

Colorado Department of
Transportation (CDOT)

Municipal Separate Storm
Sewer System (MS4) Program
Description Document (PDD)

Permanent Water Quality

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Version 1.3



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1. Introduction

Colorado Discharge Permit System (CDPS) Permit No. COS000005 (MS4 Permit), Part I.C.1 requires Colorado Department of Transportation (CDOT) to develop and maintain a program description document (PDD). “A ‘PDD’ describes how the permittee will meet the requirements of [the MS4] permit and includes a list of citations for documents and electronic records used to comply with the permit requirements; and an organization chart. PDD information must be maintained to reflect current implementation.” (COS000005, Part I.C.1.). Instead of preparing one overarching MS4 Program PDD, CDOT developed individual PDDs for each of CDOT’s seven MS4 program areas:

- Construction Sites
- Permanent Water Quality
- Illicit Discharges
- Industrial Facilities
- Public Education and Outreach/Public Involvement and Participation
- Pollution Prevention and Good Housekeeping
- Wet Weather Monitoring

This PDD describes how CDOT’s Permanent Water Quality (PWQ) Program meets the MS4 Permit requirements of Part I.E.2.

CDOT’s MS4 PWQ Program requires CDOT to select, design, install, implement, and maintain PWQ Control Measures (CMs) to reduce the discharge of pollutants to the MS4. CDOT must also provide oversight for these PWQ CMs installed by others for which CDOT takes PWQ treatment credit to meet the requirements of the MS4 Permit.

The PWQ PDD is a regulatory-based program management tool the CDOT PWQ Program Manager (PWQPM) uses for internal organization of the PWQ Program and the overall MS4 Permit Program. The CDOT MS4 PWQ PDD is a dynamic document that describes how CDOT administers and implements the PWQ Program to meet MS4 Permit permanent water quality requirements.

1.1 Updates to the PWQ PDD

CDOT’s PWQ PDD is a dynamic document reviewed at least annually, and updated as needed.

CDOT developed the PWQ Program Manual to address design, field and programmatic standard operating procedures (SOPs) to meet MS4 Permit and other regulatory requirements for the PWQ program. Updates to the PWQ PDD will be posted to the CDOT Environmental, Water Quality, PWQ Program website. The PWQ PDD Index tracks the revision history of each item.

A blue text box at the end of each section or subsection identifies resources with additional information applicable to that aspect of the Program. To the extent possible, CDOT is minimizing the level of Program detail presented in the PWQ PDD. The PWQ PDD summarizes the Program and linked documents provide the details.



2. CDOT MS4 PWQ PDD

2.1. Introduction

The PWQ PDD provides a descriptive overview of the Program and, where appropriate, points to other Program documents that describe methodologies, processes and approaches used by CDOT to maintain Program compliance with the MS4 Permit. Changes in guidance and/or specifications in one CDOT area may have a cascading effect on the overall PWQ Program execution and training.

The PWQ chapter of the Drainage Design Manual identifies design selection requirements, construction and installation requirements, and the long-term maintenance requirements of control measures. Educating CDOT, consulting or contracting staff in water quality, design, construction, and maintenance is essential to successful PWQ Program compliance.

This PWQ PDD is an overarching and dynamic document that identifies critical elements necessary to maintain regulatory compliance and protect water quality. The success and execution of the PWQ Program is dependent upon integrating and balancing numerous factors including Colorado Department of Public Health and Environment (CDPHE) regulations, PWQ Program requirements, the PWQ chapter of the Drainage Design Manual, and the PWQ Standard Operating Procedures.

The intended audience for the PWQ PDD is CDOT management and staff, local, state and federal agencies, and third parties. To assist with navigating the PWQ PDD, Table 1. MS4 PWQ PDD Regulatory Requirements, cross-references MS4 Permit required PDD content for the PWQ Program with the location of applicable Program information in the PWQ PDD.

TABLE 1. MS4 PWQ PDD REGULATORY REQUIREMENTS

MS4 Permit Citation	MS4 Permit COS00005-required PDD Content
Part I.C.1.a.	Current Control Measure Implementation and Procedures: The specific PDD content required by Parts I.D. and I.E. that describes how the requirements of Parts I.D. and I.E. are met.
Part I.C.1.b.	Current Documents and Electronic Records: A list of citations for documents and electronic records used to comply with permit requirements. It is not required that the PDD repeat the information included in the cited documents. The PDD must include the names of the most recent version of the documents, source/author of the document, date of the document, and location(s) where the supporting documentation is maintained.
Part I.C.1.c.	Current Organizational Chart: An organizational chart indicating responsibility over applicable departments by the legal contact.
MS4 Permit Citation	MS4 Permit COS00005-required PDD Content



Part I.C.2.	The PDD must be available to the public at reasonable times during regular business hours and maintained in a format that can be submitted to the Division within 10 business days of a request.
Part I.C.3.	Information in the PDD may be revised by the permittee at any time. The permittee must modify the PDD as changes occur to ensure the information is up to date.
Part I.E.2.c.i.	Regulatory Mechanism: A list of the citation(s) and location(s) of the required elements of the regulatory mechanism, including a list of the associated program documents used to meet the regulatory mechanism requirements.
Part I.E.2.c.ii.	Regulatory Mechanism Exemptions: A list of the citation(s) and location(s) of regulatory mechanism elements that allow for exemptions and the documented procedures that confirm that any exemptions, waivers, and variances comply with the permit.
Part I.E.2.c.iii.	Priority Development Project Control Measure and Cherry Creek Reservoir Development Projects: A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee meets the requirements in Part I.E.2.a.iii, including any documents that provide control measure design considerations, criteria, or standards.
Part I.E.2.c.iv.	Permanent Water Quality Mitigation Pool: A list of citation(s) and location(s) of supporting documents, including any documents that provide procedures and requirements for implementation of the pool and associated processes.
Part I.E.2.c.v(A)	Site Plan Requirements for all Control Measures Implemented to meet the Water Quality Mitigation Pool Requirements, for Priority Development Projects, and for Cherry Creek Reservoir Development Projects:
I.E.2.c.v(A)1	A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee requires operators to develop, maintain, and modify site plans, including the citation(s) and location(s) of supporting documents.
I.E.2.c.v(A)2	A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee conducts initial site plan reviews, including the citation(s) and location(s) of supporting documents.
I.E.2.c.v(A)3	A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has operation and maintenance procedures that ensure the long term observation, maintenance, and operation of control measures, including routine inspection frequencies and maintenance activities.
MS4 Permit Citation	MS4 Permit COS00005-required PDD Content
I.E.2.c.v(A)4	A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has change of ownership procedures.



I.E.2.c.v(A)5	A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has procedures to ensure that structural control measures have easements or other legal means for access to the control measure for operation, maintenance, and inspection of control measures.
Part I.E.2.c.v(B)	Construction Inspection and Acceptance for all Control Measures Implemented to meet the Water Quality Mitigation Pool Requirements, for Priority Development Projects, and for Cherry Creek Reservoir Development Projects: A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has written procedures for inspections, including the citation(s) and location(s) of supporting documents that describe the following:
Part I.E.2.c.v(B)1	The process and tools used for documenting inspections.
Part I.E.2.c.v(B)2	The process for inspection follow-up, including determining, implementing, and documenting the nature of the follow-up action.
Part I.E.2.c.v(B)3	The process for determining, implementing, and documenting Post Acceptance Site Inspection frequencies if different from once a permit term.
Part I.E.2.c.v(C)	Long Term Operation and Maintenance and Post Acceptance Oversight Site Inspection for Control Measures Installed in Accordance with this Permit and Previous Permits: A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has procedures for long-term operation and maintenance, and post-acceptance oversight site-inspections.
Part I.E.2.c.v(D)	Tracking for Control Measures Installed in Accordance with this Permit and Previous Permits: A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee has written procedures for maintaining the required tracking information.
Part I.E.2.c.v(E)	For Applicable Permanent Water Quality Management Activities that Overlap Permit Areas of more than one MS4 Permittee (co-regulating MS4 permittee): A list of citation(s) and location(s) of applicable documents that demonstrate that the permittee meets all permit requirements in Part I.E.2.a.v(E) for applicable development project for which the permittee is the owner or operator.

