

**CDPS MS4 Phase II**

**STORMWATER MANAGEMENT**

**PROGRAM DESCRIPTIONS**

**FOR CITIES AND COUNTIES**

**March 2008 – March 2013**

**Due to WQCD by June 10, 2008**

Agency Name	Arapahoe County
Permit Certification Number	COR - 0 8 0 0 1 0
MS4 Location Description <i>(most permit certifications will cover a single city or county)</i>	County Permitted: Urbanized areas of unincorporated Arapahoe County
Map	Attach MS4 Boundary Map Showing: <ul style="list-style-type: none"> <li>• Jurisdictional Boundary (including all city, county and non-standard MS4s covered under your certification)</li> <li>• Permit Boundary (refer to Page 1 of your permit)</li> </ul>
CDPS Program Descriptions	Attached
Program Implementation Area (Counties only)	<input checked="" type="checkbox"/> Permitted Area <input type="checkbox"/> Entire Jurisdiction
Joint Submittal	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes

**Certification:** The following certification must be signed by the Legally Responsible Person. The signer must be either a principal executive officer, ranking elected official or other duly authorized employee.

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

Name (printed): Susan Beckman

Title: Chair, Board of County Commissioners

Signature: \_\_\_\_\_

*Susan Beckman*

Date: \_\_\_\_\_

*8-22-08*

## **TABLE OF CONTENTS**

**Instructions**

**MS4 Boundary Maps**

**Overall Program Perspective**

**MCM1: Public Education & Outreach**

**MCM 2: Public Participation/Involvement**

**MCM 3: Illicit Discharge Detection & Elimination**

**MCM 4: Construction Site Runoff Control**

**MCM 5: Post-Construction Stormwater Management**

**MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations**



# General NPDES Permit Application for Unincorporated Arapahoe County, Colorado

## Item 4 - Receiving Waters

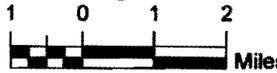
 Unincorporated Arapahoe County designated as Urbanized Area

 Incorporated Jurisdictions in Arapahoe county

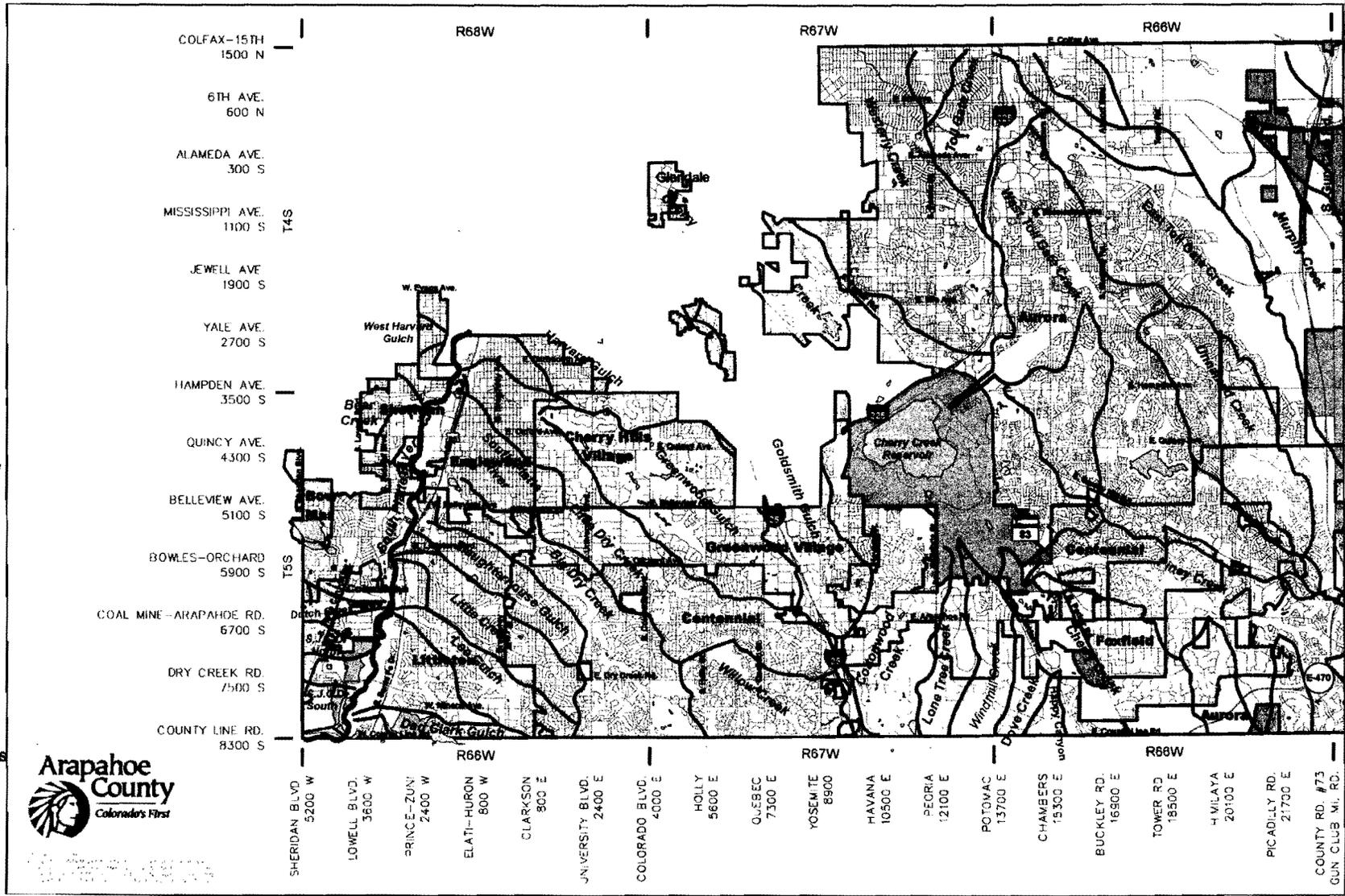
 Unincorporated Arapahoe County area not designated as Urbanized Area

 Drainage Basin Boundary

 Jurisdiction Boundary



Produced By:  
 Arapahoe County Mapping Division  
 10730 E. Briarwood Ave., Ste. 100  
 Centennial, Co. 80112  
 Ph: 720-874-6686



MapInfo Data: Tuesday, April 21, 2009  
 File: C:\ISSUES\HOWTO\NPDES\Project\BIFC\Spec\Map\Arapahoe\NPDES\Howto\Arapahoe\Bifc.mxd

Arapahoe County Permit No. COR – 080010	<b>Overall CDPS Stormwater  Management Program  Perspective</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 - 2013
--	---	---

Summary description of the overall water quality concerns, priorities, and goals specific to the permittee that were considered in the development of the CDPS Stormwater Management Program:

Provide information on conditions that were considered in developing your overall program. (Examples: water quality impairments or concerns, other watershed concerns, community specific pollutant concerns)

<p><i>Add Description Here</i></p> <p>The ultimate goal of Arapahoe County (County) stormwater management is reduction of the amount of pollutants introduced to receiving waters from the County’s Municipal Separate Storm Sewer System (MS4). The County has developed and implemented a stormwater program in a manner that most effectively uses its limited resources. As such, the stormwater program is being implemented throughout the urbanized areas within unincorporated Arapahoe County. Particular attention is given to those areas within the Cherry Creek watershed, where there is a phosphorus total maximum daily load (TMDL) of 14,270 pounds per year for the reservoir. Various water quality management strategies are being implemented in this watershed to effectively reduce phosphorus loads from nonpoint sources.</p> <p>The County is in the process of completing a Memorandum of Understanding (MOU) with the Southeast Metropolitan Stormwater Authority (SEMSWA) entitled "Arapahoe County and SEMSWA, Water Quality Partnership MOU". This document defines how both entities will work towards implementation of the requirements under the County's MS4 permit. SEMSWA is, and, we believe will remain a designated agent of the County as it relates to stormwater management and assisting in the implementation of various aspects of the County's permit in all six program areas.</p> <p>Arapahoe County has identified the Public Outreach and Education and Public Involvement and Participation program areas (minimum control measures 1 and 2) as continuing to be high priority due to the high level of outreach required to educate and inform the public about an array of stormwater issues embedded in all six stormwater program areas.</p> <p>All components of the Arapahoe County stormwater program are well underway and being implemented within the permit area. During the permit term, program implementation will continue in a strategic manner that most effectively uses the County’s resources.</p>
---

Arapahoe County Permit No. CPR-080010	<b>PUBLIC EDUCATION &amp; OUTREACH</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 – 2013
--	--	---

**A. Program Perspective:** The goal of the Public Education and Outreach Program is to increase 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 stormwater program elements. The program should take into account pollutants commonly associated with the urban environment.

