

PROGRAM AREAS

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention and Good Housekeeping Operations

PROGRAM GOALS

#1 - Public Education and Outreach & #2 Public Participation and Involvement

The Public Education and Outreach program and the Public Participation/Involvement program, which were distinct programs during the first permit term, are being combined for the second permit term. During the first permit term it was realized that the goals of the two programs were supportive of one another and the distinction between the two was not significant.

The goal of the Public Education and Outreach Program is to reduce, to the maximum extent practicable, the degradation of local water bodies. This goal is achieved by increasing public knowledge of local water quality problems caused by urban runoff in order to maintain public support for local stormwater quality programs. This support ranges from individuals changing their daily actions to community backing for all of the six minimum control (MCM) measures.

#3 – Illicit Discharge Detection

The goal of the Illicit Discharge Detection and Elimination Program is, to the maximum extent practicable, reduce the frequency of untreated discharges in which pollutants are intentionally or accidentally discharged into the municipal separate storm sewer system.

#4 – Construction Site Stormwater Runoff Control

The goal of the Construction Site Runoff Control Program is to reduce, to the maximum extent practicable, sediment and other construction related discharges from entering the municipal separate storm sewer system.

#5 – Post Construction Stormwater Management

The goal of the Post-Construction Stormwater Management program is to implement planning procedures and enforcement mechanisms to reduce, to the maximum extent practicable, stormwater impacts resulting from areas of new development and significant re-development.

#6 - Pollution Prevention and Good Housekeeping Operations

The goal of the Pollution Prevention/Good Housekeeping for Municipal Operations program is to reduce, to the maximum extent practicable, the amount and type of pollution that is generated by municipal operations or from municipally-owned property.

PROGRAM SUMMARY

Mandates for each program or Minimum Control Measure (**MCM**) are provided by Colorado State Codified Regulations. In the following section the regulations for each minimum control measure is cited, followed by program objectives and activities undertaken by the City of Cañon City in 2006 in order to comply with the regulations. Each section is concluded with a summary of planned activities for 2007

MCM #1 Public Education and Outreach / MCM #2 Public Participation and Involvement

Regulation (CCR 61.8(11)(a)(ii)(A)):

(A) *Public education and outreach on stormwater impacts. The permittee must implement a public education program to:*

- (I) *Distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff; and*
- (II) *Inform businesses and the general public of impacts associated with illegal dischargers and improper disposal of waste. and;*

Regulation (CCR 61.8(11)(a)(ii)(B)):

(B) *Public involvement/participation. The permittee must at a minimum comply with State and local public notice requirements when implementing the stormwater management programs required under this permit. Notice of all public hearings should be published in a community publication or newspaper of general circulation, to provide opportunities for public involvement that reach a majority of citizens through the notification process.*

MCM#1 & #2 – 2006 Objectives & Activity

- a) Develop locally appropriate brochure by June 1, 2006. Distribute brochure to 8000 Canon City Water Department customers.
 - Six different stormwater informational brochures were produced and mailed to a total of 18,883 City of Cañon City Water Department customers.
- b) Post information on City of Cañon City web site with links to the Brochures and post information regarding stormwater quality. Maintain and update information regularly as necessary, at least once every six months minimum.
 - Information regarding stormwater utility, stormwater fees, and stormwater construction BMP's were posted on the City's Web site. Web site was updated in September, 2006.
- c) Identify and develop partnerships for the purpose of making presentations to school groups and educational programs Contact all six elementary schools for the purpose of making presentations in 2006/2007.
 - Teachers from the six elementary schools, middle school, and two high schools were identified and contacted, each provided the CDPHE "Teacher Resources for Introducing Stormwater Quality Concepts to the Classroom" manual and made aware of the availability of the assistance that could be provided by the City Stormwater Program.

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2006 MCM #1 Objectives & Activity (continued)

d) Identify and list those businesses and industries which have the potential for pollutant discharges.

