



# City of Cañon City

P.O. Box 1460 – 128 Main St. - Cañon City, CO 81215-1460

(719) 269-9011 Fax: (719) 269-9017



## 2012 Annual Program Review

### Introduction

In 2003, the City of Cañon City was issued a permit for “Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems (MS4s)” from the Colorado Department of Public Health and Environment. This permit was renewed in 2008. The 2003 permit required Cañon City to develop, implement and enforce a Colorado Discharge Permit System Stormwater Management Plan. The program had to be designed to reduce the discharge of pollutants from our storm sewer system to the maximum extent practicable to protect the water quality of the Arkansas River and Four Mile Creek and to satisfy the appropriate water quality requirements of the Colorado Water Quality Control Act and Colorado Discharge Permit Regulations. The permit also requires that the City of Cañon City do a written annual review of the program and to submit an annual report to the State.

The MS4 discharge permit contains six areas the City must address in its stormwater management plan. These areas are:

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Sites Runoff Control
5. Post-construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

Each of the six areas has several program elements which are used to meet the goals of the stormwater management plan. The annual review looks at each of these elements to assess its compliance status and effectiveness.

### Public Education and Outreach

The Public Education and Outreach program strives to increase the public's awareness of potential local water quality problems associated with stormwater runoff. Its goal is to give people the information and tools they need to lessen their impact on stormwater runoff, which in turn can improve our local water quality. Assessment of effectiveness in this category is a subjective evaluation as it is difficult to directly track the effect each of these has on public awareness, participation and behavioral changes.

### Discussion of Elements:

1. **Forming Partnerships:** The City of Cañon City is a member of, or involved in, several councils and associations. The following meetings were attended during 2012:
  - A. Colorado Stormwater Council (CSC): 10 General Council meetings were attended (3 via phone). Seven CSC Legislative Committee meetings were also attended; 3 by conference call. During 2012 the Cañon City Stormwater Program also became involved in CSC sub-committees dealing with the Colorado Department of Public Health and Environment's (CDPHE) proposed Regulation 85 Nutrients Management Control Regulation which has a stormwater component and with the MS4 Issues Workgroup. Five meetings of the Nutrient Work Group were attended by conference call. Two meetings of the MS4 Issues Workgroup were attended, also by phone. One Permit Compliance

Committee meeting was attended by conference call in conjunction with the Targeted Questionnaire CDPHE sent to all MS4s.

B. Urban Drainage and Flood Control District: 3 quarterly meetings were attended; one by conference call.

C. Attended the Floodplain Management Association's Annual Conference.

D. the City of Cañon City is partnered with the Upper Arkansas Recycling Program and Cañon Proud Program.

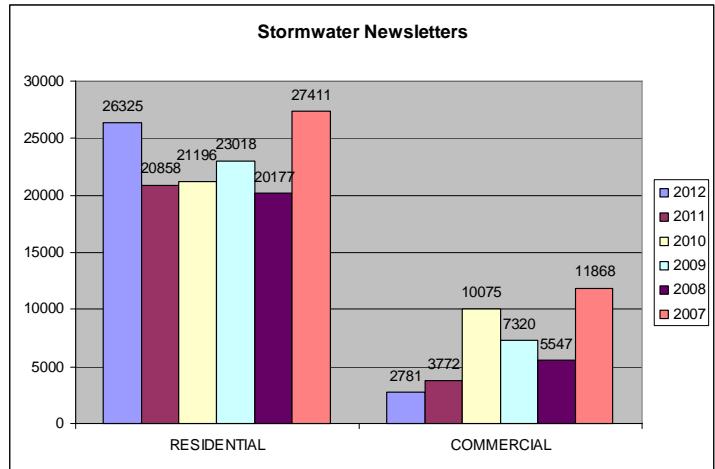
E. Representatives from Cañon City have also attended meetings which began in November, 2012, concerning the revision and renewal of the General MS4 Stormwater Permit.

F. The Water Department and the Stormwater Program are involved in developing a Source Water Protection Plan for the Upper Arkansas River Basin along with numerous other entities. During 2012, six meetings were attended by Stormwater Personnel.

G. The City of Cañon City's Engineering Department, including the Stormwater Program, formed a Ditch Policy Review Committee with several representatives from local irrigation ditch companies to address issues common to both the City and the ditch companies. The committee met 4 times during 2012 to discuss the issues and actions which could be taken to resolve them.

**2. Using Educational Materials and Strategies:** All programs listed were ongoing and will continue to be utilized during 2013.