**B. Permit Requirements**

*The permittee must implement a public education program in an effort to promote behavior change by the public to reduce water quality impacts associated with pollutants in stormwater runoff and illicit discharges that includes: **(Clarified permit requirement)***

- 1) *targeting specific pollutants and pollutant sources determined by the permittee to be impacting, or to have the potential to impact, the beneficial uses of receiving waters;*
- 2) *conducting 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 **(Clarified permit requirement)***
- 3) *informing businesses and the general public of the municipality’s prohibitions against, and/or the water quality impacts associated with, illegal discharges and improper disposal of waste.*

**C. Program Elements:** By using existing, ongoing program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2. of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s). For “Implementation Year,” provide the year the element will be implemented, or list as “Ongoing.”

1. Forming Partnerships –List and briefly describe any partnerships and memberships and describe their relevance. (Examples: Colorado Stormwater Council, Project Wet, Keep It Clean partnership, local watershed organizations, etc.).

	Public Education Program Element - Partnerships <i>List each program element, briefly describe. Provide the year(s) for implementation or state “ongoing” for currently implemented programs.</i>	Implementation Year or “Ongoing”
1.a	Arapahoe County, or its designated agent, collaborates with the Cherry Creek Basin Water Quality Authority (CCBWQA) to implement the Education Initiative, a comprehensive and coordinated education strategy and action plan. CCBWQA offers a comprehensive approach in water quality education	Ongoing

	by addressing best management practices (BMP) in both new construction and existing development by providing new tools and information. As a member of the CCBWQA and its Technical Advisory Committee, Arapahoe County, participates as needed in 319 Grant work, attends Technical Advisory Committee and subcommittee meetings, and utilizes the educational materials produced as they pertain to construction and post-construction BMPs.	
1.b	Arapahoe County, and its designated agent, are supporters and funding partners of the Cherry Creek Stewardship Partners (Partners). The Partners provide regular information-sharing forums for the County's target audiences, including interested citizens, local government staff, agency personnel, technical consultants, and continue to expand their educational efforts at the school-age level. Arapahoe County, through its designated agent, commits annual funds for the ongoing operation of the Partners and staff assists with outreach and participation events as planners and volunteers.	Ongoing
1.c	Arapahoe County, or its designated agent, uses the Cherry Creek State Park's strong educational component to its recreational mission to reach residents in the area. The Park allows Arapahoe County, through its designated agent, to host a number of community outreach events at the Cherry Creek Reservoir.	Ongoing
1.d	Urban Drainage and Flood Control District (UDFCD) reaches out to the citizens in the County's permit area through their public meeting/outreach process in their Master Plan Program, the Capital Improvements Program and their Maintenance Program.	Ongoing
1.e	SEMSWA, in partnership with Arapahoe County, leads the Stormwater Permittees for Local Awareness of Stream Health (SPLASH) Group. The SPLASH Group works together to provide educational outreach, opportunities for public participation, and staff training to increase awareness of each person's role in protecting water quality.	Ongoing
1.f	Douglas County Co-op Group cooperatively works with the County and its designated agent to implement all six program areas and provide a consistent message in the South Denver Metro area.	Ongoing
1.g	Colorado Stormwater Council (CSC) is a statewide organization including MS4 permit holders. Arapahoe County, or its designated agent, works with CSC to exchange technical information, promote educational opportunities and aid in the development and implementation of stormwater programs.	Ongoing

2. Using Educational Materials and Strategies – List and briefly describe your programs/methods for distributing educational materials or conducting outreach activities that have the goal of promoting changes in behavior to protect water quality.

	Public Education Program Element – Educational Materials and Strategies <i>List each program element, briefly describe. Provide the year(s) for implementation or state "ongoing" for currently implemented programs.</i>	Implementation Year or "Ongoing"
2.a	The County and its designated agent uses the existing partners listed above for opportunities to distribute educational materials to target audiences and have face time with the community. Materials are produced and are distributed based on audience and media appropriate for the message. Arapahoe County, or its designated agent, uses the following information to	Ongoing

	<p>develop education and outreach strategies:  Target Audiences: Residents, Homeowners, Businesses, SEMSWA/County Staff  Target Pollutants: Sediment; urban runoff (trash, illegal dumping/illicit discharges, nutrients from lawn care, bacteria from pet waste); phosphorous  Medias used: Websites, brochures, signage, posters, promotional materials (give-aways), newspapers, HOA newsletters, fact sheets, festivals, and/or conferences, etc.  Messages: Based on specific pollutants and are informational, educational, and/or encourage participation by the community.</p>	
2.b	<p>Arapahoe County, through its designated agent, works with Cherry Creek Stewardship Partners, SPLASH, and Douglas County Co-op, to develop and distribute outreach materials that reach diverse populations throughout the County and Cherry Creek Basin. These materials are developed and are distributed based on target audience, message, and pollutant. Examples of previously developed materials with a water quality message are Frisbees, beach balls, stickers, brochures, fliers, etc.; these materials are distributed at festivals, conferences, workshops, etc. as appropriate. Arapahoe County, or its designated agent, is committed to continuing to develop and distribute education and outreach materials addressing target pollutants and will distribute materials at a minimum of two events annually.</p>	Ongoing
2.c	<p>Arapahoe County, or its designated agent, works with the Cherry Creek Stewardship Partners and SPLASH to provide participation events for the community that reaches diverse populations throughout the County and Cherry Creek Basin. Some past events include: sponsoring Science Fair Awards, storm stenciling activities with Boy Scouts and other civic groups, Colorado Cares Day, Cherry Creek "Run for the Watershed," volunteer clean up days, etc. Arapahoe County, or its designated agent, is committed to continuing the effort to encourage community participation in stormwater activities and provide the opportunities to do so. Arapahoe County through its membership in SPLASH continues to commit to participate in Western Welcome Week annually.</p>	Ongoing
2.d	<p>Arapahoe County uses websites and links to other websites of interest to educate the public and facilitate public feedback. Past examples include Arapahoe County, Colorado Stormwater Council, SPLASH, etc. A stormwater complaint/feedback form and contact numbers to call are published on the County's designated agent website also. The County, and its designated agent, is committed to continuing to use websites as mechanisms to educate and solicit feedback.</p>	Ongoing
2.e	<p>Arapahoe County, or its designated agent, distributes information relevant to water quality to residents and businesses in the County and Cherry Creek Basin through multiple medias such as newspaper ads, website (<a href="http://www.semswa.org">www.semswa.org</a>), articles, signs, direct mailings, public events and/or festivals. The media used to distribute information changes based on target audience, pollutant, and message. Direct mailings rather than general mailings will be used in the permit term to address specific audiences such as Home Owners Association Groups and residents along drainageways. Arapahoe County, through its designated agent, will publish a minimum of 25</p>	Ongoing

	awareness advertisements in local newspapers during the 5-year permit term (the same advertisement placed in 5 different newspapers count as 5 of the 25 advertisements pledged).	
2.f	Arapahoe County, and its designated agent, uses IGAs and MOUs with other stormwater entities to define NPDES specific roles and responsibilities and enhance opportunities for partnering.	Ongoing
2.g	Arapahoe County, through its designated agent, conducts surveys periodically to determine program effectiveness and solicit feedback from the community.	Ongoing
2.h	Arapahoe County, through its designated agent, evaluates the Education and Outreach program periodically to ensure all target pollutants and audiences are addressed.	Ongoing
2.i	Arapahoe County, through its designated agent, will continue to publish and distribute information about water quality, although the methods for publication and distribution may vary throughout the permit term.	Ongoing
2.j	Arapahoe County, through its designated agent, will continue to participate in as many relevant public events as possible; although no specific events are described here, the County, through its designated agent, continues to commit to participate in public events such as Western Welcome Week and others.	Ongoing

3. Signage and Stenciling –List and briefly describe any outreach incorporating signage, inlet stenciling, etc. As applicable, include in the description any commitments to maintain and/or replace signage and stenciling as necessary, including those implemented under the previous permit.

