**United States Department of Agriculture**

NRCS

Natural Resources Conservation Service
Colorado Springs Service Center
5610 Industrial Place, Suite 100
Colorado Springs, CO 80916-1714

719-632-9598 Ext 3-OFFICE
719-473-0933-FAX
www.co.nrcs.usda.gov

April 2, 2013

Helen Migchelbrink
Director of Public Works/City Engineer
30 S Nevada Ave., Suite 504
Colorado Springs, CO 80901

Re: Letter of Support

Dear Ms Migchelbrink,

I am writing to show my support for the adoption of the Colorado Springs Drainage Criteria Manual. This manual takes into account the varied scenarios involved in managing storm water runoff for the protection of residents and infrastructure as well as interests downstream of developments. Many private landowners in the agricultural community are impacted in a negative way by storm water release from developments. This manual addresses the need to improve the release rates and lessen the negative impacts in the future. Hats off to the team that spent numerous hours developing this manual. The quality of this manuals content is testament to their skills and abilities.

During the development of this manual, multiple opportunities were presented to review and comment on the content of the manual. This was helpful in capturing the ideas of many different entities and individuals who have a stake in storm water and the impacts it can have. I will provide my support in any continuing effort to improve the manual in the future if the need arises.

Sincerely,

Greg Langer

Greg Langer
District Conservationist
USDA-NRCS
Colorado Springs, CO

# STATE OF COLORADO

**Colorado Water Conservation Board**
**Department of Natural Resources**
1313 Sherman Street, Room 721
Denver, Colorado 80203
Phone: (303) 866-3441
FAX: (303) 866-4474
www.cwcb.state.co.us



March 26, 2013

Mr. Dan Bare
City of Colorado Springs
30 S. Nevada, Suite 504
Colorado Springs, CO 80901

Dear Mr. Bare:

I am writing this letter to congratulate you on your effort in completing the updated Colorado Springs Drainage Criteria Manual and to recommend adoption by your board. The effort put into this was of excellent use, and I believe this updated manual will be very valuable for protection of both new and existing infrastructure throughout your city.

The process used to develop this manual was very thorough and transparent, both of which I appreciate at the state level. As you can imagine, numerous local manuals exist of differing qualities, and I believe your new document is one of the best I have seen. This was aided by utilizing numerous qualified reviewers of various professional disciplines, most of which took the time to comment in detail. Based on your detailed responses to these comments, I am confident that the comments were addressed in full.

I encourage you to utilize the new manual when performing reviews for development and new infrastructure. I believe that using the principles and procedures outlined in the manual will result in a safer and more resilient community in which you work.

Thank you again for your local efforts to improve drainage and increase flood preparedness within your community. As you know, flooding and related stormwater problems have historically been responsible for the highest damages and number of deaths of any natural hazard in the state.

Thank you for the opportunity to participate in the creation and review of this document. If you have any questions, feel free to call me at 303-866-3441, x3219.

Sincerely,

Kevin J. Houck

Kevin Houck, P.E., CFM
Chief, Watershed and Flood Protection Section
Colorado Water Conservation Board

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CARSON
1626 ELLIS STREET, SUITE 200
FORT CARSON, CO 80913

REPLY TO
ATTENTION OF

April 5, 2013

Directorate of Public Works

Subject: Updated City of Colorado Springs Drainage Criteria Manual

Ms. Helen Migchelbrink
Director of Public Works/City Engineer
City of Colorado Springs
30 S. Nevada Avenue, Suite 504
Colorado Springs, CO 80901

Dear Ms. Migchelbrink:

The purpose of this letter is to support the updated City of Colorado Springs Drainage Criteria Manual. Representatives from Fort Carson have been invited too and have attended several Manual development meetings throughout the life of the project. Furthermore, the contractor assisting the City in this effort has done a great job of fulfilling the goal to update the City's policies and practices to reduce stormwater related impacts within the Fountain Creek watershed that are technically sound and practical to implement. The Manual is not only useful for the City, but a solid guidance document for all in the watershed.