A. Quarterly stormwater newsletters are sent out with City water bills and are available on the City of Cañon City's website. Each issue addresses stormwater concerns and provides information about the Stormwater Program and the prevention of illicit discharges. The public is encouraged to contact us with their concerns and questions or if they have suggestions for future topics or programs; newsletters also include the contact information. There were 26,325 residential newsletters sent during 2012 and 2,781 newsletters sent to commercial establishments.



B. The website is updated regularly with the most current newsletter and annual report.

C. Demonstrations/presentations in local schools and to civic organizations are given as requested. Programs are continually evaluated and updated. The following presentations were given in 2012:

i. Coordinated 5 talks to the Mile High Youth Corps which included a presentation on stormwater and a water quality sampling demonstration.

ii. Presentation to Garden Park High School in conjunction with the stenciling project.

iii. A stormwater information booth was set up at one of the craft fairs during the Blossom Festival on May 5-6. The booth had a total of 359 visitors which was up from 256 in 2010 and 317 in 2011. Numerous flyers, pamphlets and children's activity booklets were distributed. The EnviroScape was used to give 70 demonstrations about stormwater runoff.

iv. A stormwater information booth was set up at the Habitat For Humanity's Anniversary Festival on June 30<sup>th</sup>. The booth had 16 visitors and 3 demonstrations were given with the EnviroScape.

v. A half-day course on the stormwater program and introduction to rain garden design was held in conjunction with the Pueblo Community College Fremont Campus' Senior Mini-College. A rain garden was designed for the college campus and installed on June 20<sup>th</sup>. Thirteen people attended the course which was held on March 27<sup>th</sup>.

D. Dissemination of industry appropriate stormwater BMP information is done through quarterly newsletters. (See Section 2.A. above).

F. Fourteen public service announcements concerning stormwater were aired on local radio stations during 2012 for a total air time of 1,576 minutes (26.91 hours). Leaf pick-up announcements were run during morning programs from mid-October to the end of November. Four stormwater-related programs were run on CCTV-Channel 19 with a total air time of 10 hours and 35 minutes. Public service announcements and programs are rotated and new ones added throughout the year. Newspaper notices were also run in conjunction with the leaf pick-up program.

G. The Upper Arkansas Recycling Program received \$11,830 in financial support and advertising during 2010. Cañon Proud received \$3,000 in support this year for its annual city-wide clean-up program.

### **3. Signage and Stenciling:**

A. Sixty-nine storm drains were re-stenciled in November with the assistance of 13 students from Garden Park High School.



4. **Reaching Diverse Audiences:** Direct mail, public service announcements and programs and personal contact are all utilized to reach a broad spectrum of our citizens and businesses. A stormwater information booth was set up at one of the craft fairs during the Blossom Festival on May 5-6. The booth had a total of 359 visitors. Numerous flyers, pamphlets and children's activity booklets were distributed. The EnviroScape was used to give 70 demonstrations about stormwater runoff. An information booth was also set up at the Habitat for Humanity's Anniversary Festival. Sixteen visitors stopped by and 3 demonstrations were given with the EnviroScape. A half-day course on the stormwater program and an introduction to rain garden design was held in conjunction with the Pueblo Community College Fremont Campus' Senior Mini-College. Thirteen people attended the course which was held on March 27<sup>th</sup>. Flyers were distributed to 17 residents along Chaparral Rd and businesses along Mud Gulch in conjunction with the clean up the Mile High Youth Corps did in Mud Gulch. The opportunity was also used as an educational tool for stormwater issues. Additionally, Adam Lancaster, City Engineer, and Glenda DeBekker, Stormwater Technician, appeared on the KRLN Morning Line in September to talk about the Stormwater Program. Programs are evaluated and updated continually in order to reach as many people as possible and promote interest and participation in the programs. New programs are developed and implemented to maintain freshness in disseminating stormwater information.

5. **Illicit Discharge Education to Businesses and the Public:** The quarterly newsletter often addresses the issue of illicit discharges. It also provides tips for preventing contamination of stormwater runoff. In January, a presentation was given to 10 volunteers and staff of the Humane Society concerning pet waste. Pet waste brochures were left with at the main desk for dissemination to visitors.

## **Public Participation/Involvement**

The goal of the Public Participation/Involvement area of our stormwater permit is to provide a method for the public to be involved with the City's stormwater management program by providing feedback through a variety of ways. Assessment of effectiveness in this category is a subjective evaluation as it is difficult to directly track the effect each of these has on public awareness and participation.

