

COLORADO DISCHARGE PERMIT SYSTEM (CDPS)  
FACT SHEET TO PERMIT NUMBER COS000005  
INDIVIDUAL PERMIT RENEWAL FOR  
DISCHARGES FROM  
THE COLORADO DEPARTMENT OF TRANSPORTATION'S MUNICIPAL SEPARATE STORM SEWER  
SYSTEM

TABLE OF CONTENTS

I.	TYPE OF PERMIT .....	1
II.	FACILITY INFORMATION .....	1
III.	RECEIVING STREAM.....	3
IV.	FACILITY DESCRIPTION .....	4
V.	PERFORMANCE HISTORY .....	6
VI.	STATUTORY AND REGULATORY FRAMEWORK .....	4
VII.	BASIS FOR EFFLUENT LIMITATIONS, RECORDKEEPING AND REPORTING .....	8
VIII.	STANDARD CONDITIONS .....	27
IX.	REFERENCES .....	28

## I. TYPE OF PERMIT

- A. **Permit Type:** Individual, NPDES, Municipal Separate Storm Sewer System, Third Renewal, Statewide.
- B. **Discharge To:** Surface Water

## II. FACILITY INFORMATION

- A. **SIC Code:** 9511-Air, Water, and Solid Waste Management. Several SIC codes apply to specific municipal activities (sewerage systems 4952, water supply 4941, automotive repair shops 7539, transportation services 4789). Note that there is not a clear SIC code for a Municipal Separate Storm Sewer System (MS4), therefore the 9511 code is applied.
- B. **Facility Location:** Various Locations - See Part I.A.3 of the Permit
- C. **Major Changes from Last Renewal**

Permits are issued for a term of 5 years, and upon expiration, the Division must reissue the permit to include such conditions in the renewal permit that are necessary to implement state and federal requirements. This permit renewal acts on new information resulting from sources including the Division's compliance oversight activities, other state permits, case law, EPA guidance, and further evaluation of statutory and regulatory direction.

The Division has substantially revised the framework of the draft renewal permit. The previous MS4 permit was not clear regarding which terms and conditions were intended to reduce pollutants in the discharge, and which terms and conditions were intended to be associated with monitoring, recordkeeping, and reporting. The permit was also revised to more clearly incorporate the requirements for meeting the maximum extent practicable (MEP) standard. In previous permit terms, the Division provided extensive guidance to clarify the intent of the permit and expectations for compliance through review and program approval, audits, frequent meetings with CDOT personnel, emails, and memos. This patchwork of documentation and information comprised the standards and Division interpretations. The Division then used submittals and oversight to review CDOT's controls implemented to reduce the discharge of pollutants to determine compliance with the MEP standard. This permit includes more extensive permit language, because it replaces much of the language previously included in guidance and Division-approved program description documents, and eliminates the need for submittal, approval, and public notice of program description documents. The overall clarity is expected to increase by consolidating and removing document duplication from referencing multiple documents. These changes also ensure that CDOT and other stakeholders have an opportunity to review and comment on draft language, including language that was previously contained in Division guidance documents or permittee program submittals.

Major changes from the last renewal include the following, and are detailed in Part VII of the Fact Sheet. Numerous other minor changes were made for clarification purposes.

List of additional major changes in the renewal permit:

- The renewal permit includes a requirement that the permittee establish communication, coordination, cooperation, and collaboration with other local government agencies (e.g.,

- cities and counties), as necessary to comply with the terms and conditions of the permit. Due to the nature of the CDOT as a statewide transportation agency, working closely with other local governments is essential to the permittee's operations, including implementation of control measures. The Division has determined that this requirements is necessary to ensure compliance with the effluent limits in this permit, specifically in cases where other government agencies may have jurisdictional control or statutory obligations regarding actions necessary to comply with this permit, including but not limited to maintenance of permanent Control Measures and oversight of covered construction projects that extend outside of CDOT's right of way.
- The renewal permit eliminates the requirement that the permittee develop and submit for approval and public notice a description of controls that will be implemented during the permit term. Instead the renewal permit includes narrative effluent limitations that define the level of pollutant reduction needed, and those provisions will receive public notice and comment through the permit development process.
  - This renewal permit clarifies that the information documenting the permittee's program (i.e., the Program Description Document (PDD)) are recordkeeping requirements.
  - Minimum requirements are defined in the permit for Public Education and Outreach including requirements associated with a website and an Education and Outreach Strategies Activity Table is provided from which the permittee must select and implement activities.
  - The Public Participation program has been moved out of the Effluent Limitations section and into Part I.D of the renewal permit in order to clarify it does not include requirements to control pollutants (i.e., Effluent Limitations).
  - Minimum requirements are defined in the permit for the Illicit Discharge Detection and Elimination program areas including the regulatory mechanism, tracing an Illicit Discharge, removing an Illicit Discharge, documenting an Illicit Discharge, and enforcement.
  - Changes were made to the list and process regarding discharges that are excluded from the definition of an "Illicit Discharge." These changes were made in response to new information available about specific types of discharges, including their potential pollutant levels and the feasibility of control.
  - Minimum requirements are defined in the permit for the Construction Sites program (Part I.E.1. of the renewal permit) for the regulatory mechanism, control measure, stormwater management plans (SWMPs), SWMP review, site inspections, inspection frequency, enforcement response, and Cherry Creek Reservoir Basin Discharges.
  - The framework for the New and Redevelopment Program was substantially revised to allow for control measures to be implemented that are not specifically associated with a construction project. Minimum requirements are defined in the permit for the Permanent Water Quality Management program (Part I.E.2. of the renewal permit) for the regulatory mechanism, control measure, control measure plan requirements, control measure review, construction inspection and acceptance, post acceptance site oversight, inspection documentation, enforcement response, and Cherry Creek Reservoir Basin Discharges.
  - Minimum requirements are defined in the permit for the Municipal Operations and Good Housekeeping program, including requirements for facility runoff control plans (FRCPs), bulk storage, FRCP inspection documentation, and operations and maintenance procedures.
  - Requirements have been removed for the administration of an Industrial Facilities program element for permitting connections to the MS4.
  - Monitoring requirements have been moved out of the Effluent Limitations section and into Part I.F.6. of the renewal permit in order to clarify it does not include requirements to control pollutants (i.e., Effluent Limitations). Minimum requirements are defined in the

permit for monitoring, and include required minimum outfalls, frequencies, and parameters for monitoring.

- A compliance schedule is provided in the permit. This replaces the process of relying on guidance, program submittals, and separate public notice when establishing deadlines, consistent with the approach for establishing Effluent Limitations.
- Reporting requirements were revised to address new terms and conditions and to include a requirement for annual certification by the permittee.
- The Program Modification section was deleted because these procedures are no longer necessary.
- The Signatory Authority was modified to match the requirements in Regulation 61.

 This fact sheet will use the term “previous permit” when referring to the permit in effect from December 28, 2006 to present and “renewal permit” will refer to the permit that is replacing the previous permit when issued. To provide clarity to the reader, the organization of the Fact Sheet follows the order of the renewal permit.

### III. RECEIVING STREAM

#### A. Waterbody Identification: Various Waterbodies

#### B. Water Quality Assessment

The Division has reviewed the stream segment(s) to which CDOT MS4 discharges, in order to inform the determination of what terms and conditions needed to be included in this permit. The receiving water review focused on impairment, including a review of impaired segments for which a TMDL has been completed and impaired segments for which a TMDL has not been completed.

The review of impaired segments for which a TMDL has been completed is intended to identify whether MS4 discharges were wasteload allocations (WLAs) or load allocations (LAs). Specifically whether discharges from CDOT’s MS4 was identified as a source for which either controls already in place need to continue, or for which additional controls are appropriate to achieve additional pollutant reduction and lead toward attainment of the water quality standard. The completed TMDLs that were identified for consideration of permit conditions are discussed below.

#### C. Impaired Segments within the Permit Area

##### 1. COSPMS04: Barr Lake and Milton Reservoir, Dissolved Oxygen TMDL and COSPMS04: Barr Lake and Milton Reservoir, pH TMDL

CDOT is included, along with all other MS4 permittees that contribute discharges to the impaired segment, in the waste load allocation for this TMDL, and in the implantation plan. The dissolved oxygen TMDL is an addendum to the pH TMDL and the implementation of the TMDLs will be phased concurrently with an adaptive management approach. The TMDL focuses on a required 20% reduction in target load of total phosphorous for MS4 Regulated Areas for both Barr and Milton. Implementation of the TMDL recommendations is underway and continues with the renewal permit. The Division’s determination is that the Effluent Limitations in the Permanent Water Quality Management section of the permit that require Control Measure be implemented for developed land will result in controls being implemented that are adequate to meet this load reduction. The TMDL also recommends monitoring to implement the adaptive management approach for this TMDL. The Division’s determination that monitoring required of other entities in accordance with

Regulation 85 are adequate to meet this objective and additional monitoring associated with this TMDL is not included for this permit term. This determination will be reviewed every permit term and will consider the results from the Regulation 85 Routine Review to adjust permit requirements as needed to implement the TMDL requirements.

**2. COSPBO02: Boulder Creek from North Boulder Creek to South Boulder Creek. E coli TMDL.**

WLAs for E. coli cfu/day were assigned to MS4s operated by the City of Boulder, Boulder County, University of Boulder, and Boulder Valley School District. CDOT's MS4 discharges were not evaluated or characterized for this TMDL, and the permit does not contain Effluent Limitations to meet the requirements of these TMDLs.

**3. COSPUS14: South Platte River Bowles Avenue to Burlington Ditch, E coli TMDL**

WLAs for E. coli cfu/day were assigned to several MS4s operated by cities, a county, and other nonstandard MS4s. CDOT's MS4 discharges were not evaluated or characterized for this TMDL, and the permit does not contain Effluent Limitations to meet the requirements of these TMDLs.

**4. COGUUN12: tributaries to the Uncompahgre River, Selenium TMDL, COGUUN4b: Uncompahgre River from LaSalle Road to Confluence Park, Selenium TMDL, and COGUUN4c: Uncompahgre River from Confluence Park to the Gunnison River, Selenium TMDL**

MS4 discharges were not evaluated or characterized for this TMDL, and the permit does not contain Effluent Limitations to meet the requirements of these TMDLs.

**5. Segments without TMDLs**

The Division had not completed any TMDLs that establish WLAs specifically for roadway sources in CDOT's permitted area (the Barr/Milton TMDL that has a WLA allocated to CDOT is based on general urban land uses and does not specifically identify types of urban sources). On that basis, the Division determined that it was not necessary to include additional provisions in this permit to generate information to support development of TMDLs. For this permit term the Division has more clearly defined pollutants of concern for roadway operations, and the permit includes more detailed requirements for continuation of CDOTs existing wet weather monitoring program, and this data may further inform roadway contributions for TMDL development, and for permit renewal. The Division evaluated whether the dry weather monitoring requirements contemplated for inclusion in the Phase II general permit needed to be contemplated for inclusion in the CDOT permit and determined they did not. Those considerations focus on sources that are not expected to be significant in CDOTs MS4, including sewage connections and seepage, and groundwater contaminated with selenium.