- A total of 349 commercial and industrial properties were identified within the MS4 using the County parcel layer within the city limits. The initial results found forty-nine (49) with a high risk for potential illicit discharge; one hundred twenty-six (126) with a moderate risk for potential illicit discharge, and one hundred seventy-four (174) commercial/industrial locations with a low risk of potential illicit discharge.

e) Utilize Channel 19, KRLN, and the Canon City Daily Record to produce at least 12 public service announcements relating to stormwater issues. Spaced evenly throughout the year and alternated on the days of the week to maximize exposure.

- Newspaper media was utilized four times in the last half of 2006. A superior method of communicating important issues, radio was utilized to a much greater extent. Live morning radio show – five times @ 30 minutes each. Workshop promotions – three one-minute ads ran for a total of 132 times in 2006. Five one-minute Stormwater PSA's were developed using the EPA's "Toolbox" beta versions. The ads ran in rotation a total of 182 times in 2006.
- Utilize Channel 19 and KRLN to participate in local recycling program to promote clean up during 2006. City financially supported the Upper Arkansas Recycling program and advertised for recycling activities held at municipal facilities. Recycling program also assists in proper disposal of hazardous materials such as oil through referrals and information.

f) Stencil 50% of the storm drains not stenciled in 2005.

- Garden Park High School students in coordination with City staff stenciled all storm drains within the MS4 in October.

g) Begin collecting fees for Stormwater Utility Enterprise to fund Stormwater Management Program. City will begin billing for Stormwater Utility Fees in January 2006.

- Complete.

MCM#1&2 – 2007 Planned Activities

- 1) Produce one new brochure per month (12/yr) for distribution with monthly water bill mailings (avg. 3500/ mo.) to commercial and residential accounts.
- 2) Develop four new stormwater I&E web pages on City of Cañon City Stormwater Program Web Site in 2006. Update existing web pages as necessary.
- 3) Demonstrate the effects of land use practices and stormwater runoff on water quality using the Enviroscape Stormwater model in six demonstrations in local schools.
- 4) Demonstrate the effects of land use practices and stormwater runoff on water quality using the Enviroscape Stormwater model at three civic organizations (e.g. 4-H) meetings.

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MCM#1&2 – 2007 Planned Activities (continued)

- 5) Disseminate industry appropriate stormwater BMP information quarterly (4/yr) to businesses and industries identified in 2006 as those whom have either a moderate or high potential to produce pollutants.
- 6) Develop a series of 10 stormwater public service announcements to be aired on KRLN radio on a rotational basis and develop two stormwater related public service announcements to be aired on CCTV-Channel 19 on a rotational basis.
- 7) Stencil twenty-five high visibility stormdrains inlets utilizing stencils developed locally by high school students and/or service groups.
- 8) Attend meetings and participate in the Colorado Stormwater Council, the Upper Arkansas Watershed Council, the Fremont Conservation District and others as appropriate.
- 9) Continue public participation and involvement through the collection of program funding through the stormwater utility in 2007.
- 10) Participate in local recycling program to promote clean up during 2007. City financially support Upper Arkansas Recycling program and advertises for a recycling activities held at municipal facilities. Recycling program also assists in proper disposal of hazardous materials such as oil through referrals and information.
- 11) Coordinate with Canon City area High School students, citizens community groups, and Arkansas River rafting companies to design, produce and display eight stormwater related murals to be mounted on river rafting shuttle busses

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MCM #3 – Illicit Discharge Detection

Regulation (CCR 61.8(11)(a)(ii)(C)) is as follows:

(C) The permittee must develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at 61.2) into the permittee's MS4. The permittee must:

(I) Develop, if not already completed, a storm sewer system map, showing the location of all municipal storm sewer outfalls and the names and location of all state waters that receive discharges from those outfalls;

(II) To the extent allowable under State or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system, and implement appropriate enforcement procedures and actions; and

(III) Develop and implement a plan to detect and address non-stormwater discharges, including illicit discharges and illegal dumping, to the system. The plan must include the following three components: procedures for locating priority areas likely to have illicit discharges; procedures for tracing the source of an illicit discharge; and procedures for removing the source of the discharge.

MCM #3 – 2006 Objectives & Activity

a) Begin enforcement of Stormwater Management Program regulations in relation to illicit discharges. City will begin enforcement for Stormwater Management Program regulations in June 2006.

