

# EL PASO COUNTY



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## Department of Public Works Engineering ~ Highway Division ~ Fleet Services

**To:** El Paso County Engineering Criteria Users

**From:** Jennifer E. Irvine, County Engineer/ECM Administrator, EPC DPW

**CC:** Craig Dossey, Executive Director, Planning & Community Development Services  
Scot Cuthbertson, Executive Director, Department of Public Works  
Lori Seago, Senior Assistant County Attorney, Office of the County Attorney

**Date:** 20 June 2019

**Re:** El Paso County Engineering Criteria Revisions (ECM-19-001)

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Section 1.10 of the El Paso Engineering Criteria Manual (ECM) addresses conflicts between provisions of the ECM. Specifically, whenever any provision of the ECM conflicts with a provision in any federal, state or local law, ordinance, resolution, rule, or regulation, the more restrictive or higher standard shall be used.

New provisions of the El Paso County municipal separate storm sewer systems (MS4) Permit (COR090011) are effective July 1, 2019. Sections of this MS4 permit conflict with provisions of the ECM. El Paso County is in the process of updating its regulations and adopting revisions to the ECM related to the state regulated requirements of the El Paso County MS4 Permit. The El Paso County Board of County Commissioner will hear the first reading of the proposed revisions on June 25, 2019 with final adoption of the ECM Revisions on July 2, 2019.

Until the draft ECM revisions can be formally adopted by the El Paso County Board of Commissioners, the more restrictive and higher standards contained in the MS4 permit shall be used, and this shall be implemented by applying the new provisions of the EPC MS4 permit as outlined in the draft ECM revisions. As such, all users of the ECM, including but not limited to subdivider, developers, landowners, owners of facilities located in El Paso County rights-of-way, tracts or easements, and El Paso County, and their employees, agents, or contractors designing, constructing, and maintaining facilities or conducting activities subject to review and approval under the provisions of the ECM shall begin utilizing the revised ECM (the version updated to comply with the MS4 permit) starting on July 1, 2019. This directive shall be in place until July 2, 2019 or until such time when the El Paso County Board of County Commissioners adopts the proposed changes pursuant to the statutory public noticing requirements.



## Chapter 1 General Provisions – revisions

<b>MS4 Language</b>	<b>Section of item to be changed</b>	<b>Typo, minor or major</b>	<b>Description</b>
No	1.5	Minor	<p><b>Add:</b></p> <ul style="list-style-type: none"> <li>• City of Colorado Springs Drainage Criteria Manual Volume 1, 2014 Update: Chapter 6 and Section 3.2.1 of Chapter 13.</li> <li>• The Urban Drainage and Flood Control District's Urban Storm Drainage Criteria Manual: Volume 3, Chapter 7, Construction BMPs (version applicable at time of project design).</li> </ul>
Yes	1.9	Minor	<p><b>Add highlighted text to bullet list between paragraph 3 and 4:</b></p> <ul style="list-style-type: none"> <li>• The deviation will achieve the intended result with a comparable or superior design and quality of improvement.</li> <li>• The deviation will not adversely affect safety or operations.</li> <li>• The deviation will not adversely affect maintenance and its associated cost.</li> <li>• The deviation will not adversely affect aesthetic appearance.</li> <li>• The deviation meets the design intent and purpose of these Standards.</li> <li>• The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.</li> </ul>
Yes	1.22	Minor	<p><b>Add new definition:</b>  <b>Municipal Separate Storm Sewer System (MS4):</b> The system of conveyances owned or operated by El Paso County designed or used for collecting or conveying stormwater, including but not limited to roads with drainage systems, inlets, catch basins, curbs, gutters, pipes, man-made channels, ditches, detention and water quality basins, or storm drains.</p>
No	1.22	Minor	<p><b>Add new definition:</b>  <b>Common Development Improvement:</b>          Improvements under the ownership or control and maintained by a private or public entity other than El Paso County, including greenways, drainage systems and permanent stormwater management facilities.</p>
Yes	1.22	Minor	<p><b>Revise definition:</b>  <b>Best Management Practices:</b> Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "state surface waters." BMPs also include treatment requirements for and operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term BMP is used interchangeably with the term <b>control measure</b>, and can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.</p>
Yes	1.22	Minor	<p><b>Add new definition:</b>  <b>Common Plan of Development or Sale:</b> A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. "Contiguous" means construction activities located in</p>

## Chapter 1 General Provisions – revisions

			close proximity to each other (i.e., within ¼ mile). Construction activities are considered to be “related” if they share the same development plan, builder or contractor, equipment, storage areas, etc.
Yes	1.22	Minor	<p><b>Add new definition:</b></p> <p><b>Applicable Construction Activities:</b> construction activities that result in a land disturbance of greater than or equal to one acre or that is less than one acre, but is part of a larger common plan of development or sale that would disturb, or has disturbed since March 2, 2001, one acre or more, unless excluded consistent with Chapter 5 or the disturbed areas have been finally stabilized.</p>
Yes	1.22	Minor	<p><b>Add new definition:</b></p> <p><b>Construction activity:</b> Refers to ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of regular maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is cleared, graded, or excavated as part of the repaving operation are considered construction activities unless they are an excluded site described in section I.7.2.E of this ECM. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.</p>
Yes	1.22	Minor	<p><b>Add new definition:</b></p> <p><b>Control Measure:</b> Any best management practice or other method used to prevent or reduce the discharge of pollutants to waters of the state. Control measures include but are not limited to best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structure controls and treatment devices.</p>
Yes	1.22	Minor	<p><b>Add new definition:</b></p> <p><b>Land Disturbing Activity:</b> Any activity that results in a change in the existing land surface (both vegetative and non-vegetative). Land disturbing activities include, but are not limited to clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity.</p>

## Chapter 3 Drainage - revisions

Date	Chapter of item to be changed	Section of item to be changed	Person Requesting Change	Typo, minor or major	Description
1/1/19	Chapter 3	All	Chavez	Major	See change document attached to this revision table on page 2.

**From Chavez:  
ECM Chapter 3 Revisions  
2019**

### **Page 3-1**

#### **Chapter 3. Drainage Table of Contents**

Change Title to: Stormwater Management

3.3: Delete “Stormwater” New Section Heading: Design

Add new section 3.3.7: Permanent Stormwater Management Facilities

### **Page 3-3**

Update webpage addresses to:

For DCMV1:

<https://publicworks.elpasoco.com/policies-manuals/>

For drainage fees:

<https://publicworks.elpasoco.com/road-bridge-planning/>

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#### **Table 3-1 Contents and Basis of Drainage Facility Standards**

Under the Design heading, remove: “Site Grading” / ECM Section 3.3.1 / Reference Documents 2,3. (Note: Site Grading not mention in 3.3.1)

Under Design heading, add new: Permanent Stormwater Management Facilities / ECM Section 3.3.7 / Reference Documents n/a.

Under the Construction heading, add: Site Grading / ECM Section 3.3.4 / Reference Document 2,3.

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#### **References**

Add:

4. City of Colorado Springs Drainage Criteria Manual 2014 Update: Chapter 6 and section 3.2.1 of Chapter 13

5. Urban Drainage and Flood Control District Criteria Manual Volume 3, Chapter 7

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#### **Section 3.2.4 Suitable Outfall Location Definition**

Add: “hydrologically and” to last sentence of first paragraph between words “existing” and “hydraulically adequate...”

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## Chapter 3 Drainage - revisions

### **Section 3.2.5.A Space Planning**

Replace existing paragraph with:

Adequate space shall be provided and properly allocated for drainage facilities to ensure that downstream water quality impacts are minimized. When topography of a site dictates the need for addressing water quality near State Waters, adequate space must be provided for the location of permanent water quality structures prior to the discharge to State Waters. At no time shall concentrated flows be allowed from developed lots to discharge directly to State Waters.

Up to 20 percent, not to exceed one (1) acre, of an applicable development site may be excluded from Water Quality Capture Volume (WQCV) calculations when it has been determined that it is not practicable to capture runoff from portions of the site that will not drain towards a permanent control measure. The Owner must determine that implementation of a separate control measure for that portion of the site is not practicable and such determination shall be reviewed and approved by the ECM Administrator. See Appendix I for additional information.

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### **Section 3.2.5.E. Stormwater Quantity and Quality**

Land disturbance activities shall properly manage and mitigate both stormwater quantity and quality related impacts. Quantity related impacts shall be mitigated in a manner that controls possible damage caused by the amount of surface water being transported to any one design point. Quality related impacts shall be mitigated using the design standards and permanent BMP selection process discussed in Appendix I.

All applicable development sites must have operational permanent stormwater quality control measures at the completion of the site. In the case where permanent water quality control measures are part of future phasing, the permittee must have a mechanism to ensure that all control measures will be implemented, regardless of completion of future phases or site ownership. In such cases, temporary water quality control measures must be implemented as feasible and maintained until removed or modified. All temporary water quality control measure must meet one of the design standards discussed in Appendix I.

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### **Section 3.2.5.F. Water Rights (new second paragraph):**

Colorado Revised Statute (CRS) §37-92-602 (8) provides legal protection for any regional or individual site stormwater detention and infiltration facility in Colorado, except those in the Fountain Creek watershed, that are not required by or operated in compliance with a Municipal Separate Storm Sewer System (MS4) permit, provided it meets the following criteria:

1. It is owned or operated by a governmental entity or is subject to oversight by a governmental entity (e.g., required under an MS4 permit).

## Chapter 3 Drainage - revisions

2. It continuously releases or infiltrates at least 97% of all of the runoff from a rainfall event that is less than or equal to a 5-year storm within 72 hours after the end of the event.
3. It continuously releases or infiltrates as quickly as practicable, but in all cases releases or infiltrates at least 99% of the runoff within 120 hours after the end of events greater than a 5-year storm.
4. It operates passively and does not subject the stormwater runoff to any active treatment process (e.g., coagulation, flocculation, disinfection, etc.).
5. The runoff treated in stormwater detention and infiltration facilities shall not be used for any other purpose by the owner/operator/overseer (or that entity's assignees).
6. The run off shall not be released for subsequent diversion or storage by the owner/operator/overseer (or that entity's assignees).
7. It shall not be the basis for a water right or credit.

Most stormwater detention and infiltration facilities constructed in unincorporated El Paso County are subject to the oversight of El Paso County and are required by an MS4 permit. Thus, El Paso County developed a registration process to meet the requirements of CRS §37-92-602 (8). Please refer to section 3.3.7 for required information to be submitted during plan review to allow for facilities to be protected under the provisions of the statute.

### **Page 3-24**

#### **Section 3.3.5. Roadways**

Add: CDOT M&S Standards to end of last sentence.

### **Page 3-25**

#### **Section 3.3.6 Subsurface Drainage (new sub-section C)**

##### **C Permitting Requirement**

###### **1. Construction Dewatering Permit**

Dewatering associated with construction activity is allowed when performed consistent with the Colorado Department of Public Health and Environment Low Risk Discharge Policy for Discharges of Uncontaminated Groundwater to Land. The discharge of groundwater that will leave the permitted site in the form of surface runoff requires additional permit coverage by an appropriate CDPS Construction Dewatering Permit. The discharge of construction dewatering into the MS4 shall not occur without prior notification to and approval from El Paso County Department of Public Works and shall only be approved when done consistent with the Low Risk Discharge Policy or approved CDPS Construction Dewatering Permit.

###### **2. NPDES Permit**

In the event no other option exists but to “day light” a subsurface discharge, thereby transforming ground water flow into surface water flow, an NPDES permit may be required by the Colorado Department of Public Health and Environment. It shall be the responsibility of the applicant and or owner to apply for and maintain any required NPDES permit.

## Chapter 3 Drainage - revisions

### **3. Well Permit**

The Colorado Division of Water Resources may require a Well Permit for any subsurface discharge that meets the definition of “well,” found in CRS §37-91-102(4.5).

### **Page 3-25**

#### **Section 3.3.7 (new section)**

#### **Permanent Stormwater Management Facilities**

Post construction stormwater management often relies on facilities designed for detention or infiltration of stormwater from developed areas with a goal to release accumulated runoff at levels that mimic historic levels. There are specific notification requirements that apply to all new stormwater detention and infiltration facilities, including individual site facilities built by private parties as a development requirement. For any stormwater detention and infiltration facility constructed after August 5, 2015 and seeking protection under the new statute, the “entity that owns, operates, or has oversight for” shall, prior to operation of the facility, provide notice to all parties on the substitute water supply plan notification email list maintained by the State Engineer.

El Paso County developed a Post Construction Stormwater Detention Facility Documentation Form and procedure to assist applicants in the process of registering stormwater detention and infiltration facilities pursuant to the provisions of CRS §37-92-602 (8). This documentation form can be found in Appendix E, Checklists and Permits.

With submission of a Final Drainage Report for a project, the design engineer must include for each detention and infiltration facility proposed for the project:

1. a completed Post Construction Stormwater Detention Facility Documentation Form
2. a completed Stormwater Detention and Infiltration Facility Design Data Sheet for each facility included in the project
3. an Operations and Maintenance Manual
4. a Private Detention Basin / Stormwater Quality Best Management Practice Maintenance Agreement and Easement

The Stormwater Detention and Infiltration Facility Design Data Sheet can be downloaded from the statewide notification and compliance portal at:  
<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>, or by contacting the El Paso County Project Engineer assigned to the project.

El Paso County Planning and Community Development Project Engineers will review the submitted documentation forms for completeness and accuracy. Upon verification of completed and accurate documentation and data sheets, El Paso County staff will upload each facility into the statewide reporting portal once the facility become operational.

### **Page 3-25, 26**

#### **Section 3.4: Replace entire section with this new text:**

[Replaces City of Colorado Springs/El Paso County Drainage Criteria Manual Section 4.8.2 Information to be included in the Erosion Control Plan)

## Chapter 3 Drainage - revisions

The intent of the Grading and Erosion Control (GEC) Plan is to provide for overall subdivision or development grading design as part of the engineering required for review and approval by the County. This plan is done at the time subdivision or development construction drawings are prepared by the Professional Engineer working for the developer. This is complex work whereby cuts and fills are analyzed for balance and slopes and contours are proposed as an integral part of the engineering design. A second important purpose of the GEC Plan is to estimate the cost of the overall grading and erosion control measures known as Best Management Practices (BMPs) or control measures, and of ultimate site stabilization. The County subdivision regulations require that collateral for these activities be posted prior to any land disturbing activity. It is therefore important that the GEC Plan be completed and approved at the time of subdivision construction drawing approval so that these costs can be accurately estimated and included with the required subdivision collateral.

The Board of Commissioners of El Paso County passed Resolution 07-279 on June 28, 2007 "Authorizing a Joint Policy Statement on Clarifications to Previously Approved Regulations Concerning Grading, Erosion Control, and Dust." The clarifications include definitions and checklists of required components of GEC Plans and Stormwater Management Plans (SWMP) and Standard Notes for the GEC Plans, SWMP and construction plans. The checklists and standard notes can be found in Appendix E of this manual. These checklists and standard notes replace the requirements in City of Colorado Springs/EI Paso County Drainage Criteria Manual for GEC Plans and the City of Colorado Springs Drainage Criteria Manual, Volume 2: Stormwater Quality Policies, Procedures, and Best Management Practices (BMPs) (DCM2) for SWMP.

A checklist was developed to assist in the development and review of GEC Plans submitted for review and approval. The checklist shall be used by applicants (i.e. Engineer of Record) to ensure the submitted GEC Plan contains all the required elements. The same checklist is used by El Paso County Project Engineers to guide the review of submitted plans. A copy of a completed review checklist is signed and dated by the Project Engineer upon completion of a submittal review. The signed and dated checklist is kept with all other project documents in an electronic database.

At the time of GEC Plan approval, the exact timing and phasing of the work is not always known because the start date may be delayed or the earthwork contractor, who has expertise in planning and phasing the land disturbing activity, may not yet be under contract. Detailed phasing of the work and the proposed construction schedule shall be deferred to the required SWMP.

El Paso County also developed a checklist to guide the development and review of the SWMP to ensure all the required elements are. Given that SWMPs are intended to be dynamic documents to reflect onsite conditions at all times, El Paso County does not approve the submitted SWMP. Rather it performs a completeness review to ensure the applicant has at the time of project commencement a SWMP on site that addresses all the required elements of Part I.E.3.a.iv.B of the MS4 permit. The SWMP Checklist is used by El Paso County Project Engineers to perform the completeness review of a submitted SWMP. The completed SWMP Checklist is signed and dated by the Project Engineer and is included with other project records in an electronic database to document the review process.

Per section 1.12 of this ECM, GEC Plans shall expire if site construction or land disturbance has not commenced within twenty-four (24) months of plan approval, and the

## Chapter 3 Drainage - revisions

plans must be resubmitted for re-approval. Previously approved plans shall also be resubmitted for re-approval when any of the following occur:

- Change in ownership of the property to be disturbed;
- Development design changes that alter hydrology or hydraulics of permanent drainage systems; or
- Grading design changes that affect one (1) or more acres of land.

## Chapter 5 Permits and Inspections - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
No	Section 5.1.1	Minor	<p><b>Change last sentence to:</b>            The chapter also establishes the acceptance process for public infrastructure and common development improvements.</p>
No	5.6.1	Minor	<p><b>Rewrite paragraph:</b>            The Erosion and Stormwater Quality Control Permit (ESQCP) and Builder's Erosion and Stormwater Quality Control Permit (BESQCP) are established tools to: protect water quality in the County; provide for the enforcement of specific stormwater control measures (also known as Best Management Practices (BMPs)) during construction through final stabilization; and implement control measures required by the County's MS4 Permit. The permits and associated standards are intended to minimize soil erosion and sedimentation during and after construction and to control non-point source pollution by requiring the implementation of soil erosion, sedimentation, and runoff control measures for protection of water quality. Refer to Appendix I for specific application and permit holder responsibilities for ESQCPs and BESQCPs.</p>
Yes	5.6.2	Major	<p><b>Rewrite paragraph:</b>  <b>ESQCP Permit and Notice to Proceed Required</b>            An ESQCP is required for construction activities that result in land disturbance of greater than or equal to one acre or that is less than one acre, but is part of a larger common plan of development or sale that would disturb one acre or more, unless the activity meets exclusion criteria in section 5.6.3. Any project involving land disturbing activity of less than 1 acre but which disturbs more than 500 cubic yards of material (stockpiling, cut and/or fill) may be considered an applicable construction activity at the ECM Administrator's discretion when potential pollutants, site topography, hydraulics or proximity to a surface water body are of significant concern.            For builders of single residential homes that are not part of a larger common plan of development or sale, and that will disturb less than one acre of land, a BESQCP may be obtained following a simplified procedure.            No work shall begin under an approved ESQCP or BESQCP until the ECM Administrator has issued a Notice to Proceed under an approved Construction Permit or until issuance of a Building Permit.</p>
Yes	5.6.3	Major	<p><b>New section 5.6.3</b>            The following construction activities are not subject to ESQCP or BESQCP requirements.</p> <ul style="list-style-type: none"> <li>A. Construction activities that qualify for the R-Factor waiver provided in Colorado Regulation No. 61, 5 CCR 1002-61, Section 61.3(2)(f)(ii)(B).</li> <li>B. Large lot single family home construction when land disturbance greater than one acre occurs on a single-family residential lot or agricultural zoned land with a</li> </ul>

## Chapter 5 Permits and Inspections - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>parcel size greater than or equal to 2.5 acres and a total site impervious area less than or equal to 10 percent. Up to 20% impervious area may be allowed when a study specific to the watershed and /or parcel is conducted by the owner and approved by the ECM Administrator which demonstrates that expected soil and vegetation are suitable to infiltrate 100% of the Water Quality Capture Volume (WQCV). See Appendix I for information on WQCV.</p> <p>C. Facilities associated with oil and gas exploration, production, processing, or treatment operations, or transmission facilities, whether or not such field activities or operations may be considered construction activity.</p>
No	Section 5.6.4	Minor	<p><b>Add in text and section title from 5.6.3 replaced above: Relationship to Other ECM Permits</b></p> <p>In most cases, construction of public facilities within any County right-of-way or easement or the construction of common development improvements including grading will require that the applicant obtain an ESQCP. In cases where a submitted drainage report demonstrates the need for permanent stormwater quality management, a grading and erosion control plan may be required in cases where land disturbance is less than one (1) acre.</p>
No	New Section 5.6.5	Minor	<b>Add text from existing section 5.6.4. Application, Review, Approval, Inspections and Enforcement.</b>
No	Section 5.3.15	Minor	<p><b>Change Section Title to:</b> Construction Surety, Warranties, and Acceptance of Public and Common Development Improvements</p>
Yes/No	Section 5.3.15. A	Minor	<p><b>Rewrite paragraph:</b> The purpose of this section is to set forth the policies and procedural guidelines for providing an acceptable guarantee of performance and compliance with County and State requirements for the acceptance of public and common development improvements.</p>
Yes/No	Section 5.3.15.B	Minor	<p><b>Rewrite paragraph:</b> The applicant shall be required to submit construction surety in a form acceptable to the ECM Administrator prior to the issuance of a Construction Permit. The construction surety shall be released in accordance with the provisions of Section 5.3.16.E or as otherwise allowed by any approved development agreement or subdivision improvements agreement. 2-year defect warranty surety shall be posted by the permit holder for public and common development improvements prior to preliminary acceptance and release of any portion of the construction surety.</p>
Yes/No	Section 5.3.15.D.1.	Minor	<p><b>Change Title to: Surety Required</b> <b>Rewrite paragraph:</b> The applicant is required to ensure the construction of all public and common development improvements and utilities</p>

## Chapter 5 Permits and Inspections - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			are in accordance with the Construction Permit, approved plans and drawings, the standards of this ECM, and any development or subdivision improvements agreement. The construction surety must be posted prior to issuance of a Construction Permit for the proposed work or recording of the final plat in the case of a subdivision.
Yes/No	Section 5.3.15.D.2	Minor	<p><b>Rewrite paragraph:</b></p> <p>All surety estimates will be prepared based on unit prices for new public or private sector construction in the County. The applicant shall complete and submit a Construction Surety Estimate to the ECM Administrator. The ECM Administrator will review the surety estimate for public and common development improvements and will coordinate with the appropriate utility providers to review the surety estimate for water, sewer, and other utilities.</p>
No	Section 5.3.15.D.3	Minor	<p><b>Rewrite Section:</b></p> <p><b>The acceptable forms of surety guarantee for construction surety are: Performance Bond from a bond or insurance company authorized to do business in the State of Colorado, Letter of Credit from a financial institution authorized to do business in the State of Colorado, cash, or Certified or Cashier's Check. Other forms or construction surety such as a plat restriction or deeds of trust may be approved by the Board of County Commissioners.</b></p>
Yes/No	Section 5.3.15.E.1.	Minor	<p><b>Rewrite 1<sup>st</sup> paragraph:</b></p> <p>The permit holder seeking preliminary acceptance shall notify the ECM Administrator that the public and common development improvements are complete and ready to be accepted by the County. The permit holder shall schedule a preliminary acceptance walk-through. The ECM Administrator shall develop a punch list of items to be corrected prior to preliminary acceptance and noncritical items which must only be completed prior to final acceptance. The walk-through shall involve at a minimum the ECM Administrator and the construction representative.</p>
No	Section 5.3.15.E.3	Minor	<p><b>Rewrite last bullet of bulleted list and last paragraph:</b></p> <p>Reductions will not occur until completion and approval of at least 30% of the public and common development improvements.</p> <p>Twenty percent (20%) of the original construction surety amount will be retained until final completion and preliminary acceptance of all public and common development improvements. Preliminary acceptance will not begin until the applicable defect warranty surety is posted.</p>
Yes	Section 5.3.15.E.4	Minor	<p><b>Rewrite paragraphs:</b></p> <p>Construction surety shall be released upon completion and preliminary acceptance of all public and common development improvements and posting of defect warranty surety. A county public improvement is deemed to be</p>

## Chapter 5 Permits and Inspections - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>complete when it is preliminarily accepted and taken over for maintenance by the County. Other public improvements are deemed to be complete when approved by the public authority or state agency responsible for maintaining and operating the improvement. A common development improvement is deemed to be approved once the ECM Administrator determines that the improvements are complete and operates in accordance with the approved plans. For common development improvements that include permanent stormwater quality control measures, additional final inspection criteria are provided in Appendix I.</p> <p>Engineering Record Drawings are required at the time of preliminary acceptance in accordance with section 5.10.6. However, any field modifications made to the site contrary to the accepted drawings during the warranty period will be documented during inspections, and an addendum must be submitted to revise the Engineering Record Drawings prior to receiving Final Acceptance.</p>
No	5.9 add new section 5.9.4	Major	<p><b>New Section 5.9.4. Application Requirements</b></p> <p>Engineering drawings submitted for approval with site development plans shall be prepared, stamped and signed by a Professional Engineer licensed to practice in the State of Colorado. Engineering drawings submitted for the initial application submission and subsequent reviews shall be provided in .PDF file format and are not required to be stamped and signed by the engineer of record.</p> <p>On or after July 1, 2019, all construction drawings and final plat base drawings submitted for final signature approval by the ECM Administrator shall be provided in .PDF and CAD file format (.DWG) 2016 or newer version. Included with the CAD file submitted for final approval shall be at least two survey reference points to allow the County to move, fit and rotate the project file to the survey coordinate system used by El Paso County.</p>
No	5.10.4.A.	Minor	<p><b>At end of “General” Paragraph add:</b></p> <p>For additional information on sites subject to Erosion and Stormwater Quality Control Permit (ESQCP) inspections please refer to Appendix I.</p> <p>Change: “as” to “has” in last sentence.</p>
Yes/No	5.10.6	Major	<b>Replace entire section with text provided at end of this revision table.</b>

## Chapter 5 Permits and Inspections - revisions

### NEW SECTION 5.10.6

#### 5.10.6 Engineering Record Drawings

##### A. Record Drawing Required

Engineering Record Drawings are required for all projects that include public improvements or common development improvements, including but not limited to roadway improvements, public sidewalks and trails, storm drainage facilities, and utility infrastructure on public property or on private property within public easements or rights-of-way. Engineering Record Drawings are necessary for inclusion of public improvements into the El Paso County Asset Management System, to serve as a basis to plan and design future projects in the same area, to demonstrate ADA compliance, and to document compliance with permitting requirements such as the County's MS4 permit. Engineering Record Drawings shall be submitted in an electronic format acceptable to the ECM Administrator as described below in section 5.10.6.D.