**IV. FACILITY DESCRIPTION**

**A. Description**

The permit provides discharge permit coverage for CDOT's MS4 within 64 MS4 permitted municipalities. CDOT's MS4 includes regulated large, medium, and small MS4s.

## B. Types of Discharges Covered

In this permit renewal, the Division is clarifying that **all discharges from the permitted MS4 to waters of the state are authorized under this permit.** This includes permit coverage for all stormwater discharges and non-stormwater discharges from the MS4, including those discharges that have separate permit coverage for the discharge to waters of the state from a facility or activity from which the discharge originates. The scope of this permit is limited to authorizing the discharge from the MS4, and does not address additional point source discharges with a duty to apply for discharge permit coverage. **As discussed further in Part V, the operator of a facility or activity that generates a discharge to the MS4, which may be the permittee or a separate entity, is responsible for meeting any applicable requirements for obtaining permit coverage or spill reporting for that discharge.** This limited scope is in recognition that some point source discharges are conveyed through an MS4 prior to discharge to waters of the state, including discharges for which the operator of the MS4 does not have operational control over the facility or activity that generates the discharge. The Division is also not including in this permit authorization for point source discharges other than the discharge from the MS4 for which the permittee is the operator of the facility or activity from which the discharge originates. Inclusion of terms and conditions for all additional point source discharge for which the permittee may be the operator was outside the scope of consideration for this permit. For example, this permit does not authorize the permittee to discharge stormwater associated with industrial activity from their own construction activities, even when such discharge is to the permitted MS4. The permittee must obtain separate permit coverage (i.e., obtain a stormwater discharge permit for construction activities) for such discharges.

The Division is also clarifying in this renewal that neither the 2006 federal pesticide rule, the Sixth Circuit Court vacatur of that rule, nor the EPA pesticide general permit (PGP) or Division PGP have changed in any way the determination of whether certain types of stormwater runoff are required to obtain permit coverage, or under what type of permit coverage discharges is required. This is true whether the runoff contains pesticides or pesticide residues resulting from the application of pesticides. The previous permit already authorized the discharge of pesticides in stormwater from the MS4. Non-stormwater discharges from pesticide applications to waters of the state require coverage under a separate PGP.

In this renewal the Division has maintained requirements that list pesticides as a pollutant source to be addressed in the control measures implemented to comply with permit requirements.

This permit also provides clarification for what constitutes an MS4. Regulation 61.2(3)(63) states that a municipality “means a city, town, county, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial waste, or other wastes, or a designated and approved management agency under section 208 of the CWA91987.” CDOT is, therefore, considered a “municipality.”

Stormwater conveyances include areas adjacent to classified waters of the state that function to convey water across the surface and into the water of the state. Examples include flood plains, stream banks, shorelines, channel embankments, and similar surfaces that stormwater runoff flows onto and across to discharge to the water of the state. Where these areas are located within the permit area, and are owned or operated by the permittee, they are part of the permittees system of conveyances used for collecting or conveying stormwater and therefore are part of the permittee’s MS4. This includes areas maintained by the permittee through agreement, contract, direct ownership, easement, or right-of-way for the conveyance of stormwater flows.

## V. PERFORMANCE HISTORY

### A. Monitoring Data

The permittee has been finalizing their wet weather monitoring program under the current permit. The permittee was able to begin gathering representative data in 2012 from wet weather discharges from three MS4 outfalls. Eleven samples were collected and analyzed. The data identified a high level of variability, for example Total Suspended Solids ranged from 44 to 550 mg/l and Conductivity ranged from 370 to 65,000 umho/cm. The Division used this information to further clarify the wet weather monitoring requirements in the renewal permit and will continue to analyze the data gathered over the next permit term. Additional data is necessary to begin to characterize discharge conditions and evaluate the need for, and effectiveness of, Control Measures and permit conditions. The data is listed in Table 1.

### B. Compliance with Terms and Conditions of Previous Permit

In 2008, the Division issued a Compliance Order on Consent to CDOT associated with non-compliance with CDOT's permit certifications authorizing stormwater discharges associated with construction activities under the COR030000 general permit. This order was not based on oversight for compliance with MS4 permit conditions, and did not include findings associated with the MS4 permit, however, because the MS4 permit addresses construction activities, information from the order and associated oversight is relevant to this renewal. The findings included in the order were from inspections conducted of CDOT owned construction activities between 2000 and 2006. 3 of the 11 construction sites included in the oversight were located within CDOT's MS4 Permit Area. The order identified that CDOT failed to prepare and maintain complete and accurate SWMPs and failed to implement and/or maintain functional control measures at construction sites. The MS4 permit also includes requirements associated with SWMP development and control measures) for covered construction activities. The Division acknowledged that CDOT had met its obligations under the order and closed the case on January 30, 2013.

The Division performed an audit of the permittee's compliance with the previous MS4 Permit in September 2007. Although the audit included a review of all program areas required in CDOT's permit, the audit did not fully assess compliance with all requirements in the permit and did not review some portions of CDOT's Construction Sites program to avoid duplication with the above referenced order. The audit included findings for the Construction Sites Program, Permanent Water Quality Management Program, and Pollution Prevention and Good Housekeeping Program. The most significant findings were associated with the Permanent Water Quality Management Program and included identification that CDOT was not including control measures for runoff from portions of redevelopment projects. These finding triggered ongoing oversight and

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, Water Quality Control Division  
 Fact Sheet- Page 1. Permit No. COS000005

Table 1: Wet Weather Monitoring Data Submitted with the 2012 Annual Report—Facility Sampling Data Summary

Outfall		*PT#6898	*PT#6898	*PT#6813	*PT#6813	*PT#6813	*PT#6813	*PT#6813	*PT#6813	*PT#6822	*PT#6822	*PT#6822
Latitude		39.823923	39.823923	39.835468	39.835468	39.835468	39.835468	39.837065	39.837065	39.628812	39.628812	39.628812
Longitude		-104.980325	-104.980325	-104.983125	-104.983125	-104.983125	-104.983125	-104.983248	-104.983248	-105.009762	-105.009762	-105.009762
Date		10/24/2012	11/10/2012	11/10/2012	12/11/2012	12/20/2012	12/25/2012	12/20/2012	12/25/2012	12/17/2012	12/20/2012	12/25/2012
Parameter	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
pH		6.800	6.8	6.600	6.800	7.000	7.200	8.400	7.200	6.800	6.900	6.800
Chloride	mg/l	74.000	64	1600.000	12000.000	28000.000	18000.000	9700.000	21000.000	420.000	26000.000	23000.000
Ammonia Nitrogen	mg/l	0.340	0.77	4.300	8.800	7.200	3.600	3.000	3.800	0.470	2.900	1.200
Nitrate-Nitrite	mg/l	0.880	0.6	1.200	2.300	1.500	0.320	BDL	0.250	1.700	2.100	1.600
Oil&Grease (Hexane Extr)	mg/l	BDL	BDL	BDL	24.000	18.000	57.000	BDL	5.900	BDL	22.000	8.000
Phosphorus, Total	mg/l	0.470	0.17	0.280	0.380	0.340	0.360	0.180	0.190	0.180	0.470	0.450
Specific Conductance	umhos/cm	370.000	300	5300.000	29000.000	64000.000	53000.000	28000.000	55000.000	1700.000	65000.000	53000.000
Kjeldahl Nitrogen, TKL	mg/l	2.300	2.2	7.300	15.000	15.000	11.000	3.500	7.800	0.760	3.300	7.300
Suspended Solids	mg/l	330.000	73	44.000	76.000	78.000	400.000	33.000	71.000	410.000	550.000	450.000
Arsenic	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Arsenic, Dissolved	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.008
Cadmium, Dissolved	mg/l	BDL	BDL	0.005	BDL	BDL	0.005	BDL	BDL	BDL	0.0052	0.0098
Calcium, Dissolved	mg/l	16.000	12	57.000	170.000	330.000	200.000	81.000	140.000	51.000	330.000	210.000
Chromium	mg/l	0.011	BDL	BDL	BDL	BDL	0.014	BDL	BDL	BDL	BDL	0.013
Chromium, Dissolved	mg/l	0.011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	mg/l	0.048	0.021	0.042	0.083	BDL	0.055	0.029	BDL	0.036	0.150	0.100
Copper, Dissolved	mg/l	BDL	BDL	0.025	BDL	BDL	0.029	BDL	BDL	BDL	0.056	0.061
Lead, Dissolved	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Magnesium, Dissolved	mg/l	2.800	3.5	40.000	90.000	1600.000	1000.000	48.000	200.000	42.000	1200.000	980.000
Manganese	mg/l	0.220	0.08	0.580	1.200	2.800	1.800	0.190	0.360	0.370	0.810	0.540
Manganese, Dissolved	mg/l	BDL	0.046	0.500	1.200	2.500	1.300	0.170	0.310	0.018	0.570	0.240
Nickel	mg/l	BDL	BDL	BDL	0.022	BDL	BDL	BDL	BDL	BDL	BDL	Bdl
Nickel, Dissolved	mg/l	0.340	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Selenium	mg/l	BDL	BDL	BDL	BDL	1.100	BDL	0.077	BDL	0.058	0.910	BDL
Selenium, Dissolved	mg/l	BDL	BDL	0.024	BDL	BDL	0.029	BDL	BDL	BDL	BDL	0.035
Sodium, Dissolved	mg/l	46.000	36	840.000	6600.000	12000.000	12000.000	6200.000	16000.000	200.000	14000.000	12000.000
Zinc	mg/l	0.280	0.18	0.610	1.400	6.500	2.400	0.200	0.073	0.110	0.860	BDL
Zinc, Dissolved	mg/l	0.066	0.12	0.560	1.400	5.000	1.900	0.043	0.048	BDL	0.190	0.120
Precipitation		0.13"	0.21"	not provided	not provided	not provided	Snow Melt	not provided	Snow Melt	not provided	not provided	Snow Melt

BDL: Below Detection Level

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, Water Quality Control Division  
 Fact Sheet- Page 2. Permit No. COS000005

Table 2: Wet Weather Monitoring Data Submitted with the 2012 Annual Report—Detention Pond Data Summary