2.2. PWQ Program Elements

CDOT's MS4 PWQ Program (Program) controls and reduces post-construction discharge of pollutants to its MS4, as required by the MS4 Permit. CDOT contributes \$6.5 million annually to the PWQ Mitigation Pool Fund (MPF). The MPF ensures compliance by dedicating funds to construct PWQ Control Measures that treat CDOT MS4 area. Over time, CDOT will treat runoff from its entire MS4 area using this funding mechanism.

Most transportation projects are not required to treat stormwater runoff from the project's limits by constructing PWQ CM because of new program requirements. Instead, CDOT distributes funds for design, right-of-way (ROW) acquisition, environmental clearances, and construction of PWQ CM that treat CDOT MS4 area through a competitive application process. This funding mechanism promotes



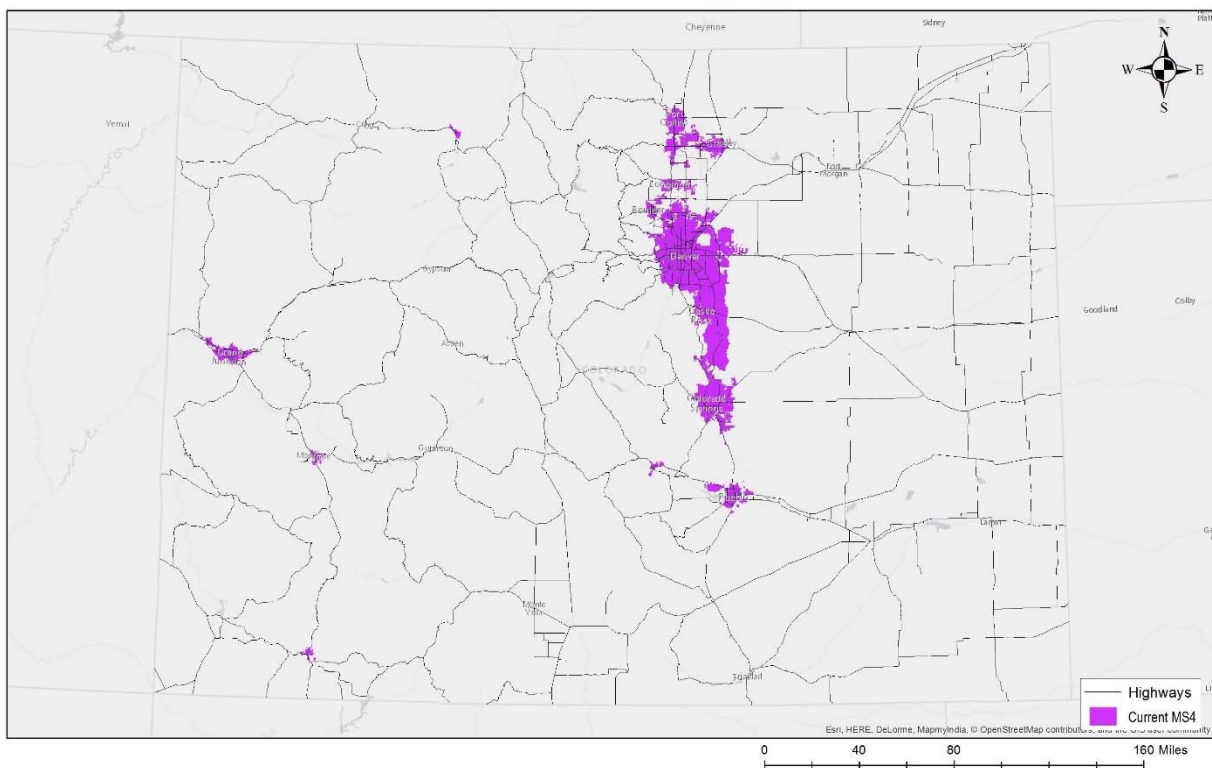
constructing PWQ CM that treat a larger area developing partnerships with local agencies, watershed groups, and others entities to advance innovative stormwater solutions.

A subset of transportation projects, however, must treat runoff from the project’s limits because they have a greater chance of affecting water quality (Priority Projects, also known as Water Quality Required). Additionally, not all projects are eligible for funding from the PWQ Mitigation Pool.

2.3. PWQ Program Coverage

CDOT’s MS4 Permit authorizes discharges from CDOT’s municipal separate storm sewer system (MS4) located within the MS4 Permit area. The MS4 Permit area includes all areas of the Colorado state highway system and associated rights-of-way (ROW) within another MS4 permittee’s Phase I or II MS4 Permit areas, within the Cherry Creek Basin Water Quality Authority boundary area, and all CDOT owned and operated properties in these same areas. Part I.A.3. of CDOT’s MS4 Permit lists the geographic areas included in CDOT’s MS4 Permit area.

FIGURE 1. GENERAL MAP OF CDOT’S MS4 PERMIT AREAS



CDOT’s MS4 Permit PWQ requirements only apply to CDOT MS4 Permit area. Project areas within CDOT’s MS4 Permit area and in another jurisdiction’s ROW, must coordinate with the Local Agency to determine which jurisdictional MS4 Permit requirements apply and how to comply with them.



CDOT's Online Transportation Information System (OTIS) identifies the extent of CDOT's MS4 Permit area and is used to determine if a project or portion of a project is in CDOT's MS4 Permit area. The PWQ Program Manual describes what to do if a project includes areas in another jurisdiction's ROW or MS4 Permit area. CDOT reviews and updates the MS4 Permit area maps annually to include Phase I or Phase II MS4 Permit area changes.

2.3.1. Overlapping MS4 Boundary Areas

Any portion of a Local Agency jurisdiction, developer or other entity's project that falls within CDOT's MS4 Permit area must follow the CDOT PWQ Program requirements.

A CDOT project must follow the Local Agency's PWQ Program requirements for those portions of the project located out of CDOT ROW and in, or partially within a Local Agency's MS4 Permit area. Project staff must coordinate with the Local Agency jurisdiction to determine the applicable PWQ Program requirements.

See the PWQ Program Manual for more information about overlapping MS4 Permit area and applicable PWQ requirements.

CDOT PWQ Program – MS4 Boundary Areas

Colorado Discharge Permit System- CDOT MS4 Permit (COS000005) Part I.A.3 – Permit Area:

<https://www.codot.gov/programs/environmental/water-quality/documents/ms4-program/cos000005-cdot-ms4-permit-mod4.pdf>

2.4. Applicable Projects

The MS4 PWQ Program requires all “applicable development projects” working within CDOT's MS4 Permit area to comply with the requirements CDOT's PWQ program. This includes development, local agency, property management, design-bid-build, design-build, construction management/general contractor projects (CM/GC), and maintenance projects.