##### B. Reflect Changes to Construction Plans

Engineering Record Drawings are a record of any substantial variations or changes to the original intended physical product of the approved construction plans, based upon visual field observations or field survey data. The revisions shall be shown on a copy of the original approved construction plans that are filed with the County. Engineering Record Drawings submitted for County review may be the same drawings as the original approved plan drawing if no substantial variation to the original approved design occurred. Engineering Record Drawings shall be accompanied by a certification letter from the Engineer of Record which shall state that the site and adjacent properties (as affected by work performed under the County permit) are stable with respect to settlement and subsidence, sloughing of cut and fill slopes, revegetation or other ground cover, and that the improvements (public improvements, common development improvements, site grading and paving) meet or exceed the minimum design requirements.

For sites including detention and/or water quality facilities, the certification letter shall include a statement that the facilities provide the required storage volume and will meet the required release rates, as documented by an attached UDFCD design form submitted with the original application, the stage areas, elevations and outlet dimensions. If the detention/WQCV facility cannot be modeled with UDFCD spreadsheets due to a large contributing area, other verified stage/storage/discharge tables for the applicable design storms shall be provided with the certification letter.

At the initiation of the Preliminary Acceptance process, Engineering Record Drawings shall be submitted for review and approval by the ECM Administrator.

##### C. Record Drawings Approval Process

To facilitate the approval process of Engineering Record drawings, the following procedure shall be followed.

- The permit holder's engineer of record shall submit the Engineering Record Drawings for ECM Administrator review in the applicable formats specified below.
- The ECM Administrator will review the drawings and redline any necessary changes. The engineer of record shall update the drawings and resubmit the drawings for approval.

## Chapter 5 Permits and Inspections - revisions

- Upon ECM Administrator approval of the final Engineering Record Drawings, the drawings will be uploaded to the El Paso County Planning and Community Development (PCD) Electronic Development Application Review Program (EDARP). If there are multiple hardcopy sets the County will retain one set.
- The Engineering Record Drawings shall clearly indicate the completed state of construction for the project. Each sheet of the record drawings shall be designated as "Engineering Record Drawings" and signed and dated by the engineer of record.
- Financial assurances for the Engineering Record Drawings line item in the project Financial Assurance Estimate will not be released until the Engineering Record Drawings are submitted, verified and approved, nor will partial releases of any line item be reduced to less than 20%. It is recommended that the required format of drawings and certification letter be submitted at least one month prior to the developer's request for Preliminary Acceptance to expedite the County acceptance process.

### D. Required Engineering Record Drawings Format

1. A complete construction plan set, including the plat or parcel boundaries as applicable, conforming to the minimum requirements in this section is required. Hard copy drawings will only be accepted in special cases as approved by the ECM Administrator.
2. For projects submitted on or after July 1, 2019, Electronic CAD files shall be in AutoCAD format (.DWG) 2016 or newer or in .PDF file format.

Survey/GIS Reference Links:

State monument records:

[https://www.colorado.gov/pacific/dora/AES\\_Monument\\_Records](https://www.colorado.gov/pacific/dora/AES_Monument_Records)

<http://www.cp-db.com/kml/ElPasoCountyMonumentRecordsNetworkLink.kmz> (KMZ file)

Vertical benchmark data: <https://www.ngs.noaa.gov/NGSDataExplorer/>

CSU Survey control points

(GIS): <https://maps.csu.org/ArcFMWebViewer27/index.html?viewer=GISPublic&runWorkflow=CSUDisclaimer&inTheme>

<http://desktop.arcgis.com/en/arcmap/10.3/map/working-with-arcmap/creating-a-map-package.htm>

<https://helpx.adobe.com/acrobat/using/geospatial-pdfs.html>

<https://thecadgeek.com/blog/2008/09/georeferenced-dwf-files/>

## Chapter 5 Permits and Inspections - revisions

**BUILDERS EROSION AND STORMWATER QUALITY CONTROL PERMIT (BESQCP)  
EL PASO COUNTY APPLICATION AND PERMIT**

**PERMIT NUMBER:** \_\_\_\_\_

<b>Applicant Information</b>	
Property Owner	_____
Applicant Name (Permit Holder)	_____
Company	_____
Position of Applicant	_____
Address (physical address, not PO Box)	_____
City	_____
State	_____
Zip Code	_____
Phone	_____

<b>Contractor Information</b>	
Name (person of responsibility)	_____
Company	_____
Position of Applicant	_____
Address	_____
City	_____
State	_____
Zip Code	_____
Phone	_____

<b>Project Specifications</b>	
Name and Legal Description	_____
Name of Subdivision Filing	_____
Address (or nearest major cross streets)	_____
Acreage (total and disturbed)	_____
Schedule (start and finish and date of final stabilization)	_____
Description of Project	_____
Tax Schedule Number	_____

**FOR OFFICE USE ONLY**

The following signature from the ECM Administrator signifies the approval of this BESQCP. All work shall be performed in accordance with the permit and the El Paso County ECM Standards.

Signature of ECM Administrator: \_\_\_\_\_ Date \_\_\_\_\_

## **1.1 REQUIRED SUBMISSIONS**

In addition to this completed and signed application, all permit fees must be submitted to obtain a BESQCP. Submission and review of a Stormwater Management Plan and posting of financial sureties are not required for a BESQCP.

## **1.2 RESPONSIBILITY FOR DAMAGE**

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to a permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder, from any cause. The permit holder shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder, arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permit holder shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder and the public, resulting from the performance of work or other activity under the permit, or arising out of a failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The permit holder waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the permit holder will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the County, the permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder.

## **1.3 APPLICATION CERTIFICATION**

I, as the Applicant or the representative of the Applicant, hereby certify that this application is correct and complete as per the requirements presented in this application, the El Paso County Engineering Criteria Manual, and the Drainage Criteria Manual, Volume 2 and El Paso County Addendum.

I understand that stormwater control measures are to be implemented on the site and maintained as necessary to protect stormwater quality as the project progresses. The site and adjacent areas will be self-inspected to be sure that control measures are installed correctly and functioning for each stage of construction and following each rain event.

Installation and maintenance of control measures include, but are not limited to:

- Source control and physical barriers that prevent pollutants, including sediment, from leaving the site, especially into waterways or storm drain systems. Pollutants are also to be kept off of roadways, including roadside ditches, and adjacent properties.
- Protection of downstream storm drains, channels, ponds, or waterways.
- Immediate cleanup of sediment and other pollutants that are tracked or otherwise leave the permitted site.

Examples of pollutants that must be contained and cleaned up are:

- Sediment (mud or dirt)
- Excavated or imported soil, aggregate, or rock
- Landscaping materials, including topsoil
- Concrete washout water
- Stucco
- Paints
- Solvents
- Fuels and lubricants
- Pesticides and fertilizers
- Cleaning products
- Other chemicals
- Trash, litter, garbage
- Sanitary waste (e.g. portable toilets), other animal waste

Note: El Paso County does not require that a Stormwater Management Plan (SWMP) be reviewed for a BESQCP. It is recommended, however, that a SWMP be prepared and site personnel **be trained in the procedures necessary to protect stormwater quality. The measures in the City of Colorado Springs' Drainage Criteria Manual, Volume 2, Chapter 3, and the El Paso County approved Addendum provide guidance on stormwater control measures for construction sites. Sites covered by BESQCPs are still subject to any other relevant regulations such as the Colorado Discharge Permit System regulations. The permit holder is responsible for subcontractors onsite complying with the terms of the permit holder's BESQCP.**

---

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

Signature of Applicant or Representative

## Appendix E Checklists and Permits - revisions

MS4 Permit Required	Section of item to be changed	Typo, minor or major	Description
Yes	Intro	Major	<p><b>Rewrite Introduction:</b></p> <p>As described in Appendix I, an Erosion and Stormwater Quality Control Permit (ESQCP) is required for all applicable construction activity of this ECM. A Builder's Erosion and Stormwater Quality Control Permit (BESQCP) is used to protect stormwater quality on individual residential building lots that have less than one (&lt;1) acre of total disturbed area and are not part of a larger plan of development or sale. BESQCPs are also required for large lot (&gt;2.5 acres) single family home construction when more than one acre of disturbance occurs. Either an ESQCP or a BESQCP will be required for all applicable construction activity, unless excluded pursuant to section 5.6.3 of this ECM.</p> <p>Projects that go through any part of the development review process (land use applications including subdivision, site development plan, site plan, grading plan, grading and erosion control plan, location approval, etc.), shall obtain the ESQCP from the Planning and Community Development Department. Applicable construction activity that is not associated with a land use application shall obtain the ESQCP through the Department of Public Works Stormwater Program. As a general practice, applicable construction activity limited primarily to County Right of Way will make an ESQCP application to the Department of Public Works.</p> <p>To assist in the preparation of Grading and Erosion Control Plans and Stormwater Management Plans, the County in conjunction with local stakeholders developed checklists to guide the completion and review of submitted plans. Standard Notes for Grading and Erosion Control Plans are also provided in this Appendix. The checklists provided in this Appendix are to be completed by the Engineer of Record and certified as to the completeness of the submitted plans required for ESQCP approval.</p> <p><u>Permit Applications</u></p> <p>Erosion and Stormwater Quality Control Permit</p> <p>Builders Erosion and Stormwater Quality Control Permit</p> <p><u>Checklists and Standard Notes</u></p> <p>El Paso County Stormwater Management Plan Checklist</p> <p>El Paso County Grading and Erosion Control Plan Submittal Checklist</p> <p>Standard Notes for El Paso County Grading and Erosion Control Plans</p>
No	Pages	Major	<b>Outdated reference material. Delete in its entirety: Joint Policy</b>

## Appendix E Checklists and Permits - revisions

	E12-16		<i>Statement on Grading Erosion Control and Dust El Paso County Development Services Department and Housing and Building Association – Land Use Committee.</i>
Yes	ESQCP App	Major	See Revised Document in Appendix E Support Document Folder
Yes	BESQCP App	Minor	See Revised Document in Appendix E Support Document Folder.
Yes	GECP Checklist	Minor	See Revised Document in Appendix E Support Document Folder
Yes	GECP Notes	Minor	See Revised Document in Appendix E Support Document Folder
Yes	SWMP Checklist	Minor	See Revised Document in Appendix E Support Documents Folder

# EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) EL PASO COUNTY APPLICATION AND PERMIT

<b>APPLICANT INFORMATION</b>		<b>PERMIT NUMBER</b>
<b>Owner Information</b>		
Property Owner		
Applicant Name (Permit Holder)		
Company/Agency		
Position of Applicant		
Address (physical address, not PO Box)		
City		
State		
Zip Code		
Mailing address, if different from above		
Telephone		
FAX number		
Email Address		
Cellular Phone number		
<b>Contractor/Operator Information</b>		
Name (person of responsibility)		
Company		
Address (physical address, not PO Box)		
City		
State		
Zip Code		
Mailing address, if different from above		
Telephone		
FAX number		
Email Address		
Cellular Phone number		
Erosion Control Supervisor (ECS)*		
ECS Phone number*		
ECS Cellular Phone number*		

\*Required for all applicants. May be provided at later date pending securing a contract when applicable.

**PROJECT INFORMATION**

<b>Project Information</b>	
Project Name	
Legal Description	
Address (or nearest major cross streets)	
Acreage (total and disturbed)	Total:    acres Disturbed:    acres
Schedule	Start of Construction: Completion of Construction: Final Stabilization:
Project Purpose	
Description of Project	
Tax Schedule Number	

**FOR OFFICE USE ONLY**

The following signature from the ECM Administrator signifies the approval of this ESQCP. All work shall be performed in accordance with the permit, the El Paso County Engineering Criteria Manual (ECM) Standards, City of Colorado Springs Drainage Criteria Manual, Volume 2 (DCM2) as adopted by the El Paso County Addendum, approved plans, and any attached conditions. The approved plans are an enforceable part of the ESQCP. Construction activity, except for the installation of initial construction BMPs, is not permitted until issuance of a Construction Permit and Notice to Proceed.

Signature of ECM Administrator: \_\_\_\_\_ Date \_\_\_\_\_

## **1.1 REQUIRED SUBMISSIONS**

In addition to this completed and signed application, the following items must be submitted to obtain an ESQCP:

- Permit fees;
- Stormwater Management Plan (SWMP) meeting the requirements of DCM2 and ECM either as part of the plan set or as a separate document;
- Operation and Maintenance Plan for any proposed permanent stormwater control measures; and
- Signed Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement, if any permanent stormwater control measures are to be constructed.

## **1.2 RESPONSIBILITY FOR DAMAGE**

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to a permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder, from any cause. . The permit holder shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder, arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permit holder shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The permit holder waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the permit holder will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder.

### **1.3 APPLICATION CERTIFICATION**

We, as the Applicants or the representative of the Applicants, hereby certify that this application is correct and complete as per the requirements presented in this application, the El Paso County Engineering Criteria Manual, and Drainage Criteria Manual, Volume 2 and El Paso County Addendum.

We, as the Applicants or the representatives of the Applicants, have read and will comply with all of the requirements of the specified Stormwater Management Plan and any other documents specifying stormwater best management practices to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the stormwater control measures are to be maintained on the site and revised as necessary to protect stormwater quality as the project progresses. We further understand that a Construction Permit must be obtained and all necessary stormwater quality control measures are to be installed in accordance with the SWMP, the El Paso County Engineering Criteria Manual, Drainage Criteria Manual, Volume 2 and El Paso County Addendum before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Section 1.2 Responsibility for Damage.

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

Signature of Owner or Representative

Print Name of Owner or Representative

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

Signature of Operator or Representative

Print Name of Operator or Representative

Permit Fee                    \$ \_\_\_\_\_

Surcharge                    \$ \_\_\_\_\_

Financial Surety            \$ \_\_\_\_\_

Type of Surety \_\_\_\_\_

Total                         \$ \_\_\_\_\_



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**EL PASO COUNTY PLANNING AND  
COMMUNITY DEVELOPMENT  
DEPARTMENT**

**STORMWATER MANAGEMENT PLAN CHECKLIST**

Revised: July 2019

Applicant	PCD
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<b>1. STORMWATER MANAGEMENT PLAN (SWMP)</b>		
1	Applicant (owner/designated operator), SWMP Preparer, Qualified Stormwater Manager, and Contractor Information. (On cover/title sheet)	
2	Table of Contents	
3	Site description and location to include: vicinity map with nearest street/crossroads description.	
4	Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)	
5	Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide “living maps” that can be revised in the field as conditions dictate.	
6	Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed.	
7	Estimates of the total site area and area to undergo disturbance; current area of disturbance must be updated on the SWMP as changes occur.	
8	Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential	
9	A description of existing vegetation at the site and percent ground cover and method used to determine ground cover	
10	Location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management; concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets	
11	Material handling to include spill prevention and response plan and procedures.	
12	Spill prevention and pollution controls for dedicated batch plants	
13	Other SW pollutant control measures to include waste disposal and off site soil tracking	
14	Location and description of any anticipated allowable non-stormwater discharge (ground water, springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.)	
15	Name(s) of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge	
16	Description of all stream crossings located within the project area or statement that no streams cross the project area	
17	SWMP Map to include:	
17a	construction site boundaries	
17b	flow arrows to depict stormwater flow directions	
17c	all areas of disturbance	
17d	areas of cut and fill	
17e	areas used for storage of building materials, soils (stockpiles) or wastes	
17f	location of any dedicated asphalt / concrete batch plants	



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**EL PASO COUNTY PLANNING AND  
COMMUNITY DEVELOPMENT  
DEPARTMENT**

**STORMWATER MANAGEMENT PLAN CHECKLIST**

Revised: July 2019		Applicant	PCD
17g	location of all structural control measures		
17h	location of all non-structural control measures		
17i	springs, streams, wetlands and other surface waters, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water		
18	Narrative description of all structural control measures to be used. Modifications to EPC standard control measures must meet or exceed County-approved details.		
19	Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.		
20	Technical drawing details for all control measure installation and maintenance; custom or other jurisdiction's details used must meet or exceed EPC standards		
21	Procedure describing how the SWMP is to be revised		
22	Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measure etc.)		
23	Specification that final vegetative cover density is to be 70% of pre-disturbed levels		
24	Outline of permit holder inspection procedures to install, maintain, and effectively operate control measures to manage erosion and sediment		
25	Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site		
26	If this project relies on control measures owned or operated by another entity, a documented agreement must be included in the SWMP that identifies location, installation and design specifications, and maintenance requirements and responsibility of the control measure(s).		
<b>Please note: all items above must be addressed. If not applicable, explain why, simply identifying "not applicable" will not satisfy CDPHE requirement of explanation.</b>			
<b>2. ADDITIONAL REPORTS/PERMITS/DOCUMENTS</b>			
a	Grading and Erosion Control Plan (signed)		
b	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)		
<b>3. Applicant Comments:</b>			
a			
b			
c			
<b>4. Checklist Review Certifications:</b>			



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# EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

# STORMWATER MANAGEMENT PLAN CHECKLIST

Revised: July 2019

Revised: July 2019		Applicant	PCD
a	<p><b>Engineer of Record:</b>            The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans.</p> <hr/> Engineer of Record Signature _____ Date _____		
b	<p><b>Review Engineer:</b>            The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request.</p> <hr/> Review Engineer _____ Date _____		



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**EL PASO COUNTY PLANNING AND  
COMMUNITY DEVELOPMENT  
DEPARTMENT**

**GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019

	Applicant	PCD
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**1. GRADING AND EROSION CONTROL PLAN**

a	Vicinity map.		
b	Adjacent city/town/jurisdictional boundaries, subdivision names, and property parcel numbers labeled.		
c	North arrow and acceptable scale (1"=20' to 1"=100').		
d	Legend for all symbols used in the plan.		
e	Existing and proposed property lines. Proposed subdivision boundary for subdivision projects.		
f	All existing structures.		
g	All existing utilities.		
h	Construction site boundaries.		
i	Existing vegetation (notes are acceptable in cases where there is no notable vegetation, only grasses/weeds, or site has already been stripped).		
j	FEMA 100-yr floodplain.		
k	Existing and proposed water courses including springs, streams, wetlands, detention ponds, stormwater quality structures, roadside ditches, irrigation ditches and other water surfaces. Show maintenance of pre-existing vegetation within 50 feet of a receiving water.		
l	Existing and proposed contours 2 feet or less (except for hillside).		
m	Limits of disturbance delineating all anticipated areas of soil disturbance.		
n	Identify and protect areas outside of the construction site boundary with existing fencing, construction fencing or other methods as appropriate.		
o	Offsite grading clearly shown and called out.		
p	Areas of cut and fill identified.		
q	Conclusions from soils/geotechnical report and geologic hazards report incorporated in grading design (slopes, embankments, materials, mitigation, etc.)		
r	Proposed slopes steeper than 3:1 with top and toe of slope delineated. Erosion control blanketing or other protective covering required.		
s	Stormwater flow direction arrows.		
t	Location of any dedicated asphalt / concrete batch plants.		
u	Areas used for staging, storage of building materials, soils (stockpiles) or wastes. The use of construction office trailers requires PCD permitting.		
v	All proposed temporary construction control measures, structural and non-structural. Temporary construction control measures shall be identified by phase of implementation to include "initial," "interim," and "final" or shown on separate phased maps identifying each phase.		
w	Vehicle tracking provided at all construction entrances/exits. Construction fencing, barricades, and/or signage provided at access points not to be used for construction.		
x	Temporary sediment ponds provided for disturbed drainage areas greater than 1 acre.		
y	Dewatering operations to include locations of diversion, pump and discharge(s) as anticipated at time of design.		
z	All proposed temporary construction control measure details. Custom or other jurisdiction's details used must meet or exceed EPC standards.		



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# **EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT**

## **GRADING AND EROSION CONTROL PLAN CHECKLIST**



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# EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

## **GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019	Applicant	PCD
	<p>El Paso County (standalone GEC Plan):</p> <p>County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.</p>	
jj	<p>Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual, as amended.</p> <p>In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.</p>	

**2. ADDITIONAL REPORTS/PERMITS/DOCUMENTS**

a	Soils report / geotechnical investigation as appropriate for grading/utilities/drainage/road construction.		
b	Use Agreement/easement between the Owner or Operator and other third party for use of all offsite grading or stormwater control measures, used by the owner or operator but not under their direct control or ownership.		
c	Floodplain Development Permit		
d	USACE 404/wetlands permit/mitigation plan		
e	FEMA CLOMR		
f	State Engineer's permit/Notice Of Intent to Construct		
g	Stormwater Management Plan (SWMP)		
h	Financial Assurance Estimate (FAE) (signed)		
i	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)		
j	Pre-Development Site Grading Acknowledgement and Right of Access Form (signed)		
k	Conditions of Approval met?		

