for stenciling. GSA EPG personnel have obtained stencils that state: "NO DUMPING – DRAINS TO STREAM". All storm drains and catchment basins will be stenciled and the stenciling maintained during the duration of the permit.

The Storm Drain Stenciling Form at the end of this chapter will be used to document storm drain stenciling. Completed forms will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

2.1.2 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

3.0 PUBLIC INVOLVEMENT/PARTICIPATION

Purpose

The purpose of this chapter is to discuss the BMPs that GSA EPG personnel will implement under the Public Involvement/Participation program, which is the second of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.3 of the NPDES Permit the DFC must:

- Comply with applicable state and local public notice requirements when implementing a public involvement/participation program;
- Make all relevant annual reports available on a web site or provide links to all relevant annual reports in a locally available publication; and
- Maintain a log of public participation and outreach activities performed

Examples

Examples of public involvement/ participation can include public meetings, hearings, or volunteer efforts.

BMPs

The two BMPs that will be implemented as part of the Public Involvement/Participation program at the DFC are as follows:

- Storm Water Hotline; and
- Employee Input into the Storm Water Management Program.

Forms for the Storm Water Hotline and the Employee Input into the Storm Water Management Program can be found in Appendix B.

3.1 Storm Water Hotline

Implementation

An emergency response hotline (303-236-2911) already exists at the DFC for reporting spills, security issues, or anything else deemed worthy of investigation. When a hotline call is received, security personnel are dispatched to investigate. GSA EPG personnel will educate DFC employees through the storm water brochure that the existing hotline will also be used for reporting situations of concern with respect to storm water management at the DFC. In addition, security personnel will be instructed to contact GSA EPG personnel regarding any calls received to the hotline that pertain to environmental issues, such as dumping, erosion problems, leaking vehicles, etc. Each call to the hotline involving stormwater issues will be documented and GSA

EPG personnel will follow up on each call. Use the Hotline Contact Record form at the end of this chapter to document each call received and follow-up action taken. Completed forms will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

3.1.1 Employee Input into the Storm Water Program

Implementation

GSA EPG personnel will coordinate with property managers and appropriate agency personnel to receive comments regarding the SWMP. GSA EPG personnel will ensure that DFC property and interested tenant agency personnel are provided with an electronic copy of the SWMP. Tenant agency personnel will be instructed to pass on the document to interested and applicable personnel within their agencies in order to solicit feedback on additional BMPs for the program. In addition, annual updates to the SWMP should be distributed for review by applicable and interested personnel.

The SWMP Review Roster will be used to document who is provided a copy of the SWMP and who responds with comments. Completed forms will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

3.1.2 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Purpose

The purpose of this chapter is to discuss the BMPs that GSA EPG personnel will implement under the Illicit Discharge Detection and Elimination program, which is the third of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.4 of the NPDES Permit the DFC must:

- Implement, and enforce a program to detect and eliminate illicit discharges into the small MS4;
- Develop or maintain a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- Effectively prohibit non-storm water discharges into the storm sewer system. Allowable discharges as long as they are not found to be significant contributors of pollutants to the MS4 include: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration [as defined at 40 CFR §35.2005(20)], uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, power washing where no chemicals are used, roof drains, fire hydrant flushings, street wash water, non-stormwater discharges from a spill which are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge, emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges, and discharges or flows from fire-fighting activities). If any of these discharges are found to be significant contributors of pollutants, the DFC will include these in the category of illicit discharge and will implement appropriate enforcement procedures and actions;
- Follow a developed plan to conduct dry weather screening annually to detect and address non-storm water and illicit discharges, including illegal dumping, to the system within scheduled time constraints;
- Maintain an information system which tracks dry weather screening efforts, illicit discharge reports, and the location and any remediation efforts to address identified illicit discharges;
- Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and

- Provide emergency spill contact information to all building managers, project managers, and the appropriate tenant single point of contact.

BMPs

The five BMPs that will be implemented as part of the Illicit Discharge Detection and Elimination program at the DFC are as follows:

- Maintain Existing Storm Sewer Map;
- Plug or Reroute Floor Drains Connected to the Storm Sewer, as they are identified (all of the "known" floor drains connected to the Storm Sewer have been identified prior to the effective date of the MS4 permit [December 1, 2011]);
- Perform Annual Dry-Weather Screening Survey on Storm Sewer Outfalls for the presence of non-stormwater discharges;
- Develop Contract Language Prohibiting Non-Storm Water Discharges;
- Assess Non-Storm Water Discharges; and
- Provide public education and brochures (see Education and Outreach section).

All forms for illicit discharge detection and elimination can be found in Appendix B.

4.1 Maintain Existing Storm Sewer Map

Implementation

The DFC has a current storm sewer map that shows the layout of the system and the location of manholes and outfalls. GSA personnel are responsible for maintaining this map and will update this map using as-built drawings as construction projects are performed that result in changes to the storm sewer system.

DFC personnel will develop a numbering system for all storm water outfalls that drain into surface waters, and will mark these numbers on the storm sewer map. In addition, DFC personnel will maintain a record of changes made to the storm sewer map. Refer to Chapter 1 for the DFC Site Map, which shows the locations of storm sewers at the DFC.

4.2 Plug or Reroute Floor Drains Connected to the Storm Sewer

Implementation

The DFC is located on the former site of the Denver Ordnance Plant and many buildings date from the 1940s. Some floor drains were originally connected directly to the storm sewer. Over the years, many of those illicit connections have been eliminated and the drains rerouted to the sanitary sewer. Early in 2002, a sanitary sewer survey was performed on all but two of the buildings at the DFC. As part of this survey, 646 floor drains in 38 buildings were tested using dyed water and/or TV camera inspections to determine whether they were connected to the sanitary sewer system. A number of drains were found to be connected to the storm sewer

system. When wastewater or another non-storm water stream should be routed through the sanitary sewer, but instead discharges to the storm sewer system, this is termed an illicit connection. GSA personnel have plugged these drains or rerouted them to the sanitary sewer. As of the effective date of this MS4 permit (December 1, 2011), all of the "known" illicit connections to the Storm Sewer have been identified.

The Illicit Connection Correction Form will be used to document drains that are re-routed or plugged during the permit term (refer to Chapter 8, Reporting and Recordkeeping Requirements).

Drain Connections

GSA EPG personnel will take one or more of the following steps to eliminate non-storm water discharges through drains connected to the storm water sewer:

Reroute the discharge to the sanitary sewer.

- Move the activity to an area that drains to the sanitary sewer.
- Permanently block or disconnect the drain.
- Temporarily cover or block the drain with a mat or plug.

4.3 Perform Annual Dry-Weather Survey on Storm Water Outfalls

Implementation

GSA EPG personnel will ensure that all storm water outfalls are inspected once annually during dry weather for the presence of non-storm water discharges. Results of the survey will be documented. If flow is detected, GSA personnel will trace the flow back to the source and determine if its source is an illicit connection. Illicit connections will be corrected, as appropriate.

The Annual Dry-Weather Survey Form will be used to document when and where the survey is performed. Completed forms will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

Beginning in December 2011 and continuing through November 2012, GSA performed monthly storm sewer outfall monitoring on 15 outfalls to determine whether continuous flows from groundwater infiltration are present. This monitoring revealed that only five of the outfalls have continuous flow. Outfalls that had no dry-weather flow (defined in the permit as flow following at least 96 hours of dry conditions with no precipitation) during the first year of sampling were removed from further monitoring. In August of 2013, as part of the annual dry weather screening at each outfall, GSA will collect samples from the 5 outfalls showing continuous flow as required in Section 1.3.3 and 1.3.3.1 of the MS4 permit. Analytical results from these samples will be presented in the MS4 Annual Report.

4.4 Develop Contract Language Prohibiting Non-Storm Water Discharges

Implementation

In lieu of an ordinance, GSA EPG personnel have developed contract language prohibiting contractors from discharging waters that are significant contributors of pollutants to the storm sewer system. This language is incorporated into all new contracts with contractors. In addition, GSA EPG personnel must determine and document what enforcement actions will be taken in the event contractors violate their contract with regard to non-storm water discharges. GSA EPG personnel will maintain a record of the language and enforcement actions that are developed (refer to Chapter 8, Reporting and Recordkeeping Requirements).