These requirements are briefly described here, and are fully described in the CDOT PWQ Program Manual. The PWQ Program Manual guides project staff, design engineers, hydraulic engineers, and Water Quality staff through the process of determining PWQ Program requirements and PWQ Mitigation Pool Fund eligibility. The PWQ Program Manual also describes the PWQ Mitigation Pool Fund requirements.

The next two subsections discuss the two specific types of applicable projects.

2.4.1. Permit Definitions of Applicable Development Projects

The following definitions are from the Part I.E.2 of CDOT's MS4 permit:



“Applicable development projects” only apply to priority development projects and Cherry Creek Reservoir development projects.

“Priority Development Projects” are development projects that meet all of the following:

- *Result in land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, unless excluded below and,*
- *Either discharge to a stream segment that is on 303(d) list for a roadway pollutant of concern or discharges to the Cherry Creek Reservoir drainage basin and is exempted under section 72.7.2(c)(4) of Regulation 72, and*
- *Has a 20 % or more increase of impervious surface.*

Additionally, this category expanded to include Environmental Assessment (EA)/Environmental Impact Study (EIS) projects that increase the impervious area by 20% or more.

Only the portion of the project that discharges to the stream segment listed for a roadway pollutant of concern is required to meet the priority development project design standard.

CDOT identifies Priority projects as “Permanent Water Quality Required” projects to standardize terminology across CDOT units.

2.4.1.1. Excluded Projects

Some projects do not meet the MS4 permit requirements for Priority projects, but are still able to install PWQ CM. See the PWQ Program Manual and the CDOT MS4 Permit for the list of these projects.

2.4.1.2. Roadway Pollutants of Concern

From the MS4 Permit, “Roadway pollutants of concern” are a trigger for the need to include PWQ CM on a project. See the CDOT MS4 Permit for the list of the pollutants of concern.

2.4.1.3. Cherry Creek Reservoir Development Projects

“Cherry Creek Reservoir Development Projects” are development projects that result in land disturbance that discharge to the Cherry Creek Reservoir subject to the requirements for Post- construction stormwater management controls in CCR 1002-72, part 72.7.2(c). Only the portion of the project discharging to the Cherry Creek Reservoir drainage basin shall meet the priority development project design standard. See the PWQ Program Manual and Regulation 72.

2.4.1.4. Applicable Portion

“Applicable Portion” refers to the portion of the Priority Development or Cherry Creek Reservoir Development Project discharging to either the stream segment listed for a roadway pollutant of concern or the Cherry Creek Reservoir, respectively.

2.4.2. Onsite PWQ Required (Applicable Development Projects)

Onsite PWQ Required projects must install PWQ on the construction site as described in the MS4 permit Part I.E.2.a.iii(A),



“The permittee’s requirements and oversight for priority development projects must be implemented to address the selection, installation, implementation, and maintenance of control measures in accordance with requirements in Part I.B,” and Part I.E.2.a.iii(A),

“The permittee’s requirements and oversight for Cherry Creek Reservoir Development Projects must be implemented to address the selection, installation, implementation, and maintenance of control measures in accordance with requirements in Part I.B.”.

Onsite PWQ Projects include Priority and Cherry Creek Development Projects. Additionally, this category has been expanded to include EA/EIS projects that increase the impervious area by 20% or more. The reason for this expansion is to help meet PWQ Mitigation Pool Fund requirements.

CDOT PWQ Program – Applicable Projects

CDOT PWQ Program Manual, Chapter 2.1

[Update in process – contact PWQ Manager for information](#)

CDOT Drainage Design Manual PWQ Section:

<https://www.codot.gov/programs/environmental/water-quality/drainage-design-manual-documents-sept-2019/chapter-16-permanent-water-quality-6-30-2019-docx.pdf>

2.4.3. PWQ Mitigation Pool Projects

CDOT’s MS4 Permit states, *“The permittee shall contribute \$6,500,000 to the pool each fiscal year...The pool shall be used to plan, design, and construct control measures meeting the requirements in Part I.E.2.a.iii and iv. And Part I.B.”.* This funding shall be used to implement control measures in CDOT’s MS4 Permit area. The MS4 Permit further stipulates the following:

- *The permittee shall contribute \$6,500,000 to the pool each fiscal year for which this permit coverage is active...The pool shall be used to plan, design, and construct control measures meeting the requirements in Part I. E.2.a.iii and iv. and Part I.B.*
- *Ensure that at least 80% of the pool shall be spent on a 3-year rolling average.*
- *Ensure that the pool shall only be used for designing and building control measures meeting the requirements of this section.*
- *The pool shall be administered by a committee comprised of regional and statewide permittee personnel to evaluate and prioritize the planning and installation of control measures.*
- *The pool shall not be used to fund the cost of maintenance of control measures.*
- *The pool may be used for environmental planning for a control measure.*

CDOT implements this MS4 Permit requirement in several ways. First, CDOT follows the Onsite PWQ CM requirements. Second, CDOT has added a requirement that EA/EIS projects that increase the impervious area by 20% or more must install Onsite PWQ CMs. Third, CDOT or a Local Agency transportation project may apply to the PWQ Mitigation Pool to pay for designing and installing PWQ CMs that treat more area



than is required. Lastly, a Local Agency or CDOT project may apply for funding to build a PWQ CM only project.

Projects that apply for PWQ Mitigation Pool funding must treat a portion of the CDOT MS4 boundary area. CDOT's MS4 Permit stipulates that CDOT must use the PWQ Mitigation Pool money to design and construct PWQ CMs, and since CDOT's MS4 Permit only applies to the CDOT MS4 Permit area, this means that CDOT will only receive credit for treating CDOT MS4 Permit area. By partnering with Local Agencies to treat PWQ CDOT MS4 area, CDOT and the Local Agencies are leveraging their dollars to gain more benefit and achieve cost savings. Local Agencies are expected to contribute resources in the form of money and/or in-kind contributions, such as design work or right of way. In order to ensure that CDOT is meeting their MS4 Permit requirements and "receiving credit" for treatment, one of the evaluation criteria that PWQ Mitigation Pool Committee uses during the selection process is the "CDOT cost per impervious acre treated".

The PWQ Program Manual describes how to determine the PWQ requirements that apply to the project. Selection, design, installation and implementation of PWQ CMs are described in the PWQ Section of the Drainage Design Manual.

For more information on the PWQ Mitigation Pool guidance, funding and process, see the CDOT MS4 PWQ Program Manual.

CDOT MS4 PWQ Program – PWQ Mitigation Pool

CDOT MS4 PWQ Program Manual, Chapter 4

[Update in process, contact PWQ Program Manager](#)

2.5. Planning and Approval

The PWQ Program document describes the planning process for selection, design, and construction of PWQ CMs.

2.5.1. Site Plans

The MS4 Permit requires site plans development and review for all PWQ CMs designed. The MS4 Permit requires additional review and approval of the site plans if any modifications are made during construction. The MS4 Permit requires that the site plans include design details, documentation of operation and maintenance procedures, documentation of easements or other legal means of access of the PWQ CMs, and a map of the area contributing flow to the PWQ CM. The specific MS4 Permit requirements are detailed in the PWQ Section of the Drainage Design Manual.

2.5.2. Documentation

The MS4 Permit stipulates that CDOT must document the determination of whether PWQ CMs are required. If PWQ CMs are required, the MS4 Permit also requires the documentation of which requirements apply. Lastly, the MS4 Permit requires the documentation of the selection and installation of PWQ CMs.



In order to meet these documentation requirements, projects use the PWQ Evaluation and Tracking (PET) Form, the water quality section of a project drainage design report, the PWQ categories and triggers into CJ20N Project Builder tab in SAP, and Categories 1300/1301 in AASHTOWare Project.

