



COLORADO
Department of
Transportation

**CDOT New Development & Redevelopment Interim Program
Guidance
As of 3/10/2015**

CDOT New Development Redevelopment Program Interim Guidance

Table of Contents

1	INTRODUCTION, BACKGROUND AND OVERVIEW.....	1
1.1	INTRODUCTION.....	1
1.2	UPDATES TO THIS GUIDANCE AND ADDITIONAL RESOURCES	1
1.3	REGULATIONS	2
1.4	FINAL NDRD PROGRAM UNDER DEVELOPMENT.....	2
1.5	PWQ MITIGATION POOL.....	2
2	2014 INTERIM NDRD ORGANIZATIONAL STRUCTURE.....	3
2.1	PWQ PROJECT CATEGORIES	3
2.1.1	Priority Project.....	3
2.1.2	Priority Plus Project.....	3
2.1.3	Non-Priority Project.....	3
2.1.4	Watershed Project.....	4
2.2	FUNDING CATEGORY	4
2.2.1	Priority Funding Approval Process.....	4
2.2.2	Mitigation Pool Committee Selection Process.....	4
2.2.3	No Mitigation Pool Funding.....	4
3	NDRD PWQ STEPS.....	5
3.1	STEP 1: DETERMINE IF THE NDRD PROGRAM IS APPLICABLE TO THE PROJECT	5
3.1.1	Step 1A: Determine if the project disturbs more than one acre or if it is part of a larger common plan of development.....	5
3.1.2	Step 1B: Determine if the project is within the CDOT MS4 area boundary	5
3.2	STEP 2: DETERMINE IF PWQ CONTROL MEASURES ARE REQUIRED	6
3.2.1	Step 3A: Determine if the project, or portions of the project, trigger the Cherry Creek Reservoir Drainage Basin (CCRDB) Priority Project requirements.....	6
3.2.2	Step 3B: Determine if the project increases the impervious area by 20% or more.....	6
3.2.3	Step 3C: Determine if the project triggers the EA/EIS Priority Project requirements.....	6
3.2.4	Step 3D: Determine if the project triggers the 303(d) Priority Project requirements	6
3.3	STEP 4: DETERMINE WHETHER TO APPLY FOR FUNDING TO TREAT ADDITIONAL CDOT MS4 AREA	7
4	PWQ MITIGATION POOL ALLOCATION.....	8
4.1	ELIGIBILITY.....	8
4.2	FUNDING RELATED PROCESSES	10
4.2.1	Priority Project Funding Approval Process.....	10
4.2.2	Mitigation Pool Committee Selection Process.....	11
4.2.3	Non-Mitigation Pool Process.....	12
5	DESIGN STANDARDS AND OTHER CRITERIA	12
5.1	DESIGN STANDARDS FOR THE CHERRY CREEK BASIN PRIORITY TRIGGER	12
5.2	DESIGN STANDARDS FOR EA/EIS AND 303(D) TRIGGERS	12
5.3	DESIGN STANDARDS FOR PROJECTS USING THE MITIGATION POOL COMMITTEE SELECTION PROCESS.....	14
	APPENDIX A: GLOSSARY	15
	APPENDIX B: KEY RESOURCES	19
	APPENDIX C: FLOW CHART FOR DETERMINING PWQ PROJECT CATEGORIES.....	20

APPENDIX D: FLOW CHART FOR DETERMINING FUNDING RELATED PROCESSES21
APPENDIX E: EXAMPLE COST ESTIMATE SPREADSHEET22

1 Introduction, Background and Overview

1.1 Introduction

This interim guidance document is the basis for immediate program implementation of the New Development Redevelopment Program (NDRD) 2014 Interim Program.

The core concept of the program is that CDOT will contribute \$6.5 million annually to a Permanent Water Quality (PWQ) Mitigation Pool. CDOT's contribution to the Mitigation Pool, and use of these funds to construct PWQ Control Measures that treat CDOT MS4 area, equals compliance. Over time, CDOT needs to treat all of its MS4 area.

Most transportation projects will not be required to treat stormwater runoff from the project's limits by constructing PWQ Control Measures because of new program requirements. Instead, funds for design, right-of-way (ROW) acquisition and construction of Control Measures that treat CDOT MS4 area will be distributed through a competitive application process. The goal is to focus funding on Control Measures that treat a larger area and to develop partnerships with local agencies, watershed groups and others entities to promote innovative stormwater solutions, including cost-effective maintenance.

There are, however, a subset of transportation projects that must treat runoff from the project's limits because they have a greater chance of impacting water quality (Priority Projects). Also, not all projects are eligible for funding from the PWQ Mitigation Pool (see [Section 4- PWQ Mitigation Pool Allocation](#)).

All projects following the Interim Program must use the criteria outlined throughout this document. **It may be helpful to orient yourself to the program by reviewing the visual descriptions in [Appendices C and D - Flow Charts for Determining PWQ Project Categories and Funding Related Processes](#).** References are provided to connect the visuals to the text.

1.2 Updates to this Guidance and Additional Resources

This document will be frequently updated as program details are finalized and/or refined. Updates will be posted to the [NDRD SharePoint site](#) and to the [2015 Permanent Water Quality Call for Projects website](#).

In most cases updates should provide additional detail. When updates alter previous guidance, Region Planning and Environmental Managers (RPEMs), Water Pollution Control Managers (WPCMs), Region Water Quality Specialists and Region Hydraulic Engineers will be notified. Once all details are finalized an Interim 2014 Permanent Water Quality (PWQ) and Mitigation Pool Manual will be released.

Additional details coming soon include as-built design specifications, and detailed information on the Mitigation Pool Committee (MPC) selection process for CDOT advertised projects.

Amber Williams, the NDRD Program Manager, may be consulted for assistance with this program at dot_pwg@state.co.us and 303-757-9814. The following appendices provide general information: [Appendix A- Glossary](#) and [Appendix B - Key Resources](#).

1.3 Regulations

CDOT's Municipal Separate Storm Sewer System (MS4) permit requires CDOT to implement seven Programs to prevent pollutants from entering state waters. One of these, the New Development and Redevelopment (NDRD) Program, requires CDOT to design and construct PWQ Control Measures (CMs)/ Best Management Practices (BMPs) on certain highway projects considered new development or redevelopment according to regulation. The MS4 permit is administered by the Colorado Department of Public Health and Environment (CDPHE). CDPHE has been delegated the authority to implement the permit system through EPA. The requirements and authority ultimately come from the Clean Water Act.