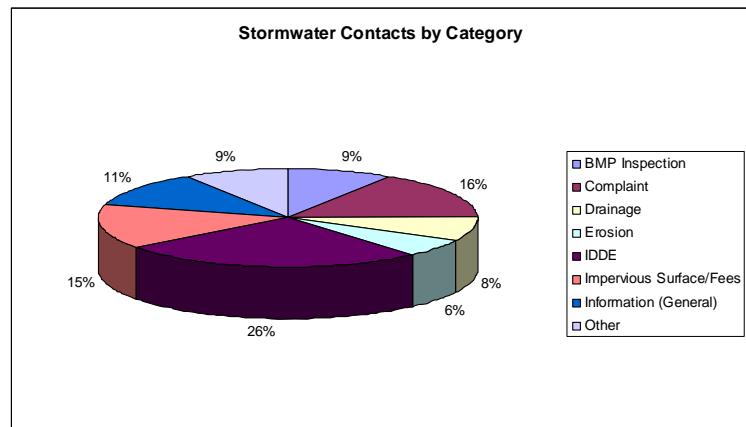
**Discussion of Elements:** All programs listed were ongoing and will continue to be utilized during 2012.

1. **Public Notices:** The City of Cañon City complies with the Open Meeting act as set forth in Colorado Revised Statutes. All public meetings are posted on a public bulletin board inside City Hall at least 24 hours in advance on any public hearing. A notice is also printed in the local newspaper. Meeting schedules, agendas and minutes are posted on the City of Cañon City's website.

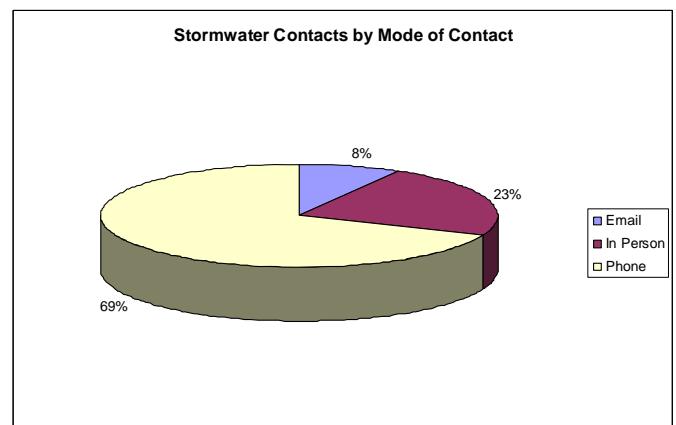
2a. **Contact Information Availability:** Contact information is available through the quarterly newsletters and on the web page. It is also included in any newspaper articles and public service announcements. All City of Cañon City field staff have the Stormwater Technician's direct line in order to report any suspected illicit discharges.

2b. **Feedback:** The quarterly newsletters encourage everyone to get involved by calling, emailing or writing in with their questions, complaints or ideas. A log is kept of contacts (phone, email, letters and "in person") concerning stormwater issues with the intent to better track the effectiveness of the public education and participation programs. The log represents those contacts handled directly by the Stormwater Technician and those handled by other departments that the technician is made aware of. A database for stormwater calls was created in CarteGraph in December, 2010, to facilitate better tracking of calls. This database is available for use by Public Works and GIS as well as by the stormwater technicians. During 2012, 122 contacts were handled by the Stormwater Technicians. Of those calls, 32 resulted in illicit discharge investigations. The number and mode of contact are broken into the following categories:

Category	# of Calls	% of Calls
BMP Inspection	11	9
Complaint	19	16
Drainage	10	8
Erosion	7	6
Illicit Discharge	32	26
Impervious Surface/Fees	18	15
Information (General)	14	11
Other	11	9