2.5.2.1. PWQ Evaluation and Tracking (PET) Form

The PET form serves as documentation of the review and approval process for the PWQ CM requirement per CDOT's MS4 permit. Regions complete a PET Form for all projects and submit to the PWQ Program Manager. See the PET Form and instructions for more information.

2.5.2.2. PWQ Section of CDOT Drainage Design Manual

The PWQ Section of CDOT's Drainage Design Manual specifies the types of PWQ CMs that can be used on projects. These PWQ CMs will go through the review process outlined in the PWQ Program Manual. Certain types of PWQ CMs must receive additional approvals from the Hydraulic Engineer and/or Maintenance. Other types of technologies must be submitted to the PWQ Mitigation Pool Committee with documentation of the criteria used and how the criteria meets CDOT's MS4 Permit design standards. The PWQ Mitigation Pool Committee reviews and approves these technologies and tracks approvals and denials. Additional approvals of a new technology will be contingent upon the performance of those already approved and future requests may be denied.

2.5.2.3. CJ20N in SAP Project Builder

Information about projects' PWQ categories and triggers are entered into CJ20N Project Builder in SAP. This also documents that the project was reviewed for PWQ per the MS4 Permit requirement. Additionally, the information collected in CJ20N Project Builder are used for MS4 Annual Reporting.

2.5.2.4. Categories 1300/1301 in AASHTOWare Project

Construction expenses for all projects installing PWQ CM track expenditures using AASHTOWare Project and Categories 1300 and 1301. This process ensures accurate tracking of projects that do not receive Mitigation Pool funding, per the requirements of CDOT's MS4 Permit, Modification 4.

2.5.3. PWQ Mitigation Pool Projects

There are three different funding processes based on the project category, as described in the PWQ Program Manual. The categories of funding are briefly described below:

Onsite PWQ Required Project Funding Approval Process: Priority is given to CDOT advertised Onsite PWQ Required Projects with a total project budget of \$100 million or less.

PWQ Mitigation Pool Committee Selection Process: Remaining resources in the Mitigation Pool will be used to fund projects through a competitive application process. The PWQ Mitigation Pool Committee purpose is described in the PWQ Mitigation Pool Committee Charter.

Non-Mitigation Pool Process: Other funding sources fund PWQ CM.



CDOT MS4 PWQ Program – Planning and Approval

CDOT MS4 Permit (COS000005):

- Part I.E.2.a.iii.(A) Control Measure Design Standards for Priority Development Projects
- Part I.E.2.a.v(B) Control Measure Design Standards for Cherry Creek Reservoir Development Projects
- Part I.E.2.a.v.(A) –Other Requirements

<https://www.codot.gov/programs/environmental/water-quality/documents/ms4-program/cos000005-cdot-ms4-permit-mod4.pdf>

CDOT PWQ Program Manual:

[Update in process, contact PWQ Program Manager](#)

CDOT Drainage Design Manual – Chapter 16: Permanent Water Quality:

<https://www.codot.gov/business/hydraulics/drainage-design-manual>

2.6. Program Organizational Structure

CDOT's Chief Engineer (a.k.a. CDOT's Director of Stormwater Compliance) is the main signatory and holder of the MS4 Permit, and is accountable for MS4 Permit compliance. The Water Quality (WQ) Section (previously known as Hydrologic Resource (HR) Section) is responsible for CDOT's overall MS4 PWQ Program management and compliance under the direction of the PWQ Program Manager (PWQPM). The PWQPM reports to the WQ Section Manager and represents the Director of Stormwater Compliance within the MS4 PWQ Program. Organizationally, the WQ Section Manager reports to the CDOT Environmental Programs Branch (EPB) Manager, who reports to Department of Transportation Development (DTD) Director, who reports to the Director of Stormwater Compliance. The CDOT-CDPHE Liaison provides a regulatory interface between CDOT and CDPHE. The Liaison is a CDOT employee, reporting directly to the EPB Manager, who offices at CDPHE and is a valuable resource in permit regulations and interpretation.

Additionally, the WQ Section Manager and PWQPM review the performance of the MS4 PWQ Program annually. The WQ Section Manager may identify, based on the annual review, additional resources (staff, budget, training, etc.) needed to ensure ongoing MS4 Permit compliance.

Direct implementation and administration of the MS4 PWQ Program's conditions and compliance activities occurs within each of the five CDOT Engineering Regions (Regions 1, 2, 3, 4, and 5, see Figure 2 below) and the eight overlapping maintenance sections (see Figure 3 below). Region Water Pollution Control Managers (RWPCMs) and/or Water Quality Staff (WQS) are responsible for implementing the MS4 PWQ Program at the Region level.

RWPCMs may coordinate with the PWQ PM and the WQ Section but do not report to the PWQPM or WQ Section Manager.



FIGURE 2. STATE OF COLORADO MAP DEPICTING THE FIVE CDOT REGIONS

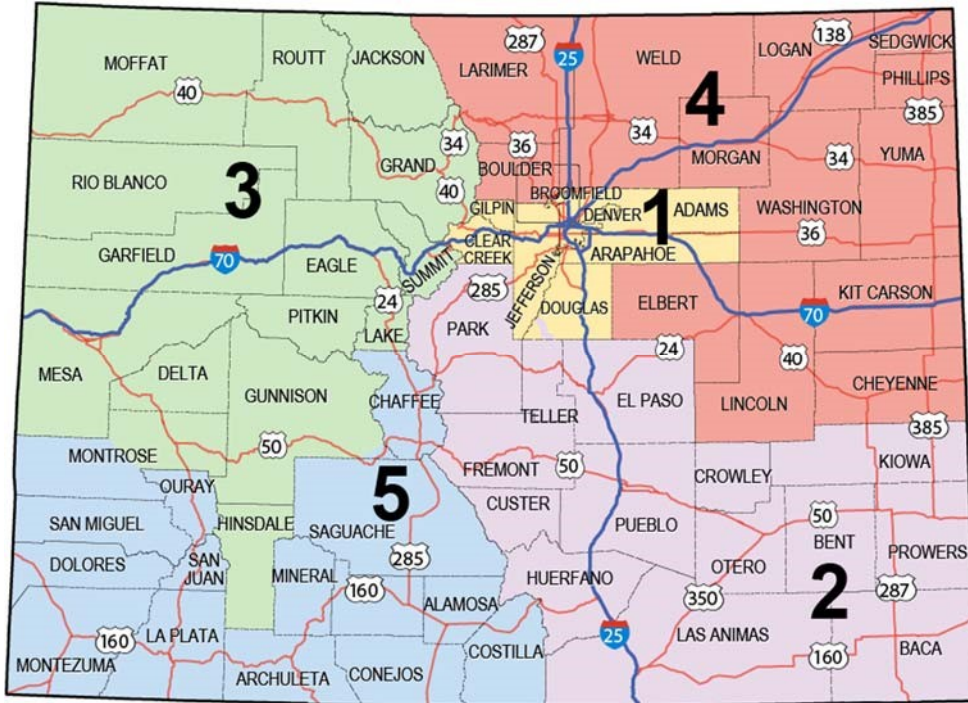
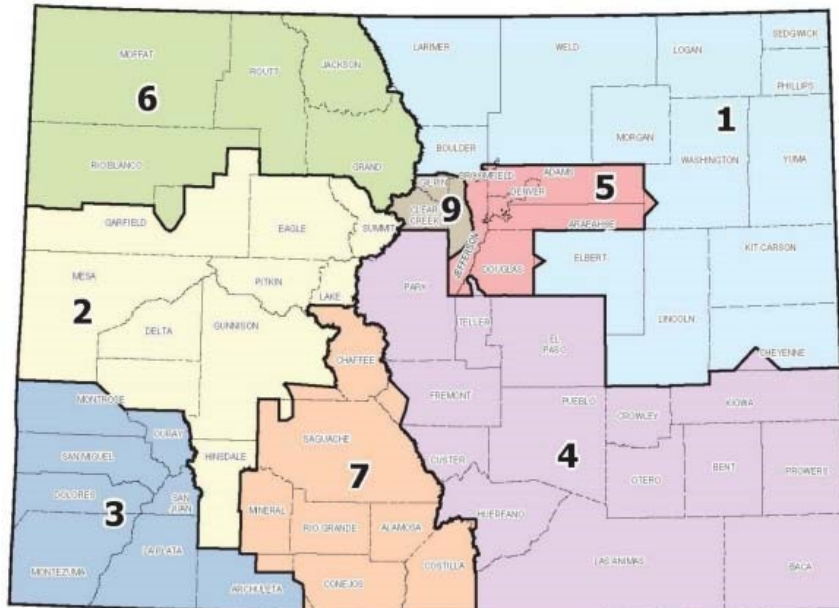