1.4 Final NDRD Program Under Development

On April 21, 2014, CDPHE agreed to an Interim NDRD Program Modification, and the details were outlined in CDPHE's NDRD Program Modification Memo dated May 22, 2014 and Jan. 8, 2015. CDPHE has yet to incorporate public comments on the MS4 permit proposed in December 2013 into a final permit. This Interim Program is designed to bridge the gap between the old 2004 NDRD program and the new proposed MS4 permit. CDPHE has not announced a date for when the new MS4 permit will be effective. The effective date for this Interim Program is April 21, 2014. The CDPHE-approved Interim Program may apply to any project that has not been finally accepted as of April 21, 2014.

1.5 PWQ Mitigation Pool

Additional details on the PWQ Mitigation Pool include:

- The \$6.5 million annually comes from the Surface Treatment Pool (STP) and Region Priority Pool (RPP) based on the number of lane miles each region has in CDOT MS4 areas.
- A Mitigation Pool Committee (MPC) has been formed to oversee the distribution of PWQ Mitigation Pool funds. The MPC is responsible for assuring compliance with the requirements of the Interim Program. Funds for design, ROW acquisition and construction of PWQ Control Measures will be distributed in the following order, provided projects meet screening criteria:
 - Funds will be distributed first to CDOT advertised Priority Projects budgeted at \$100 million or less that are required to construct PWQ Control Measures to treat runoff from the project limits, due to regulations.
 - Remaining resources in the Mitigation Pool will be used to fund projects through a competitive application process. CDOT, tribes, local agencies, watershed groups or other entities can apply for funds as long as CDOT MS4 area is treated. Eligible projects include the "Plus" portion of CDOT and local agency advertised Priority Plus Projects, Non-Priority Plus Projects and Watershed Projects (see descriptions in [Section 2](#) or [Appendix A: Glossary](#)).

2 2014 Interim NDRD Organizational Structure

This section describes the Interim Program’s terminology. It provides an overview of project categories, with brief treatment descriptions, and associated funding processes. [Appendices C and D - Flow Charts for Determining PWQ Project Categories and Funding Related Processes](#) provide a visual description.

2.1 PWQ Project Categories

The PWQ Project Category determines treatment requirements (including whether Control Measures are required to treat runoff from the project’s limits) and which funding process the project must follow. Transportation projects must be evaluated to determine which of the three transportation categories they fall under. The requirements for each differ significantly in how, when and where they are treated. There is also a fourth category for non-transportation projects.

2.1.1 *Priority Project*

Priority Projects are transportation projects that are within, or partly within, CDOT’s MS4 area and that disturb one or more acres of land. These projects must design and construct PWQ Control Measures to treat stormwater runoff from within the project’s limits (as defined in the title plan sheets). Treatment is required because these projects have the greatest potential to cause or contribute to water quality impairment. Only CDOT priority projects \$100 million or less can use the mitigation pool funds.

Priority Projects are further classified by what triggers treatment, which includes the following. Each trigger has different treatment requirements, and requirements have to be met for all applicable triggers (see [Section 3.3 - NDRD PWQ Steps](#) and [Section 5 - Design Standards](#)).

- In the Cherry Creek Reservoir Drainage Basin; **and/or**
- Part of an EA or EIS **AND** have an increase in impervious area of 20% or greater; **and/or**
- On the 303(d) list of impaired waters (for seven specific pollutants of concerns) **AND** have an increase in impervious area of 20% or greater.

Control Measures can be located within project limits or adjacent to project limits, as long as treatment occurs prior to entering Waters of the State. The PWQ treatment must be built prior to closing out/accepting the transportation project.

2.1.2 *Priority Plus Project*

Priority Plus Projects are CDOT and local agency advertised transportation Priority Projects that have the potential for *additional treatment, including in CDOT MS4 area, beyond Priority Project requirements*. Project teams may apply for funding for the “Plus” portion that treats more than the requirements triggered by a Priority Project. Strategically designing Control Measures to treat a large area may eliminate the need to construct Control Measures for future projects. This approach uses resources more effectively, helps CDOT with compliance by treating more CDOT MS4 area, and uses funding that defines CDOT compliance under this NDRD program.

2.1.3 *Non-Priority Project*

Non-Priority Projects are CDOT or local agency advertised transportation projects within CDOT MS4 area that disturb one or more acres of land, but do not have to design and construct PWQ Control Measures. Documentation is still required because the PWQ

Mitigation Pool covers these projects if they choose to treat PWQ (see [Section 3.3 - NDRD PWQ Steps](#)). There are two sub-categories for Non-Priority Projects:

- **Non-Priority Plus Project (with PWQ):** A Non-Priority Project in which the project team applies for funding to treat stormwater runoff and support watershed-level improvements. The treatment area must include a portion of CDOT MS4 area.
- **Non-Priority No PWQ Project:** A Non-Priority Project in which the project team decides not to apply for funding to treat runoff and support watershed-level improvements. The project team only needs to submit the *NDRD Evaluation and Tracking Form* in order to be in compliance.

2.1.4 Watershed Project

Watershed Projects are not associated with a specific transportation project. They may involve CDOT, a tribe, a local agency, a watershed group or another entity requesting funding to support watershed-level water quality improvement efforts that treat a portion of CDOT MS4 area.

2.2 Funding Category

The following categories are described in more detail in [Section 4.2 - Funding Related Processes](#)

2.2.1 Priority Funding Approval Process

Projects eligible for this process do not require project teams to seek approval through the Mitigation Pool Committee, but must meet specific requirements. Only CDOT advertised Priority Projects with a total transportation budget of \$100 million or less are eligible for this process.

2.2.2 Mitigation Pool Committee Selection Process

Project teams request funding for the “Plus” portion of CDOT and local agency advertised Priority Plus Projects, Non-Priority Plus Projects and Watershed Projects by submitting an application through the Mitigation Pool Committee Selection Process.

2.2.3 No Mitigation Pool Funding

In some instances, it may be necessary to design and construct PWQ Control Measures without receiving Mitigation Pool funding. The project may not be eligible or there may be more project requests than available funding.