	Public Education Program Element – Signage and Stenciling <i>List each program element, briefly describe. Provide the year(s) for implementation or state “ongoing” for currently implemented programs.</i>	Implementation Year or “Ongoing”
3.a	Arapahoe County, through its designated agent, implements a water quality signage program that includes requirements for construction site signage, drainageway and greenway signage, inlet signage, and trail signage.	Ongoing
3.b	Arapahoe County, through its designated agent, works with the Cherry Creek Stewardship Partners on the storm drain inlet labeling program. Criteria exist for new inlets to be installed with pre-stamped message “drains to creek.”	Ongoing
3.c	Signs are replaced as needed.	Ongoing

4. Reaching Diverse Audiences – Describe how the program elements listed in the tables in Items 1, 2, and 3, above, are providing outreach to diverse audiences. Provide in your descriptions cross references to the applicable program elements listed in the tables. Examples: using bilingual materials, free household chemical collection, events are free and open to public, information and materials distributed are free and readily available, etc.

<i>Add Description Here</i>
Diverse audiences are reached through long-term participation with the organizations, agencies and groups listed in number one above. These partners have cultivated relationships with diverse groups, therefore, different viewpoints and areas of concern have been incorporated into the education and outreach plans utilized by these partners. For example, in partnership with the Cherry Creek

Stewardship Partners, workshops targeting specific audiences within the Post Construction Program were offered. All information (brochures, pre-construction folders, etc.) is available free of charge; free events with stormwater materials are offered to the public.

5. Illicit Discharge Education to Businesses and the Public– Describe how the program elements listed in the tables in Items 1, 2, and 3, above, inform businesses and the general public of impacts associated with illegal discharges and improper disposal of waste. Provide in your descriptions cross references to the applicable program elements listed in the tables. Examples: distributing educational materials, maintaining a website with applicable information, offering household chemical curbside pickup service, coordination with Industrial Pretreatment Program for business inspections, publishing or distributing information targeting specific business sectors, etc.

*Add Description Here*

Arapahoe County, through its designated agent, maintains a website with applicable information and provides links to partner sites as well as to recycling and water quality sites in general. Arapahoe County, through its designated agent, provides door-to-door household hazardous waste collection for a minimal fee to homeowners in Unincorporated Arapahoe County. The website discusses illicit discharges associated with households and provides details on the door-to-door household hazardous waste collection program. Arapahoe County, through its designated agent, creates and distributes educational materials and/or information to homeowners and businesses in target areas along drainageways. Partnerships with other permittees allow Arapahoe County to reach the target audiences multiple times through multiple medias with multiple messages.

6. Additional Requirements - Cherry Creek Reservoir Basin discharges (COR-080000 only) – Describe how the program elements listed in the tables in Items 1, 2, and 3, meet the additional education requirements for discharges to the Cherry Creek Reservoir Basin in Part I.B.1(a)(4) of COR-080000. Provide in your descriptions cross references to the applicable program elements listed in the tables. Specifically describe how the program elements result in the distribution of educational materials or equivalent outreach that address pollutant sources that have a significant potential to contribute phosphorus and nitrogen loads to State waters at a rate that could result in, or threaten to result in, exceedance of the chlorophyll a standard in Cherry Creek Reservoir. The outreach should focus on residential, industrial, agricultural, and/or commercial sources within the MS4.

*Add Description Here*

Arapahoe County, or its designated agent, works with the Cherry Creek Stewardship Partners to distribute educational materials or equivalent outreach that address pollutant sources that have a significant potential to contribute phosphorus and nitrogen loads. In previous years, the Cherry Creek Stewardship Partners operates an annual booth at Tagawa Gardens, a large garden center in the Cherry Creek Basin. The booth is used to discuss fertilizer, weed control, and topics specific to the Cherry Creek Basin. Events held for community participation can also be advertised here. Some past events that the County, or its designated agent, participated in to raise awareness and address pollutant sources include the Cherry Creek Partners Annual Conference, World Monitoring Day Booth, and the Cherry Creek “Run for the Watershed” Relay Race. The County relies heavily on partners for educational and participation events in the Cherry Creek Basin and will continue to participate in relevant water quality events as much as possible. Some past materials distributed to increase watershed awareness in the Cherry Creek Basin include numerous free materials such as beach balls, Frisbees, brochures targeting lawn care, construction site

management, and household wastes, BMP posters developed by the CCBWQA TAC distributed with GESCs permits, and inlet signage specific to the Cherry Creek Basin. Arapahoe County, through its designated agent, continues to distribute information about water quality in the Cherry Creek Basin, although the methods used may vary throughout the permit term.

#### **D. Measurable Goals**

Inclusion of measurable goals are not necessary, as the elements described in Part C, above, constitute full program implementation and a commitment to continue these elements.

Arapahoe County Permit No. CPR-080010	<b>PUBLIC PARTICIPATION / INVOLVEMENT</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 – 2013
--	---	---

## II. PUBLIC PARTICIPATION/INVOLVEMENT

### A. Program Perspective

Public participation/involvement is often discussed in the context of the public education measure because they share a common goal – reaching out to citizens to improve awareness and achieve program compliance. The distinction between the two programs is that public participation/involvement provides a conduit for citizens to participate in the development and implementation of the publicly funded stormwater program.

### B. Permit Requirements

*Public involvement/participation. The permittee must implement a public involvement program as follows:*

- 1) *The permittee must comply with the State and local public notice requirements when implementing the CDPS 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.*
- 2) *The permittee must provide a mechanism and process to allow the public to review and provide input on the CDPS Stormwater Management Program.*

**C. Program Elements:** By using existing, ongoing program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2. of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s). For “Implementation Year,” provide the year the element will be implemented, or list as “Ongoing.”

1. Public Notices –List your local public notice requirements.

<p><i>Add Description Here</i></p> <p>Arapahoe County, or its designated agent, has an effective mechanism for reaching the public by providing adequate public notice of all public hearings when implementing stormwater management programs required under the Stormwater MS4 Permit. Arapahoe County, or its designated agent, follows all state and local public notification requirements.</p> <p>The following activities below have required procedures for Public Notification.</p> <ul style="list-style-type: none"> <li>• Notice for Public Hearings</li> </ul>
---

- Notification of Project Construction, Master Planning or Criteria Manual Public Meetings
- Sign Posting for Project Construction with contact names and phone numbers
- Request for Qualifications for Design and Construction of Capital Projects

2. Mechanism and Processes for Public Involvement/Feedback –List and briefly describe your method(s) of publicizing contact information and directing inquires to appropriate staff. Examples are website, brochure, phone book listing, internal phone lists, hot line, etc.