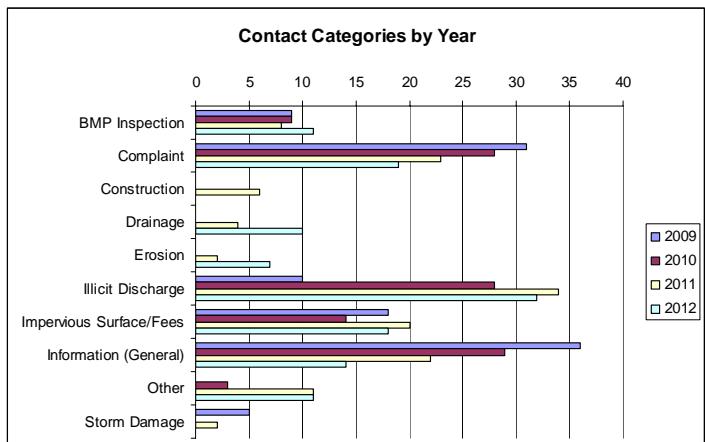


Mode of Contact	Number	%
Email	10	8
In Person	28	23
Phone	84	69

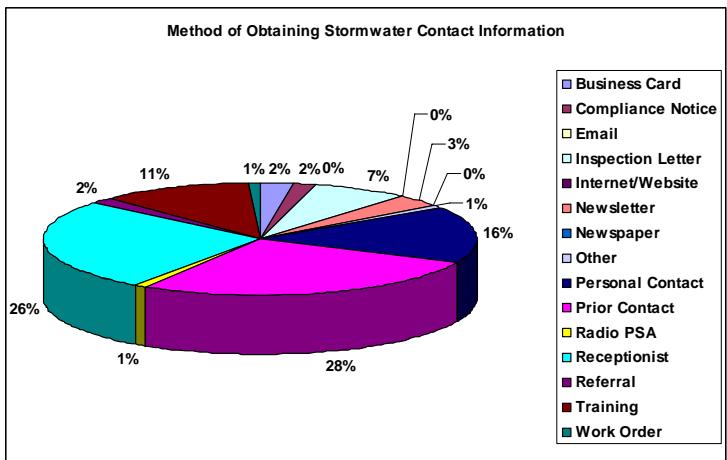


The number of contacts handled decreased from last year's 132. The following table and graph show the number of contacts received in each category for 2009 through 2012. Variability in categories may be attributed to better tracking of the contacts and revisions made to the database during the four years of tracking as well as training for municipal employees and public education and outreach. The Drainage, Erosion and Illicit Discharge categories are separated from the Complaint category for better tracking of issues, even though some of the calls in the 3 categories could be considered complaints. Of the 122 contacts, 17 resulted in non-illicit discharge investigations.

	2009	2010	2011	2012
<b>BMP Inspection</b>	9	9	8	11
<b>Complaint</b>	31	28	23	19
<b>Construction</b>			6	
<b>Drainage</b>			4	10
<b>Erosion</b>			2	7
<b>Illicit Discharge</b>	10	28	34	32
<b>Impervious Surface/Fees</b>	18	14	20	18
<b>Information (General)</b>	36	29	22	14
<b>Other</b>		3	11	11
<b>Storm Damage</b>	5		2	
<b>Totals</b>	109	111	132	122



The database in CarteGraph also facilitates tracking of other aspects of contacts such as how the contact information for the Stormwater Program was obtained in order to determine how effective our outreach efforts are. During 2012 most of the information was obtained either through personal contact, prior contact or via the receptionist. The adjacent chart shows the breakdown. The CarteGraph database is also linked with ArcMap. Complaints and illicit discharge reports are plotted on the map to show areas which may need extra outreach and to assist in prioritizing infrastructure maintenance and capital projects.



**Goals for Public Education and Outreach/Public Participation:** The following were listed as goals in the 2011 program review. The comments following each show whether the goal was met during 2012 or carried over as a goal for 2013.

1. Increase the number of presentations to groups and schools. The number of presentations stayed the same, although the groups presented to varied from those in 2011. It is always a goal to increase the number of presentations given during the year.
2. Have a booth at an additional festival (Blossom and at least one other). An outreach booth was set up at the Habitat for Humanity's Anniversary Festival as well as at the Blossom Festival Craft Fair.
3. Investigate the feasibility of starting an "Adopt-a-Drainageway" program. The feasibility of the program will be investigated during 2013.
4. Have a river &/or drainageway clean-up day, possibly in conjunction with Cañon Proud. The feasibility of the program will be investigated during 2013.
5. Update and increase the content of the Stormwater web page. The website is updated regularly with the most current newsletters and reports.
6. Develop a paint disposal brochure to be distributed to local paint supply stores. This will be done in 2013.
7. Develop a BMP/grease disposal flyer for distribution to local restaurants. This will be done in 2013.
8. Develop a wall mural program for local students to replace the river rafting bus murals. The feasibility of this program will be further investigated in 2013.
9. Host a Household Hazardous Waste collection day with Upper Arkansas Recycling in 2012 or 2013. The feasibility of this program will be further investigated in 2013.
10. Enter past complaints and calls into the database to facilitate better tracking of potential problem areas the City may address. This was done in 2012.
11. A new goal for 2013 is the creation of new radio Public Service Announcements, possibly in conjunction with the Canon City High School or Pueblo Community College.