4.5 Assess Non-Storm Water Discharges

Implementation

GSA EPG personnel will perform a one-time assessment of the categories of non-storm water discharges as defined in 40 CFR §122.34(b)(3)(iii) (see page 4-2) to determine if they are significant contributors of pollutants to the storm sewer system.

GSA EPA personnel will maintain a record of the assessment, once performed (refer to Chapter 8, Reporting and Recordkeeping Requirements). A Non-Storm Water Discharge Assessment form has been developed to aid in this determination.

Most of these types of non-storm water discharges are not present at the DFC. However, all such discharges will be assessed, and their presence or absence will be noted in the DFC's SWMP. Those discharges that are present will be evaluated for significant contribution of pollutants to the storm sewers.

In addition to the above, DFC personnel will be educated, through the use of brochures developed under the Public Education and Outreach minimum control measure, on the environmental hazards associated with illegal dumping and other non-storm water discharges to the storm drainage system. As part of this program, DFC personnel will be instructed to report any noted issues (e.g., illegal dumping, identification of illicit connections or non-storm water discharges) to the environmental hotline.

4.6 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

5.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Purpose

The purpose of this chapter is to discuss the BMPs that GSA EPG personnel will implement under the Construction Site Storm Water Runoff Control program, which is the fourth of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.5 of the NPDES Permit the DFC must:

- Maintain a list of policies and procedures which can be used to enforce construction site compliance within the DFC. This may include working with the City of Lakewood and EPA for enforcement of construction stormwater violations;
- Use available regulatory mechanisms under the authority of the DFC to require erosion and sediment controls to ensure compliance with the terms of the NPDES General Permit for Stormwater Discharges for Construction Activity in Colorado, COR1OOOOF;
- Review the scope of work or plans for construction projects to assess whether proposed BMPs are realistic ensure compliance with the stormwater construction permit requirements;
- Provide information on construction site BMPs with criteria for maintenance and installation;
- Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- Maintain and use of a closure process whereby EPG staff or contracting office representatives who are knowledgeable and have expertise in the area of stormwater management evaluate whether 70% vegetative cover has been met at all areas of the site prior to closing out construction stormwater permits;
- Develop procedures for inspection and enforcement of construction site stormwater BMPs which specifies appropriate sanctions, penalties, enforcement procedures and inspection schedules; and
- Provide biannual training to contracting office representatives which perform daily inspections regarding the maintenance and installation of BMPs for construction stormwater control and the terms of the construction stormwater permit.

In accordance with the Energy Independence and Security Act (EISA) of 2007, Section 438, the DFC must:

- As the sponsor of any development or redevelopment project involving a Federal facility with an impervious footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

BMPs

The BMPs that will be implemented as part of the Construction Site Storm Water Runoff Control program at the DFC are as follows:

- Make publicly available DFC policies and procedures which can be used to enforce construction site compliance within the DFC;
- Maintain Contract Language Requiring Proper Construction Site Waste Control and Disposal;
- Require Erosion and Sedimentation Control Plans;
- Provide information on construction site BMPs , inspection and contract closure with criteria for maintenance and installation criteria; and
- Provide training on permit terms, maintenance, installation, and closure process of construction stormwater control BMPs .

DFC employees will be encouraged to report storm water issues pertaining to construction sites through the DFC hotline, discussed in Chapter 3 of this Plan. All forms for construction activity and erosion and sediment control can be found in Appendix B.

5.1 Maintain Contract Language Requiring Proper Construction Site Waste Control and Disposal

Implementation

All construction activities at the DFC are performed by contractors under contract to the GSA. GSA architectural and engineering contractors are bound by requirements contained within the contracting software, "MASTERSPEC", which is produced by the American Institute of Architects and includes specifications on proper management and disposal of construction-related debris, and similar provisions specific to each contract. Examples of information in all contract includes.

- Properly remove from the DFC and dispose of used motor oil, used oil filters, and other chemicals (§1.11.1)[1];
- Leave all work areas free of debris at the end of each work operation (§1.24.1);
- Not pour mineral spirits, oil, lubricants, and other flammable liquids into plumbing fixtures, on the grass, plants or asphalt, or down sewer drains (§1.24.1);
- Prevent pollution to stream beds, lakes, drainage ways, sanitary or storm sewers by fuels, acids, pesticides or other harmful materials (§1.23.4); and
- Obtain approval in advance for pesticide usage on DFC premises (§1.23.5).

[1] Sections refer to the "Denver Federal Center Grounds Maintenance Performance Work Statement".

The DFC excavation permit requires excavated soils to be placed on visquene with the edges raised to prevent soil and associated water from running off the plastic. Soils with visible contamination must be segregated from other soils. Soils with visible contamination must also be sampled and characterized for proper disposal, and must be removed from the site under a manifest.

Any changes made to the existing contract language will have documentation of these changes maintained with this plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

Site Plan Review

As required by Part 3.2.4.8.4 of the Colorado Federal Facility Small MS4 General Permit, GSA personnel must describe the procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. GSA personnel have developed procedures and rationale for how sites are identified for pre-construction plan review process.

GSA personnel will appoint a qualified individual to be responsible for construction site plan reviews. If multiple projects occur at the same time on the DFC, GSA will prioritize them by 1) the project most likely to impact receiving water, and 2) the project that disturbs the greatest amount of area. GSA does not anticipate having to prioritize projects and will make every effort to inspect all construction sites on the DFC where greater than 5000 square feet of land is disturbed. All plans will be reviewed for sites where one (1) acre of land or more is disturbed and where 5000 square feet or greater of impervious area is planned.

The following standards with regard to consideration of potential water quality impacts will be taken into account when reviewing construction site plans:

- Ensure that the construction activity will not have any adverse impact on wetland areas and/or drainage patterns in the area;
- Ensure that the degree of site disturbance required is as minimal as possible; and
- Ensure that runoff, erosion, and/or sedimentation from the activity will not significantly impact the surrounding area and/or surrounding water bodies. Review all erosion and sedimentation control practices outlined in the site plan.

Documentation of site plan reviews will be maintained with this plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

5.2 Require Erosion and Sedimentation Control Plans

Implementation

The purpose of the erosion and sedimentation control (E&SC) control measures set forth in these plans as separate documents is to minimize erosion and sedimentation from land disturbance activities associated with construction.

DFC construction contracts require contractors to comply with all of the environmental procedures (http://www.r8sems.com/) specified by the Contracting Officer in the contract. The

Stormwater Management environmental procedure requires development of E&SC plans,. However, such measures are required indirectly. Contractors are required to comply with all DFC Environmental Procedures and environmental regulations. In addition, a Dig Permit is required for all required environmental permits, which would include storm water construction permits. Both the Dig permit and the construction contracts require storm water pollution prevention plans which do include soil disturbances on the DFC. The Dig Permit may also require the implementation of project specific E&SC measures.

Phase II storm water regulations require NPDES permits for all construction activities disturbing one (1) or more acres of land. Small and large construction activity NPDES permits also require the development and implementation of storm water pollution prevention plans, which include E&SC measures.

Therefore, GSA EPG personnel will develop language for appropriate construction contracts specifically requiring contractors to develop, for GSA review and approval, E&SC plans. The purpose of the E&SC control measures set forth in these plans is to minimize erosion and sedimentation from land disturbance activities associated with construction. GSA personnel may want to consider requiring E&SC plans for any project in which impervious area is equal to or greater than 5,000 square feet.

In developing requirements for E&SC plans, GSA personnel will review similar requirements in other existing E&SC programs, such as State and Local E&SC programs. GSA EPG personnel will also develop consistent and quantitative criteria for approval of E&SC plans as well as enforcement mechanisms that will be implemented in the event contractors violate their contract with regard to E&SC.

A copy of the adopted contract language, approval criteria, and enforcement mechanisms will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements.