Latitude		39.77487	39.77487	39.77487		39.774875	39.774875	39.774875		39.774875	39.774875	39.774875
Longitude		-105.14694	-105.14694	-105.14694		-	-	-		-	-	-
Date Time		5/07/2012 1155	5/23/2012 2140	7/9/2012 1045		5/7/2012	7/27/2012 1456	9/12/2012 0440		7/8/2012 1828	7/27/2012 1455	
Parameter	Unit	Result	Result	Result	Mean	Result	Result	Result	Mean	Result	Result	Mean
pH (On-Site)		6.200	6.900	7.000	6.69	6.800	6.800	6.800	6.80	6.800	6.800	6.800
Chloride	mg/l	27.000	24.000	13.000	20.35	13.000	7.000	3.100	6.56	12.000	9.500	10.677
Ammonia Nitrogen	mg/l	0.280	0.150	0.280	0.23	0.250	0.170	BDL	0.21	0.690	0.750	0.719
Nitrate-Nitrite	mg/l	0.460	0.310	0.380	0.38	0.340	1.200	0.220	0.45	0.600	2.600	1.249
Oil & Grease (Hexane Extr)	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Phosphorus, Total	mg/l	0.200	0.230	0.210	0.21	0.130	0.290	0.490	0.26	0.280	0.500	0.374
Specific Conductance	umhos/cm	160.000	180.000	140.000	159.16	100.000	140.000	94.000	109.59	140.000	160.000	149.666
Conductivity	umhos/cm				#NUM!				#NUM!			#NUM!
Kjeldahl Nitrogen, TKN	mg/l	3.000	1.800	2.200	2.28	0.960	1.600	1.600	1.35	1.700	3.000	2.258
Suspended Solids	mg/l	13.000	12.000	16.000	13.56	76.000	170.000	77.000	99.83	35.000	10.000	18.708
Arsenic	mg/l	0.027	BDL	BDL	0.03	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Arsenic, Dissolved	mg/l	0.028	BDL	BDL	0.03	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Cadmium	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Cadmium, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Calcium, Dissolved	mg/l	12.000	11.000	9.800	10.90	8.100	16.000	10.000	10.90	10.000	38.000	19.494
Chromium	mg/l	0.018	BDL	BDL	0.02	BDL	0.019	BDL	0.02	BDL	BDL	#NUM!
Chromium, Dissolved	mg/l	0.017	BDL	BDL	0.02	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Copper	mg/l	BDL	BDL	BDL	#NUM!	0.022	0.042	BDL	0.03	0.022	BDL	0.022
Copper, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Lead, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Magnesium, Dissolved	mg/l	2.800	2.700	2.200	2.55	1.300	1.200	0.710	1.03	2.200	6.300	3.723
Manganese	mg/l	0.021	0.016	0.030	0.02	0.065	0.210	0.067	0.10	0.044	0.017	0.027
Manganese, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Nickel	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Nickel, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Selenium	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, Water Quality Control Division  
 Fact Sheet- Page 3. Permit No. COS000005

Selenium, Dissolved	mg/l	BDL	BDL	BDL	#NUM!	BDL	BDL	BDL	#NUM!	BDL	BDL	#NUM!
Sodium, Dissolved	mg/l	16.000	17.000	10.000	13.96	12.000	9.500	4.100	7.76	11.000	15.000	12.845
Zinc	mg/l	0.041	0.035	0.070	0.05	0.200	0.700	0.200	0.30	N/A	0.430	0.430
Zinc, Dissolved	mg/l	0.035	0.090	0.038	0.05	0.034	0.036	0.051	0.04	BDL	0.160	0.160
Flow measurement (cfs)		N/A	N/A	N/A		N/A	N/A	N/A		N/A	N/A	
Precipitation		0.055	0.059	4 dayavg- 0.46		0.550	0.167	0.147		0.170	0.167	

BDL: Below Detection Level

communication with CDOT regarding the Permanent Water Quality Management program requirements and program implementation. It was identified that CDOT's approved program included broad allowances for exclusions from some control measure requirements, and lacked clarity in expectations for the implementation of Control Measures. This process resulted in CDOT's investigation of alternative approaches to implement Control Measures for runoff from developed areas and proposing the approach that is applied in the renewal permit.

## VI. STATUTORY AND REGULATORY FRAMEWORK

Every permit issued as part of the Colorado Discharge Permit System is required to contain terms and conditions that the Division determines necessary to ensure compliance with Regulation 61, applicable control regulations, and the State and Federal Clean Water Acts (Colorado Water Quality Control Act 25-8-503 (4)).

The discharge control conditions established by this permit are based on Section 402(p)(3)(B) of the Clean Water Act, which requires that a permit for discharges from MS4s:

- include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
- require controls to reduce the discharge of pollutants to the MEP including management practices; control techniques; system, design and engineering methods; and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

MEP is a statutory standard that directs the permitting authority to establish the level of pollutant reductions that all MS4 permittees must achieve. This permitting approach is unique to MS4 discharges and distinct from the direction provided for permitting other sources in the National Pollutant Discharge Elimination System (NPDES) framework. Technology-based standards promulgated as effluent limitation guidelines (ELGs) do not apply to MS4 permits, and while EPA has initiated rulemaking to establish performance standards for discharges from newly developed and redeveloped sites, no such rules currently apply to this permit renewal.

In this permit the Division has defined the management practices, control techniques, and system design and engineering methods as narrative requirements that the Division considers to be Effluent Limitations, since they are restrictions or prohibitions on the quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharge from MS4s into state waters. This is consistent with the definition of Effluent Limitation contained in Regulation 61.2(26).

In determining the Effluent Limitations for this permit term, the Division determined that the level of control should reflect the average of the best existing performance at the time of permit renewal. The Division envisions application of MEP as an iterative process, consistent with EPA's discussion in the preamble of the federal Phase II regulation. The Division has also looked to how the term practicable is applied within other parts of the Clean Water Act framework, specifically within the establishment of technology based controls within the ELG framework. The standard for Best Practicable Control Technology Currently Available (BPT) is defined by EPA as "the first level of technology-based standards established by the CWA to control pollutants discharged to waters of the U.S." BPT guidelines are generally based on "the average of the best existing performance by plants within an industrial category or subcategory." This provides practical guidance to permitting authorities on what to look for in establishing an MEP standard. This approach recognizes that there are municipalities that implement programs that go beyond the

MEP standard, and is consistent with the goal of establishing a standard that all municipalities can and must implement. The permitting authority is directed to establish the MEP standard, in recognition that implementation beyond that standard will be feasible and appropriate for some municipalities.

The routine review process implemented through permit renewal is how permitting authorities are able to iteratively refine the MEP standard. This provides the opportunity to continually adapt to current conditions and control measure feasibility and effectiveness.

The Division has used multiple sources to identify the average of the best existing performance for the various MS4 program areas. These are summarized below, and are discussed in further detail as applicable to specific Effluent Limitations:

- Oversight of CDOT covered under the current permit
- Oversight of municipalities covered under other individual and general MS4 permits
- Stakeholder input obtained in advance of preparing this draft
- EPA's permit improvement guide
- MS4 permits in effect issued by other permitting authorities (states and EPA)
- Published studies (e.g., info on green infrastructure, etc.)

Meeting the Effluent Limitations in accordance with Part I.E of the renewal permit will constitute compliance with MEP. The Effluent Limitations are established for program areas covering Public Involvement and Participation Process, Construction Sites Program, Permanent Water Quality Management Program, Illicit Discharges Program, Industrial Facilities Program, Public Education Program, Pollution Prevention and Good Housekeeping Program, and Wet Weather Monitoring.

Non-stormwater discharges are an important element of the scope of this permit and of the Effluent Limitations established. For this renewal, the Division has clarified that all discharges from the MS4 are within the scope of permit coverage. This permitting approach is unique to MS4 discharges and distinct from the approach taken for permitting other sources within the NPDES framework. The Division has taken this approach following review of the language provided in the Federal Clean Water Act and the legislative history associated with adoption of those provisions. The Division has determined that Congress established these unique provisions regarding permitting discharges from MS4s in acknowledgement that not all discharges from an MS4 could be anticipated, characterized, and disclosed in a permit application, that not all non-stormwater discharges from an MS4 could be prohibited or eliminated, and that not all non-stormwater discharges into an MS4 pose significant environmental problems.

The Division has interpreted the statutory requirement that the MS4 "effectively prohibit non-stormwater discharges" to not require an outright prohibition of all non-stormwater discharges. This interpretation is consistent with state and federal regulations which include allowable non-stormwater contributions for MS4 discharges. Therefore, the statutory standard to reduce the discharge of pollutants to the MEP was applied by the Division in determining Effluent Limitations for non-stormwater discharges, included in Part I.E.3 of the renewal permit (Illicit Discharges Program). Discharges subject to Effluent Limitations requiring their prohibition, detection, and elimination are referred to in the permit as Illicit Discharges. Discharges not requiring their prohibition, detection, and elimination are referred to in the permit as being excluded from being an Illicit Discharge.

In developing these permit terms and conditions, the Division has further defined categories of discharges and evaluated the extent to which Control Measure must be implemented to prohibit the discharges. Discharges authorized by this permit fall into one of the following two categories:

1. Illicit Discharges: Non-stormwater discharges for which the permit includes requirements for

prohibition, detection, and elimination, unless the discharge to the MS4 is authorized by a separate CDPS or NPDES discharge permit. These are discharges for which established management practices and control techniques include either preventing discharges or obtaining and complying with a separate discharge permit.

2. Discharges Excluded from being an Illicit Discharge

- a. Stormwater Discharges. The permit contains Effluent Limitations to restrict the quantities, rates, and concentrations of pollutants in stormwater discharges, but does not include requirements to prohibit unpermitted discharges for which separate permit coverage is required (i.e., stormwater discharges associated with industrial activity in accordance with Regulation 61).
- b. Non-stormwater discharges determined not appropriate and/or practicable for the MS4 permittee to prohibit: These discharges may fall into one or more of the following categories.
  - i. Regulatory Excluded: Discharges for which prohibition, detection, and elimination is not required because the discharge is exempt from the definition of point source (i.e., irrigation return flow). This is specifically addressed in the permit because while this discharge is exempt from permit coverage, it is expected to be present in discharges from the MS4, and often commingled with other discharges for which Effluent Limitations have been established.
  - ii. Practicability to Prohibit: Discharges for which prohibition, detection, and elimination is not required because this level of control is not deemed to be practicable in most cases (e.g., emergency fire-fighting activities). In this case the Division is relying on the discretion provided by Congress to allow the permitting authority to authorize the municipality to convey and discharge those discharges through the MS4.
  - iii. Unknown pollutant potential and/or practicability to control: Discharges for which prohibition, detection, and elimination has not been determined to meet the MEP standard. This includes discharges that have not been fully characterized in terms of their extent or pollutant levels. Examples include discharges that are currently being permitted to some extent but for which the occurrence of unpermitted discharges is still significantly high. The permit includes a process for adding additional discharges to the exclusion from being Illicit Discharges, including appropriate Division review and approval, and public notice procedures
  - iv. Low Pollution Potential: Discharges for which prohibition, detection, and elimination is not required because this level of control is not currently deemed necessary to reduce the discharge of pollutants. In these cases, the level of pollutant reduction is expected to result in protection of water quality standards. This includes discharges that meet the Division's Low Risk Policy.

Discharges from sources that are not Illicit Discharges may still be subject to other Effluent Limitations in Part I.E of the renewal permit to restrict or prohibit the quantities, rates, and concentrations of pollutants. Examples include stormwater discharges associated with construction activities, stormwater discharges associated with permanent water quality management activities, stormwater discharges associated with municipal operations, and stormwater and non-stormwater discharges from sources for which public education is targeted.