	Public Involvement/Participation Program Element – Public Feedback <i>List each program element, briefly describe. Provide the year(s) for implementation or state “ongoing” for currently implemented programs.</i>	Implementation Year or “Ongoing”
2.a	Arapahoe County, through its designated agent, publishes the SEMSWA website address to allow interested parties to provide direct feedback directly via the website ( <a href="http://www.semswa.org">www.semswa.org</a> ).	Ongoing
2.b	Procedures are in place to ensure calls are directed to the appropriate staff and/or department.	Ongoing
2.c	In partnership with Cherry Creek Stewardship Partnership and SPLASH, Arapahoe County, or its designated agent, provides community stewardship projects for the public to participate in, which also offer the public an opportunity to provide feedback. Examples: Cherry Creek Run for the Watershed, Creek Clean-ups along Cherry Creek, Volunteer Work Days (re-plantings/weed removal activities)	Ongoing
2.d	Outreach and educational materials produced include a website and/or phone number to maximize the opportunity for citizens and businesses to provide feedback and ask questions.	Ongoing
2.e	Arapahoe County, or its designated agent, provide opportunities for specific HOA groups during public meetings to ask stormwater related questions, which are brought back for staff to respond to.	Ongoing

#### D. Measurable Goals

Inclusion of measurable goals are not necessary, as the elements described in Part C, above, constitute full program implementation and a commitment to continue these elements.

<p>Arapahoe County Permit No. COR-080010</p>	<p><b>ILLICIT DISCHARGE DETECTION AND ELIMINATION</b></p>	<p>STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 - 2013</p>
--	---	--

### A. Program Perspective

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

### B. Permit Requirements

*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. Illicit discharges do not include discharges or flows from fire fighting activities, or other activities specifically authorized by a separate CDPS permit.*

*The permittee must:*

- 1) *Develop and maintain a current storm sewer system map, showing the location of all municipal storm sewer outfalls and the names and locations of all state waters that receive discharges from those outfalls.*
- 2) *To the extent allowable under State or local law, effectively prohibit, through ordinance or other regulatory mechanism, illicit discharges (except those identified in subparagraph 5 and 6 of this section) into the storm sewer system, and implement appropriate enforcement procedures and actions. (Clarified permit requirement)*
- 3) *Develop, implement, and document 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, including areas with higher likelihood of illicit connections; procedures for tracing the source of an illicit discharge; and procedures for removing the source of the discharge.*
- 4) *Develop and implement a program to train municipal staff to recognize and appropriately respond to illicit discharges observed during typical duties. The program must address who will be likely to make such observations and therefore receive training, and how staff will report observed suspected illicit discharges. (New permit requirement)*
  - i) ***Specific Deadline for Renewal Permittees:** Renewal Permittees must comply with the requirement of subparagraph (4) by no later than December 31, 2009.*
- 5) *Address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's MS4: landscape irrigation, lawn watering, diverted stream flows, irrigation return flow, rising*

*ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, springs, flows from riparian habitats and wetlands, water line flushing, discharges from potable water sources, foundation drains, air conditioning condensation, water from crawl space pumps, footing drains, individual residential car washing, dechlorinated swimming pool discharges, and water incidental to street sweeping (including associated side walks and medians) and that is not associated with construction.*  
**(Clarified permit requirement)**

*The permittee may also develop a list of occasional incidental non-stormwater discharges similar to those in the above paragraph, (e.g., non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-stormwater discharges must not be reasonably expected (based on information available to the permittee) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive water bodies, BMPs, etc.). The permittee must document in their program any local controls or conditions placed on the discharges. The permittee must include a provision prohibiting any individual non-stormwater discharge that is determined to be contributing significant amounts of pollutants to the MS4.*

- 6) *The following sources are excluded from the prohibition against non-stormwater discharges and the requirements of subsections (2) and (3) above:*
- i) Discharges resulting from emergency fire fighting activities. Such discharges are specifically authorized under this permit (see Part I.A.2).*
  - ii) Discharges specifically authorized by a separate CDPS permit.*

**C. Program Elements:** By using existing, ongoing program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2 of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s).

1. Outfall map -. Describe the status of your outfall map; i.e., has it been completed as required by the previous permit? Briefly describe the process that has been implemented for updates to the map when new outfalls are constructed.

*Add Description Here*

The outfall mapping effort, as described by the previous permit, was implemented in a prioritized manner within the urbanized areas of unincorporated Arapahoe County. Priority areas were based on the following factors; age of developed area and stormwater system (due to the lack of identified industrial land uses, and the fact that the majority of commercial land uses are within special districts with separate permits, the older neighborhoods of the *Holly Hills Area*, the *4-Square Mile Area*, and the *Brookridge Area* were identified as priority areas since new construction prohibit illegal connections), land use, location in the Cherry Creek Watershed, and the record of any previous public or staff notification of potential problem areas.

The County's geographic information system (GIS) provides the basis for the outfall mapping. Other software programs, including CarteGraph®, have been utilized by the County, or its designated agent,

to manage stormwater, create outfall mapping and inventory the stormwater system.

The County, or its designated agent, is also in the process of using geo-positioning system technology (GPS) to map more detail of the stormwater infrastructure system, including stormwater outfalls, the physical systems (storm sewer), and stormwater BMPs (detention ponds, water quality ponds, wetlands, etc.).

2. **Regulatory mechanism** –List all ordinances (or other applicable controls) used to implement the Illicit Discharge Detection and Elimination program. For all ordinances/controls, provide the title, date of adoption/revision, and a brief description of the authority granted (e.g., provides enforcement authority, inspection authority, etc.).

*Add Description Here*

Arapahoe County has taken into account the legal authority granted to it under state law, the Phase II Permit requirements in Colorado, the enforcement methods the County deems appropriate, and any other locality-specific considerations. Consequently, Arapahoe County is able to prohibit illicit discharges to our MS4, as well as enforce the elimination and mitigation of any illicit discharges that do occur, through the following **legal regulatory mechanism**:

*Section 18-4-511 of the Colorado Revised Statutes (C.R.S.), states, “Any person who deposits, throws or leaves any litter on any public or private property or in any waters commits littering.” Litter is defined as “all rubbish, waste material, refuse, garbage, trash, debris or other foreign substances, solid or liquid, of every form, size, kind and description.” Public or private property includes, but is not limited to, “the right-of-way of any road or highway, any body of water or watercourse, including frozen areas or the shores of beaches thereof, any park, playground or building, any refuge, conservation or recreation area, and any residential farm or ranch properties or timberlands.”*

*Littering is a Class 2 Petty Offense punishable, upon conviction, by a mandatory fine of not less than \$20 nor more than \$500 upon a first conviction, by a mandatory fine of not less than \$50 nor more than \$1000 upon a second conviction, and by a mandatory fine of not less than \$100 nor more than \$1000 upon a third or subsequent conviction.*

Section 30-15-401(1)(a)(V)(A), Colorado Revised Statutes (C.R.S.), authorizes Arapahoe County to enforce Section 18-4-511, C.R.S.

The County has a zoning resolution which covers implementation of this statute. The Arapahoe County Sheriff's Office is available for consultation on the use of this statute to enforce the County's IDDE measure, and, as the enforcing party, will be notified of any infractions so they can investigate and bring enforcement actions to the situation.

3. **Illicit Discharge Detection and Elimination Plan** –Briefly describe plans and procedures in place for the following required actions:
  - Locating priority areas likely to have illicit discharges
  - Tracing the source of illicit discharges
  - Removing the source of illicit discharges

*Add Description Here*

The “*Arapahoe County IDDE Manual*” was prepared by the Arapahoe County Public Works Department, Engineering Division, in June 2005. The County, or its designated agent, continues to implement a plan to detect and address non-stormwater discharges, including illicit discharges and illegal dumping of the system as described in the IDDE Manual. The IDDE plan includes:

- Procedures for locating priority areas with the potential to have illicit discharges,
- Procedures for tracking an illicit discharge source – standard operating procedures,
- Procedures for illicit discharge reporting and enforcement, and
- Procedures for removing the source of an illicit discharge.