5.3 Develop Construction Site Inspection and Closure Procedures

Implementation

GSA personnel have developed procedures, including a procedure to prioritize sites for inspection, and assign responsibility for inspections of construction sites to ensure that contractors are correctly and fully implementing the BMPs in their approved E&SC plans.

Normally at the DFC, several projects are not ongoing at the same time. Projects tend to be smaller in scale and are of short duration. If in the future, multiple projects do occur at the same time, GSA will prioritize them by 1) project most likely to impact a receiving water and 2) projects that disturbs the greatest amount of area. GSA does not anticipate having to prioritize projects and will make every attempt to inspect all construction sites on the DFC.

All inspections are documented, and completed inspection forms are maintained so that they are readily available for review. The Construction Site Inspection Form is used to document inspections. Completed forms are maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements). Steps that GSA personnel follow for a site inspection include:

STEP	ACTION
1.	Identify and determine which positions would be most suitable for carrying out the inspections. Record on master contact list.
2.	Implement inspection procedures, which include the frequency a site should be inspected, what the site should be inspected for, and forms for the inspection results to be logged on.
3.	Determining whether the contractor "passes" or "fails" the inspection based on project specific criteria.
4.	Provide contractor with a copy of the site inspection form at the conclusion of the inspection.
5.	Implement enforcement mechanisms for contractors who fail an inspection.

5.4 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

6.0 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Purpose

The primary purpose of this chapter is to discuss the BMPs that GSA EPG personnel will implement under the Post-Construction Storm Water Management program, which is the fifth of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.6 of the NPDES Permit the DFC must:

- Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the community;
- Use an ordinance or other regulatory mechanism available under the legal authorities of the small MS4, to address post-construction runoff from new development and redevelopment projects;
- Ensure adequate long-term operation and maintenance of BMPs;
- Develop and maintain a system to track the location, design, and maintenance specifications of permanent stormwater features;
- Include or reference in the dig permit, applicable requirements and available guidance to design post- construction stormwater features or low impact development practices designed to mimic pre- development hydrology;
- Ensure that all new construction projects, include maintenance plans for newly installed permanent post-construction stormwater control measures; and
- Ensure that permanent post-construction stormwater control measures are included in any applicable warranty reviews.

In addition the NPDES permit requires for all new or redevelopment projects equal to or greater than 5,000 square feet:

- A requirement that all designs for installation of permanent stormwater control measures include specifications and/or calculations to retain, detain, infiltrate or treat runoff from impervious surfaces in a manner which mimics pre-development hydrology. These designs should include costs and specific performance expectations associated with the installation and design of permanent stormwater control measures.
- Develop a review process for new and redevelopment construction projects that disturbs equal to or greater than 5,000 square feet to ensure permanent post-construction stormwater control measures will retain, detain, infiltrate or treat runoff from impervious surfaces in a manner which mimics pre-development hydrology.

Implementation

The purpose behind this minimum control measure is to minimize or alleviate the potential for storm water contamination from post-construction sites. Management of post-construction sites

is important because it will minimize or alleviate the E&S impacts from disturbed post-construction sites. The BMP that will be implemented as part of the Post-Construction Storm Water Management program at the DFC is as follows:

- Develop Contract Language Requiring Post-Construction Storm Water Management, calculations, specifications, and maintenance plans for newly installed permanent post-construction stormwater control measures;
- Use the current SEMS system (e.g., for training tracking system) to track and manage stormwater management needs; and
- Use the current SEMS system as a platform for review of new and redevelopment construction projects that disturbs equal to or greater than 5,000.

6.1 Develop Contract Language Requiring Post-Construction Storm Water Management, Calculations, Specifications, and Maintenance Plans

Implementation

GSA personnel will develop contract language requiring new development and redevelopment project designs to meet minimum performance criteria for storm water management and treatment systems (e.g., control of runoff velocities to below specified rates during design storms, retention and/or detention of a certain amount of post-construction runoff from a design storm, removal of a percentage of suspended solids from runoff). The contract language will reference Denver Urban Drainage and Flood Control District guidance and specifications. The contract language will also require design contractors to submit all calculations and supporting material demonstrating compliance. Contract language will also require design contractors to submit maintenance plans for the built project. This language will be incorporated into all new contracts for new development and redevelopment project designs. GSA personnel will incorporate a review of project designs for conformance with the performance criteria into the current project design review procedures. In addition, GSA personnel will also develop enforcement mechanisms that will be implemented in the event contractors violate their contract with regard to post-construction storm water management.

A copy of the adopted contract language will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements).

Steps that GSA personnel may want to consider in developing the contract include:

STEP	ACTION
1.	Review similar type language in existing contracts.
2.	Review language requiring post-construction storm water management found in other legal documents, such as permits.
3.	Draft language and have it reviewed internally by someone with legal qualifications.

Implementation

GSA personnel will develop a process to include project tracking for initiation, management, and review of post-construction stormwater management projects

A copy of the adopted contract language will be maintained with this Plan (refer to Chapter 8, Reporting and Recordkeeping Requirements). Steps that GSA personnel may want to consider in developing the contract include:

STEP	ACTION
1.	Review process for training and other tracking information.
2.	Develop forms to allow information to be entered and tracked.
3.	Develop reporting and notification mechanism and schedule.

6.2 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

7.0 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Purpose

The purpose of this chapter is to discuss the BMPs that GSA EPG personnel will implement under the Pollution Prevention/Good Housekeeping program, which is the last of the six minimum control measures.

Regulatory Requirement

In accordance with Part 2.7 of the NPDES Permit the DFC must:

Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, CDPHE, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, storm water system maintenance, and snow disposal.

Good Housekeeping

The most effective first step toward preventing pollution in storm water often involves using common sense to improve the housekeeping methods of facility personnel. Poor housekeeping can result in more waste being generated than necessary and an increased potential for storm water contamination. On the other hand, a clean and orderly work area reduces the possibility of hazards to personnel, while well-maintained and orderly material and chemical storage areas reduces the possibility of storm water mixing with materials to create spilled chemicals or pollutants. It should be noted that there are no industrial facilities at the DFC. All forms for good housekeeping measures can be found in Appendix B.

BMPs

The BMPs that will be implemented as part of the Pollution Prevention/Good Housekeeping program at the DFC are as follows:

- Storm Water Management Training;
- Storm Sewer System Maintenance;
- Landscaping and Lawn Care;
- Pest Control;
- Street and Parking Lot Sweeping;
- Road and Parking Lot Deicing;
- Hazardous Materials/Waste Storage; and
- Spill Response.

7.1 Storm Water Management Training

Implementation

The GSA EPG Environmental Specialist is responsible for ensuring that applicable training is developed and provided for GSA Facilities Maintenance personnel and any other specifically identified DFC personnel. These employees are responsible for maintaining the buildings, roads, grounds, and utility infrastructure at the DFC. They are aware of tenant activities and have the daily opportunity to observe anything that may affect storm water runoff. This training will educate these personnel on how to detect potential sources or activities that may contribute to storm water pollution. GSA EPG personnel must document the training.

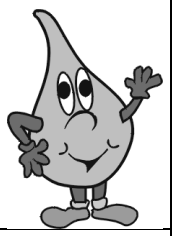
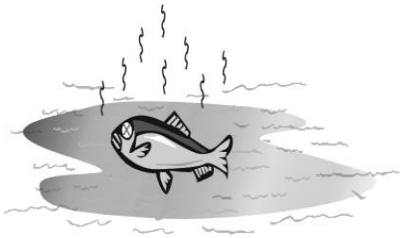
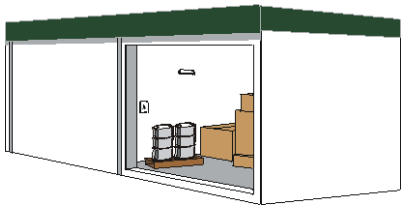
Types of Training

Personnel training is essential to effectively implement this Plan. A training program teaches personnel at all levels the components and goals of this Plan. When properly trained, personnel are more capable of preventing spills, responding safely and effectively to an accident, and recognizing situations that could lead to storm water contamination.