- Project funds must be used for transportation projects that exceed \$100 million and local agency advertised Priority Projects.
- Some projects teams may choose not to use the Mitigation Pool. For projects with PWQ budgets under \$25,000, the effort to process budget requests by the Office of Financial Management and Budget (OFMB) staff may outweigh the benefit of using the Mitigation Pool. Since compliance with the Interim NDRD Program is based on spending the Mitigation Pool, not using the Pool is discouraged in most cases.

3 NDRD PWQ Steps

This section provides an overview of the following steps:

1. Determine if the NDRD Program is applicable to the project
2. Determine if PWQ Control Measures are required (i.e., whether it is a Priority Project)
3. Determine whether to apply for funding to treat additional CDOT MS4 Area

3.1 STEP 1: Determine if the NDRD Program is Applicable to the Project

The NDRD Program is applicable to projects that meet the following criteria. If your project does not meet **BOTH** of the criteria, the NDRD Program does not apply and PWQ Control Measures are not required.

1. Disturbs one or more acres or is part of a larger common plan of development; **AND**
2. In (or partially in) a CDOT MS4 area.

If your project meets both criteria, it must follow PWQ requirements for the portion of the project within the CDOT MS4 area. Work with your Region WPCM or Water Quality Specialist(s) as early as possible to determine applicability.

3.1.1 Step 1A: Determine if the project disturbs more than one acre or if it is part of a larger common plan of development

The requirement for whether a project must be evaluated for water quality is the same as for obtaining a Colorado Discharge Permit System (CDPS) Stormwater Construction Permit (SCP). Your project requires a SCP if: 1) it disturbs one or more acres or 2) is less than an acre, but part of a larger common plan of development.

If your project does not disturb one or more acres and is not part of a larger common plan of development, you do not have to do anything. No requirements apply.

3.1.2 Step 1B: Determine if the project is within the CDOT MS4 area boundary

CDOT's MS4 permit only applies to CDOT MS4 area. In general, you can determine MS4 area using the [OTIS Map](#). Under the environmental tab you may turn on the MS4 area layer. This layer shows all local agency MS4 areas. CDOT's MS4 area is determined by where CDOT's right of way or property intersects another MS4 area.

Please note that local agency MS4 Permit requirements may still apply. If your project includes area in another jurisdiction's right of way, coordinate with your Region WPCM or Water Quality Specialist(s), and with the jurisdiction as needed, to determine if the jurisdiction's MS4 requirements apply and, if so, how to comply with them.

If your project disturbs one or more acres or is part of a larger common plan of development, submit the *NDRD Evaluation and Tracking Form* located on the [NDRD SharePoint site](#) to the NDRD Program Manager at dot_pwq@state.co.us within 30 days after ad date and save a copy with required signatures in the project file. Headquarters Environmental Staff will send the form to CDPHE within 60 days after the ad date. When submitting the *NDRD Evaluation and Tracking Form* (after proceeding through remaining, applicable steps), use the subject "2014 Interim NDRD Form Submittal." At the time of form submittal you do not know the SCP number, then submit a draft form and add it to the project file when known.

If your project is not within CDOT MS4 area, no other NDRD requirements apply. You still may need to obtain a CDPS-SCP permit, or require the contractor to do so, depending on the type of project (e.g., Design-Build, Design-Bid-Build, or Construction Manager/ General Contractor CMGC).

3.2 STEP 2: Determine If PWQ Control Measures are Required

If the project is applicable, from step 1, then this next step will determine whether your project is a Priority Project that requires design and construction of PWQ Control Measures to treat runoff from within the project's limits. Additional resources include a visual description in [Appendices C and D - Flow Charts for Determining PWQ Project Categories and Funding Related Processes](#) and the *NDRD Evaluation and Tracking Form*, available on the [NDRD SharePoint site](#).

The Interim Program defines PWQ Priority Projects as those which meet one or more of the following criteria/triggers:

- In the Cherry Creek Reservoir Drainage Basin; **and/or**
- Part of an EA or EIS **AND** have in increase in impervious area of 20% or more; **and/or**
- On the 303d list of impaired waters (for 7 specific pollutants of concerns) **AND** have an increase in impervious area of 20% or more.

It is necessary to evaluate your project for all three triggers, as ALL applicable trigger-specific Design Standards will apply.

3.2.1 Step 2A: Determine if the project, or portions of the project, trigger the Cherry Creek Reservoir Drainage Basin (CCRDB) Priority Project requirements

Any portion of a project discharging to the Cherry Creek Reservoir Drainage Basin triggers the Cherry Creek Priority requirements. Consult with the Cherry Creek Reservoir Drainage Basin to confirm the project is in the drainage area. If so, follow the requirements of the [Cherry Creek Reservoir Control Regulation 72](#), Part 72.7.2(d)(6), (7), and (8) unless excluded in accordance with the Cherry Creek Reservoir Control Regulation (5 CCR 1002-72), part 72.7.2(c)(4).

3.2.2 Step 2B: Determine if the project increases the impervious area by 20% or more

This step, in combination with the below steps, is needed to determine whether your project is a priority. Even if the project is not a priority, you must document the impervious area as described on the *NDRD Evaluation and Tracking Form*.

3.2.3 Step 2C: Determine if the project triggers the EA/EIS Priority Project requirements

If the project increases the impervious area by 20% or more (Step 3B) and is an EA/EIS then it triggers the EA/EIS Priority Project requirements.

3.2.4 Step 2D: Determine if the project triggers the 303(d) Priority Project requirements

Step 2.D.1: Determine if the project, or portions of the project, discharge to a 303(d) listed segment

In this step, you must determine if any of the stream segments or other water bodies the project drains to are listed on Colorado's 303(d) list. See [Regulation 93](#) (93.3) to determine if the stream segments the project drains to are impaired. [EPA's Watershed Assessment, Tracking & Environmental Results](#) may be helpful for identifying segments, though this tool is not necessarily the latest information for the 303(d) list. If you have the appropriate software, you can also use [CDPHE's GIS maps](#) to see the segment and impairment.

You must record all impaired segments and the associated impairments on the *NDRD Evaluation and Tracking Form*. If there are no impairments, the project does not trigger 303(d) Priority Project requirements. However, for documentation purposes, you must still complete this section of the form.