4. Staff Education – List program(s) to educate staff and contractors in the field on observing, reporting, and responding to illicit discharges. You may provide a cross reference to the Municipal Operations program if this program element is covered there. Briefly describe the type (e.g., class room, web based, briefings, etc) and frequency of training program(s) conducted. If training has not been fully implemented, provide a measurable goal in Part D, below.

*Add Description Here*

Taking into consideration that the vast majority of land use is residential and development is actively occurring in urbanized areas, the County’s Illicit Discharge Detection and Elimination Program will continue to concentrate on encouraging the reporting of incidents among citizens, as well as providing land development inspectors with a program to identify potential disposal and discharge problems.

In addition, because the Cherry Creek Reservoir is an impacted water body within Arapahoe County, the County’s Illicit Discharge Detection and Elimination Program also keys in on educating and influencing the use of landscape fertilizers that contain phosphorous to minimize additions of the pollutant to the drainageways.

In order to prevent illicit discharges, where the discharges are assumed to be caused by carelessness or not realizing the impacts of their actions, the County, or its designated agent, continues to utilize portions of the Public Education and Outreach Program, and Public Participation and Involvement Program, including the Stormwater notification telephone number, the County’s web site, and educational brochures. Specific details for these educational elements of a preventative illicit discharge program are described in Program Areas 1 and 2.

A staff education and training program has also been developed to inform County, or its designated agent, on recognizing illicit discharges and providing proper procedures for handling them. The program is specifically geared for those employees assigned to the Stormwater program, as well as other employees who are frequently “out on the streets”, such as street sweeping and roadway repair crews, who can provide valuable information by routinely being in contact with the County’s stormwater systems. Spill response procedures are being finalized and standard operating procedures (SOPs) for spill control, chemical application (landscaping), etc. are incorporated in the County’s facilities Runoff Control Plans as described in Municipal Operations/Good Housekeeping (Program Area 6). Training has been implemented with appropriate County staff, and is ongoing. Training methods include briefings during monthly safety meetings, web based information, and training sessions with affected staff.

**D. Measurable Goals**

Measurable Goals are required for Staff Education as per Part I.B.3(a)(4) of the permit (Permit Requirement (4), in Part B, above), unless this new permit condition is already being met. Additional measurable goals should not be necessary if the elements described in Part C, above, constitute full program implementation and a commitment to continue these elements for all additional permit requirements.

**Check Box 1 or 2, below. The Table in Part 3 must be filled out if you check Box 2.**

1. Staff training program(s) listed in Part C.4, above, have been fully implemented and are ongoing.  
 **(It is not necessary to complete Part 3 below if you check this box.)**
2. One or more staff training program(s) have **NOT** been fully implemented and measurable goals have been provided in Part 3 below for each of the pending programs.  
 **(You must complete Part 3 below if you check this box.)**
3. Illicit Discharge Detection and Elimination Measurable Goals: Include those staff training program(s) that have **NOT** already been fully implemented, and provide the year by which implementation will occur. **Measurable Goals must be completed by 2009.**

	Illicit Discharge Detection and Elimination Measurable Goals - Training <i>List each program element, briefly describe. Provide the year(s) for implementation</i>	Implementation Year
3.a		
3.b		
<i>Add additional rows as needed.</i>		

Arapahoe County Permit No. COR-080010	<b>CONSTRUCTION SITE RUNOFF CONTROL</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 - 2013
--	---	---

**A. Program Perspective**

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

**B. Permit Requirements**

*The permittee must:*

- 1) *Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff, and to reduce pollutants in, or prevent when required in accordance with I.B.3, non-stormwater discharges that have the potential to result in water quality impacts (e.g., construction dewatering, wash water, etc.), to the MS4 from construction activities that result in a land disturbance of one or more acres. Reduction of pollutants in 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 or more acres. If the Division waives requirements for stormwater discharges associated with a small construction activity in accordance with 61.3(2)(f)(ii)(B) (the "R-Factor" waiver), the permittee is not required to develop, implement, and/ or enforce its program to reduce pollutant discharges from such a site. **(Clarified permit requirement)***
  
- 2) *Develop and implement the program to assure adequate design, implementation, and maintenance of BMP's at construction sites within the MS4 to reduce pollutant discharges and protect water quality. The program must include, at a minimum, the development, implementation, and documentation of:*
  - i) *Program Requirements, including:*
    - A) *An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions and procedures adequate 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 BMP's.*
  
    - C) *Requirements for construction site operators to implement BMP's to control waste such as discarded building materials, concrete truck washout, chemicals, litter, sanitary waste, and other non-stormwater discharges including construction dewatering and wash water, at the construction site that may cause adverse impacts to water quality. **(Clarified permit requirement)***

ii) *Compliance Assessment, including:*

- A) *Procedures for site plan review which incorporate consideration of potential water quality impacts.*
- B) *Procedures for construction site compliance assessment, including:*
  - 1) *Site inspections; and*
  - 2) *Receipt and consideration of information submitted by the public.*

iii) *Compliance Assurance, including:*

- A) *Procedures for enforcement of control measures that includes documented procedures for response to violations of the permittee's program requirements. Procedures must include specific processes and sanctions adequate to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators of control measures. **(New permit requirement)***
  - 1) *Specific Deadline for Renewal Permittees: Renewal Permittees must comply with the requirement of subparagraph (A) to develop, document and implement response procedures that specifically address chronic and recalcitrant violators by no later than December 31, 2009.*
- B) *An education and training program for municipalities, their representatives and/or construction contractors. At a minimum, the program must include an information program for construction site operators unfamiliar with the reviewing authority's regulatory requirements.*

**C. Program Elements:** By using existing, on going program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2. of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s).

1. Regulatory Mechanism to require BMPs and sanctions to ensure compliance – List all ordinances (or other regulatory mechanisms) your Construction Sites program is operating under that allow you to require BMPs and enable sanctions to ensure compliance. For all ordinances/mechanisms, provide the title and date of adoption/revision.

*Add Description Here*

Arapahoe County's "Grading, Erosion and Sediment Control (GESC) Requirements" (adopted February 22, 2005) are part of the Arapahoe County Land Development Code (Section 1-3600A). In addition, the Cherry Creek Basin Water Quality Authority (CCBWQA) Stormwater Quality Requirements (Water Quality Control Commission Regulation #72, 2006) are used in the review of erosion and sediment control plans for the Cherry Creek watershed. Plans located in the Cherry Creek basin are routinely referred to the CCBWQA for review and comment. All plans submitted for development in the urbanized areas of unincorporated Arapahoe County must adhere to the criteria and design standards documented in the Arapahoe County Stormwater Management Manual (Criteria Manual, adopted January 30, 2007) specifications; all plans for development in the Cherry Creek basin

must adhere to the Criteria Manual and the CCBWQA's requirements for erosion and sediment controls.

2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs and materials handling BMPs - List the design criteria, BMP manuals, or fact sheets used to guide construction site operators in the selection and design of appropriate BMPs, stabilization methods and materials handling practices. For all items, provide the title and date of adoption/revision.

**Add Description Here**

The *Arapahoe County Stormwater Management Manual* (adopted January 30, 2007) documents stormwater criteria and design standards for the County. These criteria and design standards are also part of and subject to the Arapahoe County Land Development Code (Section 2-100), as amended. All drainage reports and plans, drainage system analyses, and drainage system designs that are submitted as a requirement of the Code comply with the criteria presented in this manual (Criteria) or as approved by variance. Presented in these Criteria are the policies and minimum technical criteria for the planning, analysis and design of storm drainage systems within the boundaries of urbanized areas in unincorporated Arapahoe County. All subdivisions, re-subdivisions, planned unit development, or any other proposed construction submitted for acceptance under the provisions of the Code shall include adequate and appropriate storm drainage system planning, analysis, and design. Such planning, analysis, and design shall conform with or exceed the criteria set forth herein. Storm drainage system planning, analysis, and design that require policies and technical criteria not specifically addressed in these Criteria shall follow the provisions of the Urban Drainage and Flood Control District's (UDFCD) *Urban Storm Drainage Criteria Manual, Volumes 1, 2, and 3, as amended* (UDFCD Manual), which is incorporated in these Criteria by reference.