All appropriate GSA DFC personnel will receive initial training and an annual refresher course, as applicable. Steps that GSA personnel may want to consider in developing and presenting the training include:

STEP	ACTION
1.	Identify the personnel who will attend the training class(es).
2.	Ensure all attendees sign the *Initial Training Roster* and retain a copy for the file.
3.	Schedule the refresher training at least once a year, or more frequently, as deemed necessary.
4.	Review the outline provided in Table 7-1 below to assist with discussion during the review.
5.	Obtain one copy of the *Refresher Training Roster*.
6.	Have all personnel who attend the refresher training sign the roster and retain a copy for the file.

Table 7-1: Storm Water Management Course Outline

TOPIC	INFORMATION TO COVER
Introduction – What is storm water?	Introduce the relationship between storm water and surface water (ponds, rivers, oceans, etc.), as well as the differences between storm water sewer systems and sanitary sewer systems. Briefly discuss the storm water regulatory background, define storm water pollution prevention, and outline the DFC's storm water management program. 
Sources of Storm Water Pollution	Potential sources for storm water pollution exist at the DFC, including: – Fuel storage and transfer areas – Hazardous material/waste storage areas – Maintenance areas – Vehicle and equipment washing operations – Illicit connections (indoor plumbing, such as sinks or floor drains, that is improperly connected to the storm water sewer system) – Areas with soil erosion 
Pollution Effects on the Environment	A variety of materials and chemicals at the DFC could potentially contaminate storm water. For example, detergents, oil, and soil from construction sites can cause poor water conditions in rivers and lakes. This poor water condition not only destroys the beauty of surface water, but it also harms aquatic wildlife, because of toxic conditions or reduced oxygen levels. 
Best Management Practices (BMPs) for Preventing Storm Water Pollution	BMPs are measures DFC personnel use to prevent or mitigate storm water pollution. They can consist of general BMPs that occur facility-wide (e.g., good housekeeping practices or personnel training), or they can be structural BMPs installed in a specific area (such as secondary containment for a fuel storage tank). 
Question and Answer Session	Review the material covered throughout the course and allow time for questions and answers.

7.2 Storm Sewer System Maintenance

Implementation

The GSA will provide a map for locations of all stormwater features such as storm sewer inlets, outfalls, detention basins, drop structures, and trash racks on the DFC to the Grounds Maintenance contractor. The Contractor will develop a schedule for the annual inspection of these features; and procedures for when they need to be cleaned out and/or modified.

The grounds maintenance contractor will implement their schedule developed above for cleanout of storm sewer inlets. All storm sewer inlets should be inspected following the last snowfall in the spring of the year, and those requiring it, will be cleaned out at that time. The storm sewer inlets will also be cleaned out in the fall of the year after all of the leaves have fallen. It is the responsibility of the Grounds Maintenance contractor to document these inspections and cleanings and provide that documentation to the GSA Contracting Officer's Representative, who will provide it to the DFC Stormwater Manager.

The grounds maintenance contractor will also clean and maintain all areas of pervious concrete and porous asphalt on the DFC. The cleaning and maintenance of these areas shall be performed by mechanically sweeping with the use of a vacuum sweeper truck. It is the responsibility of the grounds maintenance contractor to document all cleaning and maintenance activities and provide the documentation to the GSA Contracting Officer's Representative, who will provide it to the DFC Stormwater Manager.

Wastes generated by storm sewer system maintenance activities will be disposed by the contractor generating the waste. All waste generated on the DFC is required to be manifested prior to leaving the site for disposal.

7.3 Landscaping and Lawn Care

Implementation

The current DFC landscaping and lawn care program, which minimizes the use of chemicals, will be maintained. Landscaping and lawn care at the DFC is performed by the Grounds Maintenance contractor, under contract to the GSA. The contract for this work provides detailed specifications, many of which serve to minimize the use of chemicals. Unpaved DFC land area is divided into four categories: Irrigated Areas, Open Space, Field Area 1, and Field Area 2. The majority of DFC land area is designated as either Field Area 1 or Field Area 2, as shown on Figure 7-1, "Denver Federal Center Grounds Maintenance Areas".

Chemical-minimizing Measures

Measures currently in place at the DFC for minimizing the use of chemicals include the following:

- There is no maintenance of Open Space land;
- Field Area 1 land is not fertilized, but is mowed monthly and is weed controlled;
- Field Area 2 land is mowed once or twice per year, but is not fertilized;

- The Irrigated Areas consist of turf grass which is watered, fertilized twice per year, mowed monthly, and weed controlled;
- Weed control is accomplished by mowing seed heads and by spot application of herbicides, rather than broadcast application;
- Fertilization of shrubs and perennials is limited to plants 2 years old or less, and stressed or nutrient-deficient plants;
- The Grounds Maintenance contractor must remove fertilizer from sidewalks immediately after application and prior to watering; and
- No chemical spraying may be done around any bodies of water, streams, or drainage ditches.

Figure 7-1: DFC Grounds Maintenance Areas

7.3 Pest Control

Implementation

Current DFC pesticide application policies will be maintained. Bait and trap type pest control (e.g., for prairie dogs) is no longer used on DFC premises. Insecticides are not applied to turf grass or any of the field areas. However, insecticides may be applied to trees or shrubs to combat an infestation. The Grounds Maintenance contractor is required to use only pesticides registered with the EPA and the Colorado Department of Agriculture, and must follow manufacturer's instructions for use. No restricted-use pesticides are currently permitted. Records of applications are maintained by the DFC Grounds Maintenance contractor.

7.4 Street and Parking Lot Sweeping

Implementation

The DFC is on a regular trash collection schedule; however, litter is always a concern. Therefore, the DFC is on a street and parking lot sweeping schedule to remove contaminants and litter from the streets and parking lots. The street and parking lot sweeping procedures will be maintained. In addition, DFC custodial staff and grounds maintenance staff responsibilities include maintaining the aesthetics of the DFC grounds, which includes litter pickup. The Grounds Maintenance contractor is responsible for sweeping one or more times per year. Materials collected through street sweeping are disposed of off-site.

7.5 Street and Parking Lot Deicing

Implementation

The Grounds Maintenance contractor is responsible for street and parking lot deicing. Paved surfaces are plowed to remove snow before deicing agents are applied. Sand is used to assist with deicing. During the recent past, DFC personnel have reduced usage of sand by approximately 60%. The use of magnesium chloride (MgCl) has been discontinued at the DFC.

7.6 Hazardous Materials/Waste Storage

Implementation

Current DFC hazardous material storage procedures will be maintained. Hazardous materials used by tenant organizations, the GSA, and the Grounds Maintenance contractor are stored either indoors, or outdoors in an overpack. Hazardous wastes generated by tenants are currently stored in specified indoor locations, and containers provide adequate cover and secondary containment.

The GSA has an SPCC plan which covers tanks greater than 55 gallons on the DFC for which GSA is either the owner, or through contractual agreements, the operator. All other tanks on the DFC are agency owned equipment and the specific agency is responsible for compliance with regulatory requirements.

7.7 Spill Response

Implementation

The GSA currently has designated resources for emergency spill response. To formalize the spill response process, GSA EPG personnel have developed a Spill Prevention, Control, and Countermeasure (SPCC) plan to address oil storage for the entire DFC. The GSA also has an Emergency Response Plan in place to address hazardous materials/waste management for the DFC. The Region 8 SEMS Spill & Emergency Response environmental procedure also addresses this subject.

7.8 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

8.0 REPORTING AND RECORDKEEPING REQUIREMENTS

Purpose

The purpose of this chapter is to outline reporting and recordkeeping requirements of the Colorado Federal Facility Small MS4 General Permit that GSA EPG personnel must adhere to in order to ensure that the DFC remains in compliance with the permit.

Implementation

Reporting requirements of the Colorado Federal Facility Small MS4 General Permit consist of an annual report that must be submitted to EPA Region VIII. Send all reports/inquires to the following EPA Region VIII contact:

Stormwater Coordinator
Small MS4 Annual Report
US EPA, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Recordkeeping associated with this Plan should document the DFC's efforts to comply with the Colorado Federal Facility Small MS4 General Permit, as discussed in this Plan. Personnel should maintain records for the permit term.