## Illicit Discharge Detection and Elimination

The Illicit Discharge Detection and Elimination (IDDE) program identifies illegal discharges to the City's storm sewer system in order to reduce the frequency of these discharges and to protect the water quality of the Arkansas River and Four Mile Creek. Public education and municipal employee training about what constitutes an illegal discharge are important elements in this program. Monitoring of the storm sewer discharge pipes

(outfalls) on the Arkansas River and Four Mile Creek as well as water quality testing if discharges are found are also integral parts of the program.

**Discussion of Elements:** All programs listed were ongoing and will continue during 2013.

1. **Outfall Map:** Outfall Reconnaissance Inventories (ORIs) and mapping continued during 2012. There are a total of 480 outfalls located along the Arkansas River, Four Mile Creek and the various drainages and irrigation canals throughout the City. The City of Cañon City has jurisdiction over 222 of them; State Agencies have jurisdiction for 8 and 250 are under private jurisdiction. Outfalls are assigned to a primary category in the CarteGraph database. The categories are Footing/Roof Drain, Groundwater Drain, Industrial Discharge, Irrigation Return, Major Outfall, Outfall and Outlet. The breakdown for each category as well as the number mapped during 2012 (new and previously identified but unmapped) is detailed in the following table. There is 1 unclassified outfall on which a drainage investigation needs to be conducted in order to determine which (if any) category it belongs in.

Category	Total Number	Number Mapped in 2012
Footing/Roofing Drain	83	6
Groundwater Drain	25	2
Industrial Discharge	6	0
Irrigation Return	114	5
Major Outfall	22	0
Outfall	159	12
Outlet	70	6

The footing/roof drains, groundwater drains and irrigation returns do not require yearly inspections or monitoring but are often noted during annual inspections of drainage channels. The City of Cañon City is not required to monitor industrial discharge outfalls as these are covered under separate discharge permits; again, these are often noted during other inspections. Outlets are the structural point where BMPs such as detention basins empty. These are inspected annually with the various BMPs. An outfall is the point where a municipal storm sewer discharges to waters of the United States. A major outfall is a pipe with an inside diameter of 36 inches or more or where stormwater enters waters of the United States from a drainage area of more than 50 acres. An outfall pipe with an inside diameter of 12 inches which drains land zoned for industrial activities is also considered a major outfall. Outfalls and major outfalls are inspected annually. The outfall database in CarteGraph and the mapping assist in prioritizing inspections and monitoring the outfalls. During 2012, 264 inspections were conducted on outfalls. The following table shows the breakdown of inspections.

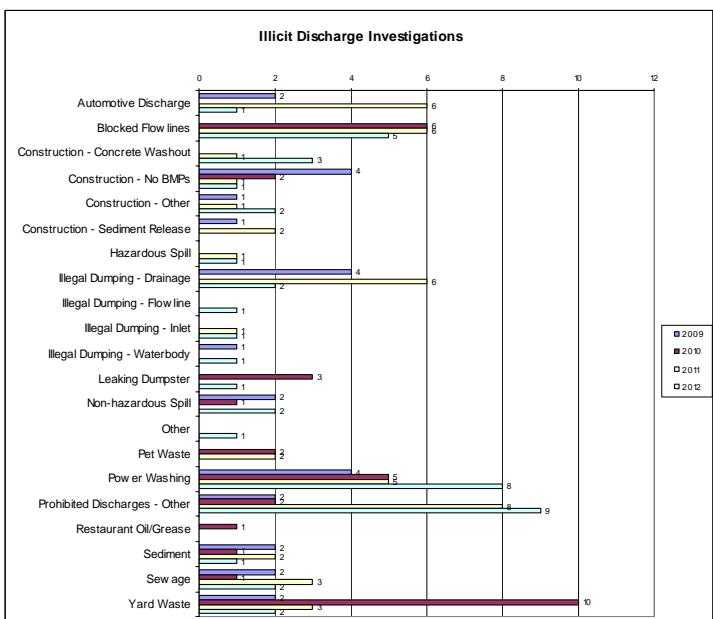
Category	Annual Inspections	Complaint	Other	Post-Storm	Re-inspections
Footing/Roofing Drain	24				
Groundwater Drain	16				
Industrial Discharge	2				
Irrigation Return	50				
Major Outfall	13				
Outfall	106	1	1	2	
Outlet	40			6	3