### **3. STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS**

1	Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.		
2	Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.		



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**EL PASO COUNTY PLANNING AND  
COMMUNITY DEVELOPMENT  
DEPARTMENT**

**GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019

		Applicant	PCD
3	A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.		
4	Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.		
5	Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.		
6	All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.		
7	Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.		
8	Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.		
9	All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.		
10	Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.		
11	Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).		
12	Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site.		



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**EL PASO COUNTY PLANNING AND  
COMMUNITY DEVELOPMENT  
DEPARTMENT**

**GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019

		Applicant	PCD
13	Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.		
14	During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.		
15	Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.		
16	Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.		
17	Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.		
18	Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.		
19	The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.		
20	The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.		
21	No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.		
22	Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.		
23	No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.		
24	Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.		
25	All construction traffic must enter/exit the site only at approved construction access points.		
26	Prior to construction the permittee shall verify the location of existing utilities.		
27	A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.		



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# **EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT**

## **GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019			Applicant	PCD
28	The soils report for this site has been prepared by _____ and shall be considered a part of these plans.			
29	<p>At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact:</p> <p>Colorado Department of Public Health and Environment Water Quality Control Division WQCD – Permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: Permits Unit</p>			
<b>4. <u>Applicant Comments:</u></b>				
a				
b				
c				
<b>5. <u>Checklist Review Certifications:</u></b>				
a	<p>Engineer of Record: The Grading and Erosion Control Plan was prepared under my direction and supervision and is complete and correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans.</p>			
	Engineer of Record Signature	Date		



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**EL PASO COUNTY PLANNING AND  
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**GRADING AND EROSION CONTROL PLAN CHECKLIST**

Revised: July 2019

	Applicant	PCD
b Review Engineer: The Grading and Erosion Control Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. _____ Review Engineer _____ Date _____		

## Appendix F Standard Drawings - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Typo, minor or major</b>	<b>Description</b>
Appendix F	SD_3-82	Minor	<p><b>Add Note to bottom of “Basin Plan” drawing that states:</b>            Maintenance access shall be designed and constructed to not contribute additional flow or sediment load directly to the forebay or outlet works.</p>
Appendix F	New SD	Major	<p><b>Add New Standard Drawing for:</b>            Full Spectrum Detention Outlet Details</p> <p>Use pages 5,6,7,8,11 and 12, from file: UDFCD 10_T-12 Outlet Structure Details.pdf, which is located in subFolder: Appendix E Revisions, in Revision 7 folder.</p>
	New SD	Minor	<p><b>Add New Standard Drawing for:</b>            Synthetic Sediment Control Log with Tailpiece</p> <p>Use .PDF at end of this section for detail</p>
	New SD	Minor	<p><b>Add New Standard Drawing for:</b>            Synthetic Stabilized Construction Entrance</p> <p>Use .PDF at end of this section for detail</p>
	New SD	Minor	<p><b>Add New Standard Drawing for:</b>            Single Lot Access Vehicle Tracking Control Mats</p> <p>Use .PDF at end of this section for detail</p>
	New SD	Minor	<p><b>Add New Standard Drawing for:</b>            Rubber Vehicle Tracking Control Pads</p> <p>Use .PDF at end of this section for detail</p>

## Appendix F Standard Drawings - revisions

### Synthetic Sediment Control Log with Tailpiece

#### Description and Purpose

A synthetic sediment control log. Outer cover of silt filtration fabric surrounding an inner core of full rebound foam covered by a 6 mil plastic sleeve. Designed to be used where hard surfaces contact disturbed areas for pounding and on-site soil retention.

## The Heavyweight Wattle

**Suitable Applications** — The Heavyweight Wattle may be suitable:

- Where hard surfaces contact soil.

#### Limitations

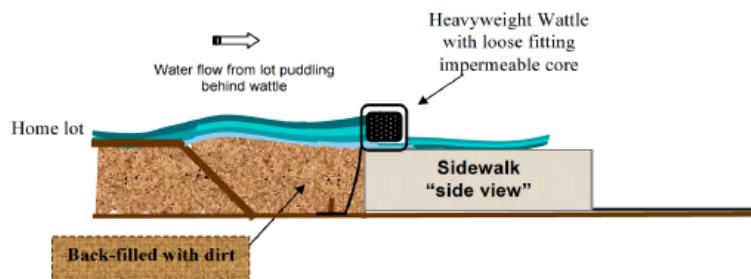
- The Heavyweight Wattle is not effective when the flap is not properly pinned and backfilled.
- The Heavyweight Wattle has a limited sediment capture zone and should only be used for lower volume sheet flows.
- The Heavyweight Wattle is not a substitute for adequate tracking pads and construction egress.

#### Installation



### The Heavyweight™ Wattle

#### SIDEWALK Installation



**While crews remove concrete forms, install wattle immediately afterwards.**

#### Wattle to be installed upon removal of concrete forms:

1. Lay the Heavyweight wattle directly on top of sidewalk, dropping tail of wattle behind sidewalk area.
2. Connect wattle together to form a continuous barrier.
3. Pin tail section into soil with fasteners behind sidewalk approximately every three feet.
4. Overlap the connection points and use two fasteners in this area.
5. Back-fill area behind sidewalk.
6. Site in compliance.

**Fastener Recommendation:** Use 60d nails or The Heavyweight wattle pins.

## Appendix F Standard Drawings - revisions

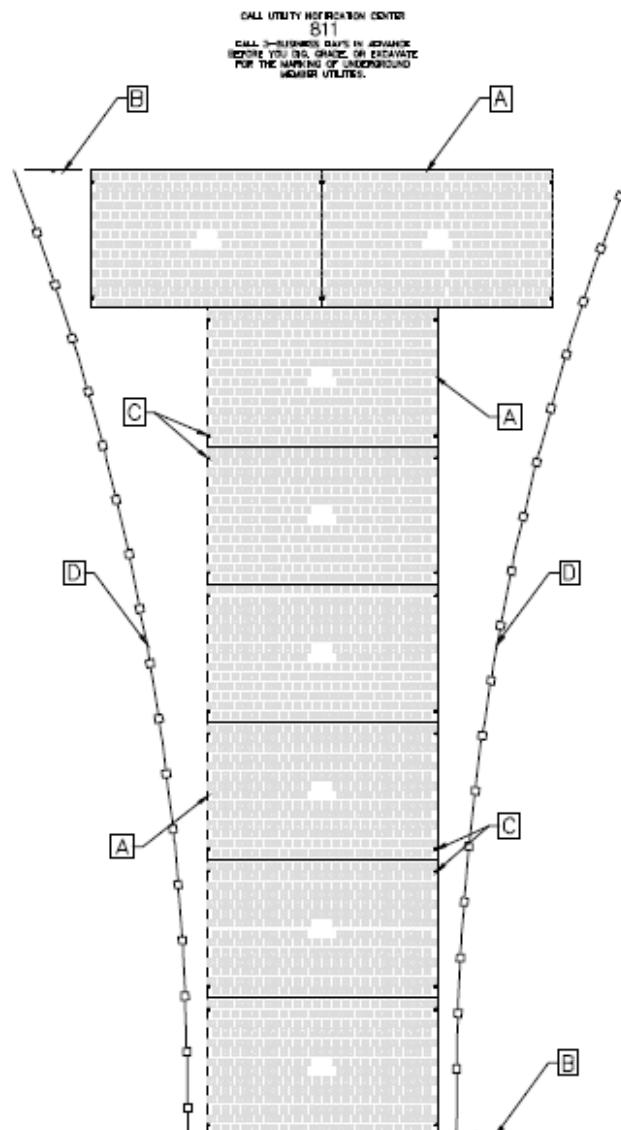
### Synthetic Stabilized Construction Entrance

#### FODS TRACKOUT CONTROL SYSTEM INSTALLATION GUIDE

THE PURPOSE AND DESIGN OF THE FODS TRACKOUT CONTROL SYSTEM IS TO EFFECTIVELY REMOVE MOST SEDIMENT FROM VEHICLE TIRES AS THEY EXIT A DISTURBED LAND AREA ONTO A PAVED STREET. THIS MANUAL IS A PLATFORM FROM WHICH TO INSTALL A FODS TRACKOUT CONTROL SYSTEM. (NOTE: THIS IS NOT A ONE SIZE FITS ALL GUIDE.) THE INSTALLATION MAY NEED TO BE MODIFIED TO MEET THE EXISTING CONDITIONS, EXPECTATIONS, OR DEMANDS OF A PARTICULAR SITE. THIS IS A GUIDELINE, ULTIMATELY THE FODS TRACKOUT CONTROL SYSTEM SHOULD BE INSTALLED SAFELY WITH PROPER ANCHORING AND SIGNS PLACED AROUND THE ENTRANCE AND EXIT TO CAUTION USERS AND OTHERS.

##### KEY NOTES:

- A. FODS TRACKOUT CONTROL SYSTEM MAT.
- B. FODS SAFETY SIGN.
- C. ANCHOR POINT.
- D. SILT OR ORANGE CONSTRUCTION FENCE



TYPICAL ONE-LANE LAYOUT

##### INSTALLATION:

1. THE SITE WHERE THE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED SHOULD CORRESPOND TO BEST MANAGEMENT PRACTICES AS MUCH AS POSSIBLE. THE SITE WHERE FODS TRACKOUT CONTROL SYSTEM SHOULD ALSO MEET OR EXCEED THE LOCAL JURISDICTION OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.
2. CALL FOR UTILITY LOCATES 3 BUSINESS DAYS IN ADVANCE OF THE FODS TRACKOUT CONTROL SYSTEM INSTALLATION FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES. CALL THE UTILITY NOTIFICATION CENTER AT 811.
3. ONCE THE SITE IS ESTABLISHED WHERE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED, ANY EXCESSIVE UNEVEN TERRAIN SHOULD BE LEVELED OUT OR REMOVED SUCH AS LARGE ROCKS, LANDSCAPING MATERIALS, SUDDEN ABRUPT CHANGES IN ELEVATION, AND SIMILAR, FODS WILL SPAN AND SUPPORT OVER MOST OBSTACLES, BUT THE FLATTER AND SMOOTHER THE TERRAIN UNDER THE FODS TRACKOUT CONTROL SYSTEM WILL BE MORE EFFICIENT AND SAFER.
4. NEXT THE INDIVIDUAL MATS CAN START TO BE PLACED IN POSITION. THE FIRST MAT SHOULD BE PLACED NEXT TO THE PAVED SURFACE AND/OR CURB AT THE CLOSEST POINT OF EGRESS. THIS WILL ENSURE THAT THE VEHICLE WILL EXIT STRAIGHT FROM THE SITE TO THE PAVED SURFACE, FROM THE SITE TO THE PAVED SURFACE.
5. AFTER THE FIRST MAT IS PLACED DOWN IN ITS PROPER LOCATION, AN H BRACKET SHOULD BE PLACED AT THE END OF THE FIRST MAT, BEFORE ANOTHER MAT IS POSITIONED ADJACENT TO THE FIRST MAT.
6. ONCE THE SECOND MAT IS PLACED ADJACENT TO THE FIRST MAT, MAKE SURE THE H BRACKET IS CORRECTLY SITUATED BETWEEN THE TWO MATS.
7. NEXT, THE CONNECTOR STRAP SHOULD BE INSTALLED TO CONNECT THE TWO MATS TOGETHER.
8. AFTER THE FIRST MAT IS PLACED DOWN IN ITS PROPER LOCATION, IT SHOULD BE ANCHORED TO PREVENT THE POTENTIAL MOVEMENT WHILE THE ADJOINING MATS ARE INSTALLED NEXT. ANCHORS SHOULD BE PLACED AT EVERY ANCHOR POINT (IF FEASIBLE) TO HELP MAINTAIN THE MAT IN ITS CURRENT POSITION.
9. ONCE THE FIRST MAT IS ANCHORED DOWN, THE SUCCESSIVE MATS CAN THEN BE PLACED TO CREATE THE FODS® TRACKOUT CONTROL SYSTEM.
10. UPON PLACEMENT OF EACH NEW MAT IN THE SYSTEM, THAT MAT SHOULD BE ANCHORED AT EVERY ANCHOR POINT TO HELP STABILIZE THE MAT AND ENSURE THE SYSTEM IS CONTINUOUS WITH NO GAPS IN BETWEEN THE MATS.
11. AFTER INSTALLATION OF THE FODS TRACKOUT CONTROL SYSTEM, FODS SAFETY SIGNS SHOULD BE PLACED AT THE ENTRANCE AND EXIT SIDES OF THE FODS TRACKOUT CONTROL SYSTEM.
12. A SILT FENCE OR ORANGE CONSTRUCTION FENCE SHOULD ALSO BE INSTALLED ON THE SIDES OF THE FODS TRACKOUT CONTROL SYSTEM TO DIRECT VEHICLES DOWN THE MATS AND BARRICADE PEDESTRIANS FROM CROSSING THE MATS. PEDESTRIANS SHOULD ALSO USE EXTREME CAUTION WHEN CROSSING THE MATS AS THE SURFACE IS UNEVEN AND MAY BE DIFFICULT TO WALK ON.

##### USE AND MAINTENANCE:

1. VEHICLES SHOULD TRAVEL DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM AND NOT CUT ACROSS THE MATS.
2. DRIVERS SHOULD TURN THE WHEEL OF THEIR VEHICLES SUCH THAT THE VEHICLE WILL TAKE A SERPENTINE ROUTE DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM.
3. MATS SHOULD BE CLEANED ONCE THE VOIDS BETWEEN THE PYRAMIDS BECOME FULL OF SEDIMENT. TYPICALLY THIS TASK WILL NEED TO BE PERFORMED WITHIN TWO WEEKS AFTER A STORM EVENT. BRUSHING IS THE PREFERRED METHOD OF CLEANING, EITHER MANUALLY OR MECHANICALLY.
4. THE USE OF ICE MELT, ROCK SALT, SNOW MELT, DEICER, ETC. SHOULD BE UTILIZED AS NECESSARY DURING THE WINTER MONTHS AND AFTER A SNOW EVENT.

##### REMOVAL:

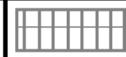
1. REMOVAL OF FODS TRACKOUT CONTROL SYSTEM IS THE REVERSE ORDER OF THE INSTALLATION.
2. STARTING WITH THE LAST MAT, THE MAT THAT IS PLACED AT THE INNERMOST POINT OF THE SITE OR THE MAT FURTHEST FROM THE EXIT OR PAVED SURFACE SHOULD BE REMOVED FIRST.
3. THE CABLE ANCHORS SHOULD BE CUT WITH WIRE ROPE CUTTERS.
4. THE CONNECTOR STRAPS SHOULD BE UNBOLTED AT ALL LOCATIONS IN THE FODS TRACKOUT CONTROL SYSTEM.
5. STARTING WITH THE LAST MAT IN THE SYSTEM, EACH SUCCESSIVE MAT SHOULD THEN BE MOVED AND STACKED FOR LOADING BY FORKLIFT OR EXCAVATOR ON TO A TRUCK FOR REMOVAL FROM THE SITE.

FIG. 1

## Appendix F Standard Drawings - revisions

### Single Lot Access Vehicle Tracking Control Mats

#### Single Lot Access VTC (Mud Mats)



##### Description and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

##### Suitable Applications

Use at construction sites:

- Where dirt or mud can be tracked onto public roads.
- Where a single family lot needs a temporary access point.

##### Limitations

- Entrances and exits require periodic cleaning and maintenance.
- This BMP should be used in conjunction with street sweeping on adjacent public right of way
- Entrances and exits should be constructed on level ground only or sloping away from paved surfaces.

##### Implementation

- Construct on level ground or sloping down and away from paved surfaces where possible.
- For individual lots VTC perimeter may be reduced to minimum 8' x 15' due to space limitation. This is for access to single family lots only.)
- Limit the points of entrance/exit to the construction site.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment trapping device before discharge.
- Require that all employees, subcontractors, and suppliers to utilize the stabilized construction access when lot access is necessary.
- Educate all employees, subcontractors, and suppliers on keeping vehicles off-site whenever possible.
- Limit access to only access that is absolutely necessary.

##### Inspection and Maintenance

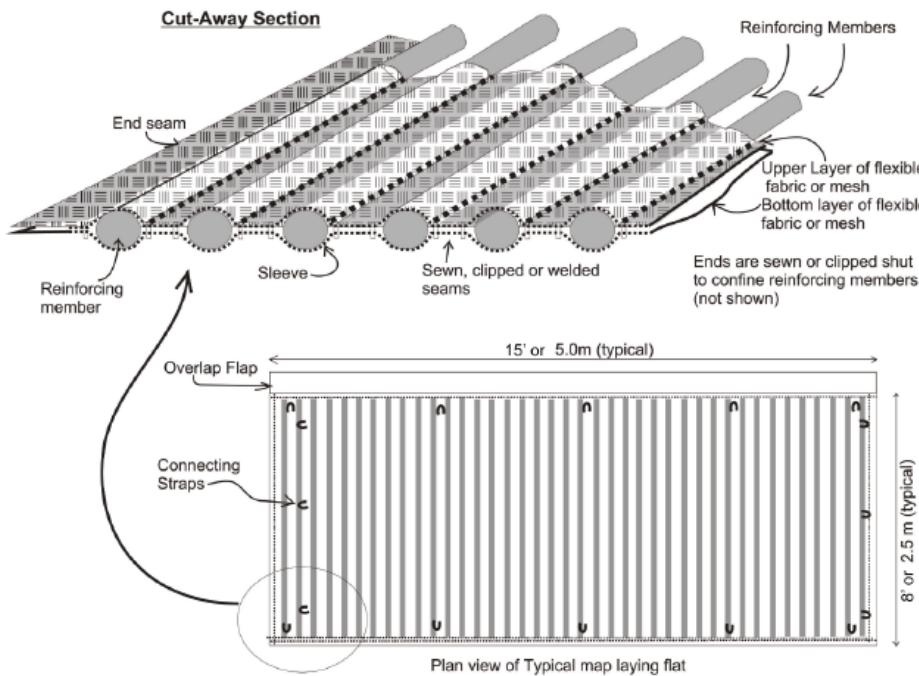
- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMPs are under way, inspect in accordance with the specified inspection schedule in the site SWMP.
- Visually inspect local roads adjacent to the site daily. Sweep or vacuum to remove visible accumulated sediment.
- Check for damage and repair as needed.
- Remove accumulated sediment as needed.
- Reset and restake as needed.
- Remove any sediment deposited on paved roadways immediately.

## Appendix F Standard Drawings - revisions

### Lot Access-VTC (mud mats)

#### AGES Mud Mat Specifications

Each mat is made up of a double layer of high strength woven fabric that is stitched in such a way to encapsulate the reinforcing members that run perpendicular to the direction of traffic. These reinforcing ribs are secured individually within each pocket. There are approx. 24-26 pockets that each holds 1 bamboo post of approx. 2" diameter. This combination of reinforcing member and confining fabric result in a portable mat that can be rolled up for transport and ease of deployment. AGES Mud Mats can be used in construction site access, agriculture, golf & parks, other soft or sensitive ground condition areas where vehicle access is required.



PROPERTY	TEST PROCEDURE	VALUE
Grab Tensile Strength	ASTM D4632	802.6 lbs.
Apparent Breaking Elongation	ASTM D4632	25% / 18%
Trapezoid Tearing Strength	ASTM D4633	607 lbs.
Puncture Resistance	ASTM D4833	374.3 lbs.
Mullen Burst	ASTM D3785	456.88 psi
Apparent Opening Size	ASTM D4751	70 US Sieve / 0.212mm
Constant Head Permeability	ASTM D4491	20.16 g/m²/s
Wide Width Tensile	ASTM D4595	685.7 lbs./in.
Material	Woven Geotextile	100% Polypropylene

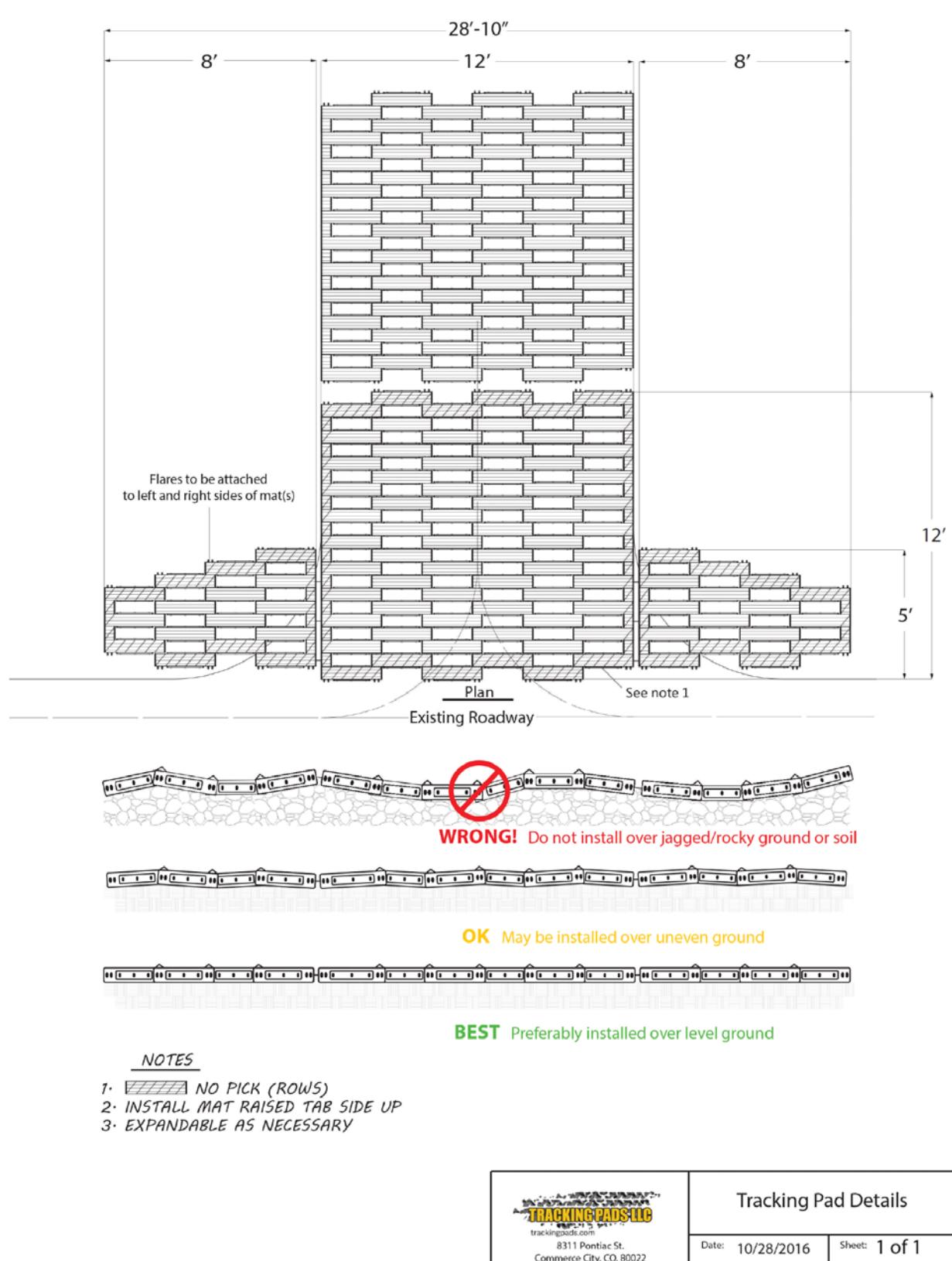
APPROXIMATE DIMENSIONS PER MAT	
Size Deployed (approx.)	15' x 8'
Shipping Size (rolled)	1.5' dia. x 8.5' long
Weight (approx.)	90 lbs

\*\*5 – carabiner clips for each mat (Side connection and end connection straps)\*\*

Source: AGES Mud Mats

## Appendix F Standard Drawings - revisions

### Rubber Vehicle Tracking Control Pads



## Description

This section provides guidance and details for outlet structures for the use primarily with BMPs utilizing sedimentation, (i.e., extended detention basins, retention ponds and constructed wetland ponds). The information provided in this section includes guidance for different size watersheds as well as for incorporating full spectrum detention as described in the *Storage* chapter of Volume 2.