The close proximity of Fountain Creek to our boundary makes it an important asset in terms of its hydrologic, environmental and recreational attributes for our Soldiers and their families. Fort Carson is looking forward to the development of the Manual's spin-off projects as it relates to watershed-wide issues.

Collaboration and partnership are essential to long-term military training accomplishment on Fort Carson, environmental stewardship, community relationships, economic benefit and a good quality of life for our region and communities. The Garrison appreciates efforts and participation in Fountain Creek watershed issues.

Please do not hesitate to contact me at 719-526-3415 or my point of contact, Ms. Jessica Frank, at 719-526-1697 should you have any questions concerning this letter or our desire to be contributors to the regional sustainability planning process.

Sincerely,

Hal K. Alguire
Director of Public Works

COLORADO PARKS & WILDLIFE

4255 Sinton Rd • Colorado Springs, Colorado 80907
719.227.5200 • 719.227.5297
wildlife.state.co.us • parks.state.co.us

April 4, 2013

Helen Migchelbrink
Director of Public Works/City Engineer
City of Colorado Springs
30 S. Nevada Ave., Suite 504
Colorado Springs, CO 80901

Dear Ms. Migchelbrink,

Over the past few years our agency, Colorado Parks and Wildlife, has participated as an interested party in the development of the City of Colorado Spring's new Drainage Criteria Manual. This letter is intended to express our support of the process that was utilized in developing the manual.

We found the manual development process to be fair. The process allowed interested parties and shareholders the ability to discuss and provide suggestions or edits through multiple phases of the manual's development. Project manager Dan Bare and his contracted project team, particularly Matrix Design Group, were thoughtful and professional in meetings as well as through their response to suggested changes. The spreadsheet summary of review comments and 'MARKUP' versions were particularly helpful in understanding incorporated changes as well as the development groups thought process for incorporating individual suggestions.

We appreciate the opportunity to be involved in this process. We also look forward to further involvement as efforts continue with spin-off projects or other city projects that have the potential to impact the mission of Colorado Parks and Wildlife so that we may work together for the benefit of wildlife and outdoor recreation.

Sincerely,

Paul Foutz
Native Aquatic Species Biologist

CC: Dave Lovell, Acting Deputy Regional Manager
Doug Krieger, Senior Aquatic Biologist
Cory Chick, Area Wildlife Manager
Dan Bare, Project Manager

Pikes Peak
Regional Building
Department

2880 International Circle Drive
Colorado Springs, CO 80910
Telephone 719-327-2898
Web address – www.pprbd.org

Dear, Mr. Bare,

I am writing this letter in support of the adoption of the Colorado Springs Drainage Criteria Manual. This manual stands out as one of the most thorough and comprehensive drainage and floodplain criteria manuals in the state and country. I have used this manual as a guide/example during 2 previous career positions as a consultant in Fort Collins and a director of development in Tennessee.

I appreciate your extensive inclusion of stake holders during the recent update process. I found the revision process to be very efficient, transparent, and detailed.

I believe including floodplain criteria in this manual will ensure that the development community is fully informed and understands local regulations, resulting in a more efficient design development process for the community.

Again, thank you for the opportunity to participate in the review/revision of this important and beneficial guidance document.

Sincerely,

Keith Curtis PE, LEED® AP, CFM
Floodplain Administrator
Pikes Peak Regional Building Department

April 4, 2013

ELEVATE! COLORADO
WOODLAND PARK
CITY ABOVE THE CLOUDS

Helen Migchelbrink
Director of Public Works/City Engineer
City of Colorado Springs
30 South Nevada Ave,, Suite 504
Colorado Springs, CO 80901

SUBJECT: Letter of support for adopting the updated Colorado Springs Drainage Criteria Manual.