2. **Regulatory Mechanism:** The City of Cañon City adopted Ordinance No. 20, Series of 2005 to establish codes concerning illicit discharges. The Targeted Questionnaire sent out by the Colorado Department of Public Health and Environment, Water Quality Control Division, Permits Section prompted some minor changes to the Ordinance. These changes were effective September 9, 2012 through Ordinance No. 14, Series of 2012 AN ORDINANCE MAKING CERTAIN MINOR AMENDMENTS TO THE CITY'S STORMWATER REGULATIONS. These changes can be viewed on the City of Cañon City's website at [www.canoncity.org](http://www.canoncity.org).

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

A. Forty-four incidents of potential illicit discharges were investigated in 2012, which is down slightly from 48 in 2011. Illicit discharges are assigned a category in the CarteGraph database to assist in identifying types of pollutants which may need targeting through our Public Education program. The following table shows how many investigations for each category were conducted during the year. The adjacent chart compares investigations for each category for the past 4 years.

Category	Investigations
Automotive Discharge	1
Blocked Flowlines	5
Construction – Concrete Washout	3
Construction – No BMPs	1
Construction – Other	2
Hazardous Spill	1
Illegal Dumping – Drainage	2
Illegal Dumping – Flowline	1
Illegal Dumping – Inlet	1
Illegal Dumping – Waterbody	1
Leaking Dumpster	1
Non-hazardous Spill	2
Other	1
Power Washing	8
Prohibited Discharges – Other	9
Sediment	1
Sewage	2
Yard Waste	2



Investigations resulted in the following enforcement measures:

Enforcement Action	Number
Verbal Warning	33
Notice of Non-Compliance	5
Cease & Desist	1
Notice of Violation & Enforcement Action w/ fine	1
Letters detailing violation/corrective action	0
Emails detailing violation/corrective action	0

The Notice of Violation & Enforcement Action resulted in a \$250.00 fine.

B. The database in CarteGraph also facilitates tracking of other aspects of illicit discharge reports and investigations such as repeat violators. There were 2 repeat violators in 2012. The CarteGraph database is also linked with ArcMap. Illicit discharge reports are plotted on the map to show areas which may need extra outreach or monitoring.

- C. Seventeen water quality samples were taken from 7 sites during 2012. Three were taken for baseline monitoring in conjunction with 3 samples taken of a suspected illicit discharge into Mud Gulch. Tests were not conclusive of an illegal discharge and monitoring will continue during 2013. Ten tests were taken to meet requirements of the City of Cañon City's Construction Dewatering Permit for the Riverwalk extension. Benthic macroinvertebrate sampling of the Arkansas River and Four Mile Creek was not conducted in 2012 due to time constraints and budgetary concerns.
- 4. **Staff Education:** An illicit discharge review was held for 24 City Public Works employees. In addition to the review session, 50 Illicit Discharge Pocket Reference booklets were distributed to various City staff.

**Goals for Illicit Discharge Detection/Water Quality:** The following were listed as goals in the 2011 program review. The comments following each show whether the goal was met during 2012 or carried over as a goal for 2013.

- 1. Begin additional testing of ground water discharges to drainage channels and ditches to establish more complete background data. This goal will be carried over to 2013. A comprehensive monitoring plan needs to be developed which takes into consideration potential future requirements resulting from the initial nutrient data survey required by the new Regulation #85 issued by CDPHE.
- 2. Finish mapping of outfalls, inlets, storm pipes, storm culverts and manholes. Mapping has been basically finished. There are a few outfalls to verify on some irrigation ditches. Inlet mapping is finished and will be updated when inlets are removed or moved during construction or new ones added. A CarteGraph database will be finished for pipes, culverts and manholes during 2013.
- 3. Develop land use maps for each drainage basin and associated outfalls. Now that mapping has been completed these will be developed.
- 4. Update the IDDE manual. The manual was updated in 2012 and is currently under review.
- 5. Continue to provide input and assistance to the Colorado Stormwater Council regarding Regulation #85 and any other regulations undergoing review.
- 6. Scan all drainage basin studies so they are available in Adobe Acrobat format upon request. This was completed in 2012.
- 7. Enter past IDDE investigations and results into the CarteGraph database to facilitate better tracking of illicit discharges. This was completed in 2012.

## Construction Site Runoff Control

The Construction Sites Runoff Control area of our Stormwater Management Program is designed to reduce, as much as possible, sediment and other construction-related pollutants from entering our storm sewer system or from being discharged into the Arkansas River, Four Mile Creek and other drainages throughout the city.