FIGURE 3. STATE OF COLORADO MAP DEPICTING THE 8 CDOT MAINTENANCE SECTIONS



RWPCMs and WQS are part of CDOT’s Region Environmental Program. The Region Environmental Program chain-of-command is generally as follows; note that some Regions may have additional levels:



1. RWPCM/WQS
2. Region Planning & Environmental Manager (RPEM) (In Region 1, there is a Region Environmental Manager (REM))
3. Region Transportation Director (RTD) (in some Regions there may be deputy directors or Program Engineers in between the RTD and the RPEM).
4. Deputy Director/Chief Operating Officer with informational reports to the Chief Engineer/Director of Stormwater Compliance

Table 2 Identifies the CDOT MS4 PWQ Program Water Quality Team

TABLE 2. CDOT MS4 PWQ PROGRAM WATER QUALITY TEAM

Title	Name	Contact Information
Region 1 (Denver)		
Region Environmental Manager (REM)	Vanessa Henderson	720.497.6924
Regional Water Pollution Control Manager	Steve Mulqueen	303.757.9138
Regional Water Pollution Control Manager	Brian Reiser	303.757.9270
Landscape Architect (LA)/Water Quality Specialist	Susie Hagie	303.757.9932
Regional Water Quality Specialist	Basil Ryer	303.757.9304
Regional Water Quality Specialist	Josh Giovannetti	303.757.9925
Region 2 (Colorado Springs)		
Region Planning and Environmental Manager	Robert Frei	719.546.5749
Regional Water Pollution Control Manager	Troy Rice	719.227.3260
Region 3 (Grand Junction)		
Region Planning and Environmental Manager	David Cesark	970.683.6251
Regional Water Pollution Control Manager	Leslie Modrick	970.350.2164
Landscape Specialist (LS)	Jennifer Klaetsch	970.683.6223
Region 4 (Greeley)		
Region Planning and Environmental Manager	James Eussen	970.350.2167
Regional Water Pollution Control Manager	Nick Schipanski	970.350.2127
Regional Water Pollution Control Manager	Vanessa Santistevan	970.350.2264
Region 5 (Durango)		
Regional Planning and Environmental Manager	Tony Cady	970.385.1430
Regional Water Pollution Control Manager	Danielle Wilkinson	970.385.1425



Title	Name	Contact Information
Headquarters (Denver)		
Director of Stormwater Compliance (Chief Engineer)	Steve Harelson	Available upon request
Director of Division of Transportation	Rebecca White	303.757.9525
Environmental Programs Branch Manager	Jane Hann	303.757.9630
Water Quality Section Manager	Jean Cordova	303.512.4053
PWQ Program Manager (PWQPM)	Rachel Hansgen	303.757.9975
PWQ Program Field Manager	Jeremiah Unger	303.513.3927
CDOT/CDPHE Liaison	Tripp Minges	303.692.3570

2.7. Regulatory Structure and Regulatory Mechanism

CDOT has a variety of regulatory mechanisms to enforce implementation of PWQ Program requirements. The relevant regulatory mechanism depends on the phase of the PWQ CM. For example, during design, the regulatory requirements of a PWQ CM may be dictated by the Cherry Creek Basin Water Quality Authority and Regulation 72. During active construction, the PWQ CM may be the responsibility of the Contractor. During post-construction the PWQ CM may transfer responsibility to CDOT Maintenance or a Local Agency.

CDOT PWQ Program – Regulatory Mechanisms

- (a) Requiring implementation of PWQ CMs
 - ✓ NEPA Manual – Chapter 9 and Figure 9.2
 - ✓ PWQ Program Manual
 - ✓ PWQ Section of the Drainage Design Manual
 - ✓ Project Development Manual
 - ✓ CDOT Standard Specifications for Road and Bridge Construction
 - ✓ PWQ Evaluation and Tracking (PET Form & Directions)
 - ✓ Cherry Creek Basin Water Quality Authority
 - ✓ Cherry Creek Reservoir Watershed Control Regulation 5 CCR 1002-72
- (b) Requiring long-term operation and maintenance of PWQ CMs
 - ✓ CDOT PWQ Maintenance IGA Template and Guidance
 - ✓ 43-2-135: Division of Authority over Streets and Stormdrains
 - ✓ CDOT Manual of Maintenance
- (c) Requiring mechanisms are in place for CMs used to meet the requirements of the MS4 Permit, including those located outside of CDOT’s jurisdictional control long-term operation and maintenance of PWQ CMs



CDOT PWQ Program – Regulatory Mechanisms

- ✓ CDOT PWQ Maintenance IGA Template and guidance
 - ✓ 43-2-135: Division of Authority over Streets and Stormdrains
 - ✓ CDOT Standard Specifications for Road and Bridge Construction, Section 208 Erosion Control
- (d) Requiring the implementation of sanctions against entities are in place for CMs used to meet the requirements of the MS4 Permit, including those located outside of CDOT's jurisdictional control long-term operation and maintenance of PWQ CMs
- ✓ CDOT PWQ Maintenance IGA Template and Guidance
 - ✓ 43-2-135: Division of Authority over Streets and Stormdrains
 - ✓ CDOT Standard Specifications for Road and Bridge Construction, Section 105.20 Failure to maintain roadway or structure

2.8. Standard Operating Procedures

This Section describes the list of citations required by the MS4 Permit. These are in the format of Standard Operating Procedures (SOP) and are the CDOT guidance, manuals, specifications, policy statements, Chief Engineer Memos, procedures and other materials that guide the successful administration and implementation of the PWQ Program area.

2.8.1. SOP 1.0 - Planning

The Standard Operating Procedure 1.0 – Planning describes the steps used for the Permanent Water Quality Mitigation Pool Fund and the PWQ Mitigation Pool Committee.

2.8.2. SOP 2.0 - Design

The Standard Operating Procedure 2.0 – Design describes the steps used for the decisions, triggers, considerations, criteria and standards of designing a PWQ CM.

2.8.3. SOP 3.0 - Construction

The Standard Operating Procedure 3.0 – Construction describes the steps used for the Milestones, Operations and Maintenance and GIS/SAP inclusion and documentation.

Standard Operating Procedure 3.1 – GIS Collection describes the steps used for collecting and post processing GIS data about the PWQ CM.