Dear Helen:

As Director of Public Works and City Engineer for the City of Woodland Park, please accept my congratulations on completing the updating of the Colorado Springs Drainage Criteria Manual and moving toward adopting the manual. I was a partner with your staff in the process of updating this manual and can attest to the level of effort that has been put into this project and the high level of participation by most of the interested parties. I know that each of the many questions or concerns that I raised were all promptly and adequately addressed by your team.

We have been so pleased with the efforts of your staff and consultants that I have engaged a similar team to begin reviewing and adapting relevant portions of your newly updated Colorado Springs Drainage Criteria Manual to Woodland Park and replacing our rather outdated criteria. As residents within the headwaters of Fountain Creek, the City of Woodland Park has always felt it is our duty to be good stewards of Fountain Creek and therefore our desire to also implement and adapt a similar and consistent set of drainage criteria for our community.

I have been personally involved with numerous projects and efforts throughout the Fountain Creek Watershed since 1995 and empathically support a regional and cooperative spirit within the watershed to address the many existing and future challenges we face. This updated criteria manual and our continuing partnerships will help ensure we continue to do what is best for our citizens and our watersheds.

Thank you for including myself and the City of Woodland Park in the efforts to update your drainage criteria manual.

Sincerely,

William A. Alspach, P.E., CPESC
Director of Public Works/City Engineer
City of Woodland Park

cc: David Buttery, City Manager

City of Woodland Park
220 W. South Avenue • PO Box 9007
Woodland Park, CO 80866

719-687-9246
Fax 719-687-5232
city-woodlandpark.org

**Via email**

**Sent:** Monday, April 01, 2013 3:42 PM
**To:** Migchelbrink, Helen
**Subject:** DCM Updates

Hello Helen Migchelbrink, P.E.

I wanted to briefly take a moment to send this note to you personally thanking Dan Bare for his efforts on the Drainage Criteria Manual (DCM) updates throughout the process. I know the City is still working on completing the efforts and it has been a long road through the stakeholder process over the last couple years. I have taken part as part of the industry in reviewing proposed changes at various points along the way. The comments and feedback presented to Dan and others have been well received and Dan has performed very well steering these efforts on behalf of the City. His efforts have been noticed and appreciated. He has done an outstanding job. Thank you for all his hard work.

Thank you,

John

**John D. Radcliffe PE, LEED ® AP**

*RDJ Consulting, LLC*

Cell: 719-238-8773

HBA Board of Director/ ACEC-CO Board of Director

HOUSING & BUILDING ASSOCIATION
4585 Hilton Parkway, Suite 100
Colorado Springs, CO 80907
p: 719-592-1800
f: 719-260-8398

April 4, 2013

Ms. Helen Migchelbrink
Public Works Director/City Engineer
City of Colorado Springs
30 S. Nevada Avenue
Suite 401
Colorado Springs, CO 80903

Dear Ms. Migchelbrink:

The Housing & Building Association of Colorado Springs supports Volumes 1 and 2 of the Drainage Criteria Manual (DCM) that is being presented to the Drainage Board and City Council this April. The HBA convened a working group which thoroughly reviewed the proposed revisions and suggested changes that were incorporated into the final manual. We would like to take this opportunity to thank your staff for the collaborative and transparent process the City organized for this process. We greatly appreciate the professionalism exhibited by your team and the consultants hired by the City.

With Volumes 1 and 2 of the DCM moving forward, we are also writing to urge support for the next phase of the DCM, which are the drafting of the "spin-off" projects including sections dealing with Site Planning and Design Standards, Floodplain Administration, Improvement Phasing, and Watershed-wide issues.

It has been the policy of the Housing & Building Association to oppose funding for the spin-off projects without the commitment of a robust stakeholder process between the Housing & Building Association and the identified drafting team for the spin-off chapters.