**Discussion of Elements:** All programs listed were ongoing and will continue to be utilized during 2012.

1 -3. **Regulatory and Compliance Mechanisms:** Ordinance No. 20, Series of 2005 and the City of Cañon City Grading, Erosion & Sediment Control (GESC) Manual were enacted in 2006. They have proved effective in obtaining compliance for construction site stormwater management.

4. **Site Plan Review:** The current procedures for site plan review are addressed through the City of Cañon City's Grading, Erosion and Sediment Control Manual and the Subdivision and Development Regulations.

5. **Procedures for receipt and consideration of information submitted by the public:** A database is kept of all contacts (phone, email, letters and “in person”) concerning stormwater issues with the intent to better track the effectiveness of the public education and participation programs. (See Section 2b. under “Public Participation/Involvement”) All complaints and concerns are addressed promptly. Any illicit discharge investigations resulting from a complaint or concern submitted by a citizen is logged into the Illicit Discharge database in CarteGraph and can be cross-referenced through the Contact database.

6. **Site inspections and enforcement of control measures:** Inspections are performed at all construction sites and post-construction sites with appropriate enforcement actions being taken when needed. During 2012, 23 inspections were performed at 10 construction sites. There were 13 full inspections and 10 reconnaissance inspections. The inspections resulted in the following actions:

Enforcement Action	Number
Verbal Warning	0
Notice of Non-Compliance	3
Cease & Desist	1
Stop Work Order	0
Notice of Violation & Enforcement Action w/ fine	0

A detailed tracking system is in place to assess the number and nature of inspections and actions and to identify repeat violators. There was one repeat violator in 2012.

7. **Training and education for construction site operators:** This is achieved using the GESC manual and through the plan review process. New information and resources are passed to local contractors and developers when available. Workshops are held when there is sufficient demand.

## **2013 Goals for Construction Site Runoff Control**

1. Cross-training between the stormwater technicians on construction inspection techniques.
2. Update of the GESC Manual to reflect changes in the updated UDFCD Volume 3 and any changes made to the revised MS4 Permit.

## **Post-construction Stormwater Management**

Per the City of Cañon City’s MS4 permit, the Post-construction Stormwater Management program must reduce the stormwater impacts from areas of new development and significant redevelopment as much as possible through planning procedures and enforcement mechanisms.

**Discussion of Elements:** All programs listed were ongoing and will continue to be utilized during 2013.

1 & 5. **Regulatory Mechanisms:** Ordinance 20, Series of 2005 addresses the requirements for post-construction permanent BMPs including technical standards and specifications, review and approval procedures and the long-term operation and maintenance of the BMPs.

2. & 3. **Design Criteria & Standards and Review & Approval Procedures:** The site plan review process assures that post-construction structural BMPs meet design standards. Inspections during the construction process and final inspections assure that the BMP has been properly constructed.

4. **Tracking:** Permanent BMPs are recorded at final inspection and entered into the CarteGraph database. Eleven new permanent BMPs were implemented during 2012 on 6 different sites. Two were new detention basins, 2 were storm water vaults, 3 were grass swales, 2 were sand filter water quality

areas and 1 was a rock berm. One rain garden was also installed in conjunction with the rain garden class given at the Pueblo Community College's Senior Mini-College.

6. **Monitor long-term compliance:** One hundred twenty-four permanent BMPs are inspected at least annually with the results of those inspections entered into the CarteGraph database. An inspection report and letter are sent to the custodian of the BMP. If deficiencies are noted the BMP is re-inspected approximately 30 days later (depending upon the severity of the problem noted) and enforcement procedures are instituted if the corrective maintenance has not been done. During 2012, a total of 180 inspections were performed on permanent BMPs. The following table shows the breakdown of the inspections.

	Private/Federal/County			Municipal		
	Basins	Storm Vaults	Other BMPs	Basins	Storm Vaults	Other BMPs
Annual	53	11	18	15	8	1
Complaint	0	0	0	0	0	0
Illicit Discharge	1		0	0		0
Initial	1	1	5	0		0
Maintenance	1		0	1		0
Monitoring	1		0	0		0
Post-Storm	16	0	0	10	0	0
Re-inspection	26	1	8	0	1	1

Thirty-eight letters and 9 emails were sent out indicating some level of non-compliance (i.e. needing maintenance). Two custodians were notified of maintenance needs by phone. Four letters were sent after a re-inspection revealed the requested maintenance had not been done. Thirty-six of the inspections resulted in letters of commendation being sent. The results from inspections of municipal stormwater facilities were sent to the appropriate department heads.