- The first draft a City of Cañon City Illicit Discharge Detection and Elimination Manual, which provides SOP and policies for enforcement of the Illicit Discharge Ordinance #20 (amended April 2006), was completed. Suspected illicit discharges were reported and investigated.

b) Hire 1 Stormwater Technician in early 2006. Stormwater Technician will assist in establishment of new Stormwater Management programs and will enforce Stormwater Management regulations.

- Stormwater Technician hired April 24th. Significant progress has been made in each of the six MCM's as noted in this report.

c) Provide training for new employees involved with the identification of illicit discharges.

- Two training sessions for City Public Works and Parks staff on recognizing and reporting illicit discharges were completed in 2006. In addition to the above mentioned workshops, the Stormwater Technician attended CDPHE sponsored “Conducting Stormwater Compliance Inspections for Construction Activities” and participated in '06 EPA NPDES Webcasts.

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MCM #3 – 2006 Objectives & Activity (continued)

d) Inspect outfalls into Arkansas River and irrigation canals during dry weather for evidence of illicit discharges.

- Outfalls in the Hydraulic Ditch canal were located and photographed for inclusion into the CarteGraph database. Further inspections were delayed until staff could acquire additional CarteGraph training and the appropriate field assessment equipment.

e) Participate in local recycling program to promote proper disposal of hazardous waste during 2006.

- Four coordination meetings w/Upper Arkansas Recycling occurred for a planned November collection date but no contractors responded to request for proposals.

f)¹ Establish a baseline dataset to assess the long-term success of the MS4's overall stormwater program.

- Two permanent bioassessment monitoring locations were established on the Arkansas River, one above the city and one below the City. To establish the baseline biological integrity at these locations, a composite sample of the macroinvertebrate population was obtained from the river substrate at each location. In the late fall, within a 100' section of riffle habitat at eight randomly selected sites, a one sq ft area of the substrate was disturbed to collect aquatic insects in a 500 micron serber net sampler. Those composite samples were submitted for analysis and a full report is available from the City of Cañon City upon request.

In summary:

- Although the taxonomic and functional components of these 2 samples were similar, there were indications that the benthic fauna at the downstream site may have been influenced by mild sediment deposition.
- Periodic toxic inputs or thermal stress cannot be ruled out at the downstream site.
- Both sites on the Arkansas River exhibited evidence that suggests metals contamination.

Based upon the conclusions of that report, a full bioassessment including collection of physical and chemical data will occur in 2007 at these locations.

MCM #3 - Summary of Inspections and Formal Enforcement Actions

- 1) A total of 39 discharge points into the Hydraulic Ditch, ranging from small pipes to 36" stormdrains, were located, photographed and inspected. No dry weather illicit discharges were identified.
- 2) A total of six suspected illicit discharges were observed and reported by both private individuals and City staff. Each incident was investigated immediately and in five of the incidences verbal contacts were made and information regarding the impacts of illicit discharge was provided. In one case however a Cease and Desist order was issued. Remediation and legal action on that case will likely be taken in 2007.

¹ Not a MS4 Permit Required Activity

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MCM#3 – 2007 Planned Activities

- 1) City will continue to enforce Stormwater Management Program regulations through the development of an Illicit Discharge Detection and Elimination Procedures Manual to be adopted by June 2007.
- 2) Stormwater Technician will enforce Stormwater Management regulations through implementation of Stormwater Management program.
- 3) Periodically inspect all outfalls for illicit discharge; assess water chemistry when discharge is found; track down and eliminate source of illicit discharge. Expand CarteGraph Stormview database to include all stormwater management infrastructure to track facilities condition, IDDE actions taken, and schedule maintenance.
- 4) Review existing City of Cañon City ordinances to determine conformity with IDDE ordinance.
- 5) Provide training for new employees whom may observe potential illicit discharges.

MCM #4 – Construction Site Stormwater Runoff Control

Regulation (CCR 61.8(11)(a)(ii)(D)):

(D) Construction site stormwater runoff control.