The Division has clarified that the scope of the permit is limited to authorizing discharges from the MS4. The Division is also clarifying in this fact sheet the types of discharges that are conveyed and discharged through the MS4 that need to be separately permitted. The permit explicitly states that it does not remove the responsibility for the operator of a discharge to obtain separate CDPS permit coverage or report spills when required in accordance with the Colorado Water Quality Control Act and Regulation 61. The Division does not have the authority to exempt any operator for a point source discharge from the requirement to obtain permit coverage or the authority to modify the definitions of point source or discharge. Therefore, the determination in the permit of if a discharge to the MS4 is an Illicit Discharge has no bearing on the statutory and regulatory requirements for point source discharge permitting and reporting unpermitted discharges. However, as a practical solution to allow the Division as a permitting authority and operators to focus on discharges that have the greatest potential to cause water quality impacts, the Division has intentionally not required the permittees to prohibit, detect, and eliminate certain discharges and has issued a Low Risk Policy to promote transparency and consistency between operators and the Division in how these discharges are addressed on a day-to-day basis within the permitting framework.

Permitting authorities are also directed to determine if additional provisions are appropriate for the control of pollutants beyond MEP, as needed to comply with water quality standards. For this permit term, the Division has determined that additional provisions are not necessary to result in control of pollutants beyond the MEP standard. The Division has included monitoring and reporting conditions to further characterize discharges from the MS4. This is intended to provide information to the permittee and the Division to inform future determinations regarding control measures, effluent limits, and whether further pollutant reductions are appropriate and feasible.

There are no numeric Effluent Limitations included in this permit. Stormwater and non stormwater management requirements are the controls that are used to achieve reduction of pollutants in the stormwater discharges from MS4s in this permit. The Division has determined that the terms and conditions in the permit, and discussed in this fact sheet, are necessary to ensure the required compliance.

#### *Effluent Limitations*

Section 25-8-503(4) of the Colorado Water Quality Control Act states that “no permit shall be issued which allows a discharge that by itself or in combination with other pollution will result in pollution of the receiving waters in excess of the pollution permitted by an applicable water quality standard unless the permit contains effluent limitations and a schedule of compliance specifying treatment requirements. Effluent limitations designed to meet water quality standards shall be based on application of appropriate physical, chemical, and biological factors reasonably necessary to achieve the levels of protection required by the standards.”

The EPA develops effluent limitation guidelines (ELGs) based on technology based standards. The ELGs can be downloaded from [water.epa.gov/scitech/wastetech/guide/industry.cfm](http://water.epa.gov/scitech/wastetech/guide/industry.cfm). Technology based standards promulgated as ELGs do not apply to MS4 permits. The EPA, however, has initiated rulemaking to establish performance standards for discharges from newly developed and redeveloped sites, but the rule has been deferred and has not been considered in this renewal permit.

Section 61.2(26) of Regulation 61 defines an effluent limitation as “any restriction or prohibition established under this article or Federal law on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of the state, including, but not limited to, standards of performance for new sources, toxic effluent standards and schedules of compliance.” The division has defined and considers the management practices, control techniques, and system design and engineering methods to be

effluent limitations. The management practices, control techniques, and system design and engineering methods required by this permit are effluent limitations in that they are restrictions or prohibitions on the quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharge from MS4s into state waters. This is consistent with the definition of effluent limitation contained in Regulation 61. For the purpose of this permit, the Division has established effluent limitations, and has frequently referred to those as “pollutant restrictions, prohibitions, and reduction requirements” in the permit text.

Specifically, the division looked at the requirements in Regulation 61 and other references (see the References section of this fact sheet) and determined that the permittee will need to conduct additional activities from the previous permit to meet the requirements. For example, Section 61.8(11)(a)(ii)(D) of Regulation 61 states that permittees must develop and implement a program to “assure adequate design, implementation, and maintenance of BMPs at construction sites within the MS4 to reduce pollutant discharges and protect water quality.” In addition, the permittee must develop and implement a program that includes “procedures for site inspection and enforcement of control measures.” The division then researched how the permittee would accomplish this requirement and determined that the permittee must have minimum inspection frequencies for different types of inspections, including follow up inspections; a minimum inspection scope to guide personnel on what to inspect at a construction site; procedures to document the inspections conducted so the inspections are legally enforceable; and inspection procedures for personnel to ensure that the inspections are consistent and legally defensible.

#### *Numeric Effluent Limitations vs. Practice-Based Effluent Limitations*

There are no *numeric* effluent limitations included in this permit. This permit contains *practice-based* effluent limits. Section VI.G.3 of the Phase I Rule states the following:

*When enacting this provision, Congress was aware of the difficulties in regulating discharges from municipal separate storm sewers solely through traditional end-of-pipe treatment and intended for EPA and NPDES states to develop permit requirements that were much broader in nature than requirements which are traditionally found in NPDES permits for industrial process discharges or POTWs.*

The Phase I Rule also states that a “shift towards comprehensive storm water quality management programs to reduce the discharge of pollutants from municipal separate storm sewer systems is appropriate for a number of reasons.” The two reasons listed include that discharges from MS4s are highly intermittent and the nature and extent of the discharges of pollutants are dependent on the activities occurring on the lands which contribute runoff to the system.

Stormwater and non stormwater management requirements are the controls that are used to achieve reduction of pollutants in the stormwater discharges from MS4s in this permit. The division has determined that the terms and conditions in the permit are necessary to ensure the required compliance with the applicable regulations and meet MEP.

## **VII. BASIS FOR EFFLUENT LIMITATIONS, RECORDKEEPING AND REPORTING**

### **A. Permit Area**

This renewal permit does not apply to any areas outside of the permit area.

As of the effective date of this permit, the cities and towns that are MS4s and that CDOT operates in include Arvada City of, Berthoud Town of, Boulder City of, Brighton City of, Broomfield City & County of, Canon City City of, Cherry Hills Village City of, Columbine Valley

Town of, Commerce City, Durango City Of, Edgewater City of, Englewood City of, Erie Town of, Evans City of, Federal Heights City of, Firestone Town of, Fruita City of, Fort Collins City of, Fountain City of, Glendale City of, Golden City of, Greeley City of, Grand Junction City of, Lafayette City of, LaSalle Town of, Littleton City of, , Longmont City of, Louisville City of, Loveland City of, Manitou Springs City of, Montrose City of, Monument Town of, Northglenn City of, Palisade City of, Palmer Lake Town of, , Pueblo City of, Sheridan City of, Steamboat Springs City of, Superior Town of, Thornton City of, Westminster City of, Windsor Town of, and Wheat Ridge City of.

The counties that are MS4s and that CDOT operates in include Adams County, Boulder County, Broomfield County, Douglas County, El Paso County, Jefferson County, Larimer County, Mesa County, Pueblo County (including Pueblo West Metro District), and Weld County. The permittee's permit area within counties does not include any division-designed areas, such as county growth areas.

The permittee should note that the permit requirements shall begin "immediately" for areas that meet the permit area description through expansion of the municipal boundaries or infrastructure.

The permit area, urbanized area, within a county is determined by the US Census Bureau. The permittee should note the difference between an urbanized area and urban cluster. Urban clusters are not covered under this permit. Although counties covered under the COR090000 and COR080000 general permits will need to submit county growth areas to the Division, the permittee's permit area will NOT include or expand to those county growth areas under this permit term. The US Census Bureau designates both urban clusters and urbanized areas.

A commenter requested a list of specific types of facilities that would be covered under this permit. The Division determined that the permit should not list specific types of applicable facilities in this section of the permit. The permittee should have the flexibility to define which types of facilities will be covered under this permit. The permittee should note that specific types of facilities are listed in Part I.E.6. that must be included in the Pollution Prevention and Good Housekeeping Program.

## **B. Local Agency Authority**

Section 61.1(1) of regulation 61 states that "Nothing in these regulations shall be construed to limit a local government's authority to impose land-use or zoning requirements or other limitations on the activities subject to these regulations." This section of the renewal permit has been updated to provide more clarity on local agency authority.

## **C. Control Measures**

The Division uses the term "control measure" instead of "Best Management Practice (BMP)" throughout the renewal permit. This term has a broader range of meaning than BMP, as it includes both BMPs and "other methods", and as such, better describes the range of pollutant reduction practices a permittee may implement. Consistent with the stormwater permits the renewal permit replaces, the Division does not mandate specific Control Measures a permittee must implement to control pollutant sources. The permittee has the flexibility to select appropriate control measures that when implemented, enable the permittee to meet permit requirements.

Also, the Division uses and defines the term “minimize” to provide the permittee with a clear expectation for the level of performance of Control Measures implemented to achieve Effluent Limitations that require the permittee to “minimize” pollutants.

The permittee does not have to adopt the term “control measure” in its own SOPs, contracts, etc.

#### **D. Documentation**

The Division has substantially modified this section. The previous permit frameworks required the permittee to develop program description documents that were approved by the Division. These program description documents addressed pollutants of concern and described standard operating practices to implement requirements to meet MEP. The Division has changed this framework and has provided the requirements that meet MEP in the renewal permit. The Division has relocated the practice-based permit conditions to a new section titled Effluent Limitations and Record Keeping, addressed in Part D, below. The permit now requires a Program Description Document (PDD) as a record keeping requirement to identify Control Measures selected by the permittee and to document the implementation to allow for effective implementation by the permittee, oversight, and public involvement.

The PDD is developed and maintained by the permittee and only submitted to the Division upon request. This is a substantial change from the previous permits, which required the submittal of the permittee’s program description, which the Division reviewed, approved, and provided public notice during certification. This change also resulted in the program modification section of the previous permit no longer being applicable. The Division anticipates that the renewal permit, which has clear requirements in the permit and allows the permittee to tailor and modify their selection and implementation of controls as needed without Division review or approval, will be more efficient for both the Division and permittees. The required elements of the PDD were purposely chosen to allow the PDD to be used as an internal training tool and to provide continuity in the case of permittee personnel changes.

The information in the PDD is not the same as information required in the Recordkeeping sections of the permit, which address documentation that required activities have been completed.

The draft renewal permit includes a requirement that the PDD be submitted to the Division within 10-days of a request. This timeframe recognizes that a document that is intended to reflect current conditions must be updated periodically and may not be immediately available.

#### **E. Public Involvement/Participation**

The previous permit included the terms “first level public” and “second level public.” This renewal permit no longer uses these terms. The “first level public” is “personnel” and the “second level public” is the “public” or general public in this renewal permit. This section of the permit does not apply to permittee personnel, it applies to the general public. The Division has moved the Public Involvement/Participation section from the Effluent Limitation section, as these are not practices implemented to minimize the discharge of pollutants to the MS4. A requirement for the permittee to accept and respond to public information that was in the Construction Sites and Illicit Discharge programs has also been relocated to consolidate Public Involvement and Participation to this section and expanded to include public information on other program areas.