8.1 Reporting Requirements

Annual Report

The Colorado Federal Facility Small MS4 General Permit requires that the annual report be submitted on April 1, of each year of the permit term. The annual reports shall cover the activities during the period beginning on January 1, of each year of the permit term and ending December 31, of each year. The end of the permit term is November 30, 2016.

Reports must contain the following main provisions:

1. The status of compliance with permit conditions, including an assessment of the appropriateness of the selected BMPs and progress towards achieving the selected measurable goals for each minimum control measure;
2. Results of any information collected and analyzed, including any monitoring data;
3. A summary of the storm water activities planned for the next reporting cycle (including an implementation schedule);
4. Proposed changes to the SWMP, including changes to any identified BMPs or measurable goals for any minimum control measure; and

Reports must be signed in accordance with the signatory requirements stated in the permit. Reports may be posted on the EPA Region 8 website. Parts of the annual report which cannot be made publicly available shall be marked as "confidential" or "for official use only."

8.2 Recordkeeping

Purpose

Recordkeeping associated with this Plan should document DFC personnel's efforts to minimize and control discharges to the storm water system through implementation of the BMPs outlined in this Plan. Records must be kept for the permit term and must be made accessible to all personnel.

Records to Keep

Keep records for the following major documentation areas. Appendix C can be used to maintain documents for each of these records:

MINIMUM CONTROL MEASURE	RECORDS TO KEEP
Public Education and Outreach (Chapter 2 of this Plan)	• Educational brochure and any subsequent editions • Brochure Development and Distribution Form(s) • Storm Drain Stenciling Form(s)
Public Involvement and Participation (Chapter 3 of this Plan)	• Document any changes to the hotline (e.g., number changes) • Hotline Contact Record Forms • SWMP Review Roster(s)
Illicit Discharge Detection and Elimination (Chapter 4 of this Plan)	• Maintain a copy (including a hard copy) of the current storm sewer map • Maintain a record of changes made to the storm sewer map • Illicit Connection Correction Form(s) • Dry-Weather Survey Form(s) • Maintain a record of the contract language developed to prohibit non-storm water discharges • Once performed, maintain a copy of the one-time non-storm water discharge assessment for the DFC
Construction Site Storm Water Control (Chapter 5 of this Plan)	• Document any changes to existing contract language requiring proper construction site waste control and disposal • Document site plan reviews • Once developed, maintain a copy of the contract language developed that requires E&SC plans. Also keep record of any subsequent changes to the contract language • Maintain a copy of E&SC plan approval criteria • Keep a copy of construction site inspection procedures,

MINIMUM CONTROL MEASURE	RECORDS TO KEEP
	once developed, and maintain copies of completed inspection forms
Post-Construction Storm Water Management in New Development and Redevelopment (Chapter 6 of this Plan)	• Once developed, maintain a copy of the contract language requiring post-construction storm water management and any subsequent revisions
Pollution Prevention/Good Housekeeping BMPs for Municipal Operations (Chapter 7 of this Plan)	• Initial and Refresher Storm Water Management Training Rosters • Document any changes to the landscaping and lawn care program at the DFC • Document any changes to the pest control program at the DFC • Document any changes to street and parking lot sweeping practices at the DFC • Document any changes to street and parking lot deicing practices at the DFC • Document any improvements or additions with regard to hazardous materials storage or hazardous waste accumulation areas • Maintain a copy of the SPCC Plan with this Plan so that it is accessible to regulatory authorities upon request.

Endangered Species Act

Based on a list of plant species and wildlife species identified as present on DFC property, there are no documented occurrences of any Federally-listed or candidate endangered species within DFC property.[1]

In accordance with Part 1.5.3 of the Colorado Federal Facility Small MS4 General Permit, DFC EPG personnel must maintain documentation or a statement of the process by which a determination was made that no listed species or critical habitat are in proximity to the DFC

[1] Denver Federal Center Master Site Plan Environmental Impact Statement", Appendices A and B, prepared for the U.S. General Services Administration, Rocky Mountain Region, by Balloffet and Associates, Inc., of Ft. Collins, CO, September 1997.

small MS4 or MS4 discharge locations. A list of endangered species in Jefferson County is provided in Appendix C to this Plan.

8.3 Plan Revisions

When to Amend

GSA EPG personnel may change the SWMP during the life of the permit according to the following procedures:

- Changes adding (but not subtracting or replacing) components, controls, goals, or requirements to the SWMP may be made at any time upon written notification to EPA Region VIII;
- Requests to change or replace an ineffective or unfeasible BMP or goal, with an alternate BMP, may be made at any time. Unless denied by the EPA, changes proposed shall be deemed approved and may be implemented 60 days from the date the request is submitted to the EPA. Modification requests must include the following:
- An analysis of why the BMP or goal is ineffective or infeasible (including cost prohibitive);
- Expectations on the effectiveness of the replacement BMP or goal, and;
- An analysis of why the replacement BMP or goal is expected to better achieve the SWMP requirements.
- Change requests or notifications must be made in writing and signed in accordance with Part 5.7 of the Colorado Federal Facility Small MS4 General Permit.
- If/when this Plan is ineffective in achieving the general objectives of controlling pollutants in storm water discharges.

8.4 Responsible Person

The person responsible for coordination and implementation of this Minimum Control Measure is: Mr. Bill Fieselman, Environmental Scientist.

9.0 IMPLEMENTATION SCHEDULE

When to Implement this Plan

The DFC Storm Water Management Program must assure and document implementation for each annual permit term. The tables on the following pages summarize the BMPs discussed in this Plan, identify the person(s) responsible for implementing the BMPs, and measurable goals to fit within the permit timeline for implementation.

Table 1. Public Education and Outreach BMPs

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Educational Material Distribution – GSA EPG personnel will develop an educational brochure on storm water management and distribute it throughout the DFC.	GSA EPG Environmental Specialist	Years 1 – 3	– Develop brochure and distribute to DFC employees.
		Year 4	– Update brochure as necessary and distribute to employees.
		Year 5	– Update brochure as necessary and distribute to identified employees. – Evaluate program effectiveness and plan for next permit term.
Storm Drain Stenciling – GSA EPG personnel will stencil all storm drains/catchment basins at the DFC with wording and/or a logo indicating that the drain discharges to McIntyre Gulch.	GSA EPG Environmental Specialist	Years 1 and 2	– Survey storm drains and catchment basins and develop stencil design. – Stencil 25% of storm drains and catchment basins.
		Year 3	– Stencil additional 25% of storm drains and catchment basins.
		Year 4	– Stencil additional 25% of storm drains and catchment basins.
		Year 5	– Stencil final 25% of storm drains and catchment basins. – Evaluate program effectiveness and plan for next permit term.

Table 2. Public Involvement and Participation BMPs

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Storm Water Hotline – GSA EPG personnel will educate DFC tenants that the existing emergency response hotline will also be used for reporting situations of concern with respect to storm water runoff from the DFC.	GSA EPG Environmental Specialist	Years 1 and 2	– Develop material on hotline for storm water educational brochure.
		Year 3	– Maintain/update as necessary the hotline material/procedures.
		Year 4	– Maintain/update as necessary the hotline material/procedures.
		Year 5	– Maintain/update as necessary the hotline material/procedures. – Evaluate program effectiveness and plan for next permit term.
Employee Input into the Storm Water Program – GSA EPG personnel will ask appropriate facilities personnel, and personnel at tenant agencies, for comments on the Draft SWMP.	GSA EPG Environmental Specialist	Years 1 –3	– Develop draft SWMP and distribute to appropriate building and agency managers for further distribution and comment. – Incorporate comments and finalize SWMP.
		Year 4	– GSA EPG will review the SWMP and solicit comment from applicable building and agency personnel for changes to the SWMP.
		Year 5	– GSA EPG will review the SWMP and solicit comment from applicable building and agency personnel for changes to the SWMP. – Evaluate program effectiveness and plan for next permit term.