(I) The permittee must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of pollutants in stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the Division waives requirements for stormwater discharges associated with a small construction activity in accordance with 61.3(2) (f) (ii) (B), the permittee is not required to develop, implement, and/or enforce its program to reduce pollutant discharges from such a site.

(II) The program must be developed and implemented to assure adequate design, implementation, and maintenance of BMPs at construction sites within the MS4 to reduce pollutant discharges and protect water quality. The program must include the development and implementation of, at a minimum:

- (a) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;*
- (b) Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;*
- (c) 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;*
- (d) Procedures for site plan review which incorporate consideration of potential water quality impacts;*
- (e) Procedures for receipt and consideration of information submitted by the public, and;*
- (f) Procedures for site inspection and enforcement of control measures.*

MCM #4 – 2006 Objectives & Activity

- a) By Reference, adopt Urban Storm Drainage Criteria Manual², Vol. #3 – Best Management Practices.
 - Completed

² Denver CO Urban Drainage and Flood Control District

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MCM #4 – 2006 Objectives & Activity (continued)

- b) Develop and implement procedures to determine if the BMP's are being installed according to specifications. Begin to enforce Stormwater Management regulations.
 - At the invitation of the City, developers, contractors, and engineers formed and participated in a Grading Erosion and Sediment Control (GESC) workgroup. Beginning in May, the group met every two weeks through September and developed the City of Cañon City Grading, Erosion and Sediment Control Manual which was adopted by City Council October 16th, 2006.
 - Inspections of State Permitted construction projects began in May. Initial inspections were performed based upon the Storm Water Management Plan (SWMP) filed with the State by that permittee. Beginning November 1, developers were required to file for a GESC permit and any subsequent inspections were based upon both the state SWMP and the City of Cañon City GESC.
- c) Develop design criteria and standard operating procedures for stormwater control site plan review and monitoring.
 - Completed
- d) Facilitate a local Erosion Control training session to be offered to local developers and contractors at a nominal fee or no charge.
 - Two Erosion Control Supervisor workshops (July & September) were held with a total of 41 certifications awarded. A SWMP Development and Implementation workshop was held in September with 24 people from the local construction industry in attendance. In addition to the aforementioned workshops, the Stormwater Technician attended Colorado Department of Public Health and Environment (CDPHE) sponsored “Conducting Stormwater Compliance Inspections for Construction Activities” and in five EPA National Pollution Discharge Elimination System (NPDES) Webcasts.

MCM #4 - Summary of Inspections and Formal Enforcement Actions

- 1) A total of 17 initial (pre-construction) inspections were performed on projects <1 acre per the City of Cañon City Drainage Erosion & Sediment Control (DESC) program. No enforcement actions were taken in 2006 under this program

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MCM #4 - Summary of Inspections and Formal Enforcement Actions (continued)

2) A total of twenty-one inspections were performed on six large development projects which were greater than one acre.

1 - Pre-Construction

5 - Interim

8 - Follow-up

6 - Post-storm event

1 - Final/Close-Out

Compliance issues with stormwater regulations were identified at each inspection with four enforcement actions required to correct non-compliance issues

- School District was found to be out of compliance and was referred to the State which verified non-compliant findings. School district corrected non-compliant issues.
- Developer failed to comply with the terms of the Storm Water Management Plan during four inspections. Formal enforcement action taken through issuance of a Notice of Non-Compliance providing 30 days to achieve compliance.
- Developer found to be in non-compliance with the terms of the Storm Water Management Plan during four inspections. Formal enforcement action, Notice of Non-Compliance taken in conjunction with State inspection of site. Developer complied with non-compliant items identified in State inspections within 30 days.
- Developer found to be in non-compliance with SWMP at two inspections. Formal enforcement action, Notice of Non-Compliance. Developer complied with non-compliant findings of inspection report within seven days.

MCM#4 – 2007 Planned Activities

- 1) As necessary, amend the City of Cañon City GESC/DESC manual to reflect updates to the UDFDC Manual.
- 2) Provide guidance to developers and contractors to facilitate compliance with City of Cañon City GESC Manual. Apply formal enforcement procedures when necessary.
- 3) Provide guidance to contractors and homebuilders to facilitate compliance with City of Cañon City DESC program. Apply formal enforcement procedures when necessary.
- 4) Provide sediment and erosion control training to contractors on a one-on-one basis as requested.