*Grading, Erosion and Sediment Control Requirements* (adopted February 22, 2005) documents the grading, erosion and sediment control (GESC) conditions adopted by Arapahoe County. The County GESC requirements, as amended from time to time, are part of the Arapahoe County Land Development Code (Section 1-3600A). The regulation provides a permitting process for certain grading, erosion and sediment control activities on construction projects and other applicable land disturbances within unincorporated Arapahoe County. The GESC Manual describes the permitting process, procedures and practices that have been adopted to promote environmentally sound construction and maintenance practices in the County. These procedures and practices are intended to be consistent with the requirements of mandated State and federal enabling statutes, regulations and rules. The goal of the GESC Permit process is to implement effective grading, erosion and sediment control Best Management Practices (BMPs) as a standard for all land disturbance activities as outlined in the GESC Manual, or as approved by variance, and to administer these regulations in a manner that respects and is consistent with property rights otherwise granted by law.

3. Requirements for construction site operators to control waste including discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste -List all ordinances (or other regulatory mechanisms) used that require construction site waste control. For all ordinances/mechanisms, provide the title and date of adoption/revision.

**Add Description Here**

The County *GESC Requirements* (February 22, 2005) provide the regulatory mechanism for

construction site operators to control waste from a variety of construction areas including concrete wash out area, stockpile or discarded materials coverings and containment mechanisms (i.e. berms), appropriate siting of chemical toilets or water-tight construction at staging area, provision of containers for collection and disposal of debris and litter, oiling procedures and fuel containment, leak cleanup provisions and spill response procedures.

4. Procedures for site plan review which incorporate consideration of potential water quality impacts –

- a. Site Plan Development: Briefly describe your requirements for construction site operators to develop stormwater control site plans based on the minimum design criteria.
- b. Site Plan Review: Briefly describe your site plan submittal, review, and preliminary approval process (e.g., is a checklist used?). Describe your system to track status of stormwater control site plans. Describe procedures for ongoing review of site plans during active construction (e.g., how are plans reviewed after construction starts and is additional approval required for revisions?) The MS4 is not required to review and/or approve all plans, but must demonstrate adequate project oversight to prevent inadequate plans.

Describe how consideration of potential water quality impacts is achieved (e.g., ordinance requires a permit, which requires a plan, which requires that water quality impacts be considered; water quality impacts are required to be addressed by development code; etc.). The MS4 is not required to review and/or approve all plans, but must demonstrate adequate project oversight to prevent inadequate plans.

*Add Description Here*

a. Site Plan Development - Site plan development facilitates the reduction of pollutants discharging into the County's MS4 and is required in Arapahoe County for all construction activities as part of the County adopted *GESC Requirements* (February 22, 2005), Criteria, permits and programs which address runoff during construction, as well as overseeing contractors during construction activities associated with new development. In accordance with the *GESC Requirements*, a GESC Plan is prepared by the applicant for each project utilizing County criteria prior to the start of applicable land disturbance activities described in the GESC documentation.

b. Site Plan Review - The site plan development and review requirements are specified in the GESC Requirements and Criteria Manual. Upon review and approval of the GESC Plan and GESC Drawings, a permit is issued by the County, or its designated agent. GESC Plans and GESC permits are required for land disturbances meeting the criteria established in the GESC Manual and the Arapahoe County Land Development Code (Section 2-100). Permit and plan approval and inspections are tracked using stormwater management software tools, such as those developed by CartéGraph® Asset Management Software suite. Standard Operating Procedure (SOP) 4.1, *MS4 Permit Program 4, Land Development Cases* and SOP 4.2, *MS4 Permit Program 4, CIP Construction Projects* document the role of the County and its designated agent in the review of site plans.

5. Procedures for receipt and consideration of information submitted by the public. Describe how inquiries are processed (i.e., received by, or forwarded to the MS4 Stormwater Program) and responded to. Describe how complaints are tracked and documented.

*Add Description Here*

All stormwater submittals, questions, issues and maintenance inquiries are submitted to the County or its designated agent for action. Submittal materials typically consist of the GESC plan and GESC drawings, which are reviewed and approved prior to appropriate land disturbance activities described in the GESC requirements. The County, or its designated agent, participate in the erosion and sediment control plan review and approval process, including pre-application meeting to discuss site controls for runoff and detailed review of erosion and sediment control documents, adherence to water quality controls in GESC and Cherry Creek watershed, database tracking, and inspection and enforcement of sediment and erosion control requirements and policies.

The GESC plan is approved, inspected and enforced through the land development process by the County or its designated agent. Prior to construction, and after GESC Plans and Drawings are approved, a GESC permit is pulled by the Contractor or applicant. In accordance with the GESC requirements, an initial inspection of appropriate BMP installation is conducted prior to land disturbance activities commencing. SOP 4.1, *MS4 Permit Program 4, Land Development Cases* and SOP 4.2, *MS4 Permit Program 4, CIP Construction Projects* document the role of the County and its designated agent for receipt and consideration of information submitted by the public.

As described in the *GESC Requirements*, projects requiring a Standard GESC Permit, as well as some projects requiring a Low Impact GESC Permit, post collateral or other appropriate guarantee mechanism to ensure final stabilization and erosion control is achieved. The conditions under which the GESC collateral is held is separate from any other security relating to the project site's Subdivision Improvements Agreement (SIA) or any other permits relating to the site. GESC collateral is also held and released separately.

6. Procedures for site inspection and enforcement of control measures
  - a. Inspections: Describe procedures used for inspections, and list any manuals or other documentation used by your staff that includes inspection procedures. Include a description of how inspections are documented; how the frequency of inspections is determined; how sites are prioritized for inspections, if past experiences with construction site operators influence frequency; and how sites and inspections are tracked. Describe procedures for regularly scheduled compliance inspections, complaint response inspections, and reconnaissance inspections, as applicable to your program.
  - b. Enforcement: Describe procedures used for enforcement, and list any manuals, response guides, or other documentation used by your staff that dictate how and when a response to non-compliance is carried out and those enforcement actions are tracked. Describe enforcement tools used (e.g., withholding permits, inspections, plan review, C.O., letter of non-compliance, stop work, permit revocation, notice of violation, monetary fines, summons). Describe how enforcement actions are escalated as needed to prevent repeat violations associated with chronic or recalcitrant violators. If procedures are not already fully implemented to address chronic and recalcitrant violators, provide a measurable goal in Part D, below.

*Add Description Here*

- a. Inspections - In accordance with *GESC Requirements*, site inspections are conducted by the County, or its designated agent, at the pre-construction meeting/initial BMP installation, any time during construction when a new GESC manager is chosen, and generally twice monthly, and subsequent to storm event, initial close-out, vegetation acceptance, and final close-out. For staged or phased GESC Plans, an inspection of initial BMP installation and close-out are conducted during every phase of the project. . If the contractor's site planning provisions are not adequate, no work can begin. If routine inspections indicate inadequate BMP operations, verbal and written warnings are provided, and any non-compliance may lead to enforcement actions, with monetary damages charged to the contractor.

A site inspection SOP 4.1 and SOP 4.2 is developed and a standard form is used during all inspections. All inspections are tracked for appropriate frequency with a spreadsheet tracking tool. Compliance inspections escalate based on inspection results. Sites with a past history of non-compliance have more frequent site reconnaissance and compliance inspections.

- b. Enforcement – In accordance with *GESC Requirements*, the County or its designated agent, implement an enforcement program comprised of the following enforcement tools; withholding permits, inspections, plan review, warning letter, letter of non-compliance, stop work orders, notice of violations, re-inspection fees, monetary fines, and summons. Enforcement actions are escalated as needed, specifically with those sites with a past history of non-compliance. Procedures are developed (SOP 4.1 and SOP 4.2) which describe how enforcement procedures are fully implemented by the County, or its designated agent, and outline implementation response procedures that specifically address compliance assurance.