However, if HBA can be assured that the spin-off projects would be move forward with the inclusion of language clarifying that Colorado Springs Utilities be directly involved in the drafting process for the projects -- and that the drafting process would also include a full stakeholder process with the HBA (we would recommend an actual drafting working group between Colorado Springs Utilities, the City of Colorado Springs, and the Housing & Building Association) -- we would fully support the next phase of the Drainage Criteria Manual process to move forward.

HBA
www.cshba.com

As the DCM volumes are moving through the City's legislative approval process, this should be the right time for a group from the City, Colorado Springs Utilities, and the industry to move into a drafting and stakeholder process for additional chapters to the manual.

We fully understand the need for additional chapters to the Drainage Criteria Manual and the association between this guidance and mitigation associated with the Southern Delivery System (SDS). SDS is very important for the economic growth of our region and it is our intention to be partners in the development of the additional DCM chapters.

Please do not hesitate to contact me with any questions or comments about our position.

Sincerely,

John W. Bissett
2013 HBA President

**Colorado Water Institute**
Southern Region Office
2200 Bonforte Blvd.
417 Chemistry Building
Phone: (719) 549-2045
Email: cwi@colostate.edu

April 5, 2013

Helen Migchelbrink
Director of Public Works/City Engineer),
30 S. Nevada Avenue
Suite 504
Colorado Springs, CO 80901

RE: Colorado Springs Drainage Criteria Manual

Dear Helen:

I am writing to express my written support for the Drainage Criteria Manual (hereafter referred to as "Manual") prepared by Colorado Springs Engineering under the supervision of Dan Bare (Senior Civil Engineer).

Though I have not been heavily involved in the process, I have been encouraged over the last several years by the fact that there has been ample opportunity for experts to comment on the Manual. I believe it reflects the input of a wide range of professionals in the fields of stormwater management and hydrology. The Project and Consultant Team who worked on the Manual are among the best experts in the State of Colorado, in terms of fostering contemporary thinking on stormwater management. Additionally, while some were more active than others, there were 94 professionals that were regularly e-mailed and asked to provide feedback on the Manual. The opportunities to provide input were abundant.

I am pleased that the Manual embraces elements of Low Impact Development (LID). Such practices are widely needed in the Fountain Creek watershed, by both Colorado Springs and Pueblo. The nature of the hydrology in this watershed requires greater infiltration of stormwater runoff and is consistent with the nationwide trend towards LID. The emphasis on LID in Chapter 1 *Stormwater Management and Planning* in Volume 2 reflects a high degree of advancement over stormwater management practices that were utilized even as recently as a few years ago. These LID practices help to alleviate flooding and can aid communities by saving them the expense of expensive structural systems to convey runoff as quickly as possible from the point of origin. There is a need to support demonstration projects to showcase the capabilities of these LID practices, whereby developers and planners can grow more comfortable in constructing them.

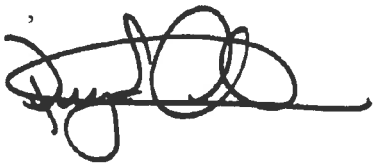
My role in the use of the Manual will be to emphasize its value to the Fountain Creek Watershed, Flood Control and Greenway District, for which I serve as the Vice-Chair of the Citizen's

Advisory Group. Insofar as I offer input to the Facilities Provost at CSU-Pueblo, I will also utilize the Manual as evidence that the antiquated system by which the university conveys its runoff be upgraded, using the techniques and BMPs outlined therein.

If there are any questions regarding these comments, or if I may be of further assistance, please do not hesitate to contact me at (719) 334-2558.

Best regards,

,



Perry Cabot
Extension Water Specialist
Assistant Professor/Research Scientist

Sent via email:

# Recycling Coalition of Colorado Springs

Fostering restoration and preservation of the regional hydrologic cycle

April 2, 2013

City of Colorado Springs/El Paso County Drainage Board
107 N. Nevada Ave.
Colorado Springs, CO 80903

RE: Draft Drainage Criteria Manual - Comments

Dear Board Members:

Your review of the City's Draft Drainage Criteria Manual (DCM) and upcoming recommendation to the City Council is of critical importance to the future of stormwater management in the Fountain Creek Watershed.