MCM #5 – Post-Construction Stormwater Management

Regulation (CCR 61.8(11)(a)(ii)(E)):

(E) Post-construction stormwater management in new development and redevelopment.

(I) The permittee must develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.

(II) The permittee must:

- (a) Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community;*
- (b) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law; and*
- (c) Ensure adequate long-term operation and maintenance of BMPs.*

MCM #5 – 2006 Objectives & Activity

- a) Require Post-Construction Best Management Practices, where applicable, of any new development within the City.
 - Completed by Ordinance #20 & enforced in every new development submitted for review & approval in 2006.
- b) Develop and implement procedures to determine if Post-Construction Best Management Practices are being installed according to specifications.
 - Completed by Ordinance #20 & enforced in every new development submitted for review & approval in 2006.
- c) Perform annual inspection of all stormwater facilities.
 - Inspections of both public and private post-construction BMP facilities occurred in June and July.
- d) Begin enforcement with regard to noncompliance for Post-Construction BMPs requirements and maintenance.
 - Written notices were delivered via certified mail to custodians of post-construction BMP's indicating deficiencies and deadlines to correct those deficiencies.

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MCM #5 - Summary of Inspections and Formal Enforcement Actions

- 1) A total of 58 Post Construction BMP's were inspected during June and July. Maintenance responsibility for twenty-six of the locations was by private entities and thirteen locations were publicly maintained.
 - Ten of the privately maintained facilities were found to be unsatisfactory condition. Five required structural repair, four required routine maintenance and one had not been constructed. Letters providing details of the deficiencies were sent by certified mail to the owners/managers of those privately owned facilities found to be in unsatisfactory condition in August, allowing 120 days to address the deficiencies.
 - Nineteen publicly maintained structural BMP's had maintenance requirements (some locations have multiple detention basins). Ten required structural repairs and nine required routine maintenance. A maintenance list was provided to the City of Cañon City Public Works Department for maintenance scheduling.

MCM#5 – 2007 Planned Activities

- 1) Perform annual inspection of all stormwater facilities by 8/31/07 and submit maintenance list(s) to facility owners by 10/31/07.
- 2) Require Post-construction BMP's where applicable in any new development within the City of Cañon City.

MCM #6 - Pollution Prevention and Good Housekeeping Operations

Regulation (CCR 61.8(11)(a)(ii)(F)):

(F) Pollution prevention/good housekeeping for municipal operations.

(I) The permittee must develop and implement an operation and maintenance program that includes an employee training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The program must also inform public employees of impacts associated with illegal discharges and improper disposal of waste from municipal operations. The program must prevent and/or reduce stormwater pollution from facilities such as streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the permittee, and waste transfer stations, and from activities such as park and open space maintenance, fleet and building maintenance, street maintenance, new construction of municipal facilities, and stormwater maintenance, as applicable.

MCM #6 - 2006 Objectives & Activity

- a) Complete assessments of city-owned sites and develop and implement an operation and maintenance program for these municipal facilities.
 - Assessments were completed.
- b) Complete maintenance required as determined by schedule. Continue to update maintenance schedule as required to keep BMPs in compliance..
 - Complete. Specific projects & maintenance listings available through Engineering and Public Works Dept.
- c) Continue storm drain cleaning, regular street sweeping program and maintenance of BMP's.
 - Implemented.
- d) Stormwater management program oversight by City Engineer.
 - Implemented.

MCM#6 – 2007 Planned Activities

- 1) Stormwater program staff to attend stormwater related Conferences, Workshops and Seminars. Disseminate information to other appropriate City staff.
- 2) Assess city-owned sites and develop and implement an O&M program for these municipal facilities.
- 3) Develop and implement an SOP/O&M program for municipal facilities.
- 4) Complete maintenance required as determined by schedule by bid or in-house. Continue to update maintenance schedule as required to keep BMPs in compliance.
- 5) Annual biological assessment of Arkansas River at two locations (one above and one below MS4) to assess stormwater program effectiveness.