The details contained in this Fact Sheet are intended to provide a starting point for design. UDFCD recommends that design details for outlet structures be specific for each site with structural details drawn to scale. The details provided in this Fact Sheet are not intended to be used without modification or additional detail.



**Photograph OS-1.** Although each site is different, most sedimentation BMPs have similar outlet structures. Each structure should include a partially submerged orifice plate with a screen (or grate) protecting the orifice plate from clogging, and an overflow weir for flows exceeding the WQCV or excess urban runoff volume (EURV), when full spectrum detention is used.

## Outlet Design

### Large Watershed Considerations

UDFCD recommends that water quality treatment be provided close to the pollutant source. This is a fundamental concept of Low Impact Development (LID). Although flood control facilities, including full spectrum detention facilities, have been shown to be very effective for watersheds exceeding one square mile, this is not the case for water quality facilities. One reason for this is that the baseflow associated with a larger watershed will vary and can be difficult to estimate. The orifice plate should be designed to pass the baseflow while detaining the water quality capture volume (WQCV) for approximately 40 hours. When the baseflow is overestimated, the WQCV is not detained for the recommended time, passing through without treatment. When the baseflow is underestimated, the elevation of the permanent pool will be higher than designed, causing maintenance issues as well as reducing the volume available for detention of the WQCV, which also allows for a portion of this volume to pass through without treatment. For this reason, UDFCD recommends that facilities designed for both water quality and flood control be limited, where possible, to watersheds without a baseflow. The maximum recommended watershed for combined facilities is one square mile. Additional discussion on designing for baseflows is provided in the EDB BMP Fact Sheet (T-5).

#### Designing for Maintenance

Rather than using the minimum criteria, consider maximizing the width of the trash rack to the geometry of the outlet. This will reduce clogging and frequency of maintenance. Reduced clogging in EDB outlet structures will preserve the initial surcharge volume thus reducing frequency of inundation in the bottom of the basin. This will benefit the grasses and reduce long-term EDB maintenance requirements (including sediment removal in the grassed area) and may reduce the life-cycle cost of the BMP.

## Orifice Plates, Trash Racks, and Safety Grates

An orifice plate is used to release the WQCV slowly over 40 hours. For full spectrum detention, the orifice plate is extended to drain a larger volume, the EURV, over approximately 72 hours. The figures and tables in this section provide recommendations for orifice configurations and trash rack type and size. Guidance is provided for plates using both circular and rectangular orifices.

### Orifice Sizing

Follow the design steps included in the BMP Fact Sheet for the appropriate BMP. The UD-Detention workbook, available at [www.udfcd.org](http://www.udfcd.org), can be used to route flows and calculate the required orifice sizes. UDFCD recommends a total of three orifices to maximize the orifice size and avoid clogging of the orifice plate. A detail showing the recommended orifice configuration is provided in Figure OS-4.

### Trash Rack Sizing

Once the size of the orifice has been determined, this information, along with the total orifice area in the water quality plate, is used to determine the total open area of the grate. See Figure OS-1 and use the dashed line to size the trash rack. Include the portion of the trash rack that is inundated by the micropool in total open area of the grate.

Be aware, Figures OS-5, OS-6, OS-7, and OS-8 dimension the minimum width clear for the trash rack frame. It is also important to provide adequate width for attachment to the outlet structure (see Photos OS-2 and OS-3). Also, consider maximizing the width of the trash rack to the geometry of the outlet. This will reduce clogging and maintenance requirements associated with cleaning the trash rack. This Fact Sheet also includes recommendations for the thickness of the steel water quality plate (see Table OS-2).



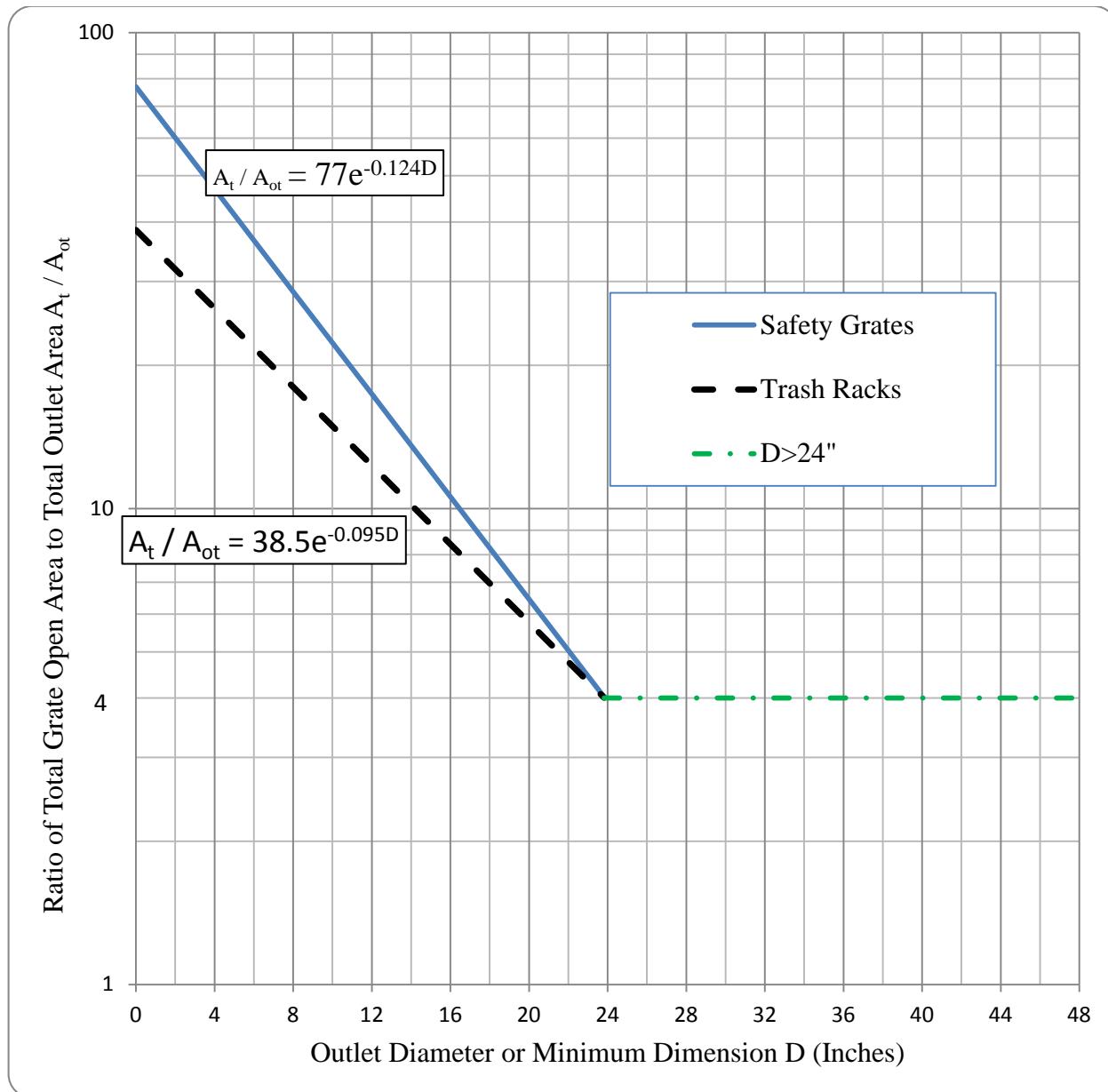
**Photograph OS-2.** This trash rack could not be properly



**Photograph OS-3.** Trash rack after repair.

## Safety Grates

Safety grates are intended to keep people and animals from inadvertently entering a storm drain. They are sometimes required even when debris entering a storm drain is not a concern. The grate on top of the outlet drop box is considered a safety grate and should be designed accordingly. The danger associated with outlet structures is the potential associated with pinning a person or animal to unexposed outlet pipe or grate. See the *Culverts and Bridges* chapter of Volume 2 of this manual for design criteria related to safety grates.



**Figure OS-1. Trash Rack Sizing**

## Outlet Geometry

Outlets for small watersheds will typically be sized for maintenance operations while the geometry of outlets for larger watersheds may be determined based on the required size of the trash rack. For all watershed sizes, the outlet should be set back into the embankment of the pond to better allow access to the structure. This also provides a more attractive BMP. For larger watersheds, this will require wing walls. Wing walls are frequently cast-in-place concrete, although other materials, such as grouted boulders, may be used where appropriate. Consider safety, aesthetics, and maintenance when selecting materials and determining the geometry. A safety rail should be included for vertical drops of 3 feet or more. Depending on the location of the structure in relation to pedestrian trails, safety rails may also be required for lesser drops. Stepped grouted boulders can be used to reduce the height of vertical drops.

As shown in Figures EDB-1 and EDB-2 provided in BMP Fact Sheet T-5, wing walls can be flared or parallel. There are advantages to both configurations. Parallel wing walls may be more aesthetic; however, depending on the geometry of the pond, may limit accessibility to the trash rack. Flared wing walls can call attention to the structure but provide better accessibility and sometimes a vertical barrier from the micropool of an EDB, which can increase safety of the structure. Parallel walls can also be used with a second trash rack that is secured flush with the top of the wall as shown in Photo OS-4. This eliminates the need for a safety rail and may provide additional protection from clogging; however, it creates a maintenance issue by restricting access to the water quality screen. The rack shown in Photo OS-4 was modified after construction due to this problem.



**Photograph OS-4.** Maintenance access to the water quality trash rack was compromised by the location of a secondary trash rack on this outlet. This may have been included as a safety rack or as additional protection from clogging. The owner modified the structure for better access. A safety rail would have been a better solution.



**Photograph OS-5.** Interruptions in the horizontal members of this trash rack and the spacing of the vertical members allow easier access to clean the water quality grate. A raking tool can be used to scrape the water quality trash rack.

## Micropools within the Outlet Structure

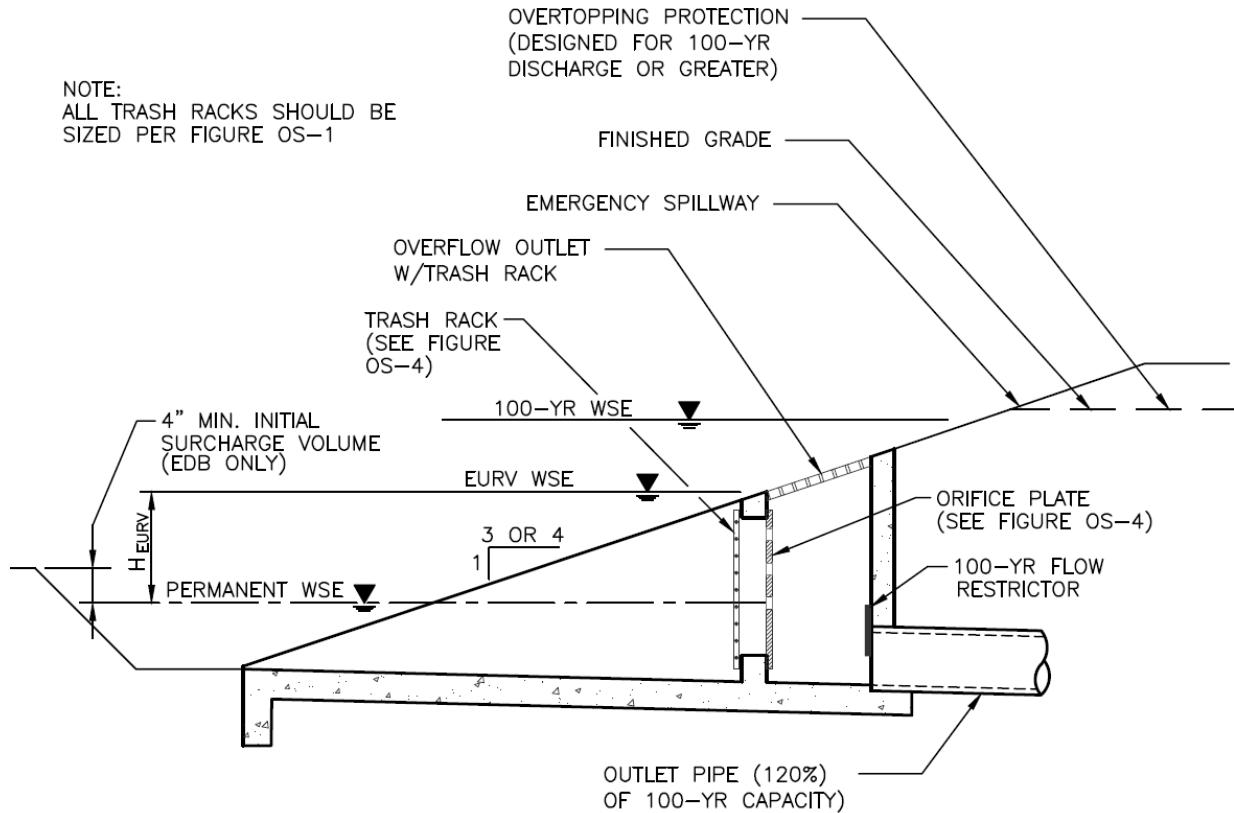
The micropool of an EDB may be placed inside the structure when desired. This is becoming increasingly common for smaller watersheds and near airfields where large bird populations can be problematic. When designing this type of structure, consider maintenance of the water quality trash rack. The secondary trash rack should be designed to allow maintenance of the water quality trash rack similar to that shown in Photo OS-5. This concept can easily be incorporated into smaller outlet structures (see Figures OS-7 and OS-8 for details).

## Outlet Structure Details

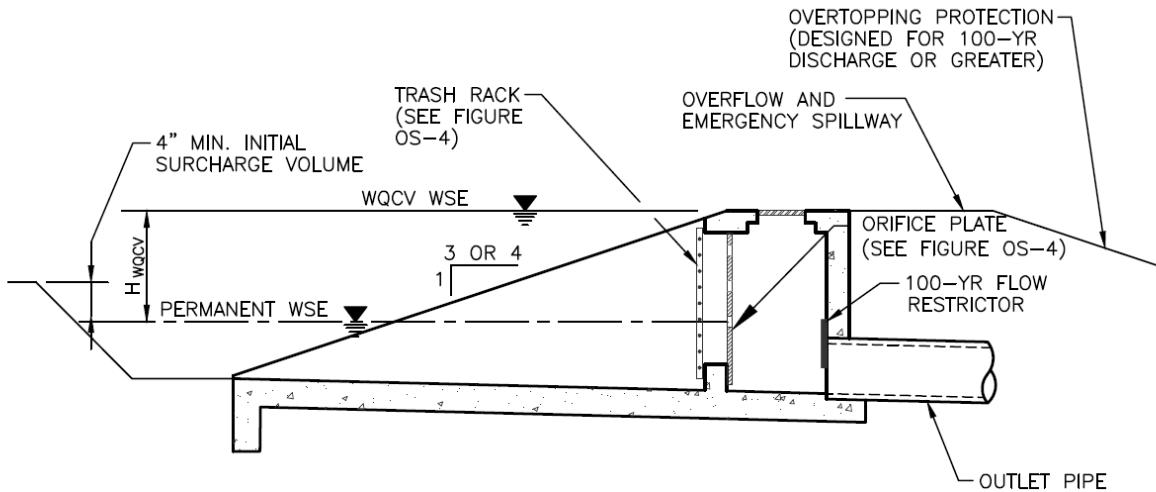
A number of details are presented in this section to assist designers with detailing outlet structures. Table OS-1 provides a list of details available at [www.udfcd.org](http://www.udfcd.org). These details are not intended to be used in construction plans without proper modifications as indicated in this table.

**Table OS-1. Summary of Outlet Structure Details and Use**

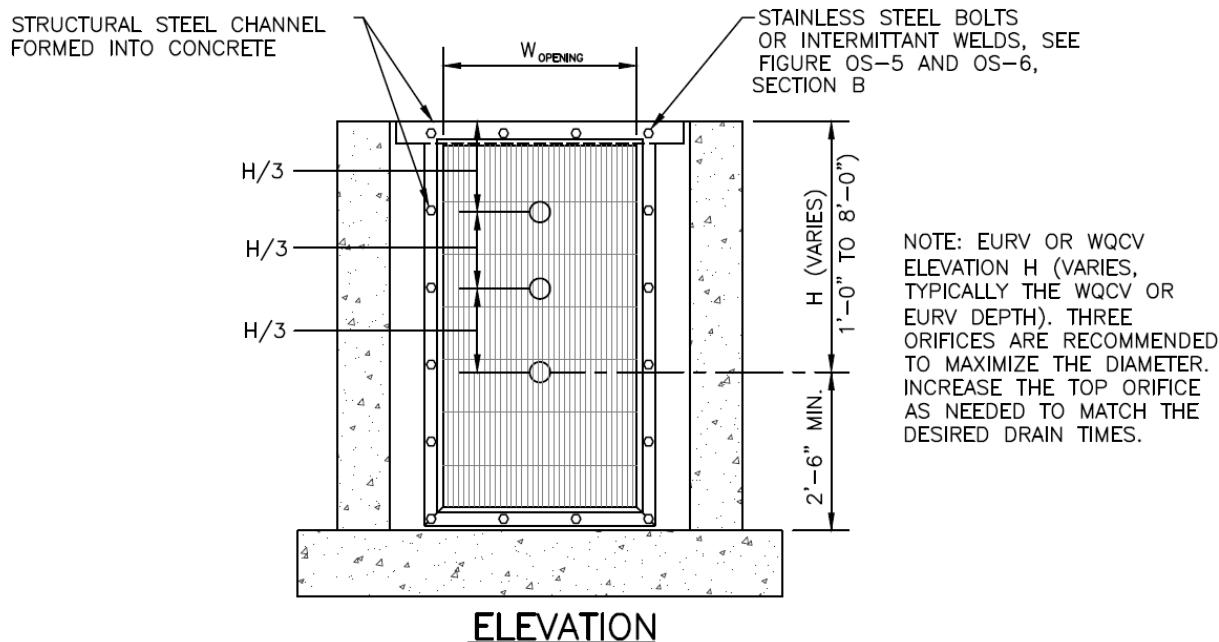
Figure	Detail	Use of Detail
OS-2	Typical outlet structure for full spectrum detention	Conceptual.
OS-3	Typical outlet structure for WQCV treatment and attenuation	Conceptual.
OS-4	Orifice plate and trash rack detail and notes	Outlet section. Modify per true structure geometry and concrete reinforcement. Modify notes per actual design.
OS-5	Typical outlet structure with well screen trash rack	Outlet sections. Modify per true structure geometry and concrete reinforcement. Add additional sections and detailing as necessary. Modify notes per actual design.
OS-6	Typical outlet structure with bar grate trash rack	Outlet sections. Modify per true structure geometry and concrete reinforcement. Add additional sections and detailing as necessary. Modify notes per actual design.
OS-7	Full spectrum detention outlet structure for 5-acre impervious area or less	Outlet profile and section. Modify per true EURV elevation and concrete reinforcement. Add additional sections and detailing as necessary.
OS-8	WQCV outlet structure for 5-acre impervious area or less	Outlet sections. Modify per true WQCV elevation and concrete reinforcement. Add additional sections and detailing as necessary.



**Figure OS-2. Typical outlet structure for full spectrum detention**



**Figure OS-3. Typical outlet structure for WQCV treatment and attenuation**



#### ORIFICE PLATE NOTES:

1. PROVIDE CONTINUOUS NEOPRENE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
2. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER. SEE TABLE OS-2 FOR PLATE THICKNESS.