## **F. Effluent Limitations and Recordkeeping**

This permit defines minimum requirements required by the permittee to meet the federal and state regulatory requirement to control the discharge of pollutants to the MEP and effectively prohibit non-stormwater discharges. In each program area of the permit, after the Limitations section, Recordkeeping and PDD sections are provided to identify recordkeeping requirements associated with the Effluent Limitations. The renewal permit includes requirements for retention of records in two different subsections, Recordkeeping and PDD, to distinguish between records to document the specific actions (Recordkeeping), and records to document procedures and plans (PDD). The permit also identifies retention requirements for records in accordance with the Recordkeeping subsection of “the effective period of the permit and 3 years following.” This retention requirement removes the ambiguity with determining the time for which a record “is no longer being actively utilized for stormwater management,” which is the basis for the overall retention of records requirement in Part I.K.2.

The Division has relocated the practice-based permit conditions that were previously under the Stormwater Management Program Requirements section to this newly titled section. The intent is to clearly identify the practice-based permit conditions as Effluent Limitations. As provided in Regulation 61.2(26) "effluent limitation" means any restriction or prohibition established under this article or Federal law on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into state waters, including, but not limited to, standards of performance for new sources, toxic effluent standards and schedules of compliance. Regulation 61.8(3)(r) requires that “the permit shall include best management practices to control or abate the discharge of pollutants when numeric Effluent Limitations are infeasible, when the practices are reasonably necessary to achieve Effluent Limitations and standards, or when authorized under 304(e) of the federal act for control of toxic pollutants and hazardous substances.”

### **1. Construction Sites Program**

The Division has made substantial changes to this program area to increase transparency of Division expectations and make it clear that the construction sites program must be proactive.

The current Division general permit authorizing stormwater discharges associated with construction activities (COR030000) contains minimum standards and the regulated industry and the public has indicated benefits from and preferences for this uniformity. The permittee should note that there are differences between this permit and the Stormwater Discharges Associated with Construction Activity (COR030000) general permit in regards to SWMP requirements, construction operator inspection requirements, etc. Additionally, construction site operators have expressed to the Division that the lack of clear minimum requirements in the MS4 permit creates confusion and an unlevel playing field among construction site operators across jurisdictions; and does not provide a minimum standard. The permittee should determine which permit is more stringent. The permittee should also determine which procedure relating to each permit is more stringent. The permittee should then implement the most stringent procedure to comply with the most stringent requirement in either permit.

In addition, in 2008 the Division issued a Compliance Order on Consent to CDOT associated with compliance with the COR030000 permit. The order established requirements associated with the permittee’s operations and oversight of construction activities for which they were the owner or operator. The Division acknowledged that CDOT had met its

obligations under the order and closed the case on January 30, 2013. This permit incorporates some of the requirements from this order for continued implementation based on determination that the control measures implemented to meet those requirements are practicable and effective.

**Regulatory Mechanism:** The Division has added this section to clarify the requirement for mechanisms to implement the program. These minimum elements were identified by the Division based on permittee and MS4 Phase II permittee audit findings. The renewal permit clearly specifies the elements that are required in the regulatory mechanisms.

**Regulatory Mechanism Exemptions:** The Division added a section to address exceptions to the permittee's regulatory mechanism based on the Division findings of allowances in Phase II MS4 permittees' regulatory mechanisms and program documents that would allow for exemptions, waivers, and variances that could be implemented in such a way as to violate the permit requirements. The Division understands that exemptions, waivers, and variances are a process in the permittee's standard operating procedures, contracts, and standards and specifications and are relied on to address unforeseen circumstances without relying on revisions to regulatory mechanisms. However the Division has added clarity that exclusions, exemptions, waivers, and variances cannot be implemented in a manner that creates a non-compliance with the permit requirements, and that processes must be in place to facilitate this result.

**Control Measure Requirements:** The renewal permit provides more detail regarding minimum requirements for Control Measure to address a lack of minimum requirements for construction site Control Measures in the previous permit. In other words, the requirements set expectations for the permittee with determining if the control measure is adequate and/or set expectations for the development of design manuals and specifications (if applicable to the permittee). The permittee has developed their own design manual and specifications for control measures. The renewal permit *does not* prescribe a specific control measure or the exact wording of design specifications. A variety of control measures and corresponding design specifications will meet the requirements of the renewal permit. The minimum requirements identified in the renewal permit were developed based on: oversight non-compliance findings identified by the Division during oversight activities for other Phase I and II MS4 permittees, controls determined practicable through effective implementation in the Division Construction Stormwater Permit (COR030000) that include construction activities owned or operated by the permittee, and solutions that the Division has determined comprise a reasonable expectation of all construction sites.

The minimum Control Measure requirements are part of a comprehensive framework for construction sites oversight that carries the minimum Control Measure requirements through the SWMP review and enforcement process. The minimum requirements provide a measureable framework for construction site operators to determine operating costs and for permittees to implement construction site programs. The Division has provided clarity on expectations of the construction Control Measures by introducing the terms and concepts of "inadequate control measure" and "control measure requiring routine maintenance" to differentiate the reason for inadequacy on oversight activities. The permittee does not need to incorporate these terms into program documents, however the permittee must review existing documents, and modify as necessary, to ensure requirements and conditions, including processes for site-specific determinations and waivers, will result in meeting the requirements for Control Measures.

**Stormwater Management Plans (SWMPs):** The Division has also made substantial changes regarding the content of SWMPs and requirements for review. The previous permit did not establish a requirement for SWMPs content or review for all sites. The minimum requirements identified in the renewal permit were developed based on common non-compliance aspects identified by the Division during compliance oversight activities and the Division believes are mostly consistent with current CDOT practices. The Division's Stormwater Construction Permit sets a clear precedent that SWMPs are practicable to be developed for all covered construction activities. The permittee should note that there are differences between the requirements in this section of the permit and SWMP requirements in the Stormwater Discharges Associated with Construction Activity (COR030000) general permit. The renewal permit clearly requires that SWMPs include design details for all Control Measures implemented and includes a minimum list of activities that must be addressed on the SWMPs. The list of activities is from the Division's Stormwater Construction Permit.

The Division has also added language regarding SWMP modifications. The intent of the permit is that the permittee will conduct site inspections based on a SWMP that the permittee has reviewed and has confirmed that SWMP requirements have been met. The Division expects that reviewed SWMPs will change during the course of construction activities based on field conditions. The renewal permit clearly allows the permittee to allow for responsive review of modifications during subsequent inspections.

**Site Inspection:** The Division has provided substantial changes and clarity regarding inspection frequency and scope. The previous permit required 60 Regional Erosion Control Assessment Team (RECAT) inspections at any covered construction site throughout the permit area. The previous permit did not establish a requirement for site inspections to be conducted for all sites, or an expectation for which sites this requirement was applicable. However, the Compliance Order on Consent did establish a requirement for monthly inspections. The Division has determined that that establishing minimum criteria for inspection frequency, scope, and follow-up are appropriate to define MEP.

- **Inspection frequency:** The renewal permit establishes every 30 days (with alternate frequency options) as a minimum baseline frequency for construction site inspections, but allows for less frequent inspections for moderate and low risk sites under special circumstances. These less frequent routine inspections are dependent on the permittee having an on-site project manager having responsibility for implementing appropriate control measures for the covered construction project. This requirements is consistent with the permittee's program implemented to comply with the Compliance Order on Consent and therefore has been demonstrated to be practicable for the permittee. The permit also allows for this frequency to be reduced for sites without construction activity that are awaiting final stabilization and during specific winter conditions. The permit also includes a reduction in frequency for construction activities operated by a participant in a Division designated Stormwater Management System Administrator's Program to address statutory direction in accordance with Article 8 of title 25, Colorado Revised Statutes, and to recognize the high level of compliance observed by the Division at participant sites.
- **Inspection scope:** Paired with a minimum inspection frequency is an inspection scope that reflects the minimum requirements for Control Measures in the SWMP and the Control Measures for the specific activities that are the highest risk of discharging pollutants to the MS4. The minimum inspection elements were developed based on compliance oversight activities conducted by the Division between 2009 and 2012.

- **Required Increased Inspection Frequencies:** The renewal permit addresses increased inspection frequencies based on reoccurrence of Control Measure inadequacies. The permit includes flexibility for the permittee to forgo the increased frequency when alternative means have allowed for and prevent chronic and recalcitrant violations.
- **Inspection Follow-up:** The renewal permit requires follow-up oversight to confirm a return to compliance. Flexibility is included for permittee's to determine the most appropriate methods of follow up.

**Enforcement Response:** The Division has determined it is practicable and necessary for the permittee to develop and implement an enforcement response program that allows escalated responses when necessary. The program must be able to obtain proactive compliance from chronic violators that repeatedly violate the Construction Sites program requirements. The program must also include sanctions adequate to obtain compliance from recalcitrant violators. All of these elements are essential to effectively requiring controls be implemented. The Compliance Order on Consent required the permittee to "implement a stormwater compliance evaluation program for contractors, including the specific criteria and repercussions that will be applied for various levels of contractor noncompliance." The permittee developed the construction contractor compliance program (specification 208.09), which is similar to the enforcement response processes of this permit. The permittee's Enforcement Response processes must convey that construction sites are expected to be in compliance and the permittee cannot allow a site to oscillate in and out of compliance without escalating enforcement.

The Division has determined that it is appropriate and reasonable for permittees to develop enforcement responses for common construction-related violations consistent with this approach. The renewal permit includes categories of enforcement responses. The permit does not require the implementation of specific actions. The renewal permit does require that the permittee have the capability and processes to implement all categories of responses. The Division's expectations are that similar violations should be responded to in a uniform manner by the permittee and enforcement procedures should be transparent.

**Training:** The requirements have not changed from the previous permit and the Division has provided more detail on this requirement in this permit.

**Cherry Creek Reservoir Drainage Basin Discharges:** The requirements have not changed from the previous permit and the Division has provided more detail on this requirement in the permit.

**Oversight and Response Record Keeping:** The Division has added requirements for documenting oversight and response for construction activities to clarify the requirements under the previous permit for maintaining records. Minimum standards for inspection documentation have been added to the renewal permit. This is based on a review of inspection documentation during compliance oversight activities conducted by the Division of the permittee and Phase II MS4 permittees and as part of the comprehensive overhaul of this program area. Division compliance activities indicated that documentation between different MS4 permittees and among personnel in different CDOT regions was highly variable. The lack of minimum requirements for inspection documentation is a barrier to a compliant construction sites program and the ability to clearly demonstrate compliance with the permit.