Step 2.D.2 Determine if any impairments are for a pollutant of concern

If your project increases the impervious area by 20% or more (Step 3B) and is impaired for any of the below seven pollutants then it triggers the 303(d) Priority Project requirements:

- Arsenic (As)
- Chloride (Cl)
- Chromium (Cr)
- Copper (Cu)
- Manganese (Mn)
- Zinc (Zn)
- Sediment

You must follow the applicable Design Standards for any portions of the project draining to a segment listed for one of the seven above pollutants. If the project is not listed for one of these, then it does not trigger the 303(d) Priority Project requirements.

If your project is not a Priority Project you are not required to construct any PWQ Control Measures. Document that the project is Non-Priority on the *NDRD Evaluation and Tracking Form*, submit to the NDRD Program Manager at dot_pwq@state.co.us within 30 days after the ad date, and save a copy with required signatures in the project file. Proceed to Step 3 to determine whether to apply for Non-Priority Plus funding to improve water quality at a watershed scale.

If your project is a CDOT advertised Priority Project budgeted at \$100 million or less, it is eligible to receive funding for PWQ Control Measures to treat runoff from within the project's limits. Proceed to [Section 4 - PWQ Mitigation Pool Allocation](#). Also, refer to [Section 5 - Design Standards](#) for specific requirements.

If your project is a CDOT advertised Priority Project with a budget that exceeds \$100 million or a local agency advertised Priority Project, you must use project funds or other funding sources for required PWQ Control Measures to treat runoff from within the project limits. Documentation is required in order to track all CDOT PWQ expenditures. Submit a PWQ Control Measure cost estimate and *NDRD Evaluation and Tracking Form* to the NDRD Program Manager (dot_pwq@state.co.us) within 30 days after the ad date, and save a copy with required signatures in the project file. Also, refer to [Section 5 - Design Standards](#) for specific requirements. Note that local agency projects must comply with all the same program requirements as CDOT advertised projects.

If your project is a Priority Project, proceed to Step 3 to determine whether to apply for Priority Plus funding for *additional treatment in CDOT MS4 area, beyond what is required*.

3.3 STEP 3: Determine Whether to Apply for Funding to Treat Additional CDOT MS4 Area

Additional funding may be available for the following types of transportation projects through the Mitigation Pool Committee selection process:

- The “Plus” portion of CDOT and local agency advertised transportation Priority Projects that have the potential for *additional treatment in CDOT MS4 area, beyond what is required* by the Priority Project Design Standards and Requirements. Note that additional funding is available only for the “Plus” portion of the project.
- Non-Priority Plus Projects that have an opportunity to improve water quality at a watershed scale.
- Watershed Projects that are not associated with a specific transportation project, and have an opportunity to support watershed-level water quality improvement efforts that treat a portion of CDOT MS4 area.

Considerations for determining whether your project is a candidate for funding include:

- **Future projects in the same basin(s) as your project:** Will there be future CDOT projects (particularly future Priority Projects) that you can treat with this project? Treating multiple projects at one time can be a significant cost savings to CDOT. In order for this to be accepted by CDPHE, the PWQ Control Measures need to treat runoff from both the project and future projects prior to that runoff entering Waters of the State.
- **Partnering opportunities that make treatment more cost effective:** Are there private land developers, adjacent land owners, metropolitan districts, and other federal, state, and local governments who have an interest in improving water quality in nearby areas? It may be worthwhile to combine resources for an expanded project that will have a significant impact on improving water quality. There may also be opportunities for these partners to conduct maintenance activities for PWQ Control Measures through an Intergovernmental Agreement (IGA). These types of projects would be good candidates for applying to the Mitigation Pool Committee for funding.
- **Cost savings by treating now instead of later:** Will there be a cost savings if CDOT treats this area now? How difficult may it be to treat this area in the future versus treating it now? While PWQ treatment is not currently required; CDOT must eventually treat its entire MS4 area.

If you think your project is a good candidate for a Priority Plus Project, Non-Priority Plus Project or Watershed Project, you will have to submit an application to the PWQ Mitigation Pool Committee. Proceed per [Section 4.2.2 - Mitigation Pool Committee Selection Process](#).

4 PWQ Mitigation Pool Allocation

4.1 Eligibility

CDOT transportation projects, portions of local agency advertised transportation projects and non-transportation watershed projects that provide PWQ are eligible for Mitigation Pool funding consideration as long as CDOT MS4 area is treated (see exceptions below). They are not guaranteed funding because the PWQ Mitigation Pool is limited to \$6.5 million annually. The likelihood of receiving funds is based on the type of project and associated funding process, as outlined below in [Section 4.2 Funding Related Processes](#).

Specific considerations apply for the following types of projects:

- **CDOT Advertised Priority Projects exceeding a \$100 Million Transportation Budget:** CDOT advertised Priority Projects are the first type of projects to be funded. However, the Mitigation Pool cannot be used for Priority Projects with a total transportation budget of more than \$100 million. These projects may be eligible to receive funding for *additional treatment in CDOT MS4 area, beyond what is required*, the Priority “Plus” component, through the Mitigation Pool Committee selection process.
- **CDOT Advertised Priority Projects with less than a \$25,000 PWQ Budget:** Generally, the Mitigation Pool funds will not be used for projects with PWQ costs less than \$25,000, as the effort to process budget requests by OFMB staff may outweigh the benefit of using the Mitigation Pool. If the Resident Engineer (RE) feels there is an unusual benefit in using the Mitigation Pool funding on a particular project, the RE will coordinate with the Region Environmental /Water Quality Staff, NDRD Manager and OFMB for a final decision.
- **Local Agency Advertised Priority Projects:** Local agency advertised Priority Projects are not eligible for the Priority Funding Approval Process. Projects are eligible to receive funding for *additional treatment in CDOT MS4 area, beyond what is required*, the Priority “Plus” component, through the Mitigation Pool Committee selection process.
- **Priority Project that estimated project costs without Mitigation Pool consideration:** Under the following circumstances, a project must return the amount equivalent to that received from the PWQ Pool back to the original funding source:
 - the PWQ costs included in the original project estimate did not identify the PWQ Mitigation Pool as the funding source, and;
 - the project is now using PWQ Pool funds.

For example, most RAMP estimates were created without knowledge of the Pool. So if a RAMP project uses \$100,000 PWQ Mitigation Pool funds it would have to return \$100,000 back to the RAMP pool. An alternate example is a non-RAMP project funded by the Regional Priority Program (RPP) that created a cost estimate without knowledge of the fund. The project becomes aware of the Mitigation Pool and requests \$75,000 for PWQ from the Mitigation Pool. This project would then need to return \$75,000 to the RPP.