2.8.4. SOP 4.0 - Maintenance

The Standard Operating Procedure 4.0 – Maintenance describes the steps used for Maintenance of PWQ CM.

Standard Operating Procedure 4.1 – Control Measure Inventory, Communicating and Tracking



Inspections and Maintenance describes the steps of creating an accurate inventory, communicating and tracking inspections and the maintenance of PWQ CMs.

2.9. Training and Certifications

All staff, whose work duties involve PWQ CMs, must be given a copy of this PWQ PDD and the PWQ SOPs.

In addition, these trainings are offered:

- Introduction to Water Quality course. This training gives an overview the MS4 permit and the individual MS4 programs, including the PWQ Program.
- PWQ CM Inspections & Maintenance Class is offered 2-3 times each year for Maintenance and Environmental staff. All who pass the exam at the end of the course receive Certification. The Colorado Stormwater Center teaches the class.
- The CDOT Water Quality/Roadside Vegetation/Environment Specialist provides training on work order tracking in connection with annual and compliance inspections for Maintenance personnel.
- MS4 PWQ Program training occurs during Inspections as compliance assistance and in-field education. Contractors and CDOT staff may request compliance assistance and in-field education as needed.
- In-field and compliance assistance training includes, but is not be limited to, information to inspectors or maintenance staff on proper documentation, inspection, maintenance activities, including temporary erosion control during PWQ maintenance and CDOT's MS4 Permit requirements.
- As required by the MS4 Permit, CDOT is documenting the name and title of each individual trained, date of training, the type of training, and a list of topics covered in the training.

2.10. Program Compliance and Quality Assurance

Program compliance and quality assurance are core functions of the WQ Section. All MS4 Programs are required to check or monitor the success of their programs based upon monitoring and performance metrics. The WQ Section Manager and the PWQPM review and identify the need for MS4 PWQ Program improvement and/or resource needs.

The MS4 PWQ Program Manual is designed around quality assurance components that include:

- Training requirements
- Internal auditing procedures to monitor compliance with the MS4 PWQ Program
- Escalation Processes for internal non-compliance with the MS4 PWQ Program
- Non-compliance reporting to the WQCD when internal escalation does not resolve the non-compliance



Region compliance to the MS4 PWQ Program Manual procedures will be audited by the PWQPM or designee. This provides a critical quality control function to the overall MS4 PWQ Program and informs the Director of Stormwater Compliance where resources (i.e., staff, budget, training, etc.) should be allocated based on measured MS4 Permit compliance risks.

2.11. Inspections/Audits

CDOT has a variety of types of PWQ Inspections. There are inspections done during construction to ensure PWQ CMs are being/have been installed correctly and there are inspections done on established PWQ CMs in order to ensure the PWQ CMs are adequately maintained and operating as designed.

2.11.1. PWQ Construction Inspection Points

During this phase, there are several key milestones for the PWQ CM; construction inspections, processing site plan changes and final acceptance.

See PWQ Construction – Milestones, O&M and GIS/SAP SOP 3.0 for more information

2.11.2. PWQ Maintenance Inspection Points

2.11.2.1. Diagnostic Inspections

Diagnostic Inspections occurred in response to the 2015 EPA Audit and assessed the PWQ Inventory per the 2015 MS4 Permit requirements. The purpose of these inspections was to assess the current condition of the inventory, to identify both routine and more extensive maintenance repairs, to evaluate presence of required documentation, and to identify need for design review. Examples of required documentation include Operations & Maintenance (O&M) manuals, plans, or as-builts. In the future, CDOT may utilize Diagnostic Inspections, on a part, or the complete PWQ inventory any time MS4 Permit, agency, or regulatory requirements change in a way that alter maintenance requirements, or if a natural disaster occurs that affects the inventory (i.e. the 2013 floods).

See PWQ CM Inventory, Communicating and Tracking Inspections and Maintenance SOP 4.1 and the PWQ Program Manual for more information.

2.11.2.2. Compliance Inspections

Compliance Inspections are performed a minimum of once every five-year MS4 Permit term to ensure that PWQ CM inspection and maintenance procedures are consistent and continue to meet the MS4 Permit requirements. Compliance Inspections review the same items as the Annual/Routine Inspections do, but also indicate if Review for Design is necessary, and assess PWQ CMs from a programmatic level, to ensure that PWQ CMs are being maintained adequately and consistently across the state.

To eliminate bias, CDOT HQ PWQ Program staff or consultants conduct Compliance Inspections, and Region staff/different consultants conduct Annual Inspections. A Compliance Inspection can replace a scheduled Annual/Routine Inspection.

See PWQ CM Inventory, Communicating and Tracking Inspections and Maintenance SOP 4.1 and the PWQ Program Manual for more information.



2.11.2.3. Annual/Routine Inspections

Annual/Routine inspections of PWQ CMs are on a set schedule to ensure that PWQ CMs are operating as designed. All PWQ CMs in CDOT's PWQ Inventory are inspected once per year. Based on inspection and maintenance results in successive years, CDOT may adjust routine inspection frequency up or down to ensure the PWQ CMs are maintained and operating as designed.

CDOT maintenance staff, HQ or Region Water Quality staff, or consultants can conduct Annual/Routine Inspections.

See PWQ CM Inventory, Communicating and Tracking Inspections and Maintenance SOP 4.1 and the PWQ Program Manual for more information.

2.11.2.4. PRVL Inspection

Preventative (PRVL) inspections are a quick visual inspection of the PWQ CMs. They are conducted by Maintenance staff annually, after a storm event, or as a follow up to routine maintenance. They are documented in SAP via a work order or inspection work order.

The PWQ Program and CDOT Maintenance staff are discussing how PRVL inspections and Annual/Routine Inspections can best meet MS4 permit requirements.

See PWQ CM Inventory, Communicating and Tracking Inspections and Maintenance SOP 4.1 and the PWQ Program Manual for more information.

2.11.3. Compliance and Enforcement

CDOT's compliance and enforcement process is in development and refinement. The following steps occurred before the Administrative Extension of CDOT's 2015 MS4 Permit by CDPHE to ensure compliance and enforcement:

- PWQ CM inventory and maintenance discussions with Local Agencies – Letters and emails from CDOT Regions or HQ were exchanged with Local Agencies to 1) Agree on PWQ CM inventory and maintenance responsibility (by CRS 43-2-135 or Maintenance Inter-Governmental Agreement) and 2) Establish annual inspection and maintenance reports submission deadlines from Local Agencies to CDOT Regions
- CDOT's PWQ Program and Division of Operations & Maintenance (DOM) established Compliance Inspections Intake & Review Meetings for all PWQ CM maintained by CDOT. Every other week, PWQ and DOM staff discuss next steps for each PWQ CM Compliance Inspection based on findings. Next steps may include: 1) Assigning a CDOT Maintenance Patrol to address maintenance findings, 2) Assigning a Maintenance Contractor to address maintenance findings that are not easily solved by CDOT Maintenance or require specialized equipment or training, 3) Assigning the PWQ CM to DOM's Routine Preventive Maintenance schedule if the Compliance Inspection did not identify any maintenance findings, or 4) Assign PWQ CM to Review for Design list (Scope of Work for Review for Design in development)



- CDOT Work Orders and invoices from contractors for maintenance tasks are saved in CM-specific folders on the Water Quality server to improve expenditure tracking per CM.