## 2. Permanent Water Quality Management

Regulation 61.8(11)(a)(ii)(E)(I) establishes requirements for Phase II MS4 permittees under general permits to implement Control Measures for new development and redevelopment project after construction is completed to control pollution sources associated with the long-term use of those areas. The previous permit included requirements for CDOT consistent with this regulatory standard. The regulation clearly establishes that requiring the installation and long term operation and maintenance of control measures for developed land is within the scope of MEP. However, the regulations do not require that individual permits incorporate permit requirements consistent with those established for Phase II general permits. The Division has made extensive modifications to the permit terms and conditions to implement this requirement by establishing an alternative framework for requiring these Control Measures, and adding measurable minimum standards. The most significant change is that the MEP standard has been changed from installing a permanent Control Measure at the finish of a development project, to funding and managing a water quality mitigation fund and installing permanent Control Measures throughout the Permit Area. Because CDOT is the owner of the majority of developed land within its permit area, they have an increased ability to retrofit Control Measures into existing areas and are not constrained to implementation at the time of new development or redevelopment. The new standard in this permit is based on devoting the same scale of resources to implementing pollutant controls during the permit term as was established as practicable during the previous permit term, but allowing greater flexibility to select locations and designs that are the most effective and efficient. This approach is expected to have a greater overall result in controlling pollutants in discharges from the MS4. Control Measures are still required for some priority projects before the end of the construction activity to address potential new impacts associated with specific new development and redevelopment projects. This is the first time the Division has changed the framework for meeting MEP standard for Permanent Water Quality Management Program for any permittee. The permittee started internal meetings in 2011 and proposed this concept to the Division in 2012. The Division and CDOT have had many meetings concerning this new program concept.

**Regulatory Mechanism:** The Division has added clear minimum elements to be addressed in the regulatory mechanism. The Division recognizes that the permittee often partners with other MS4 permittees to design, build, and/or maintain the permanent water quality control measures.

**Priority Development and Cherry Creek Reservoir Development Projects:** The intent of the priority development project requirement is to address potentially increased impacts to receiving waters more proactively. These types of projects will need to have the permanent water quality control measure installed at the completion of the construction project. The Division has added this section for projects that require an environmental assessment (EA) or environmental impact statement (EIS). These projects are typically larger projects, have long planning and design phases, and already require the purchase of right-of-way. The requirement also addresses discharges to impaired segments for which the impairment may be a Roadway Pollutant of Concern. For priority projects, control measure design standards are associated with a specific drainage area to address the goal of controlling potential new water quality impacts.

The renewal permit includes design standards for permanent water quality Control Measures. If a combination of control measures is used, the combination of control measures shall meet one of the design standards. The permittee has implemented the

water quality capture volume and 80% total suspended solids design standards since 2003. The Division added a clear allowance for infiltration.

The renewal permit allows for a prior permit term standard to allow the permittee to transition to this new program and the MEP standard and to address that existing Control Measures do not need to be retrofitted to meet the new standards.

**Water Quality Mitigation Pool:** CDOT analyzed every construction project from July 1, 2009-June 30, 2012 and determined if the project was a development project subject to requirements in the previous permit for permanent water quality controls or was maintenance, if the project was in the permit area, and cost out each permanent control measure installed. This resulted in 34 projects that were analyzed for the cost estimate. The data gathered included costs for permanent water quality control measure design and construction, right-of-way purchase, construction engineering, and other associated indirect costs such as environmental support, business office financial support efforts, and management oversight. The permittee then analyzed the bid item schedule for each project and discussed the costs with the appropriate project engineer (if available). The permittee associated a cost next to each applicable line item. CDOT used this information to identify the construction costs and right-of-way costs for permanent water quality control measures for each project. The permittee's bid item schedules were not designed to filter out all of the costs for permanent water quality control measures. Therefore, CDOT had to make several cost assumptions. The permittee added 10% to the control measure construction costs for the cost of design for those permanent water quality control measures for projects that did not specifically track the costs associated with the permanent water quality control measure. The 10% assumption was based on a typical conservative estimate often used by CDOT for design costs based on a percentage of construction costs. The permittee also added 19.5% to the control measure construction costs for construction engineering costs of those permanent water quality control measures for projects that did not specifically track the costs associated with the permanent water quality control measure. The 19.5% assumption was based on an actual assessed cost of a combination of indirect costs and direct costs at CDOT during this period of time for CDOT and consultant staff to pay for their charges to a project; this percent is calculated by the Office of Financial Management and Budgets and changes from time to time. The permittee then added up the total costs for each year and the average cost per year was \$6.5 million. The information used in developing these estimates and cost figures was proved to the Division as a supplement to the permittee's renewal application.

The \$6.5 million cost was used to set the requirement for implementing Control Measures in the permit for runoff from developed land. The permit requires that the permittees establish and fund the Permanent Water Quality Mitigation Fund, and use the fund for designing and building permanent control measures that meet the design standard in the permit. Flexibility is allowed in expending the fund and constructing the control measures, but a requirement is included to ensure that 80 percent of the fund shall be spent on a 3-year rolling average. The permit also requires the permittee to implement a process for selecting and planning for projects using the fund.

The Division has determined that the construction of control measures throughout the Permit Area meets the MEP standard. The previous permit term requirements to install Control Measures for development projects resulted in inefficiencies in both the cost and the effectiveness of control measures when applied to CDOT's unique MS4. Because of the linear nature of the Permit Area, the permittee faces significant challenges in identifying

locations and infrastructure to direct stormwater runoff to Control Measures. If the requirement to implement Control Measures is tied to the occurrence of development projects, the permittee is further constrained in identifying options for effective control of pollutants from the developed areas. By removing the necessity to associated new Control Measures with a development project, the permittee is provided significantly more flexibility to both identify locations and timing for installation of Control Measures. For example, the permittee can utilize existing topography to capture runoff from additional impervious area that would allow for constructing larger control measures that may be more cost effective to construct and maintain, and more effective than smaller control measures that may not have an adequate drainage area for effective treatment. Additionally, the permittee may take advantage of opportunities associated with adjacent development or partnerships with local government that may present opportunities for the installation of Control Measures.

The use of installation costs to set the standard implementation of Control Measure is consistent with the statutory requirement to require controls to reduce the discharge of pollutants to the MEP. The expenditure of money to meet the permit requirement will directly translate into the construction of Control Measures and the control of pollutants. As discussed above, it is expected that the flexibility allowed in the current permit will increase the ability for the permittee to maximize the benefit of the Control Measures constructed. The Division expects that although the cost for implementing the program under the new permit will be equivalent to what was under the previous permit, the total result will be increased control of pollutants and water quality benefit due to the efficiencies afforded by this flexibility.

The Division has determined that for the current permit term, additional constraints are not required on the location for implementation of control measures, the selection process, or the design process. Consistent with the iterative process for developing the MEP standard, the Division will review the implementation of Control Measures during the next permit renewal and evaluate if additional requirements are needed at that time.

### **Other Requirements**

*Site Plans:* The Division has added this section to apply to permanent water quality control measures for priority development projects and control measures built with the Permanent Water Quality Mitigation Fund. This requirement is the same level of oversight that exists in the construction program area. Some site plan requirements reflect the addition of minimum requirements for Control Measures that have been added to the renewal permit and other requirements were developed based on oversight activities conducted by the Division. The renewal permit clearly requires that site plans include design details for all Control Measures implemented and requires operation and maintenance documentation.

The current permit has a requirement for permanent water quality control measure review. The Division expanded the requirements for the review of site plans. Plan review is a basic oversight step that the permittee must implement to prevent permanent water quality control measure that do not meet the design standard from being implemented. The renewal permit requires site plan review for all permanent water quality control measures for priority development projects and control measures built with the Permanent Water Quality Mitigation Fund.

The Division has also added language regarding site plan modifications. The Division understands that reviewed site plans may change during the course of construction or

require modification during long-term operation and maintenance. The renewal permit clearly allows the permittee to create a process for plan modifications and provides the minimum standards of modified plans or portions of plans to meet the same review standard for initial plans. The renewal permit also provides a requirement that plans must be modified before changes are implemented on the ground.

*Construction Inspection and Acceptance:* The Division has added this requirement. The previous permit did not clearly require an oversight to ensure proper design and construction of Control Measures. The renewal permit clearly requires an inspection to confirm that the Control Measure(s) was constructed and includes a final as-built drawing.

*Long Term Operation and Maintenance and Post Acceptance Oversight:* The Division has added a new aspect to an existing requirement. Compliance oversight activities conducted by the Division, including the audit conducted in September, 2007, indicated that minimum standards were needed in the renewal permit to require procedures to ensure Control Measures are maintained in operating condition. Although the previous permit required that the permittee develop and implement a long-term operation and maintenance program, the permit did not require field inspection at a minimum frequency nor did it include a minimum standard for inspection oversight. A significant change in this section is that maintenance and/or replacement must be conducted in a certain timeframe. A clear requirement to conduct maintenance on a failing or failed control measure is necessary to ensure the control of pollutants to the MEP.

*Tracking:* The tracking requirement was added to the permit. With the new requirements for Control Measure implementation, it is important for the permittee to track the location of the new permit water quality control measures installed throughout the permit area.

*Oversight and Response Record Keeping:* The Division has added requirements for documenting oversight of and maintaining records for permanent water quality control measures and the Permanent Water Quality Mitigation Fund. The renewal permit provides the minimum inspection documentation requirements in the corresponding recordkeeping section.

### 3. Illicit Discharge Detection and Elimination

There were numerous changes in this program area. Many of the changes were based on compliance oversight activities conducted by the Division at Phase II MS4 permittees that identified common aspects of non-compliance. Additionally, a review of Phase II MS4 permittee regulatory mechanisms indicated that more clear requirements for the regulatory mechanism is needed for consistent implementation of the Illicit Discharges Elimination Program.

**Storm Sewer System Map:** The requirements have not changed from the previous permit.

**Regulatory Mechanism:** The Division has added clear minimum elements to be addressed in the regulatory mechanism for the mechanism to allow for effective prohibition of Illicit Discharges. The requirements for the control mechanism in the permit are not extensive since the permittee primarily is providing oversight for its own activities and contractors.

**Regulatory Mechanism Exemptions:** The Division added a section to address exceptions to the permittee's regulatory mechanism. The Division's compliance oversight activities of Phase II MS4s found that some Phase II MS4s allowed allowances in regulatory mechanisms

and program documents that would allow for exemptions, waivers and variances that could be implemented in such a way as to violate the permit requirements. The Division understands that exemptions, waivers and variances relied on to address unforeseen circumstances without relying on revisions to regulatory mechanisms. However the Division has added clarity that exclusions, exemptions, waivers and variances cannot be implemented in a manner that creates a non-compliance with the permit requirements, and that processes must be in place to facilitate this result.

**Tracing an Illicit Discharge:** The Division has added new aspects to an existing requirement. The renewal permit includes a minimum standard for tracing an Illicit Discharge. This ensures that the permittee is meeting a minimum standard for Illicit Discharge response procedures.

**Discharges that can be Excluded from being Effectively Prohibited:** Additional discharge sources have been added to the list of allowable discharges based on review of the practicability of effectively prohibiting the discharges. In addition some discharge sources have been clarified or consolidated.