#### EURV AND WQCV TRASH RACKS:

1. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. BAR GATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
3. TRASH RACK OPEN AREAS ARE FOR SPECIFIED TRASH RACK MATERIALS. TOTAL TRASH RACK SIZE MAY NEED TO BE ADJUSTED FOR MATERIALS HAVING DIFFERENT OPEN AREA/GROSS AREA RATIO (R VALUE).
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

#### OVERFLOW SAFETY GRATES:

1. ALL SAFETY GRATES SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
2. SAFETY GRATES SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL GRATES SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
3. SAFETY GRATES SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
4. STRUCTURAL DESIGN OF SAFETY GRATES SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

**Figure OS-4. Orifice plate and trash rack detail and notes**

**Table OS-2. Thickness of steel water quality plate**

		Steel plate thickness (in inches) based on design depth and span of plate									
		Head (feet)									
		3	4	5	6	7	8	9	10	11	12
Span (feet)	1	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875
	2	0.1875	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500
	3	0.2500	0.2500	0.3750	0.3750	0.3750	0.3750	0.3750	0.3750	0.3750	0.5000
	4	0.2500	0.3750	0.3750	0.3750	0.3750	0.5000	0.5000	0.5000	0.5000	0.5000

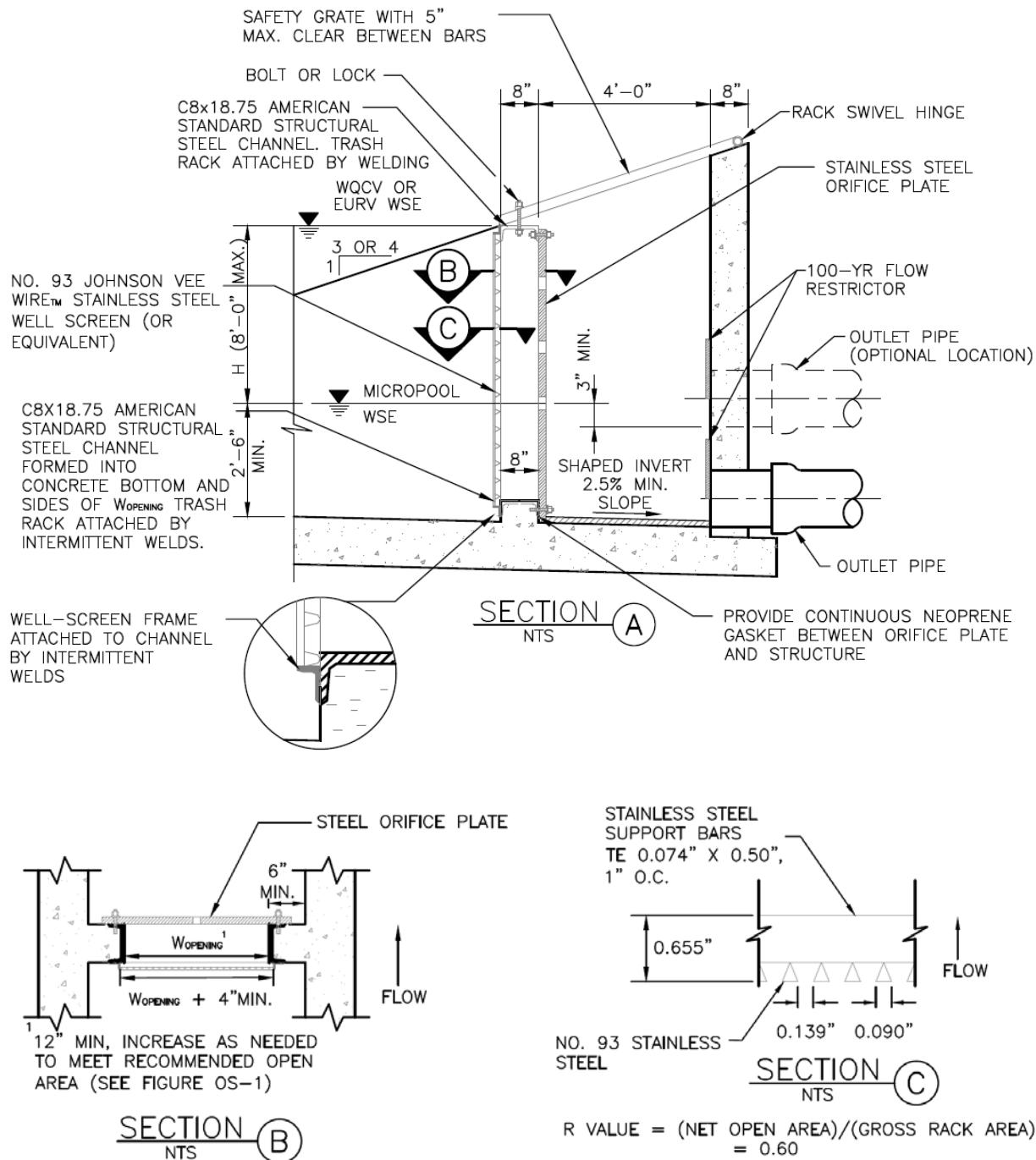
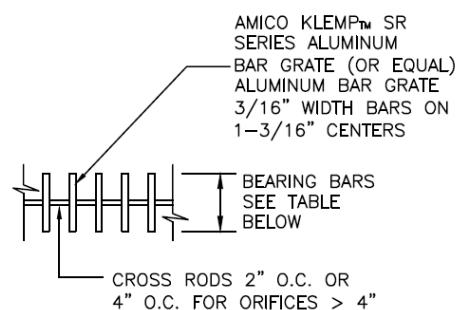
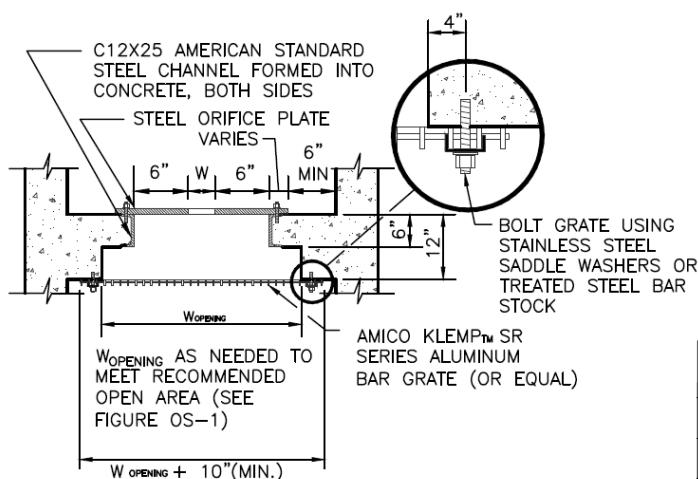
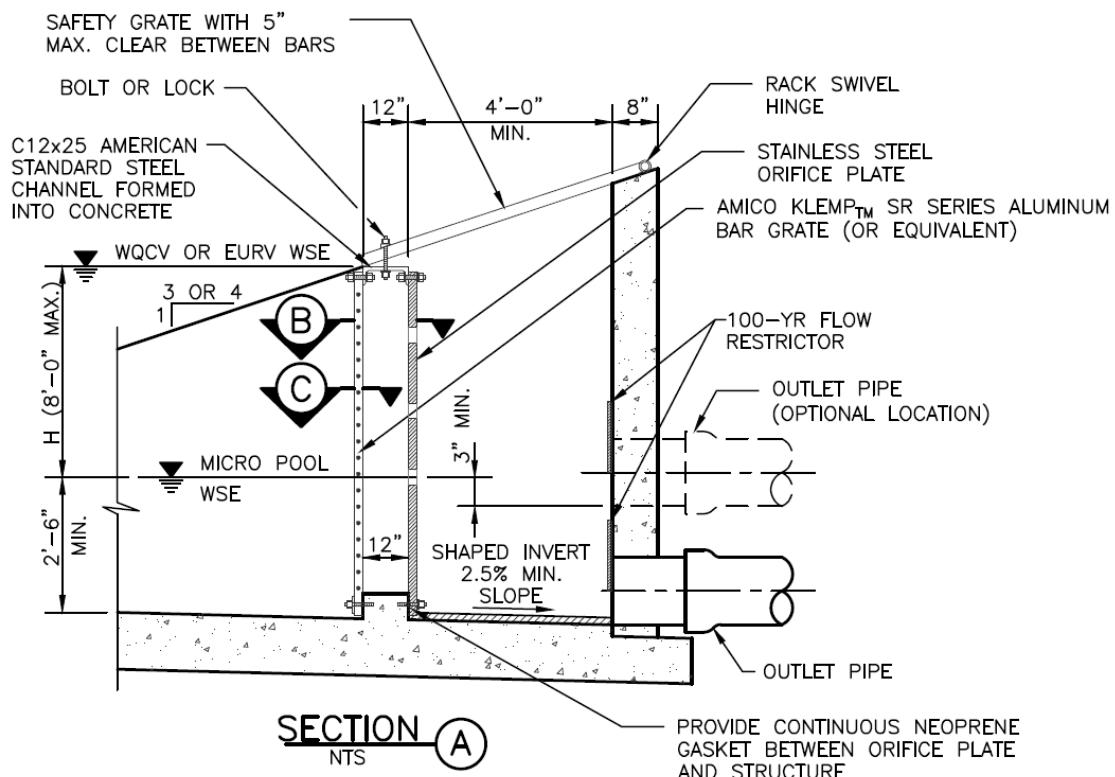


Figure OS-5. Typical outlet structure with well screen trash rack



WATER DEPTH ABOVE LOWEST OPENING, H	MINIMUM BEARING BAR SIZE, BARS ALIGNED VERTICALLY
2.0 FT.	1" x 3/16"
3.0 FT.	1-1/4" x 3/16"
4.0 FT.	1-3/4" x 3/16"
5.0 FT.	2" x 3/16"
6.0 FT.	2-1/4" x 3/16"

R VALUE=(NET OPEN AREA)/GROSS RACK AREA)  
=0.71 FOR CROSS RODS ON 2" CENTERS  
=0.77 FOR CROSS RODS ON 4" CENTERS

SECTION C  
NTS

Figure OS-6. Typical outlet structure with bar grate trash rack

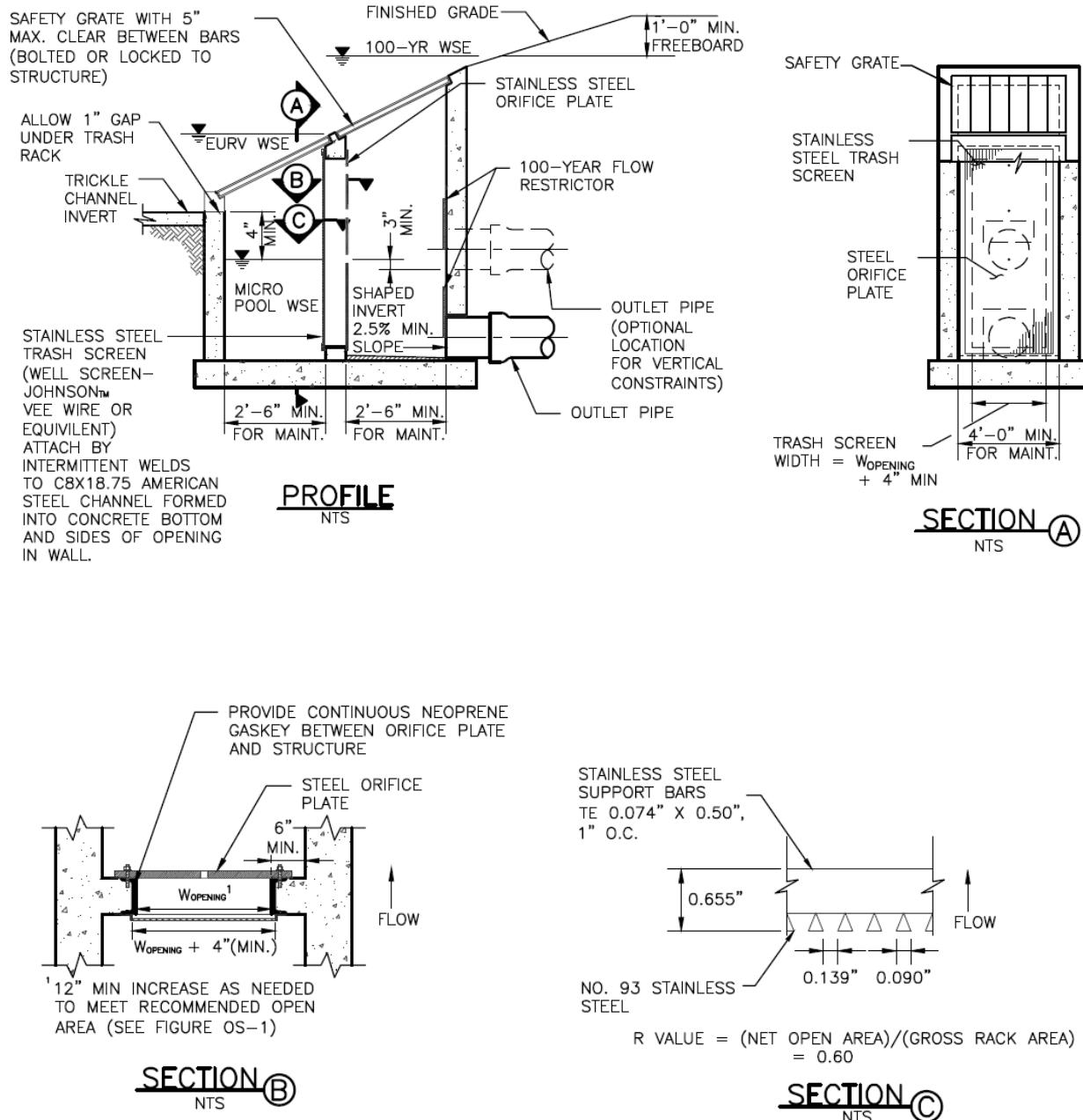
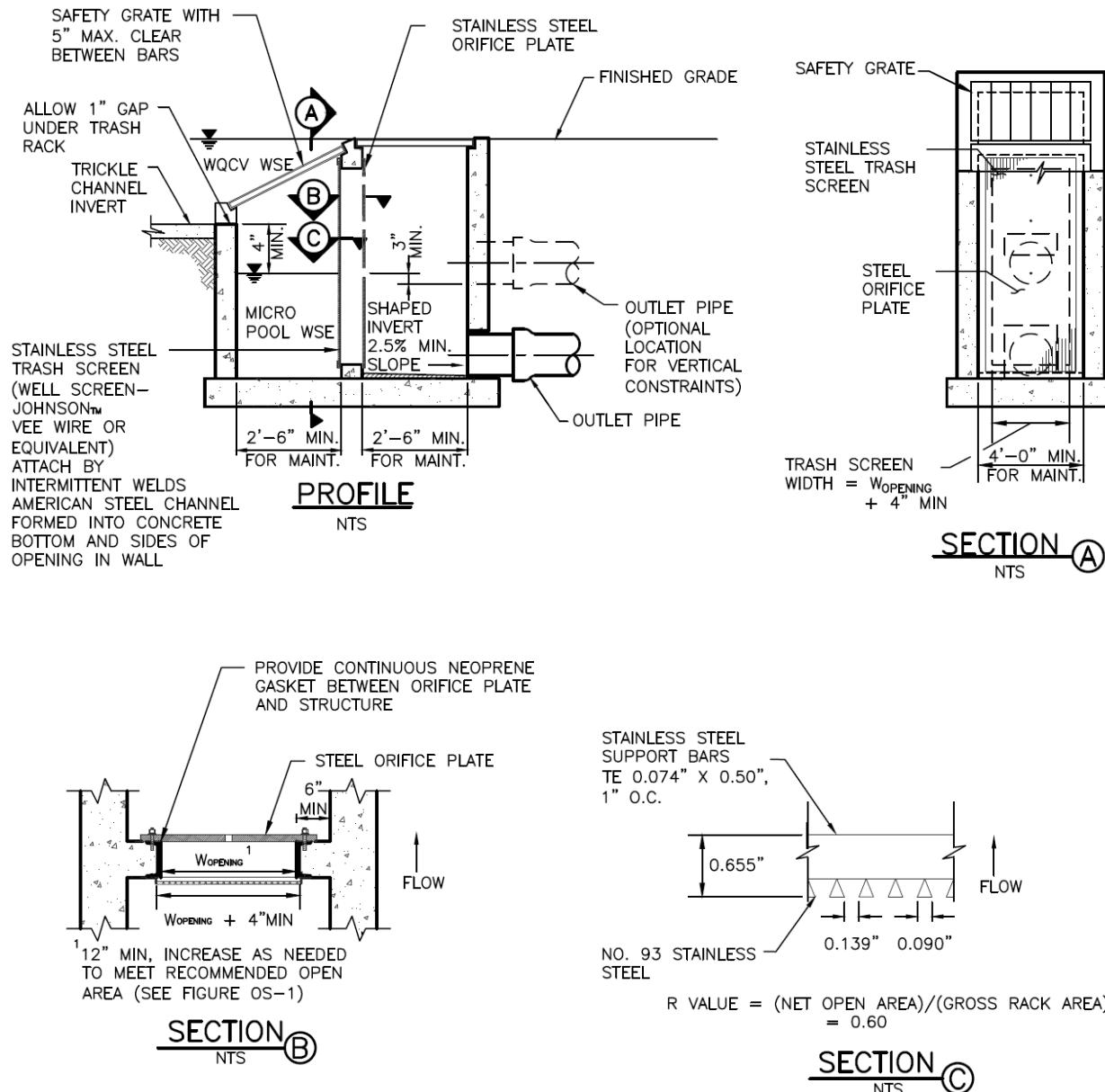


Figure OS-7. Full spectrum detention outlet structure for 5-acre impervious area or less

**FIGURE OS-8**

**Figure OS-8. WQCV outlet structure for 5-acre impervious area or less**

## Appendix G Standard Agreements - revisions

MS4 Permit Required	Section of item to be changed	Type, minor or major	Description
Yes	Intro	Minor	<p><b>Rewrite intro section:</b></p> <p>The El Paso County MS4 permit requires the County to ensure the long-term operation and maintenance of both public and private permanent stormwater quality control measures. To meet this requirement El Paso County developed maintenance agreements for three different types of ownership and maintenance scenarios and provides them for use in this appendix.</p> <p>Permanent stormwater quality control measures have historically been referred to in this manual as "Post-Construction Best Management Practices (PBMPs)." The two terms may be used interchangeably in this manual.</p> <p>An applicable development site with multiple permanent control measures may have one or more maintenance and access agreements depending upon ownership and maintenance responsibility. The maintenance agreements shall cover all permanent stormwater quality control measures that are included in a submitted site plan, site development plan, final plat or Grading and Erosion Control Plan. All structures such as Extended Detention Basins and Porous Landscape Detention, plus any additional permanent nonstructural control measures such as Grass Swales &amp; Buffers that are used as part of "Minimizing Directly Connected Impervious Areas" (MDCIA), shall be included in the maintenance agreement.</p> <p>When submitting a permanent BMP maintenance agreement for review and recordation by the County, the agreement shall include an Operation and Maintenance Manual developed by the engineer of record for each structure type included in a maintenance agreement. Multiple structure types may be included in one maintenance agreement and O&amp;M Manual. The responsible entity shall routinely inspect and provide appropriate long-term maintenance for all structures associated with the permanent stormwater quality control measures as described in the O&amp;M Manual.</p>

## Appendix H Performance Surety - revisions

<b>MS4 Permit Required</b>	<b>Section of item to be changed</b>	<b>Typo, minor or major</b>	<b>Description</b>
No	Punchlist Inspection Form, Section 1.1	Minor	Rewrite: The purpose of this form is to guide the completion of a preliminary or final acceptance inspection. The completed form is used to provide a comprehensive list of needed corrections.
No	Punchlist Inspection Form Section 1.3	Minor	Add sublist under Permanent BMPs: Inlet Presedimentation (forebay) Low flow channel Bottom Stage Area Micropool Outlet Structure Vegetative Cover Infiltration Media Underdrain

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
No	I.1	Minor	<p><b>Delete entire section:</b> Outdated reference to a title no longer used. Word “addendum” used only four times outside this section. Use of word will be replaced with “appendix.” Could conflict with Addendum found in Appendix K.</p>
No	I.2		<p><b>Rewrite second sentence:</b> This Permit, initially made effective March 10, 2003, was significantly modified and reissued effective on July 1, 2016 and authorizes El Paso County to discharge stormwater from its separate storm sewer system into the waters of the state. The MS4 permit applies to the urbanized areas of unincorporated El Paso County and requires the County to implement control measures to prevent or reduce the discharge of pollutants to waters of the state. The policies and criteria provided in this Appendix and Engineering Criteria Manual apply to the entire county pursuant to section 1.4 of this Engineering Criteria Manual. A copy of the current MS4 permit area map is available on the El Paso County website.</p>
No	1.2	Minor	<p><b>Rewrite second to last paragraph of section:</b> The following Appendix when combined with: the City of Colorado Springs and El Paso County Drainage Criteria Manual Volume 1; the City of Colorado Springs Drainage Criteria Manual Volume 2; the City of Colorado Springs Drainage Criteria Manual Volume 1 update May 2014, as adopted by El Paso County Resolution 15-042; the El Paso County Policy Plan; the El Paso County Land Development Code; the El Paso County Engineering Criteria Manual; and their successors forms the basis for protecting surface water quality in the County. In the event there are conflicts that arise between this Appendix and any of the documents listed above, the requirements of this Appendix shall govern the decisions of the ECM Administrator. It shall be responsibility of the Engineer of Record to identify those conflicts and bring to the attention of the ECM Administrator. The ECM Administrator, at their sole discretion, will determine which specific use of criteria is acceptable for the project under review.</p>
No	I.3	Minor	<p><b>Change Title: Adoption of Drainage Criteria Manuals by El Paso County</b>  <b>Rewrite entire section:</b>  In November of 2002, the City of Colorado Springs adopted its Drainage Criteria Manual Volume 2: Stormwater Quality Policies, Procedures and Best Management Practices (BMPs). The goal of this document was to provide guidance and engineering criteria for water quality protection measures during construction and for permanent installations.   The DCM2 was adopted as the County's stormwater quality design criteria. It is supplemented by this Appendix, which provides additions and revisions as applicable to the County in order to expand its scope to cover rural areas and other situations specific to the County. The goal has been to maintain consistency between criteria used in the County and the City of Colorado Springs.   On January 27, 2015, El Paso County adopted certain portions of the revisions made by the City of Colorado Springs to the Drainage Criteria Manual Volume 1, dated May 2014. Specifically, Chapter 6 in its</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

MS4 Permit Language	Section of item to be changed	Typo, minor or major	Description
			<p>entirety, Sections 3.2.1, 4.1.2, 4.1.3, 4.1.4, 4.2, 4.2.1, 4.2.2, and Figures 13-4a, 13-4b, and 13-5 of Chapter 13 were adopted to update the County criteria to reflect recent advances in hydrology.</p> <p>To clarify applicability, “El Paso County” will be substituted for “City of Colorado Springs” or a County department or position analogous to one in the City will be used where appropriate unless otherwise specified in this Appendix. Table I-1 summarizes the most common or typical substitutions that shall be used in applying and interpreting DCM2 and DCMV1.</p>
Yes	I.4.1	Minor	<p><b>Rewrite first paragraph:</b></p> <p>An Erosion and Stormwater Quality Control Permit (ESQCP) is required for all applicable construction activities. The ESQCP is the key mechanism for protecting water quality in the County and provides the requirements for the selection, installation, implementation, and maintenance of control measures (BMPs) during construction through final stabilization. Applicable construction activities include construction activities that result in land disturbance of greater than or equal to (<math>\geq</math>) one acre or that is less than (&lt;) one acre but is part of a larger common plan of development or sale that would disturb one acre or more of ground surface, unless excluded pursuant to section 5.6.3 of this ECM. Any project involving earth disturbing activity of less than 1 acre but which disturbs more than 500 cubic yards of material (stockpiling, cut and/or fill) may be considered an applicable construction activity at the ECM Administrator's discretion when potential pollutants, site topography, hydraulics or proximity to a surface water body are of significant concern.</p> <p>Construction activities refers to ground surface disturbing and associated activities that include, but are not limited to: clearing, grading, excavating, demolition, installation of new or improved haul and access roads, staging areas, stockpile, fill and borrow areas. Construction activity occurs from initial ground breaking to final stabilization regardless of ownership of the construction activities.</p> <p>Activities that include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility are not considered construction activities. Activities to conduct repairs that are not part of regular maintenance and activities that are for replacement are considered construction activities and are not considered routine maintenance. Repaving activities where underlying or surrounding soil is cleared, graded, or excavated as part of the repaving operation are construction activities unless they are an excluded pursuant to section 5.6.3 of this ECM.</p> <p>Temporary construction control measures to protect water quality are to be implemented when needed as determined by an El Paso County Inspector, even if a permit is not required. Refer to Table I-2 for additional criteria to determine applicability of an ESQCP.</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
No	I.4.1.	Minor	<p><b>Second Paragraph Storm Sewer Connections:</b>  <b>Rewrite paragraph:</b>            An ESQCP may be used as a storm sewer connection permit to allow for a connection to the El Paso County separate storm sewer system. Those cases are limited to entities that possess their own Colorado Discharge Permit System permit for stormwater Discharges, and are contingent on the hydraulic capacity of the system.</p>
No	I.4.1.A	Major	<p><b>First Paragraph:</b>  <b>Change:</b> Development Services Department to: Planning and Community Development Department.</p> <p><b>Change</b> Public Services Department to: Department of Public Works.</p> <p><b>Second Paragraph, first sentence:</b>  <b>Delete:</b> "under an approved Land Use application".</p> <p><b>Second Paragraph, second sentence:</b>  <b>Delete:</b> "held by Development Services Department staff."</p> <p><b>Second Paragraph, third sentence:</b>  <b>Delete Sentence:</b> For ESQCP issued by the Public Services Department a separate written Notice to Proceed is provided with the approved ESQCP.</p>
No	I.4.1.A	Minor	<p><b>New Third Paragraph:</b>            For projects permitted through the Planning and Community Development Department, during the preconstruction conference a County Inspector will discuss with the permit owner an overview of initial construction control measures expected to be installed prior to the start of construction, as outlined in the grading, erosion, and sediment control plans and/or SWMP. A timeline for completion of initial control measure installation may be determined and the Initial Inspection scheduled during the preconstruction conference. Typically, a Notice to Proceed with initial temporary BMP installation will be given to the permit holder during the preconstruction conference. If an Initial Inspection is not scheduled during the preconstruction conference, upon installation of initial BMPs the permit holder or authorized representative shall request an Initial Inspection. The Initial Inspection must be scheduled with a County Stormwater Inspector at least 48 hours in advance of the proposed inspection time.</p> <p>For projects permitted through the Department of Public Works, upon approval of the ESQCP a written Notice to Proceed is provided to the permit holder or authorized representative. Upon installation of initial BMPs the permit holder or authorized representative shall request an Initial Inspection. The Initial Inspection must be scheduled with a County Stormwater Inspector at least 48 hours in advance of the proposed inspection time.</p>
Yes/No	I.4.1.A.1	Major	<p><b>Stormwater Management Plan</b>  <b>Rewrite section:</b>            The purpose of a SWMP is to identify all possible pollutant sources from an applicable construction activity that may contribute to stormwater</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>pollution, and to address the selection, installation, implementation and maintenance of control measures (also known as Best Management Practices (BMPs)) that, when implemented, will prevent pollution or degradation of state waters.</p> <p>Control measures identified in the SWMP must be appropriate for the specific construction activity, the pollutant sources present, and the phase of construction. There is a wide variety of structural and non-structural control measures that can be used.</p> <p>The SWMP shall be submitted as a stand-alone document separate from the engineering plan set submitted for review and approval. El Paso County uses a checklist to perform a completeness review of the initially submitted SWMP. Unlike the Grading and Erosion Control Plan, the SWMP is intended to be a dynamic document and must be revised as construction proceeds to accurately reflect the current conditions and control measures in use at the site. Therefore El Paso County does not "approve" the SWMP. A copy of the SWMP review checklist can be found in Appendix E.</p> <p>During construction the SWMP is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector and shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.</p>
No	I.4.1.A.2	Minor	<p><b>Third sentence:</b>  <b>Change:</b> Public Services Department to Public Works Department.</p>
No	I.4.1.A.3	Major	<p><b>Financial Surety</b>  <b>Delete:</b> all text in this section and adjust numbering of remaining list.</p>
No	I.4.1.B	Minor	<p><b>Permit Holder Responsibilities</b>  <b>Add new subsection: I.4.1.B.1 after second paragraph</b>  <b>I.4.1.B.1. Control Measure Inspection and Maintenance.</b>  Permit holder is required to conduct self-monitoring inspections of the site during construction consistent with section I.5.2.A.</p> <p><b>Add new subsection I.4.1.B.2. and replace existing last paragraph with:</b></p> <p><b>I.4.1.B.2. Permit Termination</b>  Upon completion of construction activities and achievement of final stabilization, or upon sale of the permitted property, the permit holder is responsible for contacting the County in writing to request termination of the permit. Permit Closure will be granted when all of the following conditions are met and an acceptable final inspection has been documented consistent with section I.5.2.G.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Construction is complete and final stabilization has been achieved. Final stabilization will be achieved when re-vegetation efforts result in at least 70% of pre-disturbance vegetative cover at the site or equivalent permanent structural erosion and sediment control methods have been employed;</li> <li><input type="checkbox"/> All temporary BMPs have been removed from the site;</li> </ul>