CDOT MS4 PWQ Program – Inspection/Audits

CDOT PWQ Program Manual:

[Update in process, contact PWQ Program Manager](#)

PWQ CM Inventory, Communicating and Tracking Inspections and Maintenance SOP 4.1

PWQ Construction – Milestones, O&M and GIS/SAP SOP 3.0

2.12. PWQ Tracking

This Section describes how the PWQ Program implements and documents procedures and mechanisms to track activities used to maintain compliance with the MS4 Permit (i.e., inspections). MS4 Permit activities performed by co-regulating MS4 permittees are tracked in this section. Tracking documents (physical or electronic) are stored and maintained.

2.12.1. PWQ Inventory Tracking

CDOT's inventory of PWQ CMs is stored in SAP, SAP is a software package used to manage business operations. For each PWQ CM, SAP tracks a unique identifier number which correlates to a location, type of PWQ CM, project number (sub account and project numbers), the reason installed, who maintains (CDOT or Local Agency) and the legal mechanism for maintenance (IGA, C.R.S. 43-2-135, MOU, MOA). The PWQ CM inventory is also stored in GIS format on C-Plan, a public-facing platform.

See the PWQ Program Manual and PWQ Construction – Milestones, O&M and GIS/SAP SOP 3.0 for more details.

2.12.2. PWQ Mitigation Pool Tracking

PWQ Mitigation Pool tracking includes annual fund transfers from Transportation Commission to the HQ Mitigation Pool Fund, from the HQ Mitigation Pool Fund to Regional PWQ Pools, and monthly fund expenditures for PWQ CM projects (from CDOT Capitol Transportation Improvement projects, Local Agency Transportation Improvement projects, and PWQ Only projects).

See the PWQ Program Manual, Permanent Water Quality Planning - Mitigation Pool and Committee Standard Operating Procedure #1.0, Permanent Water Quality Design - Decisions, Triggers, Considerations, Criteria and Standards Standard Operating Procedure #2.0 and Permanent Water Quality Construction - Milestones, O&M and GIS/SAP Standard Operating Procedure #3.0 for more information.



2.12.3. PWQ Design Decision Tracking

The PWQ Section of the Drainage Design Manual provides guidance and standards related to PWQ CM design requirements in CDOT's MS4 Permit. Additionally, the Permanent Water Quality Evaluation & Tracking (PET) form assesses the need for PWQ CM on all transportation projects. Finally, information entered into SAP CJ20N is also part of the collection of documents designed to report compliance with the MS4 Permit.

See the PWQ Program Manual, Permanent Water Quality Planning - Mitigation Pool and Committee Standard Operating Procedure #1.0 and Permanent Water Quality Design - Decisions, Triggers, Considerations, Criteria and Standards Standard Operating Procedure #2.0 for more information.

2.12.4. PWQ Construction Tracking

The PWQ and Construction Programs at CDOT HQ are developing processes for verifying PWQ CM milestones during the Construction Phase of Transportation projects. These processes will include inspecting PWQ CM features on critical installation dates, as well as corrective steps when discrepancies in approved plans versus installed PWQ CM features become apparent.

Specification 208.10 (b) is a crucial step before closing out any project that installs PWQ CM. This Specification ensures these requirements are complete prior to the final walkthrough for the PWQ CM:

- Survey of control measure
- As-built plans created using survey
- Pond Volume Certification Statement for any PWQ CM designed with Water Quality Capture Volume Standard
- Operations & Maintenance Plan

Once these items are collected and correct, the PWQ Program notifies the SAP unit that a new PWQ CM requires a Functional Location or FLOC number. This unique identifier is necessary to ensure asset management tracking based on CDOT MS4 Permit requirements.

See the PWQ Program Manual and PWQ Construction – Milestones, O&M and GIS/SAP SOP 3.0 and Permanent Water Quality Construction - GIS Collection Standard Operating Procedure #3.1 for more details.

2.12.5. PWQ Maintenance Tracking

The Work Manager system in SAP tracks completed maintenance tasks and associated labor, equipment and materials costs.

See Maintenance Manual and Permanent Water Quality Control Measure Inventory, Communicating and Tracking Inspections and Maintenance Standard Operating Procedure #4.1 for more information



2.12.6. Inspection Tracking

GIS tracks inspections for PWQ CM. When Annual/Routine, Compliance and Diagnostic inspections are conducted, the resulting inspection reports are placed into SAP. Eyes-on inspections are also tracked in SAP via work orders. These inspections are completed for each PWQ CM and registered by the unique SAP functional location/FLOC number.

2.12.7. Work Order Tracking

Work orders are documentation of the cost of time, equipment and materials CDOT uses. These are generated and entered into SAP by the maintenance patrols. These work orders are then attributed to the individual PWQ CM by use of the unique SAP functional location number.

2.12.8. Local Agency Tracking

PWQ CMs which are maintained by a Local Agency are also given a unique SAP functional location number in the CDOT SAP system.

CDOT PWQ Program – Tracking

CDOT PWQ Program Manual

[Update in process, contact PWQ Program Manager](#)

CDOT Manual of Maintenance

Permanent Water Quality Control Measure Inventory, Communicating and Tracking Inspections and Maintenance Standard Operating Procedure #4.1

PWQ Program Manual and PWQ Construction – Milestones, O&M and GIS/SAP SOP 3.0

Permanent Water Quality Construction - GIS Collection Standard Operating Procedure #3.1

Permanent Water Quality Design - Decisions, Triggers, Considerations, Criteria and Standards Standard Operating Procedure #2.0

Permanent Water Quality Planning - Mitigation Pool and Committee Standard Operating Procedure #1.0

2.13. Documents

A document is a manual, report, SOP, guidance, template, form or spreadsheet, etc. that CDOT uses to implement the requirements of the MS4 Program. The MS4 Permit stipulates record keeping requirements for every program. The MS4 PWQ Program record keeping requirements are described in the Recordkeeping section below.

MS4 PWQ Program paper and electronic documents, guidance, manuals, forms, and spreadsheets (documents) are listed in Table 3 PWQ Related Documents.



Documents generated by other CDOT groups or departments can affect the quality and reliability of PWQ Program documents. A change in one document can have a cascading effect on other document's information and procedures.

Table 3 is a list of current CDOT manuals/documents/policy's which contain information/ guidance/ process about the PWQ Program which all contribute to the PWQ Program compliance as required by the MS4 Permit.

TABLE 3. PWQ RELATED DOCUMENTS

Document	PWQ Guidance Given
PWQ Mitigation Pool Manual	The PWQ Mitigation Pool Manual gives guidance about the PWQ Mitigation Pool.
PWQ Program Manual	The PWQ Program Manual gives guidance about the PWQ Program.
Drainage Design Manual	The PWQ Section of the Drainage Design Manual gives guidance about the selection, design and construction of PWQ CMs. The Drainage Design Manual is currently under revision.
NEPA Manual	The NEPA Manual describes the Environmental Studies (EA/EIS) process and documentation needed for PWQ.
Project Development Manual	Section 109 - Requires CDOT to obtain an agreement with an entity anytime there is a shared interest in a project.
	Section 211 – Requires that hydraulic design be done in accordance with the CDOT Drainage Design Manual including working with the environmental program in each Region. Suggested UPDATE to Project Development Manual: Update this section to be more specific to PWQ and refer to this PDD.
	Section 2.14 – Requires survey whenever there are MS4 permit requirements. Suggested UPDATE to Project Development Manual: Specification 208.10(b) for Survey of PWQ CM and Section 625 of Survey Manual to more clearly identify PWQ Program requirements.
	2.17.02 - Mentions form 128. Suggested UPDATE to Project Development Manual: Update to specifically mention PWQ and special tracking requirements for PWQ.
	2.17.02.06 - Mentions that a preliminary hydraulic report should be provided prior to PWQ- Suggested UPDATE to Project Development Manual: Update to mention that if PWQ CM required, then water quality report to reflect change in Drainage Design Manual.