## **Pollution Prevention/Good Housekeeping For Municipal Operations**

The focus of this area of the Stormwater Management Program is to reduce the amount and type of pollution that is generated by municipal operations or from municipally-owned properties to the maximum extent practicable. The City of Cañon City's Stormwater Management Program Descriptions for the 2008 – 2013 Stormwater Permit contained the Measurable Goal of "Written procedures and lists for the implementation of an operation and maintenance program to prevent or reduce pollutants in runoff from the permittee's municipal operations." This goal was met in 2009.

### **Discussion of Elements:**

1. **Implementation of an Operation & Maintenance program:** All municipally owned facilities (including parks) are inspected annually. The results of the inspections are sent to the appropriate department heads for compliance. Follow-up inspections are done to insure required maintenance is completed. In 2012, 41 facilities were inspected. One facility was removed from City jurisdiction so inspections were no longer conducted on that property. One required a follow-up inspection. In addition to the facilities, drainage channels (including those under private custodianship), inlets and culverts are inspected.

Drainage Channel Inspection results: Sixty-four channels under the custodianship of the City of Cañon City and 27 under private custodianship were inspected during 2012. The chart below shows the breakdown for inspection types.

	<b>Private</b>	<b>Municipal</b>
<b>Annual</b>	27	62
<b>Complaint</b>	0	1
<b>Maintenance</b>	0	3
<b>Post-storm</b>	0	1
<b>Re-inspection</b>	0	1
<b>Storm</b>	0	1

Routine maintenance (i.e. mowing, trash clean-up) was performed on 14 of the municipal channels during 2012. Of the 27 channels under private custodianship, 12 received letters of commendation for keeping the channels clean and 7 received letters indicating some level of maintenance was needed.

Stormdrain inlet inspections: A total of 982 inlets have been identified and mapped to date. Of these, 621 are under municipal jurisdiction, 42 are under county/state/federal jurisdiction and 319 are under private jurisdiction. Like outfalls, inlets are assigned to a primary category in the CarteGraph database. The categories are Irrigation Clean-out, Overflow, Storm Clean-out and Storm Inlet. The breakdown for each category as well as the number mapped during 2012 (new and previously identified but unmapped) is detailed in the following table.

<b>Category</b>	<b>Total Number</b>	<b>Number Mapped in 2012</b>
Irrigation Clean-out	190	0
Overflow	15	0
Storm Clean-out	28	6
Storm Inlet	749	24

There were 352 inlet inspections done during 2012, mostly in conjunction with mapping of the storm sewer infrastructure. Irrigation clean-outs and overflows are only mapped when they are designed or have the potential to also receive stormwater runoff. The following table shows the inspections done per category of inlet. The 9 inlets under “Mapping Only” are under State jurisdiction and will not be inspected annually.

<b>Category</b>	<b>Annual Inspections</b>	<b>Construction Inspections</b>	<b>Illicit Discharge</b>	<b>Post-Storm</b>
Irrigation Clean-out	21	0	0	0
Overflow	2	0	0	0
Storm Clean-out	9	0	0	1
Storm Inlet	314	1	1	3

Repair, maintenance and installation of stormwater infrastructure completed during 2012:

- The Mile High Youth Corps removed brush and debris from the Mud Gulch drainage channel.
- Construction of a drainage channel and improvements to existing infrastructure along Wild Rose Dr.
- The low flow road crossings on North Sand Creek were rebuilt.
- Inlets at the corners of 5<sup>th</sup> Street and Main Street were rebuilt in conjunction with street improvements.
- Drainage improvements were made on W. New York Ave to the Plum Street Drainage.

2. **Employee training:** A review course on Municipal Pollution Prevention was held for 24 City employees.

**2012 Goals for Pollution Prevention/Good Housekeeping For Municipal Operations**

1. Complete database of manholes, culverts and storm pipes.

**Other Trainings**

1. Stormwater seminar in Pueblo.
2. EPA Inspector Training webinars.
3. EPA General Construction Permit webinar.
4. Stormwater Virtual Expo and seminars.
5. Construction Seminar.
6. StormCon in Denver (national stormwater convention).
7. Colorado Stormwater Council 2<sup>nd</sup> Annual Conference.
8. Chesapeake Bay Network Nutrients Webcast.