- **Uncontaminated groundwater not associated with construction:** This category consolidates potential sources of groundwater from the previous permit as follows: “uncontaminated pumped ground water,” “foundation drains,” “water from crawl space pumps,” and “footing drains.” Groundwater associated with construction is not included in this category. Groundwater associated with construction is not as a category “uncontaminated” due to the potential pollutant sources associated with the construction activities. The Division has an established permitting program for construction dewatering, and therefore prohibition of discharges without permits is practicable. The reference to infiltration was clarified to include to reference infiltration into the MS4 and removes a regulatory cross reference.

The permit also separates stormwater and groundwater into two sources, both of which could be present in the sources in the previous permit. The Division has previously and continues to interpret that stormwater runoff that is captured in structures or infiltrates and then is dewatered still meets the definition of stormwater. Therefore, where the source water for a dewatering activity is composed entirely of stormwater runoff, the requirement for the operator to obtain separate permit coverage is typically based on whether the point source discharge of stormwater is required to have permit coverage in accordance with Regulation 61.3(2) (i.e., is stormwater associated with industrial activities, which includes construction). If an industrial stormwater discharge permit certification is already held by a facility where dewatering is conducted, the dewatering discharge must be consistent with the terms and condition of the industrial stormwater permit.

It is the Division’s current practice to determine that a dewatering discharge includes groundwater, and therefore is not composed entirely of stormwater runoff, when the discharge is drawn from below a groundwater table, including as a result of seasonal or precipitation-driven increases in the groundwater table elevation.

As is currently discussed in the fact sheet in the Subterranean Dewatering general permit (COG603000), in general, residential structure subterranean dewatering is presumed to be in direct response to precipitation events and composed entirely of stormwater (e.g., single family home sump pump discharges). Some large residential structures such as multi-family complexes with underground parking structures where the dewatering discharge includes groundwater have been covered under this permit.

- **Dye Testing:** Dye testing conducted in accordance with manufacturers' recommendations: The Division has added dye tracing to the list of discharges to the draft renewal permit as a source that is not an Illicit Discharge.
- **Stormwater runoff:** For clarity, stormwater runoff was added to the list as a source that is not an Illicit Discharge. This includes discharges of stormwater for which pollutants may be present. For example, stormwater runoff, from surfaces for which anti-icing or deicing materials have been added, remains stormwater runoff and is a source that does not have to be considered an Illicit Discharge. This interpretation is consistent with Regulation 65, Regulation Controlling Discharges to Storm Sewers, which does not apply to "pollutants that are incidentally deposited and are mobilized by waters that only flow as a result of a storm event." In this regulation the word "incidental" is key, as runoff into the storm sewer of deicer material is liable to happen as a consequence of applying deicer and fits with the definition of "incidental."
- **Discharges that are in accordance with one of the following Division Low Risk Policy guidance documents:** The Division has developed the Low Risk Policy, WQP-27, to address discharges with the lowest potential risk to water quality and additional permit language to provide a mechanism for the Permittee to assess the potential for certain discharges to contain pollutants. Discharges associated with snow melting, swimming pools, potable water, uncontaminated groundwater to land, and surface cosmetic power washing operations to land are currently addressed by guidance under the Division's Low Risk Discharges. The previous permit included "discharges from potable water sources," and "potable water line flushing." These sources are now addressed under the low risk guidance for potable water. Water line flushing could include discharges not covered under the potable water guidance. The discharges, however, that are not potable do have increased pollutant potential and are addressed by the Division's established permitting program for hydrostatic testing of pipelines that results in permit coverage being a practicable approach.

The permittee can still prohibit any of the Division's Low Risk Discharges or other discharges listed in the renewal permit.

In addition, a provision was added to the permit to allow for the permittee to incorporate new sources covered by future Division low risk policy guidance documents into their list of sources that are not Illicit Discharges. These sources would be public noticed by the Division during the development of new low risk policy guidance documents.

- **Additional Discharges:** The Division has made substantial changes from the process in the previous permit for addressing occasional, incidental non-stormwater discharges. The Division has improved transparency regarding these non stormwater discharges and has included more clear expectations and criteria for making determinations. There was a lack of clarity in Division expectations in what non-stormwater discharges must be controlled and what constitutes adequate response and enforcement expectations. In the previous permit, the permittee could make a determination that a discharge is not reasonably expected to be a significant contributor of pollutants to the MS4. This process has been enhanced.

Compliance oversight activities conducted by the Division of Phase II MS4 permittees indicated that many permittees allowed additional discharges without prohibition, and

it was not clear that assessment of the potential for water quality impacts or the practicability of prohibition had occurred.

The Division has identified that it is appropriate that some discharges not be addressed as Illicit Discharges that are in addition to those listed in the permit. Therefore, the draft renewal permit includes a process for the permittee to incorporate new sources into the list of sources that are not Illicit Discharges. For discharges with a low potential for pollution, the permit includes basic considerations and criteria for the evaluation. The criteria that the discharges with proper management are not expected to contain pollutants in concentrations that are toxic or in concentrations that would cause or contribute to a violation of a water quality standard, is consistent with Division practices for evaluating sources for coverage under the Low Risk Policy. The Division also understands that some discharges may not be practicable to prohibit based on the absence of sufficient permitting options and existing discharge practices. The renewal permit includes a transparent option for discharges to be removed from being Illicit Discharges without causing the permittee to be in non-compliance over discharges in this category. The renewal permit clearly requires public notification of non-stormwater discharges. The renewal permit provides a process and timeframe for submitting discharges that are identified both before and after the effective date of this permit. The permit also includes a process for Division review and denial of new sources. If the Division denies the discharge, the permittee may prohibit the discharge, apply for a permit modification, or request a Low Risk Policy determination for a category of discharges not meeting the permit criteria to not be an Illicit Discharge.

**Removing an Illicit Discharge:** The Division has added new aspects to an existing requirement. The renewal permit includes a minimum standard and provided clarity for removing an Illicit Discharge to ensure that the permittee is meeting a minimum standard for Illicit Discharge response procedures. The renewal permit also clarifies that spilled material that has the potential to be discharged is included in addition to removing the source of a discharge.

**Enforcement Response:** The Division understands that the permittee does not have typical enforcement capabilities and in many cases it may not be practicable for the permittee to remove an illicit discharge for activities that they do not own or operate. The permit therefore requires that the permittee notify the Division when the permittee's authority to require the removal of an illicit discharge is inadequate.

**Personnel Training:** This is a new requirement for the permittee, but is a necessary element for implementation.

**Illicit Discharge Incident and Response Record Keeping:** The Division has added requirements for documenting incidents of Illicit Discharges. In addition, the Division is requiring a centralized recordkeeping of Illicit Discharge that allows permittees to identify repeat occurrences. The renewal permit provides a clear, consistent, minimum standard. Centralized recordkeeping requirement places an emphasis on permittee controlled intake points and not groups outside of the permittee's control.

#### 4. Industrial Facilities Program

**Industrial Facilities:** The Division has added a reporting requirement to notify the Division of an industrial facility that the permittee believes is having a negative impact on water quality. The Division does not require the permittee to respond or interact with the

industrial discharger in the renewal permit, unlike the Phase I MS4 permits for cities. At this time, the Division has not established that it is practicable for the permittee to control discharges from private property for which it has no jurisdictional control. However, the Division has determined that it is logical, and practicable, to require permittees to notify the Division of information they already have to allow the Division to respond as needed.

**Personnel Training:** This is a new requirement for the permittee, but is a necessary element for implementation.

**Recordkeeping:** The Division has added requirements for documenting activities.

#### 5. Public Education and Outreach Program:

The Division has made extensive changes to this program area to include requirements in the renewal permit that clearly define the expectations for the scope and scale of the education actions implemented by the permittee. This section provides minimum standards for: a website and the activity table. The permit allows for requirements to be met through collaboration and the Division recommends that the permittee pursue options for a statewide education campaign in coordination with other MS4 permittees. This section of the permit does not pertain to permittee personnel. Permittee personnel education and outreach is included in several of the other program areas.

**Website:** The Division has added requirements for the permittee to create and maintain a website that provides standard minimum content. The Division has determined that citizens should be able to obtain basic permit and permittee program information from the permittee's webpage.

**Education and Outreach Strategies Table:** The Division has been implementing a process similar to what is identified in this section when reviewing Phase II permittee program descriptions for adequacy during previous permit terms. Requirements are incorporated into the renewal permit. The activity table has been added to the renewal permit to allow the permittee the flexibility to implement the activities that the permittee determines are the most effective. The level of education and outreach required is consistent with what has been implemented by Phase II permittees in the previous permit term.

**Recordkeeping:** The Division has added requirements for documenting all types of outreach conducted.

#### 6. Pollution Prevention and Good Housekeeping Program

This program area has been significantly restructured and includes new requirements and clarification or expansion of existing requirements reflecting the iterative nature of MEP and in response the oversight activities of other MS4 permittees conducted by the Division. The renewal permit separates the requirements into covered facilities and covered operations. The Division identifies a different standard for facilities based on practicability for plans and oversight based on the more fixed nature of pollutant sources and constrained nature of the sites.

**Control Measure Requirements:** The renewal permit includes this section to clearly link control measure requirements to the regulatory standard to minimize the discharge of pollutants to State waters from permittee operations.

**Permittee Facility Runoff Control Measures:** The Division has added new aspects to an existing requirement to provide clear minimum requirements for facilities that must be

addressed by the permittee. For example, the renewal permit specifically includes, “motor pools with vehicle maintenance” and additional types of exposed stockpiles of materials in the list of facilities that require facility runoff control plans (FRCPs).

The current permit requires annual inspections of facilities with FRCPs. The renewal permit includes inspection procedures that are consistent with the current CDPS COR900000 permit for Industrial Stormwater Discharges to meet MEP.

Minimum inspection procedures have been paired with minimum inspection documentation requirements in the corresponding recordkeeping section. Note that a record is required of the field condition where stormwater is discharged from the site. The Division has added these requirements because the previous permit did not include minimum standards for inspection documentation. The additional clarification and requirements of the municipal operations program warrant this minimum level of information on inspection documentation that is similar to the Illicit Discharges, Construction Sites, and Permanent Water Quality Management program areas.

**Permittee Operations and Maintenance Procedures:** The current permit has requirements for “BMPs for CDOT activities or operations” and “public street maintenance.” This section in the renewal permit replaces and provides further clarification for those two sections in the current permit. The renewal permit includes a requirement for Control Measures to minimize the discharge of pollutants associated with removal of sediment, debris, and other pollutant sources from the MS4. Operations may be grouped together by type, and procedures may be developed that address each group.

Additionally, the renewal permit includes a requirement for Control Measures associated with removal of sediment, debris, and other pollutant sources from the MS4. This requirement specifically originated with feedback to the Division from Phase II MS4 permittees and other operators seeking guidance regarding dredged material from permanent structural Control Measures and MS4 infrastructure.