7. Training and Education for Construction Site Operators – This program element must, at a minimum, include an informational program for construction site operators unfamiliar with the MS4's (reviewing authority's) regulatory requirements. Describe how training/education is implemented. Describe the use of any fact sheets, pre-development documents, permit applications, pre-construction meetings, web sites, etc. that outline the MS4 (and/or State) construction requirements pertaining to stormwater.

*Add Description Here*

The County, and its designated agent, offers pre-development documentation, pre-application and construction meetings, web sites and GESC documentation and applications that describe the MS4 requirements pertaining to stormwater.

#### **D. Measurable Goals**

Measurable Goals are required for the requirement in Part I.B.4(a)(2)(iii) of the permit (Permit Requirement (2)(iii) in Part B, above) unless this new permit requirement is already being met. Additional measurable goals should not be necessary if the elements described in Part C, above, constitute full program implementation and a commitment to continue these elements for all additional permit requirements.

**Check Box 1 or 2, below. The Table in Part 3 must be filled out if you check Box 2.**

1. Procedures, as listed in Part C.5.b, above, have already been fully implemented to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators of control measures.

**(It is not necessary to complete Part 3 below if you check this box.)**

2. Procedures have **NOT** already been fully implemented to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators of control measures.

**(You must complete Part 3 below if you check this box.)**

3. Construction Sites Program Measurable Goals: The Measurable Goal has been provided. Include the year by which full implementation of procedures will be achieved to minimize the occurrence of, and obtain compliance from, chronic and recalcitrant violators of control measures will be implemented. **Measurable Goals must be completed by 2009.**

Arapahoe County Permit No. COR-080010	<b>POST-CONSTRUCTION STORMWATER MANAGEMENT</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 – 2013
--	--	---

### A. Program Perspective

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 redevelopment.

### B. Permit Requirements

*Post-construction stormwater management in new development and redevelopment.*

*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. The permittee must:*

- 1) *Develop, implement, and document strategies which include the use of structural and/or non-structural BMPs appropriate for the community that address the discharge of pollutants from new development and redevelopment projects, and/or that maintain or restore hydrologic conditions at sites to minimize the discharge of pollutants and prevent in-channel impacts associated with increased imperviousness; **(Clarified permit requirement)***
- 2) *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;*
- 3) *Develop, implement, and document procedures to determine if the BMPs required under Item (1), above, are being installed according to specifications. (This may be developed in conjunction with the Construction program area, as described in Part I.B.4);*
- 4) *Develop, implement, and document procedures to ensure adequate long-term operation and maintenance of BMPs, including procedures to enforce the requirements for other parties to maintain BMPs when necessary; **(Clarified permit requirement)***
- 5) *Develop, implement, and document an enforcement program, which addresses appropriate responses to common noncompliance issues, including those associated with both installation (subparagraph (3), above) and long term operation and maintenance (subparagraph (4), above) of the required control measures; **(Clarified permit requirement)***
- 6) *Develop and implement procedures and mechanisms to track the location of and adequacy of operation of long-term BMPs implemented in accordance with the program. **(Clarified permit requirement)***

**C. Program Elements:** By using existing, ongoing program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2. of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s).

1. Regulatory mechanism – List all ordinances (or other applicable controls) used to implement the post-construction program. For all ordinances/controls, provide the title, date of adoption/revision, and a brief description of the authority granted (e.g., provides enforcement authority, inspection authority, etc.). The ordinance or other mechanism must have language requiring that new development and significant redevelopment projects disturbing more than or equal to one acre, and those less than one acre but part of a larger common plan of development or sale, incorporate stormwater management BMPs.

*Add Description Here*

Regulatory mechanism - The *Arapahoe County Stormwater Management Manual* (adopted January 30, 2007), together with all future amendments, are part of and subject to the Arapahoe County Land Development Code (Section 2-100), as amended (hereafter called the “Code”) which provides the regulatory mechanism to implement the post-construction program. All drainage reports and plans, drainage system analyses, and drainage system designs that are submitted as a requirement of the Code shall comply with the criteria presented in this manual, or as approved by variance. Presented in these Criteria are the policies and minimum technical criteria for the planning, analysis and design of storm drainage systems within the boundaries of unincorporated Arapahoe County. All subdivisions, re-subdivisions, planned unit development, or any other proposed construction submitted for acceptance under the provisions of the Code shall include adequate and appropriate storm drainage system planning, analysis, and design. Such planning, analysis, and design shall conform with or exceed the criteria set forth herein. Storm drainage system planning, analysis, and design that require policies and technical criteria not specifically addressed in these Criteria shall follow the provisions of the UDFCD Manual, which is incorporated in these Criteria by reference.

The CCBWQA Stormwater Quality Requirements are used in the review of erosion and sediment control plans for land disturbance activity in the Cherry Creek watershed. All plans submitted for development in the County must adhere to the Criteria Manual specifications, or as approved by variance; all plans for development in the Cherry Creek basin must adhere to the Criteria Manual and the CCBWQA’s requirements for erosion and sediment control of post-construction BMPs

2. Design Criteria and Standards– List any SOPs or Design Criteria required, such as Urban Drainage Flood Control District’s Volume 3 –BMP Manual, or plan review checklists, for the selection and design of appropriate structural and non-structural BMPs appropriate for the community. List any planning tools such as Master Plans, Comprehensive Plans, Zoning Plans and regional BMPs.

*Add Description Here*

Design Criteria and Standards – The *Arapahoe County Stormwater Management Manual* (adopted January 30, 2007) present the drainage criteria and standards. The UDFCD Manual, Drainageway Master Plans, County comprehensive plans and zoning plans complement the array of tools in the tool

box during review.

3. Review and Approval Procedures

- i. Plan Review – Briefly describe your process for review and approval of permanent water quality control plans. Describe your system to track status of plans.
- ii. Field verification – Describe how the correct installation of BMPs is confirmed, and the enforcement procedures used when BMPs have not been built as approved.
- iii. If different procedures are used for municipal projects, roadway construction, etc., include a description here.

*Add Description Here*

Review and approval procedures – The County and its designated agent, including the Cherry Creek Basin Water Quality Authority (as appropriate), weigh in on review and approval of plans. Review and approval procedures have been developed with the County, and its designated agent, which addresses how minimum structural and non structural BMPs are reviewed and approved. Field verification and inspection verify correct installation of permanent BMPs. SOP 5.1, *MS4 Permit Program 5, Land Development Cases*, and SOP 5.2, *MS4 Permit Program 5, CIP Construction Projects*, provide additional details on roles of staff as it relates to review and approval procedures for this program area. The procedures address enforcement when BMPs are not constructed in accordance with design criteria or approval criteria.

4. Tracking – Describe how permanent BMP locations and maintenance history are tracked.

*Add Description Here*

Permanent BMP locations and maintenance history are tracked by GIS mapping and spreadsheets, respectively.

5. Requiring long-term operation and maintenance of BMPs – Describe how you require the long-term operation and maintenance of permanent water quality controls. List methods used, such as drainage easements; language on recorded plats requiring legal title holder be responsible for BMP maintenance; legal authority to inspect, require, perform maintenance and recoup costs; requiring creation of HOA or owner’s association; and procedures to determine if BMPs are installed or constructed in accordance with specifications.