Responsibility for implementing the *Strategic Plan for the Fountain Creek Watershed* was accepted by the Board of County Commissioners and City Council four years ago when they approved Resolutions 08-517 and 9-09 respectively, entering into an *Intergovernmental Agreement for the Management and Conservation of Fountain Creek*. The Agreement stated, "WHEREAS, the Parties desire to preserve the collaborative work and attain the goals established by the Fountain Creek Vision Task Force" (Recitals p. 2).

As a member of the Fountain Creek Vision Task Force, which authored the Strategic Plan, the Recycling Coalition is seriously concerned about several shortcomings of the Draft DCM with respect to attaining the "Flooding and Stormwater Management" goals of the Plan (p. 31). These deficiencies and recommended remedial actions are explained below within the context of the numbered goals:

***1. Recognize that stormwater is a resource and manage it for the benefit of the watershed and entities downstream.***

Deficiencies:

- Subject to its primary purpose of flood protection, the Draft DCM should ensure that stormwater is utilized as a beneficial resource in our drought-prone, semi-arid climate. However, it will continue to enable the disposal of this resource through drainage strategies that dehydrate development, increasing the need to import water for irrigation.
- The Draft DCM requires treatment of runoff to EPA water quality standards and Full Spectrum Detention that attempts to control channel-forming discharges. Nevertheless, such minimal mandates will accommodate new development that increases runoff volume from many basins, resulting in greater streamflow and drainageway degradation.

Remedial Action:

- See Goals 4, 6 and 7 Remedial Actions.

***2. Preserve natural channel capacity through floodplain preservation and sedimentation controls.***

Deficiencies:

- A two-year effort by the City's Stormwater Management Assessment (SMA) Project to "Initiate an evaluation of policies related to floodplain administration to identify changes to make the policies more consistent with stormwater management goals" has been stalled. The Project's Executive Leadership Team intended it to recognize hazardous conditions and legal liabilities, and establish policies to address impacts. The results were to be incorporated into the Draft DCM.

- Sub-section 2.12 "Full Spectrum Detention" of Chapter 3, Draft DCM Volume 1, November 2011 version stated:

  *…Also, to maximize the benefits of this approach (full spectrum detention) it must be implemented throughout a drainage basin and downstream floodplain storage must be preserved. If the* (sic) *a mixture of detention schemes are implemented in a drainage basin or if downstream floodplain storage is reduced through encroachment, the full cost benefits will probably not be realized due to the higher cost of protecting against higher flow velocities and environmental benefits will probably not be realized due to floodplain encroachments that damage natural conditions* (p. 3-4).

- Preserving natural channel capacity has become more urgent now due to the greater probability of flash flooding in multiple channels that drain the Waldo Canyon burn scar and potentially in other channels that serve Wildland Urban Interface drainage basins.

Remedial Actions:

- If Full Spectrum Detention is expected to function as promulgated, floodplain encroachments must be prohibited by the Draft DCM in concert with floodplain ordinance changes deemed necessary by the SMA Project leaders over two years ago.
- Any loss of flood storage due to unavoidable floodplain encroachments should be mitigated by providing compensatory storage.

***3. Preserve the natural drainage way through conservation easements and streamside setbacks.***

Deficiency:

- Preservation of natural drainageways through streamside buffer setbacks that encompass the 100-year floodplain is a benchmark principle developed by the Center for Watershed Protection. It has not been adopted as recommended by the U.S. Army Corps of Engineers *Fountain Creek Watershed Study: Watershed Management Plan*, January 2009, (Sec. 3, p. 3-2) and as stipulated in Objective No. 2 of the Strategic Plan (p. 31).