Table 3. Illicit Discharge Detection and Elimination BMPs

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Maintain Existing Storm Sewer Map – GSA EPG personnel will update the existing storm sewer map as changes are made to the storm sewer system due to construction/modification.	GSA	Year 1	– Update map as construction changes/modifications occur.
		Year 2	– Update map as construction changes/modifications occur.
		Year 3	– Update map as construction changes/modifications occur.
		Year 4	– Update map as construction changes/modifications occur.
		Year 5	– Update map as construction/modifications changes occur. – Evaluate program effectiveness and plan for next permit term.
Plug or Reroute Floor Drains Connected to the Storm Sewer – using dyed water testing, some building floor drains were identified as being connected to the storm sewer. These will be plugged or rerouted to the sanitary sewer system, as appropriate.	GSA EPG Regional Industrial Hygienist	Year 1	– Plug or reroute 25% of cross-connected floor drains.
		Year 2	– Plug or reroute additional 25% of cross-connected floor drains.
		Year 3	– Plug or reroute additional 25% of cross-connected floor drains.
		Year 4	– Plug or reroute final 25% of cross-connected floor drains.
		Year 5	– Evaluate program effectiveness and plan for next permit term.
Perform Annual Dry-Weather Survey on Storm Water Outfalls - GSA EPG personnel will ensure that all storm water outfalls are inspected once annually during dry weather for the presence of non-storm water discharges.	GSA EPG Environmental Specialist	Year 1.	– Document dry weather inspection of all outfalls. – Trace source of any non-storm water discharges and correct where appropriate
		Year 2.	– Document dry weather inspection of all outfalls. – Trace source of any non-storm water discharges and correct where appropriate
		Year 3	– Document dry weather inspection of all outfalls. – Trace source of any non-storm water discharges and correct where appropriate.

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
		Year 4	– Document dry weather inspection of all outfalls. – Trace source of any non-storm water discharges and correct where appropriate
		Year 5	– Document dry weather inspection of all outfalls. Trace source of any non-storm water discharges and correct where appropriate. – Evaluate program effectiveness and plan for next permit term.
Develop Contract Language Prohibiting Non-Storm Water Discharges – GSA personnel will develop language prohibiting non-storm water discharges determined to be significant contributors of pollution to the storm sewer system by contractors.	GSA Contracting Officer with the DFC Field Office Contracting Team	Years 1 – 3	– Develop contract language prohibiting non-storm water discharges determined to be significant contributors of pollution to the storm sewer system. – Incorporate language into new contracts.
		Year 4.	– Incorporate language into new contracts
		Year 5	– Incorporate language into new contracts. – Evaluate program effectiveness and plan for next permit term.
Assess Non-Storm Water Discharges – GSA EPG personnel will perform a one-time assessment of categories of non-storm water discharges (e.g., water line flushing, landscape irrigation, etc.) to determine if they are significant contributors of pollutants to the storm sewer system.	GSA EPG	Years 1 – 3	– Perform and document assessment.
		Years 4 and 5	– Modify the SWMP to address any non-storm water discharges found to significantly affect storm water at the DFC.

Table 4. Construction Site Storm Water Control BMPs

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Maintain Contract Language Requiring Proper Construction Site Waste Control and Disposal – the GSA already incorporates into its contracts with construction or other contractors' language requiring proper use and disposal of materials.	GSA Contracting Officer with the DFC Field Office Contracting Team	Year 1	– Maintain and update, as necessary, current contract language. – Develop procedures for site plan review.
		Year 2	– Maintain and update, as necessary, current contract language. – Perform site plan reviews as appropriate.
		Year 3	– Maintain and update, as necessary, current contract language. – Perform site plan reviews as appropriate.
		Year 4	– Maintain and update, as necessary, current contract language. – Perform site plan reviews as appropriate.
		Year 5	– Maintain and update, as necessary, current contract language. – Perform site plan reviews as appropriate. – Evaluate program effectiveness and plan for next permit term.
Require E&SC Plans – GSA personnel will develop language for appropriate construction contracts requiring contractors to develop and submit E&SC plans for approval.	GSA Contracting Officer with the DFC Field Office Contracting Team GSA EPG	Year 1 and 2	– Develop contract language requiring contractors to develop and submit E&SC plans.
		Year 3	– Incorporate language into new contracts.
		Year 4	– Incorporate language into new contracts.
		Year 5	– Incorporate language into new contracts. – Evaluate program effectiveness and plan for next permit term.
Develop Construction Site Inspection Procedures – GSA EPG personnel will develop procedures	GSA EPG Manager GSA EPG Project Manager GSA Contracting Officer with the	Year 1 – 3	– Develop written procedures and responsibilities for construction site inspections.
		Year 4	– Implement inspection procedures, and maintain records of each inspection, including any follow-up actions required.

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR
and assign responsibility for inspections of construction sites to ensure adherence to E&SC BMPs.	DFC Field Office Contracting Team	Year 5 – Implement inspection procedures, and maintain records of each inspection, including any follow-up actions required. – Evaluate program effectiveness and plan for next permit term.

Table 5. Post-Construction Storm Water Management BMPs in New Development and Redevelopment

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Develop Contract Language Requiring Post-Construction Storm Water Management – The GSA will develop contract language requiring development of project designs to meet minimum performance criteria for post-construction storm water management and treatment systems.	GSA Environmental Programs Group (EPG) Manager GSA EPG Project Manager GSA Contracting Officer (CO) with the DFC Field Office Contracting Team	Years 1–3	– Develop minimum performance criteria for post-construction storm water management and treatment systems. – Develop contract language requiring development project designs to conform to the minimum performance criteria.
		Year 4	– Incorporate language into contracts; keep records of reviews of project designs for conformance with criteria.
		Year 5	o Incorporate language into contracts; keep records of reviews of project designs for conformance with criteria. – Evaluate program effectiveness and plan for next permit term.

Table 6. Pollution Prevention/Good Housekeeping BMPs for Municipal Operations

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Storm Water Management Training – GSA EPG personnel will conduct training for GSA Facilities Maintenance personnel and any other specifically identified personnel.	GSA EPG Environmental Specialist	Years 1–3	– Develop storm water management training course.
		Year 4	– Conduct training as needed, and maintain written records of training material and attendance.
		Year 5	– Conduct training as needed, and maintain written records of training material and attendance. – Evaluate program effectiveness and plan for next permit term.
Landscaping and Lawn Care – the DFC will maintain its existing program, which minimizes use of chemicals.	Grounds Maintenance Contractor GSA Contracting Officer with the DFC Field Office Contracting Team	Year 1	– Maintain existing program. Update, as necessary.
		Year 2	– Maintain existing program. Update, as necessary.
		Year 3	– Maintain existing program. Update, as necessary.
		Year 4	– Maintain existing program. Update, as necessary.
		Year 5	– Maintain existing program. Update, as necessary. – Evaluate program effectiveness and plan for next permit term.
Pest Control – the DFC will maintain its current pesticide application policies.	Grounds Maintenance Contractor GSA personnel	Year 1	– Maintain current policies. Update, as necessary.
		Year 2	– Maintain current policies. Update, as necessary.
		Year 3	– Maintain current policies. Update, as necessary.
		Year 4	– Maintain current policies. Update, as necessary.
		Year 5	– Maintain current policies. Update, as necessary. – Evaluate program effectiveness and plan for next permit term.
Street and Parking Lot Sweeping – the	Grounds Maintenance	Year 1	– Maintain existing procedures. Update, as necessary.