- **Responsible Acceleration of Maintenance and Partnerships (RAMP) Projects:** RAMP projects that are also Priority Projects can use the Mitigation Pool funds to pay for the CDOT portion of the Control Measures to treat PWQ, if their total budgets are less than \$100 million. For example, if the RAMP Project - CDOT portion is funded at 80%, then only 80% of the Control Measures’ cost is eligible for the Mitigation Pool reimbursement. These funds will offset their RAMP funding, not augment it.
- Regardless of funding source, all Priority Projects must build PWQ Control Measures to treat runoff from the project limits.

Please consult your Region WPCM or Water Quality Specialist(s) first for eligibility questions. If there are still questions you may contact the NDRD Program Manager.

4.2 Funding Related Processes

There are three different funding processes:

- **Priority Project Funding Approval Process:** Funds will be distributed first to CDOT advertised Priority Projects budgeted at \$100 million or less and require PWQ Control Measures to treat runoff from within the project limits, due to regulations.
- **Mitigation Pool Committee Selection Process:** Remaining resources in the Mitigation Pool will be used to fund projects through a competitive application process.
- **Non-Mitigation Pool Process:** Other funding sources are used to fund PWQ Control Measures.

Reminders:

You must submit a cost estimate to dot_pwg@state.co.us before your project receives FHWA approval to be eligible for Mitigation Pool funding.

If your project is not using Mitigation Pool funding for PWQ Control Measures, you must still submit a PWQ Control Measure cost estimate and *NDRD Evaluation and Tracking Form* to the NDRD Program Manager (dot_pwg@state.co.us) within 30 days after the ad date, and save a copy with required signatures in the project file.

4.2.1 Priority Project Funding Approval Process

CDOT advertised Priority Projects must provide PWQ Control Measures to treat runoff from within the project site limits at the time of construction, and therefore have first access to the PWQ Mitigation Pool. If your project is a CDOT advertised Priority Project, you do not have to submit a funding request to the Mitigation Pool Committee. Instead, you must coordinate with:

- The **NDRD Program Manager**, who will verify that the project is a Priority Project and that funds are being provided only for the portions of the PWQ Control Measure that meet specific treatment requirements. Additionally, the NDRD Program Manager will review the *NDRD Evaluation and Tracking Form* to verify compliance with the program and regulatory requirements.
- The **Office of Financial Management and Budget (OFMB)**, which will coordinate financial tracking and allocate funds as needed.

It is possible, although unlikely, that the projected cost of all the CDOT advertised Priority Project budgets will exceed the \$6.5 million in the Mitigation Pool for a fiscal year. In this case, the NDRD Program Manager will recommend to the Mitigation Pool Committee a list of Priority Projects that will receive funding, based upon the project cost estimates. The Committee will review and make the final decision on which projects, or portions of projects, receive funding.

Procedures for CDOT Advertised Priority Projects

Since funds cannot be guaranteed, even for Priority Projects, it is critical that you provide cost estimates to the NDRD Program Manager (dot_pwg@state.co.us) as early as possible and at key updates to allow for budgeting. In other words, it is essential that you provide cost estimates at Scoping, Field Inspection Review (FIR) and Final Office Review (FOR). In order

to receive Mitigation Pool funding, a final PWQ project cost estimate is required before the project receives FHWA approval.

Steps for obtaining funding include:

1. **In Scoping, determine if the project is a Priority Project** (see [Section 3.3](#)) and submit a preliminary, unsigned *NDRD Evaluation and Tracking Form* to the NDRD Program Manager and the Region Water Quality Specialist(s)/WPCM. It is critical that you coordinate with the Region WPCM or Water Quality Specialist(s) at this stage.
2. **Develop a Scoping level cost estimate** for the project and submit it to the NDRD Program Manager. [Appendix E: Example Cost Estimate Spreadsheet](#) provides an overview of what should be included. In addition:
 - The cost estimate should only be for the portions of the project requiring treatment under the priority requirements. Note: All PWQ Control Measures must be designed to treat all flows captured by the facility. Therefore, in instances where flows that do not require treatment cannot be routed around the facility, they can be included in the cost estimate. This needs to be demonstrated in the design documents.
 - If you are applying for funding for *additional treatment in CDOT MS4 area beyond what is required*, the Priority “Plus” component, you will need to split the costs for the Priority and the Plus portions in separate rows in your cost estimate.
 - Submit a table or map to describe what requires treatment under the Priority Project requirements. Distinguish between the required treatment area and the Priority “Plus” portion.
3. **Submit refined cost estimates to the NDRD Program Manager at FIR and FOR**, and note any changes that significantly impact the water quality costs. These refined estimates must include expectations of when funding will be needed, per fiscal year. Funding over multiple fiscal years is encouraged for larger projects.
4. **Submit a final PWQ project cost estimate before the project receives FHWA approval.**
5. **Submit the *NDRD Evaluation and Tracking Form*** to the NDRD Program Manager prior to fund transfer for final review and approval, and save a copy with required signatures in the project file. The form must be current.
6. **Request funding through the Region Business Office.**

4.2.2 Mitigation Pool Committee Selection Process

CDOT, local agencies, watershed groups or other entities may apply for funds as long as CDOT’s MS4 area is treated. Eligible projects include the “Plus” portion of CDOT or local agency advertised Priority Plus Projects, Non-Priority Plus Projects and Watershed Projects.

The Mitigation Pool Committee will be responsible for reviewing and selecting projects and allocating funds. The MPC will send a Call for Stormwater Project Applications and select which of the projects receive funding. Projects must meet the screening requirements to receive funds. Several factors will contribute to which projects receive funds, including, but not limited to cost effectiveness, project readiness, ease of maintenance and water quality benefit.

Detailed application guidance has been developed for local agency applicants and CDOT applicants.

4.2.3 Non-Mitigation Pool Process

As described in the [Section 4.1 Eligibility](#), there are some projects in which other funding resources must be used for PWQ Control Measures. In these cases, you must still submit a PWQ Control Measure cost estimate and *NDRD Evaluation and Tracking Form* to the NDRD Program Manager (dot_pwq@state.co.us) within 30 days after the ad date, and save a copy with required signatures in the project file.

5 Design Standards and Other Criteria

All PWQ Control Measures need to treat runoff prior to that runoff entering Waters of the State, and must follow the Design Standards outlined below. These are described in CDPHE's NDRD Program Modification Memo from May 22, 2014 and CDPHE's Program Modification Memo from January 8, 2015.