Document	PWQ Guidance Given
	<p>2.17.06.02 - Requires plan details to mitigate impacts. Suggested UPDATE to Project Development Manual: Update so that manual can specifically call out PWQ.</p>
	<p>2.28 - Requires final office review of documents, including plans. Suggested UPDATE: PWQ plan review is a requirement of the PWQ Program and the MS4 Permit.</p>
	<p>3.17 – Requires a PWQ form be completed if there is new development or redevelopment. Suggested UPDATE to Project Development Manual: Update to identify PET form and reflect new program terminology.</p>
Construction Manual	<p>105.2.4 - Construction Drawings: Requires the contractor retain a set of plans and other submittals and that they mark all changes and deviations as the work progresses. Upon completion of the work</p>
	<p>they have to be submitted to the Project Engineer per As-Constructed Plans (see section 121.2.3). Suggested UPDATE to Construction Manual: It also allows this to be waived, so this section should be updated to say it can't be waived for PWQ.</p>
	<p>105.14.2 – Duties of the Project Engineer: Some of these apply to PWQ; i.e. - manage within the approved budget, this ties to the PWQ Mitigation Pool since that is part of the budget, ensure project records and other documents are proper and current also applies to PWQ documentation.</p>
	<p>105.15 - Duties of the Inspector: Suggested UPDATE to Construction Manual: making sure the PWQ concrete, etc. is inspected during projects.</p>
	<p>105.20 – Failure to Maintain Roadway or Structure: This allows the PE to fix any problem and deduct the money from the contractor provided the PE notified the contractor of the problem and it was not fixed. This is the mechanism used when PWQ is not installed correctly.</p>
	<p>105.21.2 - Final Acceptance: Requires PE to perform final inspection and that the contractor shall fix any unacceptable work. This includes PWQ CMs.</p>
	<p>107.25.2 - Contractor Responsibility: Requires the contractor to comply with all federal, state and local WQ regulations, including permanent water quality control measures.</p>



Document	PWQ Guidance Given
Construction Manual	107.25.2.2 - Environmental Pre-construction meeting: Suggested UPDATE to Construction Manual: updated to require a discussion of PWQ and the need to build per plan or re-design (vs field fit) to ensure compliance.
	120.6.3 - Project Financial Status Report (Form 65): This is useful for PWQ Mitigation Pool Tracking.
	120.13.6 - Pre-Survey Conference: Refers to the requirement of surveying PWQ. Suggested UPDATE to Construction Manual: Update this section to identify pre-survey also applies when PWQ is required onsite.
	121.2.3 - As Constructed Plans: describes the requirements associated with as-builts. Suggested UPDATE to Construction Manual: update to include Specification 208.10 (b), PWQ CM must always have as-builts based on survey, and as-builts must be reviewed to ensure changes meet the MS4 Permit requirements.
	122 - Local Agency Project Administration: High level overview and points to Local Agency manual.
	208.2.2 - Inspection During Construction. Suggested UPDATE to the Construction Manual: add inspection of PWQ during construction to ensure correctly installed.
	208.2.3 - After Construction: Suggested UPDATE to the Construction Manual: include final acceptance walkthrough for PWQ.
	603-605 – Culverts, Sewers & Manholes: Suggested UPDATE to the Construction Manual: add PWQ CM inspection guidelines.
	Appendix A-121 Suggested UPDATE to the Construction Manual: add PWQ topic added to the environmental conference.



IGA's	<p>CDOT's contracting unit has template IGAs for both PWQ Mitigation Pool funding and for PWQ CM maintenance. The standard language in the funding IGA is intended to ensure the Local Agency complies with the MS4 Permit requirements regarding what PWQ funding can be used for and to meet the applicable tracking requirements. The Maintenance IGA ensures the Local Agency maintains the PWQ CM per CDOTs MS4 Permit requirements. It also dictates PWQ maintenance record retention. Additionally, it allows CDOT to access the facility for maintenance in the event the local agency does not maintain the facility in the required timeframe. CDOT may back charge the local agency.</p>
Survey Manual	<p>6.14.1 – states that as-built surveys shall be done for PWQ and 16.14.3 states what should be included in the PWQ survey.</p>
Specifications	<p>Stormwater regulatory requirements for construction are incorporated into CDOT Standard Specifications and within contract language. The MS4 Citations are CDOT Standard Specifications for Road and Bridge Construction Subsection 107.25 (Water Quality Control), and Sections 208.10(b)&(c) (Erosion Control; Project Special Provisions modifying 107.25, 208; associated updates to the MS4 PWQ Program Manual, and Inspection Forms 1176, 1177, and 1388.</p> <p>Suggested UPDATE: specifications to require discussion of PWQ at the Environmental Preconstruction Conference and the need to build per plan or re-design (vs field fit) to ensure compliance with the re-design.</p>
Manual of Maintenance	<p>See section on cost tracking</p>
	<p>See section on PWQ Maintenance procedures</p>

2.14. Recordkeeping

The MS4 Permit identifies specific records that must be kept for the PWQ Program area to demonstrate compliance with effluent limitations and record-keeping requirements. This Section focuses on recordkeeping requirements at the project level and, thus, by the CDOT Regions.

This section of the PDD describes the specific records that must be retained for the PWQ program area, the process for transitioning to a new version and archiving the previous version of a document or record, and the CDOT staff position responsible for determining which documents no longer need to be retained after being archived for 3 years. This includes citations for the required records, including location and responsible individual.

See the Water Quality Record Retention and Schedule for the record retention policies of PWQ Program.



CDOT MS4 PWQ Program

CDOT Water Quality Records Retention Schedule -

<https://www.codot.gov/business/designsupport/materials-and-geotechnical/manuals/2021-fmm/misc-docs/electronic-documentation>

2.15. Annual Reporting

The CDOT MS4 Permit contains annual reporting requirements that are specific to several of the MS4 program areas, including the MS4 PWQ Program. CDOT prepares an annual system-wide report that is submitted to CDPHE by April 1 of each year, covering January 1 through December 31 of the previous year. The MS4 Permit, Part I.I.1.ii lists MS4 PWQ Program information that must be tracked and included in the MS4 Annual Report.

PWQ Records and the information needed by the WQ Section for the Annual Report is obtained from the Regions through the RWPCMs, Region Water Quality Specialists, SAP, and associated SAP CAR Reports.

The MS4 Annual Report including information on the PWQ program, is collected from the Regions and PWQ information reported by the PWQPM and reviewed by the WQ Section Manager.

2.16. Covered Construction Activities that Overlap Permit Areas of more than One MS4 Permittee

CDOT evaluates activities that overlap permit areas of more than one MS4 permittee on a project-by-project basis. This approach is necessary because CDOT projects may cross any of the CDPS-permitted Phase I and II MS4 areas, and all programs are implemented differently. Typically, the most stringent MS4 Permit has precedence in areas of overlapping permit areas.

2.17. PDD Index

The PDD Index is the complete list of documents, materials, standard operating procedures, design standards, guidance documents, software and other sources used to manage and implement the PWQ Program. The PDD Index includes updates to manuals maintained by other CDOT Sections, including the Construction Manual, the Manual of Maintenance, and the Survey Manual. The PDD Index reviewed at least annually and is stored on the Water Quality Section server.