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p><input type="checkbox"/> A copy of the Construction Stormwater Termination Notice, Reassignment form, or Modification form submitted to the Colorado Department of Public Health and Environment is provided to the County.</p>
No	I.4.1.C	Minor	<p><b>Second to last paragraph, fourth sentence:</b>  <b>Delete:</b> (or BESQCP as described below).</p>
Yes	I.4.2	Major	<p><b>Rewrite introductory section:</b>  <b>Builder's Erosion and Stormwater Quality Control Permit</b>          Builders of single family residences may follow a simplified procedure by obtaining a Builder's Erosion and Stormwater Quality Control Permit (BESQCP). A BESQCP is used to protect stormwater on individual, residential building lots with less than one (&lt;1) acre of total disturbed area and is not part of a larger plan of development or sale that does disturb more than one acre of land. A property must be covered by either an ESQCP or BESQCP in order to obtain a building permit.</p> <p>If the lot has been disturbed previously by construction work but has been final stabilized and any ESQCP on the property has been closed, the lot may be considered undisturbed and not part of a larger plan of development. In these cases a BESQCP may be issued for the single-family residential lot provided no more than one acre of disturbance will occur.</p> <p>BESQCPs are to be used for land disturbances greater than one (&gt;1) acre on large lot single-family development or agricultural zoned lands with a total area of 2.5 acres or larger and having a total lot imperviousness of less than 10%.</p> <p>An ESQCP must be used where land disturbance is greater than one (&gt;1) acre on a single-family residential lot or agricultural zoned lands with a total lot size of 2.5 acres or greater and a total site imperviousness between 10% and 20% due to the requirement for a study specific to the watershed where the site is located that demonstrates the expected soil and vegetation conditions are suitable to infiltrate/filtrate 100% of the Water Quality Capture Volume (WQCV).</p> <p>If a builder acquires single-family residential lots that are covered by an ESQCP owned by a developer (or other party) but are not final stabilized, the builder (i.e. new owner) must obtain a new ESQCP to cover the future construction activity.</p>
No	I.4.2.A	Minor	<p><b>Add to end of paragraph:</b>          Initial Inspections and Notices to Proceed are not required for sites with BESQCPs.</p>
Yes/No	Table I-2	Major	<b>Replace Table I-2 with table included at end of this revisions table.</b>
No	I.5.1	Major	<p><b>County Engineering and Subdivision Inspections, rewrite section:</b>          County Inspections shall be accomplished by County Stormwater Inspectors for the purpose of assuring compliance with the County's Municipal Separate Storm Sewer Systems (MS4) permit. Projects located in the unincorporated areas of El Paso County with an active ESQCP shall be inspected by County Stormwater Inspectors. County</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

MS4 Permit Language	Section of item to be changed	Type, minor or major	Description
			<p>construction oversight inspections include the following types of inspections: Initial, Routine, Reduced Frequency, Compliance, Complaint Response and Final inspections, which are described below.</p> <p>Inspections are not limited to new development and may be performed on any other land-disturbing activities that occur in unincorporated areas of the County. Inspections of individual homes in a residential subdivision, whether construction of the home is finished or not, are only conducted if there are observations or complaints of discharges of sediment from the disturbed area.</p> <p>For all inspections conducted by County Stormwater Inspectors, a copy of the completed report will be provided to the permit holder (owner) typically within two County work days following the inspection.</p>
Yes	I.5.2.A.	Minor	<p><b>Self-Monitoring Inspections</b>  <b>Replace existing text with:</b></p> <p>The permit holder or authorized agent shall conduct Self-Monitoring Inspections. The purpose of Self-Monitoring inspections is for the permit holder to ensure that all BMPs are installed according to approved plans, the BMPs are adequate and are being properly maintained, the SWMP is updated to reflect current conditions, and only allowable discharges are occurring off the site. The person performing the inspections may be on the permit holder's staff or a contracted third party. The individual performing the self-monitoring inspections shall be a qualified stormwater manager, which is an individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention and with the skills to assess conditions at construction sites that could impact stormwater quality and the effectiveness of stormwater controls implemented to meet stormwater permitting requirements. Examples of a qualified stormwater manager include a registered Professional Engineer or an erosion control inspector certified in a regionally recognized erosion and sediment control inspection training program. The person performing inspections should be a person with authority to expend project dollars on erosion and stormwater quality control. There are two types of Self-Monitoring Inspections allowed in El Paso County: Routine Self-Monitoring and Operator Compliance Inspections.</p> <p>The permit holder or authorized representative may request an alternative to the 14 day routine self-monitoring inspection cycle discussed above. Self-Monitoring Inspections of stormwater best management practices may be requested for at least once every month (i.e., 30 days) for permitted construction sites when:</p> <ul style="list-style-type: none"> <li>• all construction activity is completed except final stabilization because planted vegetative cover has not yet become established;</li> <li>• all activities for final stabilization have been completed with the exception of seed application which may not have occurred due to seasonal conditions or the necessity to reapply additional seed to augment previous efforts; and</li> <li>• the SWMP has been updated to locate those areas subject to the</li> </ul>

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>reduced inspection frequency. Routine Self-Monitoring Inspections after precipitation events are not required during an approved 30 day inspection cycle.</p>
Yes	I.5.2.A.1	Major	<p><b>New Subsection</b> <b>Routine Self-Monitoring Inspections</b> The Routine Self-Monitoring inspections are to be performed and documented at least once every 7 calendar days; or at least once every 14 calendars, if post-storm event inspections are conducted within 24 hours after the end of a precipitation or snow melt event. Post-storm inspections may be used to fulfill the 14 day inspection requirement. In addition to the bi-weekly inspections the owner or representative shall perform post-storm inspections of all BMPs after any precipitation or snowmelt event that causes surface erosion to ensure that the BMPs have operated as designed, to determine if maintenance is needed, and to locate and clean up any areas where materials may have run off site. For those choosing to utilize a 14-day and post-storm inspection frequency, if no construction activities will occur following a storm event, post-storm inspection must be conducted prior to resuming construction activities but no later than 72 hours following a storm event. The delay of any post-storm inspection must be documented in the inspection records included in the SWMP.</p> <p>The owner or his representative will record the results of all inspections by completing an inspection report or similar inspection checklist included in the SWMP. Completed inspection reports shall be kept on site and available to County Inspectors. The County may require the submission of these inspection reports on a site-specific basis.</p>
Yes	I.5.2.A.2	Major	<p><b>New Subsection:</b> <b>Operator Compliance Inspection</b> When a Compliance Inspection conducted by a County Stormwater Inspector documents the failure to implement control measures or implementation of inadequate control measures, the County Stormwater Inspector may require the ESQCP owner or their representative to inspect and provide a report to the County that the control measures have been implemented or corrected. The owner or the representative must include date and time stamped photographs of the new, adequate control measures.</p>
Yes	I.5.2.B	Major	<p><b>Initial Inspections for Sites Covered by ESQCPs Rewrite Section:</b> County Stormwater Inspectors perform Initial Inspections. The purpose of Initial Inspections is to allow the County the opportunity to confirm that the SWMP is implemented prior to the start of construction. Prior to the Initial Inspection, the initial construction control measures (BMPs) must have been implemented according to the SWMP. At a minimum, perimeter control measures to include vehicle tracking control and access control must be implemented, and no other land disturbing activity shall occur prior to the Initial Inspection.</p> <p>Initial Inspections will typically be accomplished through the use of a Routine Inspection discussed in section I.5.2.E. In the event the Routine Inspection identifies a failure to implement adequate perimeter control</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>measures, the site will be scheduled for a Compliance Inspection discussed in section I.5.2.C.</p> <p>Failure to install any initial BMPs or obtain a Notice to Proceed prior to beginning land disturbing activities may result in an immediate Stop Work Order.</p> <p>Initial Inspections are not required for sites with BESQCPs.</p>
Yes	I.5.2.C	Major	<p><b>Compliance Inspections</b></p> <p><b>Rewrite Entire Section:</b></p> <p>Compliance Inspections are inspections conducted by County Stormwater Inspectors in follow up to an illicit discharge, failure to implement a control measure or an inadequate control measure. Typically a Compliance Inspection will occur within 14 days after some other inspection type discussed in this section, unless the necessary corrections were made and observed by the County Stormwater Inspector during the previous inspection when the compliance issue was observed. Compliance Inspections may occur during or immediately after a precipitation event.</p> <p>During Compliance Inspections the County Stormwater Inspectors verify:</p> <ul style="list-style-type: none"> <li>• if the corrections have been completed on sites where an illicit discharge, failure to implement or implementation of an inadequate control measure was documented in the previous inspection;</li> <li>• BMPs are installed and functioning according to design;</li> <li>• only allowable discharges are occurring;</li> <li>• the required Self-Monitoring Inspections and associated documentation of activities are occurring; and</li> <li>• the SWMP is revised to reflect current site conditions.</li> </ul> <p>The County Inspectors will examine the SWMP and Self-Monitoring inspection reports and will evaluate installed BMPs and site discharge points to identify any installation, maintenance or effectiveness issues to determine compliance with the ESQCP. One of the following that incorporates this scope of inspection may be performed in lieu of a Compliance Inspection within 14 days of the previous County inspection that identified a failure to implement a control measure or an inadequate control measure:</p> <p>Routine Inspection in accordance with section I.5.2.A.1; Reconnaissance Inspection in accordance with section I.5.2.D; or Operator Compliance Inspection in accordance with section I.5.2.A.2.</p> <p>Compliance Inspections are typically conducted for sites that require an ESQCP and are located within the urbanized areas of unincorporated El Paso County. The County uses the Field Inspection Report to document Compliance Inspections.</p>
Yes	I.5.2.D.	Major	<p><b>Reconnaissance Inspections</b></p> <p><b>Rewrite Entire Section:</b></p> <p>Reconnaissance (Recon) Inspections are indicator inspections that are conducted for the general purpose of determining obvious compliance</p>

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			<p>issues at a site. During a Recon Inspection the site is not fully assessed for the adequacy of control measures, overall site management or record-keeping. Recon Inspections are a reduced scope inspection that may be used by the County to extend the frequency required of routine inspections up to 90 days when all indicators evaluated determine that the control measures observed meet good engineering, hydrologic and pollution control practices. Attention is paid to the perimeter of the site to determine if the site has contributed to offsite transfer of sediment or other pollutants to roads, drainage facilities, or surface water bodies and if any obvious BMP maintenance or implementation is needed.</p> <p>Recon Inspections are conducted by County Stormwater Inspectors at least every 14 days, are generally performed from adjacent streets or property, and may occur during or immediately after a significant precipitation event. A Routine Inspection must be conducted at least once at a site before a Recon Inspection may be conducted. When a Recon Inspection identifies the need for a Compliance Inspection at a site, a Routine Inspection must occur before the Recon Inspection frequency and scope can be used again. At a minimum a Routine Inspection must be performed at a site every 90 days.</p> <p>The Recon Inspection will be documented using the Field Inspection Report and a copy of the completed inspection report will be provided to the permit owner.</p> <p>Recon Inspections are conducted on sites with an ESQCP or BESQCP. A Recon Inspection with cause could result in requiring a site that previously was not permitted to submit a permit application and obtain an ESQCP or BESQCP consistent with enforcement provisions provided in Section I.6.</p>
Yes	I.5.2.E.	Major	<p><b>Change Title: Routine Inspections</b>  <i>Cut existing title and text and move to new section I.5.2.F.</i>  <b>Add new text:</b>  Routine Inspections are conducted by County Stormwater staff for the purpose of identifying failures to implement control measures, inadequate control measures and control measures requiring routing maintenance. All sources of pollution including trash will be evaluated to determine if only allowable discharges are occurring. During a Routine Inspection the County Stormwater Inspector will evaluate discharge points from the permitted site to determine if an illicit discharge has occurred.</p> <p>The removal of pollutants will be required when off-site transfer of pollutants is documented by a Routine Inspection. Results of a Routine Inspection will be provided to the permit owner or representative using the Field Inspection Report.</p> <p>Routine Inspections are conducted at least once every 45 days, and at least one (1) Routine Inspection must occur on a site prior to final stabilization. Routine Inspections do not apply to the reduced site inspections described in section I.5.2.H</p>

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No	I.5.2.F	Minor	<p><b>Change Title to: Complaint Response Inspections</b>  <b>Replace text with new text:</b></p> <p>Complaint Response Inspections will occur in response to either a citizen complaint or a complaint from another agency. The County Stormwater Inspector will perform a Recon Inspection to determine the validity of the complaint. If the owner or authorized representative of the site is available at the time of the inspection they will be made aware of the complaint and any issues identified during the Recon Inspection, and if necessary, provide recommendations for the implementation, repair, and maintenance of control measures or cleanup of material transferred offsite.</p> <p>All construction sites are subject to Complaint Response Inspections. In the event a site subject to a Complaint Response Inspection is operating without an applicable permit, the County Stormwater Inspector may pursue appropriate enforcement action described in section I.6.</p> <p>The Complaint Response Inspection will be documented using the Field Inspection Report provided to the owner or authorized representative.</p>
Yes	I.5.2.F	Minor	<p><b>Existing section I.5.2.F Follow up Inspections: delete in its entirety and replaced with above text and section title.</b></p>
No	I.5.2.G	Major	<p><b>Final Inspections</b></p> <p>Upon the completion of construction activities for a site, when the ESQCP permit holder (owner) believes conditions for final stabilization are met and a request to close the ESQCP is received in writing by the County, a County Inspector will perform a Final Inspection to verify the conditions required to close the permit are met. If so confirmed during the ESQCP Final Inspection, the County will provide the permit holder (owner) a written notice of permit closure using the Field Inspection Form.</p> <p>A Final Inspection may be requested in conjunction with a Preliminary Acceptance or Final Acceptance Inspection discussed in section 5.3.15 of this ECM. During an ESQCP Final Inspection, the following items will be evaluated in addition to the requirements discussed in sections I.4.1.B.2 and 5.3.15.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The site has final stabilization equal to a uniform vegetative cover with an individual plant density of at least 70 percent compared to the pre-disturbance levels and such cover is capable of adequately controlling soil erosion, as determined by the County Stormwater Inspector, or equivalent permanent, structural erosion and sediment control methods have been employed.</li> <li><input type="checkbox"/> Any sediment or other pollutant that may have been transferred off-site has been removed.</li> <li><input type="checkbox"/> The site shall be free of noxious weeds or treated according to an approved Noxious Weed Control Plan.</li> <li><input type="checkbox"/> All approved permanent (post construction) BMPs have been maintained and are functioning in accordance with the design and with the Operation and Maintenance Manual.</li> <li><input type="checkbox"/> Engineering Record Drawings are provided to the County consistent with section 5.10.6 of this ECM.</li> </ul>

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			<ul style="list-style-type: none"> <li><input type="checkbox"/> All temporary construction control measures (BMPs) have been removed from the site.</li> <li><input type="checkbox"/> Streets, parking lots and other paved surfaces (on-site and off-site) are free of sediment and debris.</li> <li><input type="checkbox"/> Drainage structures such as pipes, inlets and channels are clean and in good service.</li> <li><input type="checkbox"/> The site is in compliance with required corrective action identified during previous Inspections.</li> </ul>
Yes	I.5.2.H New section		<p><b>Title: Reduced Site Inspections</b></p> <p>Reduced site inspections are conducted by County Stormwater Inspectors and must occur at the frequency and include the scope of review indicated below.</p>
Yes	I.5.2.H.1	Major	<p><b>Inactive Site Inspections</b></p> <p>Sites where ground disturbing activities are completed and are pending growth of vegetation for final stabilization, or sites where no construction activity has occurred since the previous inspection conducted by the County are eligible for this type of inspection.</p> <p>Inactive Site Inspections must be conducted by County Stormwater Inspectors at least every 90 days. The purpose of this type of inspection is to identify failure to implement control measures, inadequate control measures or control measures requiring maintenance. The County Stormwater Inspector will evaluate all off-site discharge points to determine if only allowable discharges are occurring. If an illicit discharge is documented, the owner or authorized representative must remove all off-site deposited material when feasible. Results of an Inactive Site Inspection will be documented in the Field Inspection Report.</p>
Yes	I.5.2.H.2	Major	<p><b>Stormwater Management System Administrator Program Inspections</b></p> <p>These inspections are for construction activities operated by a participant in a Colorado Department of Public Health and Environment Water Quality Control Division designated Stormwater Management System Administrator's Program in accordance with Article 8 of title 25, Colorado Revised Statutes that has been identified by the Stormwater Management System Administrator to be fully implementing the program and qualified for reduced oversight incentives of the program. To be eligible for this reduced site inspection frequency, the owner or authorized agent must provide verifiable documentation to the County Stormwater Inspector of their participation in this State program. Upon verification of participation with the State, the owner or authorized agent may take advantage this type of reduced frequency inspections.</p> <p>Upon verification with the State, County Stormwater Inspectors will conduct inspections of the approved site at least every 90 days. The scope of the inspection will include evaluation of all pollutant sources on site, including trash, identification of failure to implement control measures, inadequate control measures, and control measures requiring maintenance to determine if an illicit discharge has occurred. If the site inspection determines an illicit discharge occurred, the permit owner will be required to remove the pollutants immediately when feasible. The results of the inspection will be documented using the Field Inspection</p>

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			Report and provided to the permit holder.
Yes	I.5.2.H.3.	Major	<p><b>Staff Vacancy Inspections</b></p> <p>This type of inspection is to accommodate a County staff vacancy or leave due to vacation or illness. The minimum frequency for this type of inspection is once every 90 days. The County Inspector will evaluate all pollutant sources on site, including trash, identify failures to implement control measures, inadequate control measures, and control measures requiring maintenance to determine if an illicit discharge has occurred. If the site inspection determines an illicit discharge occurred, the permit owner will be required to remove the pollutants immediately when feasible. The results of the inspection will be documented using the Field Inspection Report and provided to the permit holder.</p>
Yes/No	I.5.2.I	Major	<p><b>New Section:</b></p> <p><b>Permanent Stormwater Quality Control Measure Inspections</b></p> <p>The MS4 permit requires the County to implement inspection and acceptance procedures for all permanent stormwater quality control structures to ensure they are installed and implemented in accordance with approved site plans. The County must also have written procedures in place to ensure the long term operation and maintenance of all permanent stormwater quality control structures, including those owned and maintained by a private or other public entity located within El Paso County jurisdiction. These procedures are described in section I.7.7 of this Appendix.</p> <p>During construction, all permanent stormwater management facilities will be inspected as part of the other construction related inspections discussed in this section. Upon satisfactory completion of the Final Inspection for an applicable development site, the County will enter both privately and publicly maintained permanent stormwater quality control structures into an El Paso County Permanent Stormwater Management Facility Inventory. Entry into the County inventory of privately maintained structures does not imply or assume any maintenance responsibility on behalf of El Paso County. Entry into the inventory is for the sole purpose of tracking long term operation, maintenance and enforcement of permanent stormwater quality control structures with Private BMP Maintenance Agreements with the County.</p> <p>At a minimum a County Stormwater Inspector will inspect all individual permanent stormwater quality management facilities in the inventory at least once every five (5) years. During this inspection, the County Stormwater Inspector will evaluate the structures for items that affect the effective operation of the structure, including maintenance needs such as revegetation, mowing, accumulated trash and debris removal, and repairs. Results of the inspection will be documented on a Permanent Stormwater Quality BMP Inspection Form and will be provided to the owner recorded in the Private Detention Basin/Stormwater Quality BMP Maintenance Agreement and Easement.</p>
Yes	I.5.3. New Section Text	Major	<p><b>Delete all existing text and replace with New Subsection:</b></p> <p><b>Site Inspection Exclusions</b></p> <p><b>A. Finished Homes in a Residential Subdivision</b></p> <p>Inspections are not routinely conducted on lots that have been conveyed</p>

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			<p>to the homeowner when the following criteria are met:</p> <ul style="list-style-type: none"> <li>i. The lot has been sold to the homeowner for private residential use.</li> <li>ii. The lot has less than one acre of disturbed area.</li> <li>iii. All construction activity associated with grading the lot and building the home is completed.</li> <li>iv. A certificate of occupancy (or equivalent) has been issued to the homeowner.</li> <li>v. The County was notified by the owner and has documented that the lot is subject to this exclusion.</li> <li>vi. The residential development site must have a County-approved site plan and still be inspected by the County under the inspection types described in this section.</li> </ul> <p><b>B. Unfinished Home in a Residential Subdivision</b> Inspections are not conducted on residential lots with an unfinished home when all of the following criteria are met:</p> <ul style="list-style-type: none"> <li>i. The lot has less than one acre of disturbed area.</li> <li>ii. The permittee has documented that the lot is subject to this exclusion.</li> <li>iii. The residential development site must have a County-approved site plan and still be inspected by the County under the inspection frequencies described in this section.</li> </ul> <p><b>C. Winter Conditions</b> Inspections (self-monitoring and County) are not required at sites where construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This exclusion is applicable only during the period where melting conditions do not exist. The following information must be documented for this exclusion:</p> <ul style="list-style-type: none"> <li>• dates when snow cover occurred,</li> <li>• date when construction activities ceased, and</li> <li>• date that melting conditions began.</li> </ul> <p>Due to typical winter weather conditions along the Front Range, this exemption will rarely be applicable.</p>
No	I.6	Minor	<p><b>Rewrite introductory Section:</b> As part of an effective stormwater quality protection program, a process of escalating enforcement measures will be used to ensure compliance with County-issued stormwater permits and the County's MS4 permit.</p> <p>The County considers the owner of the land the ultimate responsible party for all construction activities. It is the responsibility of the owner to take all necessary measures to ensure that the site is in compliance with the County Construction Permit, Stormwater Management Plan, Erosion and Stormwater Quality Control Permit or Builder's Erosion and Stormwater Quality Control Permit, and Private Detention</p>