**Bulk storage:** This section includes requirements for bulk storage, which were not previously included. The Division has determined that secondary containment is practicable because this is an existing requirement in industrial activities in Division stormwater discharge permits. Bulk storage is defined in the permit and pertains to the primary source storage (i.e. containment to be drawn from or added to) of material. Bulk fuel storage or “silos” of magnesium chloride are bulk storage examples. Electrical, operating, or manufacturing equipment, motive power containers, a tank of magnesium chloride on an application truck, and ancillary product piping, are not considered bulk storage. The containment in direct contact with the bulk material is the primary containment. Secondary containment is the back-up containment to the primary containment. The requirement is for secondary containment or equivalent that is adequate protection so as to contain all spills and prevent spilled material from entering State waters. Examples of secondary containment or equivalent controls include impervious bermed areas, double walled tanks, storage lockers and buildings with built in containment, discharges to a sump, and structural or non-structural Control Measures. A compliance schedule was added for the bulk storage requirements. Prior to the due date in the compliance schedule, the permittee remains responsible for complying with previous permit requirements for preventing or reducing pollutants in runoff from bulk storage.

**Training:** The Division has added new aspects to an existing requirement. The renewal permit includes a requirement to train personnel that will conduct inspections. Training personnel to conduct inspections is a companion requirement based on the Division adding a facility inspection requirement in the renewal permit.

## G. Other Terms and Conditions

This section is new in the renewal permit. The section contains terms and conditions consistent with regulations

### 1. General Limitations, Release in Excess of Reportable Quantities, and Records Availabilities

The Division has included these sections in the permit consistent with regulatory requirements.

### 2. Discharges to Waters with Total Maximum Daily Loads (TMDLs)

The Division has included this section to add clarity on the process for addressing new TMDLs consistent with regulatory provision for permit modifications.

### 3. Implementation by Other Parties

The permittee may rely on other entities to complete actions including the implementation of Control Measures, to comply with the requirements of the Permit. This section includes basic requirements to ensure recordkeeping and oversight is maintained when such arrangements are in place to address the responsibility of the permittee to ensure compliance with the permit terms and conditions.

### 4. Wet Weather Monitoring

The Division has added requirements that set expectations for the scope and scale of a monitoring program to the permit. The permit previously did not include these details, and the monitoring program was primarily addressed in program description submittals from the permittee.

Regulation 61.8(4) states that “any discharge authorized by a discharge permit may be subject to such monitoring, record-keeping, and reporting requirements as may be reasonably required in writing by the Division.” In addition, the application requirements for Phase I MS4 permittees sets an expectation that permittees establish and implement monitoring program to obtain representative data for discharges from the MS4 (Regulation 61.4(3)(c)(ii)(C)(IV)). The monitoring requirements have been significantly restructured and include new requirements and clarification or expansion of existing requirements. In determining a level of monitoring that is “reasonably required,” the Division evaluated currently available monitoring resources and established requirements that are expected to be achievable without requiring the purchase of new monitoring equipment, yet is significant enough to provide data that will be usable for evaluating current and future permit effluent limits and Control Measures.

This section now includes a specific number of outfalls that need to be monitored each year and over the permit term. This section also includes three types of sample locations with different sample sets. The permittee will have to delineate which sample set is used in the annual discharge monitoring report submitted to the division each year. Requirements for using 40 CFR Part 136 and a sampling plan were added. This ensures that all samples are gathered, preserved, and analyzed using approved methods.

The permittee's *Wet Weather Monitoring Literature Review* (December 14, 2009) listed the following pollutants of concern found in "most highway runoff" and also sample each pollutant of concern for compliance with their current Wet Weather Monitoring Program. The Division is including this list as highway pollutants of concern in the renewal permit.

- pH
- Chloride
- Ammonia nitrogen
- Nitrate-Nitrite
- Oil and grease
- Phosphorus, Total
- Specific conductance
- Total Kjeldahl nitrogen
- Total suspended solids
- Arsenic, Total
- Arsenic, Dissolved
- Cadmium, Total
- Cadmium, Dissolved
- Calcium, Dissolved
- Chromium
- Chromium, Dissolved
- Copper, Total
- Copper, Dissolved
- Lead, Dissolved
- Magnesium, Dissolved
- Manganese
- Manganese, Dissolved
- Nickel, Total
- Nickel, Dissolved
- Selenium, Total
- Selenium, Dissolved
- Sodium, Dissolved
- Zinc, Total
- Zinc, Dissolved

The permit also includes general monitoring and sampling requirements to ensure monitoring and sampling are conducted consistent with good practices and regulatory requirements.

**Recordkeeping:** This new section adds clarity on what sampling records should be maintained.

#### H. Program Review and Modification

This section is consistent with the previous permit and requires an annual review of permit compliance and program implementation.

#### I. Compliance Schedule

Permittees are allowed time to implement new requirements. There is no compliance schedule for requirements required under the previous permit that remain unchanged in this renewal permit. This section has been revised in the renewal permit to reflect new

requirements. The Clean Water Act (40 CFR 122.34(a)) and Regulation 61.8 (11)(a)(i) require development and implementation of the permittee's CDPS Stormwater Management Program as required by the permit in accordance with the Compliance schedule tables. Many of the permit requirements are not effective immediately. A compliance schedule consolidates the information regarding the compliance dates for permit requirements.

Compliance dates are not provided in the specific permit section.

The compliance schedule only requires notification in the annual report that a requirement has been completed and does not require the submittal of reports.

This permit includes an extra column titled ICIS Codes so that compliance elements can be internally coordinated better with the ICIS reporting.

## J. Reporting Requirements

**Annual Report:** This section has been updated to reflect the reporting requirements of the renewal permit. The intent of the Annual Report is to provide a representative summary to the Division that allows the Division to gain a basic understanding of the permittee's program status and implementation. The Division has required reporting requirements for the new MEP in the Permanent Water Quality Management Program that allow for monitoring of the program implementation during the permit term. By including the level of detail in the permit reporting requirements, the Division can more proactively set out expectations for submittals than if this Division oversight was achieved through separate information requests and audits during the permit term.

For other program areas, the Division has attempted to limit the basic reporting items to focus on basic information to provide an indicator to the Division of the scale of activities being conducted and completion of compliance schedule activities.

## K. Definitions

Many definitions have been added to the renewal permit to increase clarity about the intent of term in the context of the permit and align with new permit language.

## L. General Requirements

This is a new section in the renewal permit and replaces all or parts of the Certification and Signature of Reports and Notification, Reporting, and Administrative Requests sections of the current permit.

**Signatory Requirements:** This section has been updated to reflect the requirements in Regulation 61. The previous permit did not include the complete language in Regulation 61, which resulted in unclear expectations regarding the signatory authority and duly authorized representative. Division compliance oversight activities of Phase II MS4 permittees noted that the legal contact or duly authorized representative may not have the proper authority in the organization to sign reports submitted the Division. The duly authorized representative is required to have responsibility for the overall operation of the regulated facility, yet some Phase II MS4 permittee's organizational charts clearly showed that the legal contact did not have responsibility for the overall operation of the regulated facility. For example, a permittee may have designated the Public Works Director to be the legal contact or duly authorized representative however the Public Works Director may not have authority over the Planning Director under whose oversight, construction plans are reviewed and approved.

**Retention of Records:**

This section has been added to the renewal permit.

This section has been updated to reflect changes in required recordkeeping and program description documentation. Section 61.8(11)(a)(vii)(B) of Regulation 61 requires that

*The permittee must keep records required by the permit for at least three (3) years. The permittee must submit their records to the division only when specifically asked to do so. The permittee must make the records, including a description of the permittee's stormwater management program, available to the public at reasonable times during regular business hours (see 61.5(4) for confidentiality provision). (The permittee may assess a reasonable charge for copying. The permittee may require a member of the public to provide advance notice.)*

For example, if procedures are still being used at the expiration of a permit and will be used for the next permit, then the procedures must be kept through the next permit term.

**VIII. STANDARD CONDITIONS**

Part II of the permit has been updated with new or revised standard language that is in all permits issued by the Division. This new section in the renewal permit replaces all or parts of the Permittee Responsibilities and Notification, Reporting, and Administrative Requirements sections of the current permit.

**A. Notification Requirements**

This section was formally titled Permittee Responsibilities and now contains the following subsections:

1. Notification to Parties: updated new section
2. Change in Discharge or Wastewater Treatment: new section
3. Special Notifications Definitions: new section
4. Non-Compliance Notification: new section
5. Other Notification Requirements: new section
6. Bypass Notification: new section
7. Upsets: new section
8. Discharge Point: new section
9. Proper Operation and Maintenance: updated language
10. Minimization of Adverse Impact: updated language
11. Removed Substances: updated language
12. Submission of Incorrect or Incomplete Information: updated language
13. Bypass: new section
14. Reduction, Loss, or Failure of Treatment Facility: updated language

**B. Permittee Responsibilities**

1. Inspections and Right to Entry: updated language
2. Duty to Provide Information: no new requirements from current permit
3. Transfer of Ownership or Control: new section
4. Availability of Reports: updated language
5. Modification, Suspension, Revocation, or Termination of Permits By the Division: updated

- language
- 6. Oil and Hazardous Substance Liability: no new requirements from pervious permit
- 7. State Laws: updated language
- 8. Permit Violations: New section
- 9. Property Rights: no new requirements from pervious permit
- 10. Severability: no new requirements from pervious permit
- 11. Renewal Application: new section
- 12. Confidentiality: new section
- 13. Fees: updated language
- 14. Duration of Permit: new section
- 15. Section 307 Toxics: new section
- 16. Effect of Permit Issuance: new section

## IX. REFERENCES

- a. American Association of State Highway and Transportation Officials, *State Transportation Agency Strategies to Address NPDES Phase II Requirements*, February 2007
- b. Colorado Department of Public Health and Environment, Water Quality Control Division Files, Colorado Department of Transportation.
- c. Colorado Department of Public Health and Environment, Water Quality Control Division Files, audited permittees.
- d. Colorado Department of Public Health and Environment, Water Quality Control Division, Total Maximum Daily Load for:
  - o COSPBO02: Boulder Creek from North Boulder Creek to South Boulder Creek. E coli
  - o COSPMS04: Barr Lake and Milton Reservoir, Dissolved Oxygen
  - o COSPMS04: Barr Lake and Milton Reservoir, pH TMDL
  - o COSPMS04: Barr Lake and Milton Reservoir, Implementation Plan for pH TMDL
- e. Colorado Discharge Permit System Regulations, Regulation 5 CCR 1002- 61, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective September 30, 2009.
- f. Regulations Controlling Discharges to Storm Sewers, Regulation 5 CCR 1002-65, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective May 30, 2008.
- g. Cherry Creek Reservoir Control Regulation, 5 CCDR 1002-72, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective November 30, 2012.
- h. Environmental Protection Agency, *MS4 permit Improvement Guide*, April 2010.
- i. State Department of transportation MS4 Individual Permits. Review of portions of the following permits:
- j. California (1999), Maryland (2005), North Carolina (2010), Washington (2009)

Lisa Knerr  
July 28, 2015