Remedial Action:

- Establish jurisdictional streamside setbacks in the Draft DCM that encompass and preserve the 100-year floodplains of all natural drainageways.

***4. Improve channel stability and flow stability by formulating a watershed development policy that promotes matching the post-development hydrographs and the pre-development hydrographs for peak, volume, and timing to the extent practicable.***

Deficiencies:

- Full Spectrum Detention is the only means mandated by the Draft DCM that attempts to match post-development and pre-development hydrographs.
- Reservations are expressed in documents on the Urban Drainage and Flood Control District (UDFCD) technical papers/manuals webpage about the efficacy of Full Spectrum Detention (FSD) in drainage basins with mixed detention systems, as follows:

  - *…it (FSD) appears to address at least one of the hydrologic modification issues of urbanization (i.e., increased flow rates) better than other detention sizing procedures for the Denver area. However, this control has a chance of working only if this concept (is) uniformly implemented over 100 percent of the watershed and only if all facilities are designed, built and maintained in perpetuity for watersheds of up to a moderate size.*

    Source: Jim Wulliman, P.E. and Ben Urbonas, P.E. January 1, 2005, Peak Flow Control for Full Spectrum of Design Storms (Concept Paper), p. 12.

  - *For these benefits to be realized, however, full-spectrum detention must be uniformly applied (i.e., no exceptions for public streets and other urbanization) and an ongoing maintenance program is necessary to assure the long-term performance of basins.*

    Source: Jim Wulliman, P.E. and Paul Thomas, Spring 2005, Learning from Nature: Reducing Urban Stormwater Impacts, *LakeLine* magazine, p. 28.

- *It (FSD), like any other set of runoff controls, has a chance of working only if it is uniformly implemented over 100% of the watershed and only if all facilities are designed, built and maintained in perpetuity for watersheds of up to a moderate size.*
  Source: Ben Urbonas, PE and Jim Wulliman, PE, 2007, Full Spectrum Detention to Control Stormwater Runoff, p. 7.

- *Widespread use of Full Spectrum Detention would, in theory, improve channel stability and reduce erosion; however, implementation of Full Spectrum Detention may not be feasible in all sites. Therefore, this manual provides a variety of storage-based BMPs that provide the WQCV and address hydrologic effects of urbanization through storage, infiltration, and/or evapotranspiration.*
  Source: Urban Drainage and Flood Control District, August 2011, Urban Storm Drainage Criteria Manual Volume 3, Chapter 3, p. 3-1.

- In a similar vein, the 1041 permit for the Southern Delivery System requires that peak flows resulting from new development served by SDS will be no greater than existing conditions. It is a performance standard that cannot be met by using Full Spectrum Detention alone in partially developed drainage basins with different or no detention systems, as admitted to by the FSD originators above.
- According to the *Southern Delivery System Fact Sheet - Updated 3-12*, approximately 22,000 acres of non-Banning Lewis Ranch, undeveloped land will be served by the Southern Delivery System. Most of it appears to be in partially developed drainage basins with different or no detention systems.

Remedial Actions:

- In order to comply with its recommendation to match post-development and pre-development hydrographs, the Corps of Engineers Watershed Study: Management Plan also recommended:
  - *Review and modify development policies and landscape ordinances as necessary to include appropriate low impact development techniques (lowimpactdevelopment.org) such as those put forth by organizations such as the Center for Watershed Protection (cwp.org)* (Sec. 3, p. 3-2).
  - *Review and modify development policies as necessary to require assessment of upstream/downstream impacts (particularly the impacts due to small frequently occurring storm events such as the 2-yr. event)* (Sec. 3, p. 3-2).
- Examples of the successful use of low impact development techniques have been published in a multitude of journal articles and research reports, such as:
  *A Comparison of Runoff Quantity and Quality from Two Small Basins... (USGS 2008)*
- The Draft DCM should require that all drainage plans for new development demonstrate through quantitative engineering analysis how increased runoff volume will be minimized at the source to the extent practicable and otherwise mitigated such that resulting peak flows will be no greater than existing conditions in receiving channels.