Your project could meet the criteria for multiple PWQ Control Measure triggers (see [Section 3.2](#)), and must comply with the Design Standards' requirements for ALL triggers.

5.1 Design Standards for the Cherry Creek Basin Priority Trigger

Applicable Design Standards and/or Requirements:

Follow the requirements of the [Cherry Creek Reservoir Control Regulation 72](#), Part 72.7.2(d)(6), (7), and (8) unless excluded in accordance with the Cherry Creek Reservoir Control Regulation (5 CCR 1002-72), part 72.7.2(c)(4).

Area Where Requirements Apply:

Any portions of the project discharging to the Cherry Creek Reservoir Control Regulation. Project leads should consult with the Cherry Creek Reservoir Drainage Basin to confirm the project is in the drainage area.

Note: CDOT Design requirements also still apply and Cherry Creek Regulations are in addition to CDOT required design standards.

5.2 Design Standards for EA/EIS and 303(d) Triggers

Although the EA/EIS Priority Trigger and 303(d) Priority Trigger must meet the same Design Standards, the treatment requirements may apply to different areas of the project.

Applicable Design Standards and/or Requirements:

You must choose one or a combination of the following Design Standards for treating the required new impervious area.

1. **WQCV Standard:** The Control Measure(s) is designed to provide treatment and/or infiltration of the water quality capture volume (WQCV) for all tributary areas. Detention of the WQCV shall be a minimum of 12 hours, but shall be extended as needed

to meet the Control Measure requirements of the permit, to no more than 72 hours. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the Control Measure implemented. Consideration of drain time shall include maintaining vegetation necessary for operation of the Control Measure (e.g., wetland vegetation). The new Control Measure(s) must provide water quality capture volume (WQCV) for runoff from an area equivalent to 90% of the new impervious area. See the area where requirements apply for each trigger below.

2. **Pollutant Removal Standard:** The Control Measure(s) is designed to provide for removal of Total Suspended Solids (TSS) equal to the mass of 80% of the expected annual TSS loading from stormwater runoff discharges from 100% of all tributary areas. The new Control Measure(s) must provide TSS removal for runoff from an area equivalent to 90% of the new impervious area. See the area where requirements apply for each trigger below.
3. **Infiltration Standard/Volume Reduction:** The Control Measure(s) is designed to infiltrate the water quality capture volume (WQCV) for all tributary areas through practices such as green infrastructure, for a quantity of water equal to 70% of what the calculated WQCV would be if all new impervious area for the project discharged without infiltration. The steps include:
 - a. Calculate what the WQCV of the new impervious areas would be if you were not using infiltration; and
 - b. Design infiltration Control Measures to infiltrate 70% of the WQCV.

Area Where Requirements Apply:

- **EA/EIS Trigger:** Entire project boundary (within CDOT MS4 area)
- **303(d) Trigger:** Any portions of the project draining to a 303(d) listed segment (listed for any of the seven Pollutants of Concern) and is within the CDOT MS4 area.

Note that both the WQCV Standard and the Pollutant Removal Standard state the CM must meet the WQCV or TSS Removal for runoff from an area equivalent to 90% of the new impervious area. In other words, for the applicable areas above, the CM must achieve the following:

1. *Control measures must treat runoff from impervious surfaces equivalent to 90% of the new impervious area within the project limits*
2. *For any impervious portion of the project that discharges runoff to a stream segment (s) that is on the 303 (d) list for a Roadway Pollutant of Concern, control measure(s) must be implemented to treat that specific impervious portion. Control measure(s) must treat runoff from impervious surfaces equal to or greater than 90% of the new impervious surface area within project limits. The impervious area must: (a) drain to the impaired segment, (b) be within the project, and (c) be within the MS4 limits.*

Please note that the area treated from item 2 above can also apply towards the total area treated in item 1 above, but the reverse is not true. If there is more than one segment listed for a pollutant of concern then each of those must be addressed separately as described in item 2 above. These requirements derive from the CDPHE January 8th modification letter.

Please reference Urban Drainage Manual Volume 3 for equations for calculating WQCV and Volume Reduction (Urban Drainage term for infiltration) or equivalent Criteria meeting good engineering, hydrologic, and pollution control practices.

Note: CDOT anticipates updating the Drainage Manual after issuance of the new MS4 permit. Urban Drainage may serve as the main interim resource until the Drainage Manual has been updated and as an additional resource afterward.

5.3 Design Standards for Projects Using the Mitigation Pool Committee Selection Process

Control Measures for the “Plus” portion of Priority Plus, Non-Priority Plus and Watershed Projects must meet one of the following three standards. Projects using the Mitigation Pool Committee Selection Process are projects, or portions of them, that are not required to treat runoff from the project’s limits. Rather, these are opportunities to treat either additional project area or other CDOT MS4 area.

1. **WQCV Standard:** The Control Measure(s) is designed to provide treatment and/or infiltration of the water quality capture volume (WQCV) for all tributary areas. Detention of the WQCV shall be a minimum of 12 hours, but shall be extended as needed to meet the Control Measure requirements of the permit, to no more than 72 hours. Evaluation of the minimum drain time shall be based on the pollutant removal mechanism and functionality of the Control Measure implemented. Consideration of drain time shall include maintaining vegetation necessary for operation of the Control Measure (e.g., wetland vegetation).
2. **Pollutant Removal Standard:** The Control Measure(s) is designed to provide for removal of Total Suspended Solids (TSS) equal to the mass of 80% of the expected annual TSS loading from stormwater runoff discharges from 100% of all tributary areas.
3. **Infiltration Standard/Volume Reduction:** The Control Measure(s) is designed to infiltrate the water quality capture volume (WQCV) for all tributary areas through practices such as green infrastructure.

Please reference Urban Drainage Manual Volume 3 for equations for calculating WQCV and Volume Reduction (Urban Drainage term for infiltration) or equivalent Criteria meeting good engineering, hydrologic, and pollution control practices.

Note: CDOT anticipates updating the Drainage Manual after issuance of the new MS4 permit. Urban Drainage may serve as the main interim resource until the Drainage Manual has been updated and as an additional resource afterward.

Appendix A: Glossary

Note: Where possible definitions have been taken from regulation and the source has been noted.