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
DFC will maintain its current sweeping procedures.	Contractor GSA personnel	Year 2	– Maintain existing procedures. Update, as necessary.
		Year 3	– Maintain existing procedures. Update, as necessary.
		Year 4	– Maintain existing procedures. Update, as necessary.
		Year 5	– Maintain existing procedures. Update, as necessary. – Evaluate program effectiveness and plan for next permit term.
<u>Road and Parking Lot Deicing</u> – the DFC will maintain its current deicing procedures, will provide secondary containment for two 6,250-gallon MgCl ASTs, and will ensure secondary containment is provided for 500-gallon ASTs of MgCl when stationary and contain MgCl.	Grounds Maintenance Contractor	Year 1	– Maintain existing procedures and update, as necessary.
		Year 2	– Maintain existing procedures and update, as necessary. – Provide secondary containment for two 6,250-gallon MgCl ASTs and ensure secondary containment is provided for 500-gallon mobile MgCl ASTs.
		Year 3	– Maintain existing procedures and update, as necessary.
		Year 4	– Maintain existing procedures and update, as necessary.
		Year 5	– Maintain existing procedures and update, as necessary. – Evaluate program effectiveness and plan for next permit term.
<u>Hazardous MaterialWaste Storage</u> – the DFC will maintain its current hazardous materials/waste storage procedures thereby meeting all RCRA requirements.	All DFC organizations	Year 1	– Maintain existing procedures and update, as necessary
		Year 2	– Maintain existing procedures and update, as necessary.
		Year 3	– Maintain existing procedures and update, as necessary.
		Year 4	– Maintain existing procedures and update, as necessary.
		Year 5	– Maintain existing procedures and update, as necessary. – Evaluate program effectiveness and plan for next permit term.

BMP	PERSON RESPONSIBLE	MEASURABLE GOALS BY YEAR	
Hazardous MaterialWaste Storage – the DFC will maintain its current hazardous materials/waste storage procedures thereby meeting all RCRA requirements.	All DFC organizations	Year 1	– Develop a written SPCC Plan. – Update and maintain Emergency Response Plan.
		Year 2	– Update SPCC Plan, as necessary. – Update and maintain Emergency Response Plan.
		Year 3	– Update SPCC Plan, as necessary. – Update and maintain Emergency Response Plan.
		Year 4	– Update SPCC Plan, as necessary. – Update and maintain Emergency Response Plan.
		Year 5	– Update SPCC Plan, as necessary. – Update and maintain Emergency Response Plan. – Evaluate program effectiveness and plan for next permit term.

10.0CHAPTER 10. ACRONYMS AND DEFINITIONS

10.1 Acronyms

ACRONYM	DEFINITION
AST	aboveground storage tank
BMP	best management practice
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
CWA	Clean Water Act
DFC	Denver Federal Center
E&SC	erosion and sedimentation control
EPA	Environmental Protection Agency
EPG	Environmental Programs Group
FR	Federal Register
GSA	General Services Administration
MEP	maximum extent practicable
MgCl	Magnesium Chloride
MS4	municipal separate storm sewer system
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Plan	Storm Water Management Plan
RCRA	Resource Conservation and Recovery Act
SPCC	Spill Prevention, Control, and Countermeasure
SWMP	Storm Water Management Plan
UA	urbanized area

10.2 Definitions

10.2.1 Best Management Practices (BMPs)

Maintenance procedures and other management practices that prevent or reduce the pollution of waters of the United States. It also includes treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Large and Medium MS4s

All municipal separate storm sewers that are either:

- Located in an incorporated city with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census. Such cities are listed in Appendix F and G of 40 Code of Federal Regulation (CFR) 122.
- Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (listed in Appendix H and I of 40 CFR 122).
- Owned or operated by a municipality other than those described above and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

Municipal Separate Storm Sewer System (MS4)

An "*MS4*", as defined in 40 CFR 122.26(b)(8), "means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body…that discharges into waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; **AND** (iv) Which is not part of a Publicly Owned Treatment Works."

Point Source

Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Regulated Small MS4

Not all small MS4s are subject to the Phase II storm water regulations. To be required to obtain a NPDES storm water permit, a small MS4 must be a "regulated small MS4". There are two ways a facility can be considered a regulated small MS4: if the facility is automatically designated or if the NPDES permitting authority determines that the facility is regulated. In the latter case, the facility is notified by the NPDES permitting authority the facility is regulated. Per 40 CFR 122.32(a), a small MS4 is *regulated* if it:

(1) Is located in an urbanized area (UA) as determined by the latest decennial census (refer to http://cfpub.epa.gov/npdes/stormwater/urbanmaps.cfm for urbanized area boundary maps, as determined in the 2000 census) (e.g., the facility is an automatically-designated MS4); **OR**

(2) Is located outside of a UA and contributes to the pollutant loadings of a physically interconnected MS4 regulated by the NPDES storm water program (e.g., NPDES permitting authority-designated regulated small MS4); **OR**

(3) Is located outside of a UA if the NPDES permitting authority determines that its discharges cause or may cause an adverse impact on water quality (e.g., NPDES permitting authority-designated regulated small MS4).

Small MS4

A "*small MS4*" is defined in 40 CFR 122.26(b)(16) as a separate storm sewer system that is:

(1) Owned and operated by a public body with jurisdiction over storm water, sewage, or other wastes; **AND**

(2) Not designated as large (serves a population of 250,000 or more) or medium (serves a population of at least 100,000 but less than 250,000) in size.

Storm Water

Storm water runoff, snowmelt runoff, surface runoff and drainage.

Urbanized Area (UA)

The U.S. Bureau of the Census' general definition of a UA, based on population and population density, is a land area comprising one or more places – central place(s) – and the adjacent densely settled surrounding area – urban fringe – that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. A UA can comprise places, counties, Federal Indian Reservations, and minor civil divisions such as towns and townships.

APPENDIX A

COLORADO FEDERAL FACILITY SMALL MS4 GENERAL PERMIT NOI

and EPA REGION VIII GENERAL PERMIT FOR STORM WATER DISCHARGES FROM FEDERAL FACILITY SMALL MS4S IN COLORADO

APPENDIX B

FORMS

BROCHURE DEVELOPMENT AND DISTRIBUTION FORM

STORM DRAIN STENCILING FORM

TRAINING TRACKING FORM

(Chapter 2)

BROCHURE DEVELOPMENT AND DISTRIBUTION FORM

Date of Brochure Development/Update: _____

Name of Person(s) Who Developed the Brochure:_____

Name of Person(s) Who Distributed the Brochure: _____

Using the table below, list dates the brochure was distributed and the method by which it was distributed (e.g., distributed to each agency, distributed through building managers, etc.). Ensure that you keep a copy of the brochure distributed with this completed form. Use a new form for each year of distribution.

DATE DELIVERED	METHOD OF DISTRIBUTION	NUMBER OF BROCHURES DISTRIBUTED

STORM DRAIN STENCILING FORM

Date(s) of initial storm drain/catchment basin survey:

Using the table below, list dates storm drain stenciling is performed and the general location or ID number of the storm drain/catchment basin.

DATE STENCILED	LOCATION/ID # OF STORM DRAIN/CATCHMENT BASIN

TRAINING TRACKING FORM

Date Training Given: _____

Name of Person(s) Delivering Training:_____

Title of Training: _____

The training covers the following content:

- ☐ Stormwater Management
- ☐ Erosion and Sediment Control
- ☐ Sustainability and Environmental Management System (SEMS)
- ☐ Dig Permits
- ☐ Spills and Illicit Discharges
- ☐ Water Quality
- ☐ Low Impact Development and Green Infrastructure (EISA 2007)
- ☐ Other:_____

Using the table below, list all of those in attendance. Use a new form for each training event.

ATTENDEE NAME	ATTENDEE AFFILIATION	ATTENDEE POSITION	ATTENDEE CONTACT INFO

(Back of Training Tracking Form)

ATTENDEE NAME	ATTENDEE AFFILIATION	ATTENDEE POSITION	ATTENDEE CONTACT INFO

HOTLINE CONTACT RECORD FORM

SWMP REVIEW ROSTER

(Chapter 3)

HOTLINE CONTACT RECORD FORM

Date: Time Call Received: _____

Name of Caller:_____ Phone Number: _____

Name of Person Receiving the Call:_____

Reason for Call: _____

_____

GSA EPG Person Following up on Call: _____

Follow-up Action(s) Taken: _____

_____

Date(s) Action Taken:_____

Further Action Needed (Y/N)? If Yes, describe _____

_____

Date(s) Further Action Taken: _____

SWMP REVIEW ROSTER

Name of Person(s) Distributing the SWMP: _____

If comments are received, maintain a record of comments and response(s) to comments with this Plan.