*Add Description Here*

Maintenance of permanent water quality BMPs within the County are accomplished in one of three ways: private maintenance by the developer, land owner, or the Homeowners Association; maintenance by the UDFCD for those major drainageway structures that are eligible; or by the special districts for their permanent structures. Maintenance responsibilities are delineated in the development planning documents, and ensured through appropriate plat notes, or other enforceable

mechanism. Maintenance of drainage easements is required. Notes on recorded plats require legal title holder be responsible for BMP maintenance; New notes also address the legal authority of the County to inspect, require, perform maintenance and recoup costs; requiring creation of HOA or owner's association; and procedures to determine if BMPs are installed or constructed in accordance with specs. Operation and maintenance agreements developed prior to implementation require the applicant develop and implement procedures for optimal operation and maintenance of the drainage structure or BMP. SOP 5.1 and 5.2 provide additional details on roles of staff as it relates to operation and maintenance of stormwater facilities for this program area.

6. Monitor long-term compliance –

- a. Inspections - Describe your inspection programs, including routine and complaint response inspections.
- b. Enforcement –List appropriate enforcement responses used, such as verbal warning to the developer/property owner, letter of noncompliance, notice of violation, chargeback to contractor for work completed by MS4 representatives, and/or municipal summons.

*Add Description Here*

- a. Inspections –Routine inspections of the drainage structure or BMP are conducted and tracked. Complaint response inspections are also performed. The inspection process includes an informal discussion of deficiencies and corrective actions as noted during the site inspection, including review of punch lists and inspection reports.
- b. Enforcement –A more formal enforcement process is utilized, as needed, which includes letter of noncompliance, notice of violation, and maintenance assessment or charge back to developer/property owner in the event County, or its designated agent, completes the work.

SOP 5.1 and 5.2 provide additional details on roles of staff as it relates to inspection and enforcement of stormwater facilities for this program area.

**D. Measurable Goals**

Inclusion of measurable goals should not be necessary, as the elements described in Part C, above, should constitute full program implementation and a commitment to continue these elements.

Arapahoe County Permit No. COR-080010	<b>POLLUTION PREVENTION/ GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS</b>	STORMWATER DISCHARGES ASSOCIATED WITH MS4s Program Descriptions 2008 - 2013
--	---	---

**A. Program Perspective**

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.

**B. Permit Requirements**

*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 pollutants in 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 system maintenance, as applicable. The permittee must:*

- 1) *Develop and maintain written procedures for the implementation of an operation and maintenance program to prevent or reduce pollutants in runoff from the permittee's municipal operations. The program must specifically list the municipal operations (i.e., activities and facilities) that are impacted by this operation and maintenance program. The program must also include a list of industrial facilities the permittee owns or operates that are subject to separate coverage under the State's general stormwater permits for discharges of stormwater associated with industrial activity; **(New permit requirement)***
  - i) *Specific Deadline for Renewal Permittees: Renewal Permittees must comply with the requirements of subparagraph (1) by no later than December 31, 2009.*
- 2) *Develop and implement procedures to provide training to municipal employees as necessary to implement the program under Item 1, above. **(Clarified permit requirement)***

**C. Program Elements:** By using existing, ongoing program elements to meet the permit requirements, the MS4 is committed to continuing each of these program elements. Any changes would require use of the program modification process as outlined in Part I.E.2 of the permit.

Address the existing program elements, including those developed during the first permit term. If elements developed during the first term will be discontinued in the second term, include a brief summary of the discontinued element(s).

1. Implementation of an operation and maintenance program - Describe your Pollution Prevention and Good Housekeeping program. Address how oversight of the program's implementation is conducted (e.g., internal audits or reporting). As discussed in Part D, below, you have until 2009 to develop written procedures for all operations and facilities addressed under the Pollution Prevention/Good Housekeeping program. Most permittees will need to provide a measurable goal to fully audit existing procedures and to document at least some additional procedures to meet this permit requirement. The 2009 Annual Report (due March 10, 2010) must include an inventory of all documented procedures. Therefore, it is not necessary to document all currently existing procedures in this submittal.

Add Description Here

The Pollution Prevention and Good Housekeeping program is implemented as summarized below. A phased approach is utilized for internal audits of key County facilities. As appropriate at critical facilities, included in runoff control plan documentation are inspection report forms that summarize inspection area, frequency and action items.

Maintenance Activities for Structural and Non-Structural Controls - Maintenance schedules and inspections are conducted at municipal facilities and adjacent outfalls in a routine fashion in accordance with runoff control plan documentation and SOPs.

Control Measures for Municipal Facilities and Activities – Material storage, good housekeeping, and spill prevention are addressed in site runoff control plans developed for municipal facilities. Mosquito control is also implemented at County water quality and detention facilities to abate mosquito born disease, such as West Niles virus. Arapahoe County has several entities that are associated with spill response within the County, including the local fire departments, the Arapahoe County Hazardous Materials Response Team (ACHMRT), and the Tri-County Health Department. Spills of different materials may have the potential to reach the drainage system depending on the location.

Building/Facility Maintenance – Chemicals and materials are disposed of at a prescribed frequency described in the RCP.

Construction of New Municipal Operations – The construction of new municipal operations include development of site Runoff Control Plan documentation and appropriate training.

Fleet Maintenance - Facility RCPs, SOPs, preventative maintenance, and Spill Prevention Countermeasures and Control (SPCC) Plan(s) (as appropriate) are provided for fleet maintenance facilities.

Park and Open Space Maintenance - The County subcontracts some of the outside park and open space maintenance with designated contractors. During all application activities by the County, or its designated subcontractors, the manufacturer's recommendations are used when mixing and applying the pesticides, herbicides, and fertilizers. Application equipment is kept in good operating condition with frequent maintenance to avoid any potential spills. To control the possible release of these materials to the Arapahoe County drainage system, the products are applied according to the manufacturer's recommendations and not to the point where the products would runoff. The minimum amount of products necessary for control is applied. Application of the products is limited to dry-weather periods. Additionally, product application in drainage areas or areas where there is or could be standing water is avoided.

Storm Drainage System Maintenance – SOPs have been developed to describe procedural requirements.

Street Maintenance and Snow Removal - Arapahoe County's Road and Bridge Section is responsible for the maintenance of right- of-ways, medians and other similar areas. During the winter, IceSlicer® is used to support snow removal of roadways. Street maintenance SOPs outline procedures for these

maintenance activities.

Flood Management Projects –All flood control projects are constructed in accordance with the UDFCD Manual. This manual provides the design criteria for all flood control projects in the County. Water quality enhancements are embraced by the UDFCD in their criteria and drainageway master plans.

2. Employee Training program - Describe your program(s) to educate municipal employees on implementing procedures for the Pollution Prevention and Good Housekeeping program.

*Add Description Here*

Appropriate County employees are educated about the potential pollution impacts of not practicing good housekeeping and not following procedures for municipal operations so that day-to-day activities and their consequences are understood. Training includes providing an understanding of the various municipal programs that have the potential to impact the water quality, and a set of procedures that prevent or correct problem areas. Written materials accompany developed procedures. Spill kits are on County sites and employees have been trained on their use. Education and training of affected staff on pollution prevention and good housekeeping procedures are on-going and typically incorporated in monthly safety meetings with the appropriate staff.

#### D. Measurable Goals

Measurable Goals are required as per Part I.B.6(a)(1) of the permit (Permit Requirement (a)(1) in Part B, above), unless this new permit requirement is already being met. Additional measurable goals should not be necessary if the elements described in Part C, above, constitute full program implementation and a commitment to continue these elements for all additional permit requirements.

**Check Box 1 or 2, below. The Table in Part 3 must be filled out if you check Box 2.**

1. Written procedures and lists, as listed in Part C.3, above, for the implementation of an operation and maintenance program to prevent or reduce pollutants in runoff from the permittee's municipal operations, have already been developed.  
 (It is not necessary to complete Part 3 below if you check this box.)
2. 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 have **NOT** already been fully developed.  
 (You must complete Part 3 below if you check this box.)
3. Pollution Prevention/ Good Housekeeping Measurable Goals: The Measurable Goal has been provided. Include the year when written procedures for the implementation of an operation and maintenance program to prevent or reduce pollutants in runoff from the permittee's municipal operations will be fully developed. **Measurable Goals must be completed by 2009.**