CDOT MS4 Area: CDOT owned land (e.g., right of way) within MS4 boundaries, which are shown in the MS4 layer in OTIS.

Control Measure: Another word for Best Management Practices (BMPs) to treat permanent water quality (PWQ). This terminology was used in the December 2013 draft MS4 permit.

Discharge: The discharge of pollutants as defined in section 25-8-103(3) C.R.S., and also includes land application. (Source: [Regulation 61](#))

Equivalence: Per the CDPHE January 8, 2015 modification letter, the requirements for New Control Measure Design Standards (WQCV or Pollutant Removal) for runoff from a minimum of 90% of the new impervious area may be met using the following approach:

1. The control measure(s) must treat runoff from impervious surfaces with a surface area equal to or greater than 90% of the new impervious surface area from the project. All impervious surface areas used to meet this target must be part of the priority development project and must be located within the permit area. Control measures implemented to meet the requirement in subsection (b), below, can also be used to meet the requirements of this subsection (a), if applicable.
2. If there is a portion of the project that discharges runoff to a stream segment that is on the 303(d) list for a parameter listed in a.iii.b, then the control measures must be implemented to treat runoff from impervious surfaces that are part of the project that discharge runoff to a stream segment that is on the 303(d) list for a parameter listed in a.iii.b. The control measure(s) must treat runoff from impervious surfaces with a surface area equal to or greater than 90% of the new impervious surface area located within the portion of the project discharging runoff to that segment. All impervious surfaces used to meet this surface area target must be part of the priority development project, located within the permit area, and must discharge runoff to the listed segment.

Impervious area: Developed areas with covering or pavement that prevents the land's natural ability to absorb and infiltrate typical precipitation and irrigation events (i.e., events with a volume/rate expected under normal conditions to occur multiple times per year). Impervious areas include, but are not limited to; roof tops, walkways, patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering. (Source: 2014 CDOT Draft MS4 Permit)

Interim NDRD Program: NDRD Program Modification, as defined by CDPHE in its May 22, 2014 memo entitled "CDPS Permit—New Development and Redevelopment Program Description Modification-Conditional Approval."

Major Municipal Separate Storm Sewer Outfall (or Major Outfall): A municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). (Source: [Regulation 61](#))

Minimize: Reduce and/or eliminate to the extent achievable using Control Measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice. (Source: 2014 CDOT Draft MS4 Permit)

Mitigation Pool: Funding designated for PWQ Control Measures, which includes \$6.5 million annually that must be spent on a 3-year rolling average in order to be in compliance. CDOT's contribution to the Mitigation Pool, and use of these funds to build PWQ Control Measures, equals compliance with the NDRD Program. It comes from each region's Surface Treatment Pool (STP) and Region Priority Pool (RRP) based on the number of lane miles each region has in CDOT MS4 areas.

Mitigation Pool Committee (MPC): A Committee comprised of CDOT Staff from headquarters and regions that has been formed to oversee the distribution of Mitigation Pool funds and assure compliance with the requirements of the 2014 Interim Program.

Mitigation Pool Committee Selection Process: Selection of projects via a Call for Stormwater Project Applications and an application review process. The "Plus" portion of CDOT and local agency advertised Priority Plus Projects, Non-Priority Plus Projects and Watershed Projects may request funding.

Non-Priority No PWQ Project: A Non-Priority Project, in which the project team decides not to apply for funding to treat water quality onsite and support watershed-level improvements. The project team only has to submit the *NDRD Evaluation and Tracking Form* in order to be in compliance.

Non-Priority Project: Transportation projects within CDOT MS4 area that are not required to design and construct PWQ Control Measures onsite.

Non-Priority Plus Project: A Non-Priority Project in which the project team applies for funding to treat stormwater runoff and support watershed-level improvements. The treatment area must include a portion of CDOT MS4 area.

Pollutant: Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. (Source: [Regulation 61](#))

Pollution: Man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. (Source: [Regulation 61](#))

Priority Funding Approval Process: The process to obtain funding for CDOT advertised Priority Projects. Eligible projects must meet specific requirements, and do not have to obtain approval through the Mitigation Pool Committee.

Priority Plus Project: Priority Projects that have potential for *additional treatment, including in CDOT MS4 area, beyond Priority Project requirements*. Project teams may apply for funding for the "Plus" portion that treats more than the Priority Project trigger requirements. Strategically designing Control Measures to treat a large area may eliminate the need to construct Control Measures for future projects. It uses resources more effectively and helps CDOT with compliance by treating more CDOT MS4 area.

Priority Project: CDOT and local agency advertised transportation projects that have a SCP and are within a portion of CDOTs MS4 area must design and construct PWQ Control Measures to treat stormwater runoff from within the project's limits (as defined in the title plan sheets) because they meet at least one of three program triggers. Treatment is required because these projects have the greatest potential to cause or contribute to water quality impairment. Control Measures can be located within project limits or adjacent to project limits, as long as treatment occurs prior to entering Waters of the State. The PWQ treatment must be built prior to final acceptance of the transportation project.

Project Limits: The limits noted on the title page of a project's plan sheets.

RAMP Projects-CDOT Portion of Funding: For calculating the percentage of RAMP projects, the CDOT portion includes both CDOT (i.e., State) funds and Federal funds that are provided *through* CDOT. It does not include any State or Federal funds that are provided through other agencies (e.g. cities and counties, DRCOG, FEMA, CDPHE and CWCB).

Site: The area where any facility or activity subject to this regulation is physically located or conducted, including adjacent land used in connection with the facility or activity. (Source: [Regulation 61](#))

State Waters: See Waters of the State of Colorado below.

Surface Water: For the purposes of sections 61.13 and 61.17, all Waters of the State that are also waters of the U.S. (Source: [Regulation 61](#))

Trigger: A yes or no determination of whether onsite PWQ Control Measures are required based on a set of criteria.