***5. Promote efficient stormwater management so that runoff will not exceed downstream conveyance capacity in order to minimize adverse impacts downstream.***

Deficiencies and Remedial Actions:

- See Goal 4.

***6. Promote stable base flows and stabilize the stream system by retrofitting, to the extent practicable and in accordance with applicable Municipal Stormwater Discharge Permits (MSDPs), existing drainage systems to provide runoff reduction, water quality treatment, and improved stormwater management practices.***

Deficiency:

Without requirements or incentives in the Draft DSM to effectively reduce runoff volume at existing sources, retrofitting existing drainage systems is unlikely to stabilize the stream system.

Remedial Actions:

- Establish requirements or incentives in the Draft DCM to minimize directly connected impervious areas or otherwise reduce runoff in existing developments.
- The *Burnsville Stormwater Retrofit Study* (June 2006), using a paired watershed approach, exemplifies a residential retrofit project that utilizes rainwater gardens to effectively reduce runoff.

***7. Improve stormwater runoff conditions at the source, with respect to quality, quantity, and rate/duration of flow to better mitigate development impacts.***

Deficiencies:

- A two-year effort by the City's SMA Project to "Initiate an evaluation of Site Planning and Design standards (including Low Impact Development - LID) to identify opportunities for change that will mitigate stormwater runoff increases due to development" has been stalled. The Project's Executive Leadership Team cited the following reasons for performing the evaluation, the results of which were to be incorporated in to the Draft DCM:
  - *Integrates site planning and design standards with basin planning concepts and goals*
  - *Site infiltration provides only practical means to reduce runoff volumes*
  - *Very effective in improving water quality* (PowerPoint handout, p. 27)
- Also stalled was a similar "cost avoidance" approach advocated by consultant Summit Economics LLC with the release of its *APPENDICES: White Paper Exploring Potential Solutions to Regional Stormwater Challenges* (June 2012) suggesting:
  - *…if allowed enough flexibility in terms of design and mix of LID practices, the net impact could be a reduction in development costs. The key is flexibility* (p. 34).
  - *Rather than local governments dictating a prescribed list of LID practices, a more effective approach would be to specify an allowable stormwater discharge limit, provide a general set of design parameters, and then allow the developer to devise the best mix of LID and on-site stormwater management facilities. This would encourage innovation and lead to the most efficient design of facilities and lowest overall costs* (p. 34).
  - *…the SDS 1041 permit…effectively places a cap on the amount of stormwater runoff that can be discharged into Fountain Creek* (p. 35).

Remedial Actions:

- The Site Planning and Design Standards evaluation project, deemed necessary by the SMA Project over two years ago, is still needed to provide the general set of design parameters recommended by Summit Economics LLC.
- The Draft DCM should require engineered LID/Best Management Practices and drainage facilities (already contained or referenced in the Manual) to be analyzed and cost-effectively tailored to development sites within the general set of design parameters. This provision would help meet the runoff discharge limit established by the SDS 1041 permit.
- Potential reductions in development costs have been investigated and verified by the EPA and can be accessed in its Fact Sheet: *Reducing Stormwater Costs Through Low Impact Development*, which also provides access to a more detailed report of development project cost findings.

The Recycling Coalition requests that your Draft DCM recommendation to the City Council be withheld until the deficiencies noted above are remedied. Such assistance would help to assure conformance of the Draft DCM with the *Strategic Plan for the Fountain Creek Watershed* and would therefore be greatly appreciated.

Respectfully submitted,

*Gary Rapp*, AICP
Wastewater & Stormwater Leader
Recycling Coalition of Colorado Springs
803 E. Monument St.
Colorado Springs, CO 80903
719-636-9075
recycling_coalition@yahoo.com cc: Strategic Plan stakeholders