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			<p>Basin/Stormwater Quality BMP Maintenance Agreements. In addition to County requirements, the owner must meet State and Federal regulatory requirements for permits, control measures and water rights. The County has tried to make its requirements consistent with State requirements for construction activities (CDPS General Permit – Stormwater Discharges Associated with Construction Activities). Should requirements conflict, it will be the responsibility of the owner to bring these conflicts to the County's attention and propose how to address them.</p> <p>As mentioned in section I.5, El Paso County Stormwater Inspectors will take a compliance assistance approach with project owners and authorized agents during inspections. Failure to adequately respond to non-compliance items documented in Field Inspection Reports provided by the County, however, may result in an enforcement action discussed in this section.</p> <p>El Paso County is required by its MS4 permit to have an enforcement process and sanctions designed to minimize the occurrence of violations and obtain compliance from chronic and recalcitrant violators of stormwater control requirements. Escalation of enforcement must occur as necessary based upon the severity of the violation and/or the recalcitrance of the violator to ensure that violations of a similar nature are enforced consistently. As a general outline, the following process will be followed up to the point where an adequate response to non-compliance is obtained:</p> <p>Documented Inspection &gt; Verbal Warning of non-compliance (documented in Field Inspection Report) &gt; Letter of Noncompliance &gt; Stop Work Order &gt; Revocation of Permit &gt; Performance of Remedial Work &gt; Court Order. The County retains its right, however, to exercise its discretion in applying enforcement mechanisms as circumstances warrant.</p> <p>In cases where the ECM Administrator deems it necessary to address a construction site with more aggressive action, or in cases where no permit is required, the El Paso County Ordinance 07-01: Prohibiting Illicit Discharges to the County Storm Sewer System may be used, as appropriate, to address the site. Additional information on the County's Enforcement Procedures is discussed in Section I.6.2 and enforcement options are summarized in Table I-3.</p>
	I.6.1	Minor	<b>Restructure and renumber entire section to present definition of terms in alphabetical order.</b>
Yes/No	I.6.1.A		<p><b>Rewrite Section Stop Work Order</b></p> <p>A Stop Work Order is a written order to immediately cease construction activity at a site. The Stop Work Order may be issued by the ECM Administrator or County Stormwater staff to the property owner, permit holder or authorized agent of a construction site. An immediate Stop Work Order shall be issued when the property owner has failed to obtain an ESQCP, BESQCP, or a Notice to Proceed prior to land-disturbing activity. A Stop Work Order may also be issued if the site operator has</p>

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			<p>demonstrated obvious non-compliance with the ESQCP or BESQCP after repeated, documented attempts by the Inspector to bring the site into compliance. When a Stop Work Order is issued, it requires all work on the site to cease. No further land use approvals relative to the site will be allowed by the County, nor will work be allowed to resume, until the owner, permit holder or authorized representative takes the measures necessary to bring the site into compliance, as described in the Stop Work Order. A written notice to resume construction activity will be provided in the Field Inspection Report after Inspection by a County Inspector to verify satisfactory completion of required corrective actions identified in the Stop Work Order.</p>
Appendix I	I.6.1.B	Minor	<p><b>Rewrite Section: Inspection</b>  The term "inspection" refers to an evaluation by a County Inspector of a site for compliance with the ESQCP, BESQCP, SWMP, approved plans, Private Detention Basin/Stormwater Quality BMP Agreement and the Illicit Discharge Ordinance. For the purposes of Appendix I, inspections performed by County Stormwater Inspectors include those inspection types described in section I.5.2.</p>
Yes/No	I.6.1.C	Minor	<p><b>Rewrite Section: Stormwater Management Plan</b>  A Stormwater Management Plan (SWMP) is a plan developed in compliance with the content requirements in the CDPS General Permit for Stormwater Discharges Associated with Construction Activity (COR040000) and this Appendix I. El Paso County developed a content checklist for use by owners or the authorized representative of applicable construction sites to develop a complete SWMP. A copy of the SWMP Checklist can be found in Appendix E.</p> <p>The SWMP shall be a stand-alone document separate from the engineering plan set. The purpose of the SWMP is to develop and document a dynamic, systematic approach to identify possible pollutant sources that may contribute pollutants to stormwater, and identify the control measures (BMPs) that, when implemented, will prevent, minimize or eliminate any possible negative water quality impacts. The SWMP must be prepared using good engineering, hydrologic and pollution control practices and shall be implemented prior to beginning ground disturbing activities. The SWMP shall be revised as construction proceeds to accurately reflect the current conditions and practices at the site.</p> <p>Revisions must be made to the SWMP before changes are made in the field. A map showing the current location, status and changes to the BMPs are required. The owner or his representative shall keep the SWMP on-site while construction activities are occurring and must be implemented as written and updated from the start of construction activity until final stabilization is achieved. During construction, the SWMP must contain records of self-inspections, a map of the BMPs as they are installed or removed, BMP detail sheets with installation and maintenance specifications, and all other items listed in the SWMP checklist found in Appendix E.</p>

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			<p>Given the dynamic nature of the SWMP, the following guidance is provided for making in-field modifications to BMPs based on Self-Monitoring Inspections. Changes to BMPs identified in the SWMP may be completed in the field without approval from the County when:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The control measure is a temporary construction BMP</li> <li><input type="checkbox"/> The change results in a comparable BMP. Examples include but are not limited to, silt fence replaced with a wattle, rock check dam replaced with straw bale check, erosion control mat used in place of straw mulch, etc.</li> <li><input type="checkbox"/> Prior to installation, the change is reflected in the on-site SWMP including a BMP detail for the new BMP.</li> </ul> <p>Changes to permanent stormwater quality control measures or any other BMP change that will affect the approved engineering design, hydraulics or hydrology must be approved by the ECM Administrator or designee through the established plan modification process.</p>
No	I.6.1.D.	Major	<p><b>Erosion and Stormwater Quality Control Permit</b> Delete entire section.</p>
No	I.6.1.E.	Major	<p><b>Builder's Erosion and Stormwater Quality Control Permit</b> Delete Entire Section</p>
Yes	I.6.1.D	Major	<p><b>New Section: Final Stabilization</b> The condition reached when all ground surface disturbing activities at the site have been completed, and for all areas of ground surface disturbing activities a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.</p>
Yes	I.6.1.?	Major	<p><b>New Section: Control Measure</b> Any best management practice (BMP) or other method used to prevent or reduce the discharge of pollutants to waters of the state. Control measures include, but are not limited to best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices. The following requirements apply to all control measures</p> <ol style="list-style-type: none"> <li>1. Good Engineering, Hydrologic and Pollution Control Practices: Control measures must be selected, designed, installed, implemented, and maintained in accordance with good engineering, hydrologic, and pollution control practices as defined in this section. "Pollution" is man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water.</li> <li>2. Maintenance: Control measures must be maintained in effective operating condition.</li> <li>3. Inadequate Control Measures: Any control measure shall be considered an "inadequate control measure" if it is not designed, implemented, or operating in accordance with the requirements of the permit, including the</li> </ol>

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			<p>specific requirements in each program area in Part I.E or requirements for specific permittees in Part III.</p> <p><b>4. Control Measure Requiring Routine Maintenance:</b> Any control measure shall be considered a “control measure requiring routine maintenance” if it is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent associated potential for failure during a runoff event.</p> <p><b>5. Minimize:</b> The term “minimize,” for purposes of implementing control measures of this permit, means reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.</p>
No	I.6.1.G.	Minor	<p><b>Change title to:</b> <b>Notice of Noncompliance</b></p> <p>There are two types of notices of noncompliance used by County Stormwater Inspectors: a verbal warning of noncompliance and a letter of noncompliance. Both are defined below.</p>
No	I.6.1.G.i.		<p><b>New subsection:</b> <b>Verbal Warning of Noncompliance</b></p> <p>During an inspection conducted by a County Stormwater Inspector, the inspector may verbally inform the owner or authorized agent of specific instances of noncompliance with ESQCP or BESQCP. Examples of these instances include failure to implement control measures, inadequate control measures or a control measure needing maintenance. In the event the issues identified as noncompliant are corrected before the termination of the inspection no further action will occur. If the items are not corrected during the inspection, the County Stormwater Inspector will document the findings of noncompliance in the Field Inspection Report provided to the owner or authorized representative. Once documented in the Field Inspection Report and provided to the owner or authorized agent, this will be considered a “Verbal Warning of Noncompliance.”</p>
No	I.6.1.G.ii.		<p><b>New Subsection:</b> <b>Letter of Noncompliance:</b></p> <p>A written notice provided by a County Stormwater Inspector to the permit holder (owner) or authorized representative to formally inform them that the permitted project is not in compliance with the ESQCP, BESQCP, SWMP, or other requirements of County criteria, codes or ordinances relating to grading, erosion, and stormwater quality. The letter contains a specific description of the issues of noncompliance and the measures required to bring the site into compliance and a date by which these measures must be implemented.</p>
Yes	I.6.1.I.	Major	<p><b>New Section:</b> <b>Applicable Development Site</b></p> <p>“Applicable development sites” are those that result in land disturbance of greater than or equal to one acre, including sites less than one acre that are part of a larger common plan of development or sale, unless excluded consistent with sections 5.6.3 or I.7.1. Applicable development</p>

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			sites include all new development and redevelopment sites for which permanent water quality control measures were required in accordance with an MS4 permit. "New Development" means land disturbing activities, structural development, including construction or installation of a building or structure, creation of impervious surfaces, and land subdivision for a site that does not meet the definition of redevelopment. "Redevelopment" includes a site that is already substantially developed with 35% or more of existing imperviousness; with the creation or addition of impervious area (including removal and/or replacement), to include the expansion of a building footprint or addition or replacement of a structure; structural development including construction, replacement of impervious area that is not part of a routine maintenance activity; and land disturbing activities.
Yes	I.6.1.K		<p><b>New Section:</b>  <b>Good Engineering, Hydrologic and Pollution Control Practices:</b>  Methods, procedures, and practices that:</p> <ul style="list-style-type: none"> <li>• Are based on basic scientific facts.</li> <li>• Reflect best industry practices and standards.</li> <li>• Are appropriate for the conditions and pollutant sources.</li> <li>• Provide appropriate solutions to meet the associated permit requirements.</li> </ul>
Yes	I.6.1.L	Minor	<p><b>Add new definition:</b>  <b>Water Quality Capture Volume (WQCV):</b> The volume equivalent to the runoff from an 80th percentile storm, meaning that 80 percent of the most frequently occurring storms are fully captured and treated and larger events are partially treated.</p>
Yes	I.6.1.M		<p><b>Add new definition:</b>  <b>Applicable Construction Activity</b>  Include construction activities that result in a land disturbance of greater than or equal to one acre or that is less than one acre, but is part of a larger common plan of development or sale that would disturb, or has disturbed since March 2, 2001, one acre or more, unless excluded consistent with Chapter 5, section 5.6.3, or the disturbed areas have been finally stabilized.</p>
Yes/No	I.6.2	Minor	<p><b>Enforcement Procedures</b>  <b>Rewrite Section:</b>  With each inspection the County performs at an active construction site, the County Stormwater Inspector will note any observed violations of the County Construction Permit, Stormwater Management Plan, ESQCP or BESQCP, Private Detention Basin/Stormwater Quality BMP Maintenance Agreement, or any applicable County regulations or ordinances. The owner will remain noncompliant until the violation is corrected. The following enforcement procedures will typically apply. The County reserves its right, however, to exercise its discretion in applying enforcement mechanisms as circumstances warrant.</p> <p>A. In the event that control measures have not been implemented, are inadequate or require routine maintenance, the owner must take all necessary steps to minimize or prevent the discharge of pollutants until an adequate control measure is implemented and operational. If it is not feasible to immediately install, repair or perform maintenance on a control measure, the SWMP must be</p>

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			<p>amended to describe the reason such action is infeasible and establish a schedule for installing, repairing, or performing maintenance on the control measure as soon as possible. The owner must also remove and properly dispose of any unauthorized release or discharge (e.g. non-stormwater discharge, trash, sediment, spill or leak) and clean up any contaminated surfaces to minimize future unauthorized discharges.</p> <p>B. If corrective action to install, repair, or perform maintenance on a control measure is completed, or if other corrective action is taken to address other types of violations, during the inspection in which the violation is noted, no further enforcement action will occur. If the corrective action is not performed during the inspection, the County Stormwater Inspector will document the violations in the Field Inspection Report provided to the owner. The report will serve as a Verbal Warning of Noncompliance.</p> <p>C. The County Stormwater Inspector will conduct a Routine Inspection within 14 days of the inspection that noted the violations. If the violations have not been corrected, a Letter of Noncompliance will be issued to the owner. Failure to subsequently correct the violations will result in the issuance of a Stop Work Order, which may be followed by one or more of the other enforcement options listed in Table I-3.</p> <p>D. Accelerated enforcement action or the immediate imposition of stricter remedies may be pursued in certain instances. Factors to be considered include:</p> <ul style="list-style-type: none"> <li>a. Recurrence of the same problem at a site</li> <li>b. Occurrence of frequent problems at a site</li> <li>c. Repeated failure to correct violations at a site</li> <li>d. A history of noncompliance or recalcitrance</li> </ul> <p>Permanent stormwater quality control structures are assessed for adequate operation and maintenance. If the County Stormwater Inspector identifies a lack of maintenance or failure or inadequate operation of a permanent stormwater quality control structure, those findings will be documented and provided to the owner or authorized representative using a Permanent Stormwater Quality BMP Inspection Form. In addition to the enforcement mechanisms and process described above, the County will utilize the provisions of the recorded Private Detention Basin/Permanent Stormwater Quality Best Management Practice Agreement and Easement as appropriate to ensure the long term operation and maintenance of permanent stormwater quality control measures.</p> <p>The County may take other action as deemed appropriate. In cases where deemed appropriate by the ECM Administrator, the El Paso County Ordinance 07-01: Prohibiting Illicit Discharges to the County Storm Sewer System may be used to address compliance issues at a site that result in an unauthorized off-site discharge into the County MS4 system.</p>

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<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>When an unauthorized discharge of a pollutant or an illicit discharge occurs from an active construction site directly into waters of the state, the County Inspector, at their discretion, may notify the Colorado Department of Public Health and Environment pursuant to the reporting requirements included in the County's MS4 permit or the CDPS General Permit for Stormwater Discharges Associated with Construction Activity.</p> <p>If an ESQCP is revoked as part of an enforcement action, the owner shall submit a new ESQCP application, SWMP and other required submissions described in section I.4.1.A to obtain a new ESQCP. When a BESCP is revoked the owner must submit a new ESQCP application and other required submission items. A second BESQCP will not be issued to the same site once revoked.</p>
Yes	I.7	Minor	<p><b>New Development Stormwater Management Change Title to:</b> Post-Construction Stormwater Management</p>
Yes	I.7.1	Minor	<p><b>New Development Planning Change Title, keep text below title:</b> Post-Construction Stormwater Management Planning</p>
Yes	I.7.1.A	Major	<p><b>Overview Rewrite Section:</b> This chapter contains requirements and procedures for the selection, installation, implementation and maintenance of permanent stormwater quality control measures that will remain in operation after construction for new development and significant redevelopment. All applicable development sites must have operational permanent stormwater quality control measures at the completion of the site, unless excluded from the requirements of an applicable development site as described in I.7.1.C. All permanent control measures for applicable development sites shall meet one of the "base design standards" described in section 1.71.D.</p> <p>In the case where permanent water quality control measures are part of future phasing, the permittee must have a mechanism to ensure that all control measures will be implemented, regardless of completion of future phases or site ownership. In such cases, temporary water quality control measures must be implemented as feasible and maintained until removed or modified. All temporary water quality control measure must meet one of the "base design standards" described in section I.7.1.D.</p> <p>A procedure is provided within the context of a flow chart and a four-step process that shall be followed for all applicable development sites. Detailed descriptions, sizing and design criteria, and design procedures for control measures are provided in the New Development BMP Factsheets found in Section 4.2 of the DCMV2.</p> <p>It is recommended that discussions and collaboration regarding proposed BMPs occur early in each project between the developer's planner and engineer, County Stormwater and County Planning and Community Development staff.</p>

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<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			The analysis of the requirements, exclusions and base design standards presented in this section I.7 shall be incorporated into existing ECM Administrator submittals for review and acceptance including Preliminary/Final Drainage Reports and construction plans, or as otherwise specified by the ECM Administrator.
No	I.7.1.B.	Major	<b>BMPs for New Development or Significant Redevelopment</b> <b>Delete title and entire section text ending on page I-21.</b> Replace with new section title and text below
Yes	I.7.1.B New Section	Major	<b>Applicable Development Sites: Excluded Sites</b> The following types of sites and associated land disturbances are excluded from the requirements of this section 1.7. Although a site may qualify for an exclusion to section 1.7 below, the site may still be considered an applicable construction activity subject to the requirements of an ESQCP or BESQCP.
Yes	I.7.1.B.1 New Section		<b>Pavement Management Sites</b> Sites, or portions of sites, for the rehabilitation, maintenance, and reconstruction of roadway pavement, which includes roadway resurfacing, mill and overlay, white topping, black topping, curb and gutter replacement, concrete panel replacement, and pothole repair. The purpose of the site must be to provide additional years of service life and optimize service and safety. The site also must be limited to the repair and replacement of pavement in a manner that does not result in an increased impervious area, and the infrastructure must not substantially change. The types of sites covered under this exclusion include day-to-day maintenance activities, rehabilitation, and reconstruction of pavement. "Roadways" include roads and bridges that are improved, designed or ordinarily used for vehicular travel and contiguous areas or that are improved, designed or ordinarily used for pedestrian or bicycle traffic, drainage for the roadway, and/or parking along the roadway. Areas primarily used for parking or access to parking are not roadways.
Yes	I.7.1.B.2 New Section		<b>Excluded Roadway Redevelopment</b> Redevelopment sites for existing roadways, when one of the following criteria is met: 1) The site adds less than 1 acre of paved area per mile of roadway to an existing roadway, or 2) The site does not add more than 8.25 feet of paved width at any location to the existing roadway.
Yes	I.7.1.B.3 New Section		<b>Excluded Existing Roadway Areas</b> For redevelopment sites for existing roadways, only the area of the existing roadway is excluded from the requirements of an applicable development site when the site does not increase the width by two times or more, on average, of the original roadway area. The entire site is not excluded from being considered an applicable development site for this exclusion. The area of the site that is part of the added new roadway area is still an applicable development site.
Yes	I.7.1.B.4 New Section		<b>Aboveground and Underground Utilities</b> Activities for installation or maintenance of underground utilities or infrastructure that does not permanently alter the terrain, ground cover, or drainage patterns from those present prior to the construction activity. This exclusion includes, but is not limited to, activities to install, replace, or maintain utilities under roadways or other paved areas that return the surface to the same condition.

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Yes	I.7.1.B.5 New Section		<p><b>Large Lot Single Family Sites</b>  A single-family residential lot, or agricultural zoned lands, greater than or equal to 2.5 acres in size per dwelling and having a total lot impervious area of less than 10 percent. A total lot imperviousness greater than 10 percent is allowed when a study specific to the watershed and/or MS4 shows that expected soil and vegetation conditions are suitable for infiltration/filtration of the WQCV for a typical site, and the permittee accepts such study as applicable within its MS4 boundaries. The maximum total lot impervious covered under this exclusion shall be 20 percent.</p>
Yes	I.7.1.B.6 New Section		<p><b>Non-Residential and Non-Commercial Infiltration Conditions</b>  This exclusion does not apply to residential or commercial sites for buildings. This exclusion applies to applicable development sites for which post-development surface conditions do not result in concentrated stormwater flow during the 80th percentile stormwater runoff event. In addition, post-development surface conditions must not be projected to result in a surface water discharge from the 80th percentile stormwater runoff events. Specifically, the 80th percentile event must be infiltrated and not discharged as concentrated flow. For this exclusion to apply, a study specific to the site, watershed and/or MS4 must be conducted. The study must show rainfall and soil conditions present within the project area, must include allowable slopes, surface conditions, and ratios of impervious area to pervious area, and the County must accept such study as applicable within its MS4 boundaries.</p>
Yes	I.7.1.B.7 New Section		<p><b>Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped</b>  Sites with land disturbance to undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the site. Typical examples of this type of site are trails, parks and open space without structures.</p>
Yes	I.7.1.B.8 New Section		<p><b>Stream Stabilization Sites</b>  Construction activity that is solely for the purpose of stream stabilization.</p>
Yes	I.7.1.B.9 New Section		<p><b>Trails</b>  Bike and pedestrian trails. Bike lanes for roadways are not included in this exclusion, unless attached to a roadway that qualifies under another exclusion in this section.</p>
Yes	I.7.1.B.10 New Section		<p><b>Oil and Gas Exploration</b>  Facilities associated with oil and gas exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be an applicable construction activity.</p>
Yes	I.7.1.B.11 New Section		<p><b>County Growth Areas</b>  The County may exclude the following when they occur within the county growth areas:</p> <ol style="list-style-type: none"> <li>a. Agricultural facilities and structures on agricultural zoned lands (e.g., barn, stables).</li> <li>b. Residential development site or larger common plans of development for which associated construction activities results in a land disturbance of less than or equal to 10 acres and have a</li> </ol>

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<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>proposed density of less than 1,000 people per square mile.</p> <p>c. Commercial or industrial development site or larger common plans of development for which associated construction activities results in a land disturbance of less than or equal to 10 acres.</p>
Yes	I.7.1.C New Section	Major	<p><b>Base Design Standard Requirements</b></p> <p>The “base design standard” is the minimum design standard for new and redevelopment before applying any exclusions or alternative standards. The control measures for applicable development sites shall meet one of the following base design standards.</p>
Yes	I.7.1.C.1 New Section	Major	<p><b>Water Quality Capture Volume (WQCV) Standard</b></p> <p>The control measures is designed to provide treatment and/or infiltration of the WQCV and:</p> <ul style="list-style-type: none"> <li>a. 100% of the applicable development site is captured, except the County may exclude up to 20 percent, not to exceed 1 acre, of the applicable development site area when the County has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the County must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to street).</li> <li>b. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the control measure implemented. Consideration of drain time shall include maintaining vegetation necessary for operation of the control measure (e.g., wetland vegetation).</li> </ul>
Yes	I.7.1.C.2. New Section		<p><b>Pollutant Removal Standard</b></p> <p>The control measures is designed to treat at a minimum the 80th percentile storm event. The control measures shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.</p> <p>100% of the applicable development site must be captured, except the County may exclude up to 20 percent not to exceed 1 acre of the applicable development site area when the County has determined that it is not practicable to capture runoff from portions of the site that will not drain towards control measures. In addition, the County must also determine that the implementation of a separate control measure for that portion of the site is not practicable (e.g., driveway access that drains directly to street).</p>
Yes	I.7.1.C.3. New Section		<p><b>Runoff Reduction Standard</b></p> <p>The control measures is designed to infiltrate into the ground where site geology permits, evaporate, or evapotranspire a quantity of water equal to 60% of what the calculated WQCV would be if all impervious area for the applicable development site discharged without infiltration. This base design standard can be met through practices such as green infrastructure. “Green infrastructure” generally refers to control measures that use vegetation, soils, and natural processes or mimic natural</p>