DATE DELIVERED	METHOD OF DELIVERY[1]	NAME OF RECIPIENT	AGENCY	PHONE NUMBER	COMMENTS?[2] Y/N

[1] Note whether the Plan was delivered via hard copy (HC) or via e-mail (E).
[2] If comments are received, note whether a follow-up to comments is required.

ILLICIT CONNECTION CORRECTION FORM

ANNUAL DRY-WEATHER SURVEY FORM

NON-STORM WATER DISCHARGE ASSESSMENT FORM

(Chapter 4)

ILLICIT CONNECTION CORRECTION FORM

DATE CORRECTED	LOCATION OF CONNECTION	METHOD OF CORRECTION AND APPLICABLE DETAILS[1]

.

[1] Note whether the illicit connection was plugged, rerouted, if the activity was discontinued or moved. Also note where the connection was rerouted to or where the activity was moved to.

ANNUAL DRY-WEATHER SURVEY FORM
YEAR _____

Date(s) survey performed: _____

Person(s) performing the survey:

Use this form to document when and where the dry-weather survey is performed. Note if flow is found at DFC outfalls during dry-weather. If so, determine the source of the flow and document it on this form. If additional follow-up action is required, use the back of this form or a separate page to document work performed.

OUTFALL #	FLOW? Y/N	IF YES, PROVIDE SOURCE	IF YES, DESCRIBE HOW THE SOURCE WAS DETERMINED AND WHEN THE DETERMINATION WAS MADE
001			
002			

NON-STORM WATER DISCHARGE ASSESSMENT FORM

Date(s) of Assessment: _____

Name of Person(s) Who Performed the Assessment: _____

Use this form to assist with the performance of the assessment.

TYPE OF NON-STORM WATER DISCHARGE	DISCHARGE PRESENT? Y/N IF NO, PROVIDE JUSTIFICATION FOR THIS DETERMINATION	IF YES, LIST LOCATIONS WHERE DISCHARGE OCCURS	IS DISCHARGE A SIGNIFICANT CONTRIBUTOR OF POLLUTANTS? Y/N PROVIDE JUSTIFICATION FOR THIS DETERMINATION
Water line flushing			
Landscape irrigation			
Diverted stream flows			
Rising ground waters			
Uncontaminated ground water infiltration			

TYPE OF NON-STORM WATER DISCHARGE	DISCHARGE PRESENT? Y/N IF NO, PROVIDE JUSTIFICATION FOR THIS DETERMINATION	IF YES, LIST LOCATIONS WHERE DISCHARGE OCCURS	IS DISCHARGE A SIGNIFICANT CONTRIBUTOR OF POLLUTANTS? Y/N PROVIDE JUSTIFICATION FOR THIS DETERMINATION
Uncontaminated pumped ground water			
Discharges from potable water sources			
Foundation drains			
Air conditioning condensation			
Irrigation water			
Springs			
Water from crawl space pumps			

TYPE OF NON-STORM WATER DISCHARGE	DISCHARGE PRESENT? Y/N IF NO, PROVIDE JUSTIFICATION FOR THIS DETERMINATION	IF YES, LIST LOCATIONS WHERE DISCHARGE OCCURS	IS DISCHARGE A SIGNIFICANT CONTRIBUTOR OF POLLUTANTS? Y/N PROVIDE JUSTIFICATION FOR THIS DETERMINATION
Footing drains			
Lawn watering			
Individual car washing			
Flows from riparian habitats and wetlands			
Dechlorinated swimming pool discharges			
Street wash water			

CONSTRUCTION SITE INSPECTION FORM (Chapter 5)

CONSTRUCTION SITE INSPECTION FORM

Date: Inspection Performed By: _____

Time: Inspector's Phone Number:_____

	OVERALL CONDITION (Good, Fair, Poor)	**NEED REPAIR**? (Yes, No)	**COMMENTS**
STRUCTURAL MEASURES			
Sediment Containment Systems			
Hay Bale Barriers			
Silt Fence Barriers			
Rock Barriers			
Inserts			
Vehicle Tracking Pad			
NON-STRUCTURAL MEASURES			
Diversion Dikes and/or Swales			
Slope Drains			
Temporary Vegetation			
Perennial Vegetation			
Mulch and/or BFM Protection			
Soil Binder Protection			
Hillside RECPs			
Drainage Channel TRMs			
Riprap and/or Gabions			

Will existing BMPs need to be modified or removed or additional BMPs installed? Y/N

If Yes, list the action items to be completed on the following table.

ACTIONS TO BE COMPLETED	DATE COMPLETED

Weather information since the last inspection was held.

EVENT	DATE BEGAN	DURATION (Hours)	AMOUNT (Inches)

Are uncontrolled releases of mud or muddy water from the site and/or deposits of sediment evident? Y/N

If yes, where and what corrective actions are to occur?

Are non-compliance incidents evident? Y/N

If yes, describe: _____

_____

Additional Comments: _____

_____

Signature: _____

STORM WATER POLLUTION PREVENTION TRAINING ROSTERS

INITIAL TRAINING ROSTER and

REFRESHER TRAINING ROSTER

INITIAL STORM WATER MANAGEMENT TRAINING ROSTER

Date: _____

Trainer Organization(s): _____

Trainer Name(s): _____

NAME	SIGNATURE	AGENCY

STORM WATER MANAGEMENT REFRESHER TRAINING ROSTER

Date: _____

Trainer Organization(s): _____

Trainer Name(s): _____

NAME	SIGNATURE	AGENCY

APPENDIX C

RECORDKEEPING

COPIES OF COMPLETED FORMS

EDUCATIONAL BROCHURES

BROCHURE DEVELOPMENT AND DISTRIBUTION FORM(S)

STORM DRAIN STENCILING FORM(S)

HOTLINE NUMBER CHANGES

HOTLINE CONTACT RECORD FORMS

SWMP REVIEW ROSTER(S)

RECORD OF CHANGES MADE TO THE STORM SEWER MAP

ILLICIT CONNECTION CORRECTION FORM(S)

DRY-WEATHER SURVEY FORM(S)

CONTRACT LANGUAGE DEVELOPED TO PROHIBIT NON-STORM WATER DISCHARGES

ONE-TIME NON-STORM WATER DISCHARGE ASSESSMENT

CHANGES TO EXISTING CONTRACT LANGUAGE REQUIRING PROPER CONSTRUCTION SITE WASTE CONTROL AND DISPOSAL

SITE PLAN REVIEW PROCEDURES

CONTRACT LANGUAGE DEVELOPED THAT REQUIRES E&SC PLANS

E&SC PLAN APPROVAL CRITERIA

CONSTRUCTION SITE INSPECTION PROCEDURES

COMPLETED INSPECTION FORMS

CONTRACT LANGUAGE REQUIRING POST-CONSTRUCTION STORM WATER MANAGEMENT

INITIAL AND REFRESHER STORM WATER MANAGEMENT TRAINING ROSTERS

LANDSCAPING AND LAWN CARE PROGRAM

PEST CONTROL PROGRAM

STREET AND PARKING LOT SWEEPING PRACTICES

STREET AND PARKING LOT DEICING PRACTICES

HAZARDOUS MATERIALS STORAGE OR HAZARDOUS WASTE ACCUMULATION AREAS

SPCC PLAN

APPENDIX D

THREATENED AND ENDANGERED SPECIES IN JEFFERSON COUNTY, CO

THREATENED AND ENDANGERED SPECIES IN JEFFERSON COUNTY, CO

COMMON NAME	SCIENTIFIC NAME	THREATENED (T) /ENDANGERED (E)
Bald Eagle	*Haliaeetus leucocephalus*	T
Canada Lynx	*Lynx canadensis*	T
Colorado Butterfly Plant	*Gaura neomexicana ssp. coloradensis*	T
Eskimo Curlew	*Numenius borealis*	E
Mexican Spotted Owl	*Strix occidentalis*	T
Pallid Sturgeon	*Scaphirhynchus albus*	E
Pawnee Montane Skipper	*Hesperia leonardus montana*	T
Preble's Meadow Jumping Mouse	*Zapus hudsonius preblei*	T
Ute Ladies'-tresses	*Spiranthes diluvialis*	T