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			<p>processes to manage stormwater. Green infrastructure can be used in place of or in addition to low impact development principles.</p>
Yes	I.7.1.C.4. New Section		<p><b>Applicable Development Site Draining to a Regional WQCV Control Measure</b></p> <p>The regional WQCV control measure must be designed to accept the drainage from the applicable development site. Stormwater from the site must not discharge to a water of the state before being discharged to the regional WQCV control measure. The regional WQCV control measure must meet the requirements of the WQCV in Part I.7.C.1.</p>
Yes	I.7.1.C.5. New Section		<p><b>Applicable Development Site Draining to a Regional WQCV Facility</b></p> <p>The regional WQCV facility is designed to accept drainage from the applicable development site. Stormwater from the site may discharge to a water of the state before being discharged to the regional WQCV facility. Before discharging to a water of the state, at least 20 percent of the upstream imperviousness of the applicable development site must be disconnected from the storm drainage system and drain through a receiving pervious area control measure comprising a footprint of at least 10 percent of the upstream disconnected impervious area of the applicable development site. The control measure must be designed in accordance with a design manual identified by the permittee. In addition, the stream channel between the discharge point of the applicable development site and the regional WQCV facility must be stabilized.</p> <p>The regional WQCV facility must meet the following requirements:</p> <ul style="list-style-type: none"> <li>a. The regional WQCV facility must be implemented, functional, and maintained following good engineering, hydrologic and pollution control practices.</li> <li>b. The regional WQCV facility must be designed and maintained for 100% WQCV for its entire drainage area.</li> <li>c. The regional WQCV facility must have capacity to accommodate the drainage from the applicable development site.</li> <li>d. The regional WQCV facility must be designed and built to comply with all assumptions for the development activities planned by the County within its drainage area, including the imperviousness of its drainage area and the applicable development site.</li> <li>e. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the facility. Consideration of drain time shall include maintaining vegetation necessary for operation of the facility (e.g., wetland vegetation).</li> <li>f. The County shall require site plans and perform a site plan review consistent with the requirements of this ECM to ensure the regional WQCV facility and control measures for the applicable development site plans include: <ul style="list-style-type: none"> <li>i. Design details for all structural control measures implemented to meet the requirements of Part I.E.4.</li> <li>ii. A narrative reference for all non-structural control measures for the site, if applicable. “Non-structural control measures” are control measures that are not structural control measures and include, but are not limited to, control measures that prevent or reduce pollutants being introduced to water or that prevent or</li> </ul> </li> </ul>

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MS4 Permit Language	Section of item to be changed	Type, minor or major	Description
			<p>reduce the generation of runoff or illicit discharges.</p> <ul style="list-style-type: none"> <li>iii. Documentation of operation and maintenance procedures to ensure the long term observation, maintenance, and operation of the control measures. The documentation shall include frequencies for routine inspections and maintenance activities.</li> <li>iv. Documentation regarding easements or other legal means for access of the control measure sites for operation, maintenance, and inspection of control measures.</li> <li>v. Confirmation that control measures meet the requirements of section I.7.C</li> <li>vi. Confirmation that site plans meet the requirements of County's site plan review and approval requirements</li> </ul> <p>g. The regional WQCV facility must be subject to the County's authority consistent with requirements and actions for a Control Measure in accordance with a base design standard.</p> <p>h. Regional Facilities must be designed and implemented with flood control or water quality as the primary use. Recreational ponds and reservoirs may not be considered Regional Facilities. Water bodies listed by name in surface water quality classifications and standards regulations (5 CCR 1002-32 through 5 CCR 1002-38) may not be considered regional facilities.</p>
Yes	I.7.1.C.6. New Section	Major	<p><b>Constrained Redevelopment Sites Design Standard</b></p> <p>The constrained redevelopment sites standard applies to redevelopment sites meeting the following criteria:</p> <p>(a) The applicable redevelopment site is for a site that has greater than 75% impervious area, and</p> <p>(b) The County must determine that it is not practicable to meet any of the base design standards in section I.7.1.C (1), (2), or (3). The County's determination shall include an evaluation of the applicable redevelopment site's ability to install a control measure without reducing surface area covered with the structures.</p> <p>The control measures is designed to meet <b>one</b> of the following:</p> <p>(a) Provide treatment of the WQCV for the area captured. The captured area shall be 50% or more of the impervious area of the applicable redevelopment site. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the control measure implemented,</p> <p>(b) The control measures is designed to provide for treatment of the 80th percentile storm event. The control measures shall be designed to treat stormwater runoff in a manner expected to reduce the event mean concentration of total suspended solids (TSS) to a median value of 30 mg/L or less.</p> <p>A minimum of 50% of the applicable development area including 50% or more of the impervious area of the applicable development area shall drain to the control measures. This standard does not require that 100% of the applicable redevelopment site area be directed to a control measures as long as the overall removal goal is met or exceeded (e.g.,</p>

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			<p>providing increased removal for a smaller area), or</p> <p>(c) Infiltrate, evaporate, or evapotranspire, through practices such as green infrastructure, a quantity of water equal to 30% of what the calculated WQCV would be if all impervious area for the applicable redevelopment site discharged without infiltration.</p>
Yes	I.7.2.A Step 3	Minor	<p><b>Step 3: Provide Water Quality Capture Volume (WQCV)</b></p> <p><b>Rewrite first paragraph:</b></p> <p>All applicable development sites must have operational permanent stormwater quality control measures at the completion of construction. Designing structures that provide the WQCV is a common preferred approach in El Paso County. Other base design standards discussed earlier may be used if applicable, however. One or more of six types of water quality basins, each draining slowly to provide for long-term settling of sediment particles, may be selected. Information on selecting and configuring for a site one or more of the WQCV facilities listed below is provided in the section 4.2 of the DCMV2. These six BMPs are also described in detail in the New Development BMP Factsheets found in the DCMV2 section 4.2.</p> <ul style="list-style-type: none"> <li>• Porous Pavement Detention</li> <li>• Porous Landscape Detention</li> <li>• Extended Detention Basin</li> <li>• Sand Filter Extended Detention Basin</li> <li>• Constructed Wetland Basin</li> <li>• Retention Pond</li> </ul> <p>Full Spectrum Detention is a newer approach to providing the WQCV. Details on the use, sizing, configuration and maintenance of Full Spectrum Detention structures are located in the DCMV1 update of 2014, sections of which are incorporated by reference into this ECM.</p>
No	I.7.2.B	Minor	<p><b>Other Specialized BMPs</b></p> <p><b>Third paragraph, delete last sentence and replace with:</b></p> <p>A request to use an “experimental system” must be submitted to El Paso County in the form of a Request for a Deviation from these standards, submitted consistent with the criteria and process described Chapters 1 and 5, respectively. Design of any “experimental system” shall not commence until a Request for Deviation is submitted to and approved by the County.</p>
Yes	I.7.2.D	Minor	<p><b>Permanent Best Management Practice Selection Process</b></p> <p><b>Change Title:</b></p> <p><b>Post-Construction Stormwater Quality Control Measure Selection Process</b></p>
No	Figure I-1	Minor	<p><b>Please make all identified changes below to the flow diagram:</b></p> <p><b>Box 2: Change text to:</b></p> <p>Provide stabilized drainageways, including roadside ditches where applicable.</p> <p><b>Diamond after box 6:</b></p> <p><b>Change text to:</b> See Figure I-2</p> <p><b>Box 13: Change text to:</b></p> <p>Provide sediment control measure</p>

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			<p><b>Boxes 12 and 14:</b> Add arrow head below and pointing to Box 14.</p> <p><b>Box 14: Change to:</b> Provide pre-sedimentation forebay</p> <p><b>Box 15: Change to:</b> Does a regional WQCV facility located downstream of the site provide adequate WQCV for the proposed site?</p> <p><b>Box 19: Change to:</b> Provide WQCV for a site by implementing one or more WQCV control measures.</p> <p><b>Diamond after box 22:Change to</b> See Figure I-2.</p>
NO	Figure I-2	Minor	<p><b>Box 8: Change to:</b> Provide porous landscape detention (PLD) or sand filter basin (SFB) or other control measure with equivalent removal rates.</p>
No	I.7.2.D	Major	<p><b>Second Paragraph:</b> <b>Delete entire paragraph</b></p> <p><b>Third Paragraph:</b> <b>Rewrite Paragraph:</b> The following process references the use of the permanent control measures (BMPs) and other practices outlined in DCM2 and this Appendix. The use of DCM2 BMPs will promote consistency between the City and County. These BMPs are commonly found in manuals and other literature from municipalities across the country, and they are the accepted best industry practices in stormwater quality control.</p> <p>As described below, other control measures (which may be relatively new to the field of stormwater management) are acceptable if they can be shown to meet performance criteria provided in this section 1.7. A Request for a Deviation from these standards submitted consistent with the criteria and process described Chapters 1 and 5, respectively, must be submitted and approved by the County prior to the use of an permanent control measure not included in this ECM, DCMV1, DCMV2 and the DCMV1 Update of 2014.</p>
Yes/No	I.7.2.D	Minor	<p><b>Please edit all box descriptions (pages I-30 to I-32) identified below with supplied text:</b></p> <p><b>Box 10: Rewrite:</b> If the site disturbance is larger than one acre and is low density residential, then no WQCV may be required provided the site meets criteria presented in section I.7.1. If WQCV is not required, the need for</p>

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<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			<p>a permanent sediment control measure must still be evaluated. If the site is located near and will discharge to a sensitive water, then a "jump" to Box 4 is required for continued evaluation.</p> <p><b>Box 13: Change text:</b> Change "sediment basin" to sediment control measure.</p> <p><b>Box 15: Change text:</b> Regional WQCV facilities may only be used if they meet the requirements of section I.7.1.C.</p> <p><b>Box 19: Change all text:</b> If there is no regional WQCV facility downstream with adequate capacity to provide the WQCV for the proposed site, then a WQCV control measure must be provided for the site. Examples of potentially acceptable control measures include Extended Detention Basin, Full Spectrum Detention Basin, Sand Filter Basin, Constructed Wetland Basin, or a Retention Pond. For all ponds, issues related to dam construction and potential groundwater infiltration must be considered. Retention Ponds must be considered in the context of additional issues including safety and health (e.g., drowning and mosquito/West Nile virus) and water rights. For all structures that may hold water for more than 72 hours with an exposed water surface, water storage rights must be obtained before a structure (e.g. retention pond) can be proposed for a site. See section 3.2.5.F and 3.3.7 of this ECM for additional information regarding water right and permanent stormwater quality control measures.</p>
Yes	I.7.2.E	Major	<p><b>Projects that are Strictly Roadway Construction Second paragraph (after 3 bullets), rewrite:</b> For road construction projects, the applicant must determine if the roadway project is an applicable development site as defined in section I.7.1.B. Excluded sites do not need to comply with the requirements of this section I.7. If a roadway construction project is an applicable development site, then the owner must determine which base design standard is appropriate for the project and must design and implement water quality improvement with the project. Requirements for roadway projects included in the DCMV1 may be used provided they do not conflict with other provisions of this Section I.7.</p> <p><b>Third Paragraph, add new second sentence and continue with existing text:</b> Rural roads (which by definition have roadside ditches) must be stabilized with one of three methods included in DCM2 on pages 4-3 and 4-4. These methods are described in DCMV1.</p>
Yes	I.7.2.F.	Major	<p><b>Additional Guidelines for BMP Selection Paragraph 2 and 3: Delete in entirety</b></p> <p><b>Paragraph 4, rewrite:</b> WQCV control measures and Regional WQCV control measures shall be located prior to the stormwater runoff being discharged to State Waters.</p>

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<b>MS4 Permit Language</b>	<b>Section of item to be changed</b>	<b>Type, minor or major</b>	<b>Description</b>
			When using a Regional WQCV facility for a site, the site may discharge to a water of the state before being discharged to the Regional WQCV facility; however, the conditions in section I.7.1.C.5 shall be met.
Yes/No	I.7.3	Major	<p><b>Change Title to:</b> <b>Incorporating WQCV into Stormwater Detention Structures</b></p> <p><b>Rewrite last paragraph:</b> For linear projects and projects with limited space available for permanent water quality control measures, WQCV may be included in the design of underground detention structures such as sand filter basins (SFB) and proprietary underground detention structures. These systems rely on appropriate soil conditions to infiltrate or evapotranspire the WQCV.</p> <p>It is extremely important that high sediment loading and compaction of underlying soils in the area to be used for infiltration be controlled to the maximum extent practicable. These structures are best suited to being brought on line at the end of the construction phase where disturbed ground has been stabilized with pavement or vegetation.</p> <p>Any underground detention facilities proposed for use in the County must meet the good engineering, hydrologic and pollution control practices as defined in this section I.7. The design of underground detention that incorporates WQCV shall not commence until a Request for Deviation is submitted for review and approved by the ECM Administrator. In addition to the approval criteria for a deviation request provide in Chapter 1 and 5 of this ECM, the owner or authorized agent must provide a structure-specific Operation and Maintenance (O&amp;M) Manual and maintenance agreement for the structures. The Operation and Maintenance Manual shall include specific procedures and equipment that will be used by the owner or authorized representative to operate and maintain the structures. A specification sheet or generic O&amp;M manual provided by the vendor will not satisfy the O&amp;M Manual requirement.</p>
No	I.7.4	Minor	<p><b>Separate Presedimentation Facilities</b></p> <p><b>First paragraph, last sentence: Rewrite:</b> Using this approach, any requirement for sediment storage in the main facility may be reduced consistent with the storage capacity of the separated presedimentation forebay, and the forebay within the main facility may be eliminated.</p> <p><b>Last paragraph, delete all text:</b></p>
No	I.7.5	Minor	<p><b>Structural BMP Effectiveness</b></p> <p><b>Last sentence, delete:</b> recommended in the New Development BMP section</p>
No/Yes	I.7.6.	Minor	<p><b>Separation Distances</b></p> <p><b>Add new last sentence:</b> Additional separation distance may be required when a permanent stormwater quality control measure is located near a water of the state and relies on a vegetated buffer strip as part of the strategy to address</p>

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MS4 Permit Language	Section of item to be changed	Type, minor or major	Description
			<p>WQCV prior to discharge to waters of the state.</p>
Yes	I.7.7.A	Major	<p><b>Long-term Maintenance Agreements for BMP Change title to:</b>          Long-term Operation and Maintenance of Post-Construction Stormwater Management Structures</p> <p><b>Rewrite entire section:</b>          The El Paso County Phase II MS4 Permit requires the County to ensure the long-term operation and maintenance of all post-construction stormwater management control measures constructed by an applicable development site. Part I E.4.a.vi of MS4 permit states:  <b>(double indent text below)</b>          "vi. Construction Inspection and Acceptance: The County must implement inspection and acceptance procedures to ensure that control measures are installed and implemented in accordance with the site plan and include the following:          (A) Confirmation that the completed control measure operates in accordance with the approved site plan.          (B) All applicable development sites must have operational permanent water quality control measures at the completion of the site. In the case where permanent water quality control measures are part of future phasing, the County must have a mechanism to ensure that all control measures will be implemented, regardless of completion of future phases or site ownership. In such cases, temporary water quality control measures must be implemented as feasible and maintained until removed or modified. All temporary water quality control measure must meet one of the design standards in Part I.E.4.a.iv.          For the purpose of this section, completion of a site or phase shall be determined by the issuance of a certificate of occupancy, use of the completed site area according to the site plan, payment marking the completion of a site control measure, the nature of the selected control measure or equivalent determination of completion as appropriate to the nature of the site."            For all structures approved by El Paso County which are not public improvements, the property owner or authorized agent shall be responsible for the operation and maintenance of all permanent stormwater quality control measures. All temporary control measures required during construction shall be removed after construction activity on the site has been completed and final stabilization of the site is achieved.            Prior to approval of a subdivision, issuance of a Certificate of Occupancy, or closure of the ESQCP for sites that did not go through the subdivision review process that have permanent post-construction stormwater quality control measures, a signed private maintenance agreement for permanent BMPs must be submitted to and recorded by the County. El Paso County uses these agreements as the primary mechanism to ensure the long-term operation and maintenance of post construction stormwater quality control measures. Agreement templates are found in Appendix G.</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

MS4 Permit Language	Section of item to be changed	Typo, minor or major	Description
			<p>During construction a County Stormwater Inspector will inspect structures for conformance with approved construction plans and the SWMP. Once the structure has been accepted into the County Permanent Stormwater Quality Control Measure Inventory consistent with Chapter 5, control measures will be inspected at minimum once every five (5) years. All inspections will be conducted as described in section I.5.</p> <p>Confirmation that post-construction stormwater quality control measures operate according to approved plans occurs through the use of an inflow hydrograph routed through a basin model. This analysis and the resulting hydrograph shall be performed by the Engineer of Record for the owner or authorized agent of the applicable development site and provided with Final Drainage Report included in the development plan submitted to the County. If the ECM Administrator determines that significant changes to the approved plans are identified in the "as-built" drawings provided in conformance with section 5.10.6, an additional inflow hydrograph based on the "as-built" changes shall be provided to the County to confirm that the changes made during construction did not negatively alter the effective operation of the control measure.</p> <p>If during an inspection of a post-construction stormwater quality control structure it is determined and documented by a County Stormwater Inspector that any owner or authorized agent failed to adequately operate and maintain a permanent stormwater quality control measures or remove the temporary control measures, an enforcement action described in section I.6 shall be pursued.</p>
No	I.9	Minor	<p><b>Supplemental Information A: New Development Design Forms</b></p> <p><b>Change title:</b> Supplemental Information: Urban Drainage Flood Control District's Hydrology and Hydraulics Design Tools</p> <p><b>Rewrite Section:</b> [Replaces DCM2 Appendix A]</p> <p>The Urban Drainage and Flood Control District (UDFCD) located in Denver, Colorado developed a number of tools to assist engineers and design professionals develop hydrology, adhere to UDFCD criteria, and perform various analyses. El Paso County allows for the use of these tools on submittals required during the development and construction review and approval process. In the event there are conflicts that arise between the inputs or results of an UDFCD tool and the criteria contained in this ECM, however, it shall be responsibility of the Engineer of Record to identify those conflicts and bring them to the attention of the ECM Administrator. Only the appropriate UDFCD design tools available on the UDFCD website at the time of site plan approval will be acceptable. The ECM Administrator, at their sole discretion, will determine if the specific use of the tool is acceptable for the project under review.</p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

MS4 Permit Language	Section of item to be changed	Typo, minor or major	Description
			<p>The preparation of final design plans addressing details of structural adequacy, public safety, hydrology, hydraulic functionality, maintainability, and aesthetics remains the sole responsibility of the Engineer of Record.</p> <p><b>BY THE USE OF THE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT SUPPLIED DESIGN FORM WORKSHEETS, THE USER AGREES TO THE FOLLOWING:</b></p> <p><b>NO LIABILITY FOR CONSEQUENTIAL DAMAGES</b></p> <p>To the maximum extent permitted by applicable law, in no event shall the Urban Drainage and Flood Control District or the City of Colorado Springs or El Paso County, their contractors, advisors, reviewers, or their member governmental agencies, be liable for any incidental, special, punitive, exemplary, or consequential damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information or other pecuniary loss) arising out of the use or inability to use these products, even if the Urban Drainage and Flood Control District or the City of Colorado Springs or El Paso County, their contractors, advisors, reviewers, or their member governmental agencies have been advised of the possibility of such damages. In any event, the total liability of the Urban Drainage and Flood Control District or El Paso County, their contractors, advisors, reviewers, or their member governmental agencies, and your exclusive remedy, shall not exceed the amount of fees paid by you to the Urban Drainage and Flood Control District for the Product.</p> <p><b>NO WARRANTY</b></p> <p>The Urban Drainage and Flood Control District or El Paso County, their contractors, advisors, reviewers, or their member governmental agencies do not warrant that the Design Form Worksheets will meet your requirements, or that the use of this product will be uninterrupted or error free.</p> <p><b>THIS PRODUCT IS PROVIDED "AS IS" AND THE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT OR EL PASO COUNTY, THEIR CONTRACTORS, ADVISORS, REVIEWERS, AND THEIR MEMBER GOVERNMENTAL AGENCIES DISCLAIM ALL WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE LEVELS, COURSE OF DEALING OR USAGE IN TRADE.</b></p>

## Appendix I Stormwater Quality Policy and Procedures - revisions

**Table I-2. ESQCP and BESQCP Permit Applicability Guidance**

"X" inside box indicates when each type of permit is required. Refer to section 5.6.3 for exclusions to the applicability provided below.

ESQCP	BESQCP	Description
<b>For Developers</b>		
X		Land Disturbance greater than or equal to ( $\geq$ ) 1 acre.
X		Land Disturbance less than ( $<$ ) 1 acre but part of a larger common plan of development or sale that disturbs $\geq$ to 1 acre. See definition of larger common plan of development or sale.
X		New ESQCP required when developer acquires disturbed land currently covered by an ESQCP unless meets criteria for a BESQCP
<b>For Builders</b>		
No	No	Single-family residence building site with less than ( $<$ ) 1 acre of disturbance and is not part of a larger common plan of development or sale and is not located in a sensitive area <sup>1</sup> .
	X	Single-family residence building site with $< 1$ acre of disturbance and is located in an area that is not currently covered by an ESQCP and the site is <b>not</b> located in sensitive area.
	X	Single-family residence building site with $< 1$ acre of disturbance and is not part of a larger common plan of development or sale and the site <b>is</b> located in a sensitive area
	X	Single-family residence building site with $< 1$ acre of disturbance and is located in an area that is not currently covered by an ESQCP and the site <b>is</b> located in sensitive area.
	X	Single-family residence building site with $\geq 1$ acre of land disturbance located on a lot or parcel with a total area of greater than or equal to 2.5 acres or zoned agriculture land and with a proposed total site imperviousness of less than 10%.
X		Single-family residence building site with $\geq 1$ acre of land disturbance located on a lot or parcel with a total area of greater than or equal to 2.5 acres or zoned agriculture land and with a proposed total site imperviousness of up to 20%.
X		Commercial, industrial or other sites that disturb $\geq 1$ acre of land, unless the activity meets exclusion criteria in section 5.6.3.
X		Commercial, industrial or other sites that disturb $< 1$ acre of land that are located within a sensitive area or have potential stormwater discharges of concern <sup>2</sup> to the ECM Administrator.
<b>NOTES:</b>		
1. Sensitive Areas are defined as those waters identified in Table I-5 of the ECM; and any other areas of concern identified by the ECM Administrator, such as endangered species habitat area, jurisdictional wetlands, flood plains or direct discharges to waters of the state.		
2. "Potential stormwater discharges of concern," include possible discharges from commercial sources with ability to cause water quality violations or acutely toxic conditions in receiving waters. Examples of sources include, but are not limited to, auto salvage yards, auto repair facilities, industrial sources, restaurants.		

## Appendix I Stormwater Quality Policy and Procedures - revisions

## Appendix L DCM 1 Addendum - revisions

MS4 Permit Language	Section of item to be changed	Typo, minor or major	Description
No	Addendum: Prudent Line	Major	Remove Prudent line addendum in its entirety.