Water quality impacts: The effect of a discharge upon state waters, including, but not limited to the exceedance of permit limitations and/or stream standards or ground water standards; the occurrence of fish or other aquatic organism kills; excessive growth of organisms that affects the taste and odor of a potable water supply source and/or aesthetic quality of a recreational area; and/or the occurrence of conditions resulting in detrimental public health effects. (Source: [Regulation 61](#))

Water quality standard: Any standard promulgated pursuant to section 25-8-204 C.R.S. (Source: [Regulation 61](#))

Water Quality Capture Volume (WQCV): The volume equivalent to the runoff from an 80th percentile storm, meaning that 80 percent of the most frequently occurring storms are fully captured and treated and larger events are partially treated. (Source: 2014 CDOT Draft MS4 Permit)

Watershed: The total land area and water bodies that drain into a single river or lake system, and/or is the source of groundwater recharge to that river or lake system (Safe Drinking Water Act - Protecting America's Public Health, poster, EPA816-H-02-003, January 2002). The watershed of a major river may encompass a number of smaller watersheds that ultimately combine. A watershed is sometimes referred to as a drainage basin or catchment.

Watershed Project: A non-transportation project in which CDOT, a tribe, a local agency, a watershed group or another entity requests funding to support watershed-level water quality improvement efforts that treat a portion of CDOT MS4 area.

Waters of the State of Colorado (State waters): Any and all surface and subsurface waters which are contained in or flow in or through this State, but not including waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. This definition can include water courses that are usually dry. For the purposes of this program, Waters of the State does not include subsurface waters.

Appendix B: Key Resources

NDRD SharePoint site: <http://teams/dtd/epb/waterquality/ndrd.form/Test/Home.aspx>

Key resources include:

- 2004 NDRD Program PWQ Inventory and Questionnaire Form and 2004 NDRD Program Form Submittal Center
- 2014 Interim NDRD Program NDRD Evaluation and Tracking Form and directions
- Construction Bulletin: Permanent Water Quality Mitigation Pool (September 30, 2014)

OTIS Map: <http://dtdapps.coloradodot.info/Otis/Flex/MapView>

Used to determine if a project is in the MS4 area

Cherry Creek Reservoir Control Regulation (5 CCR 1002-72): Regulation 72 -

<https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>

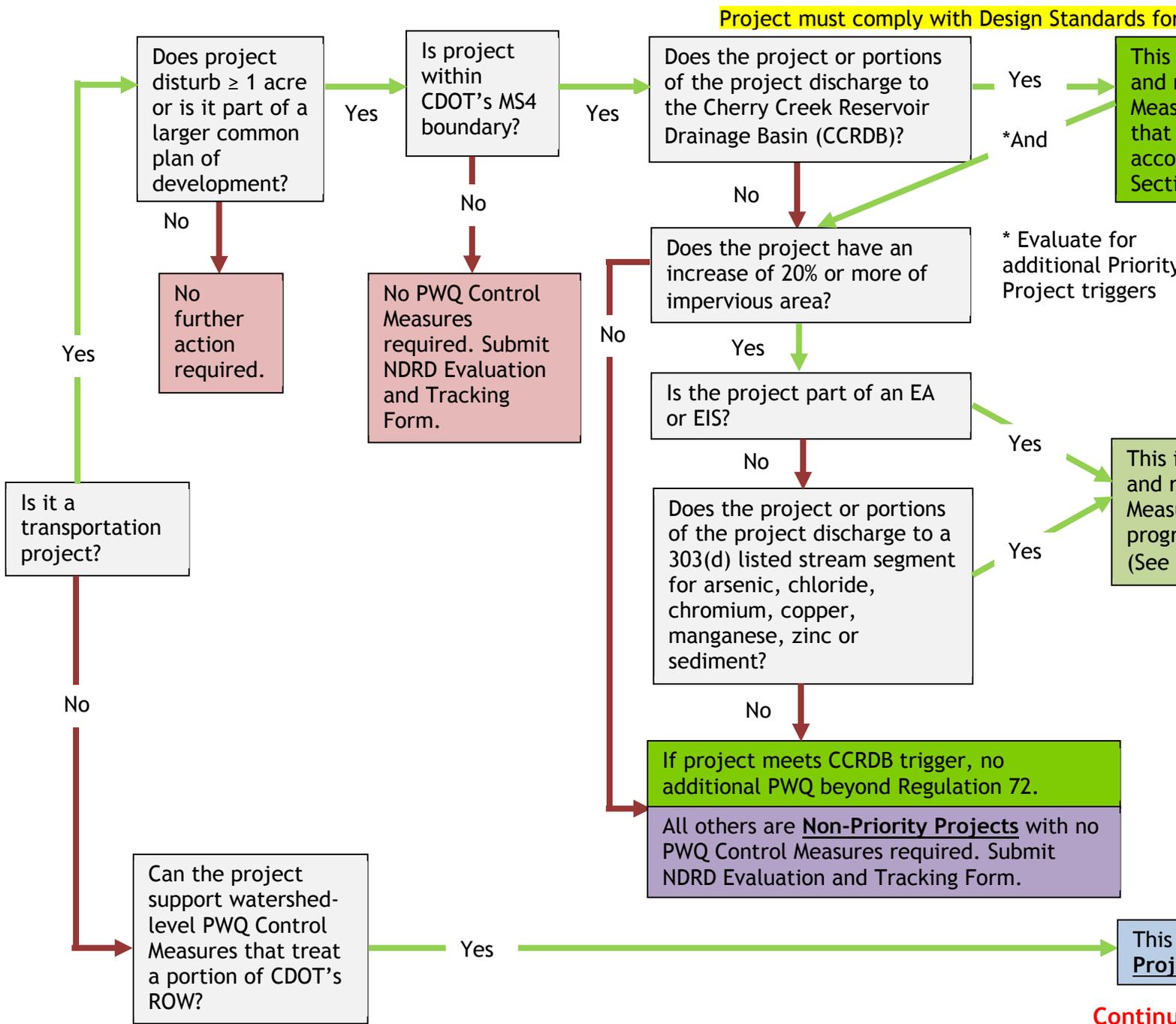
303(d) List Resources

- **Regulation 93 (93.3) Water Bodies Requiring TMDLs or Identified for Monitoring and Evaluation Tables:** <https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>
- **EPA's Watershed Assessment, Tracking & Environmental Results:** http://ofmpub.epa.gov/waters10/attains_state.control?p_state=CO
- **CDPHE's GIS maps** to see the segment: <https://www.colorado.gov/pacific/cdphe/clean-water-gis-maps>

Regulation 61: <http://www.colorado.gov/cs/Satellite?c=Page&childpagename=CDPHE-Main%2FCBONLayout&cid=1251595703337&pagename=CBONWrapper>

Amber Williams, the NDRD Program Manager, may be consulted for assistance with this program at dot_pwq@state.co.us and 303-757-9814.

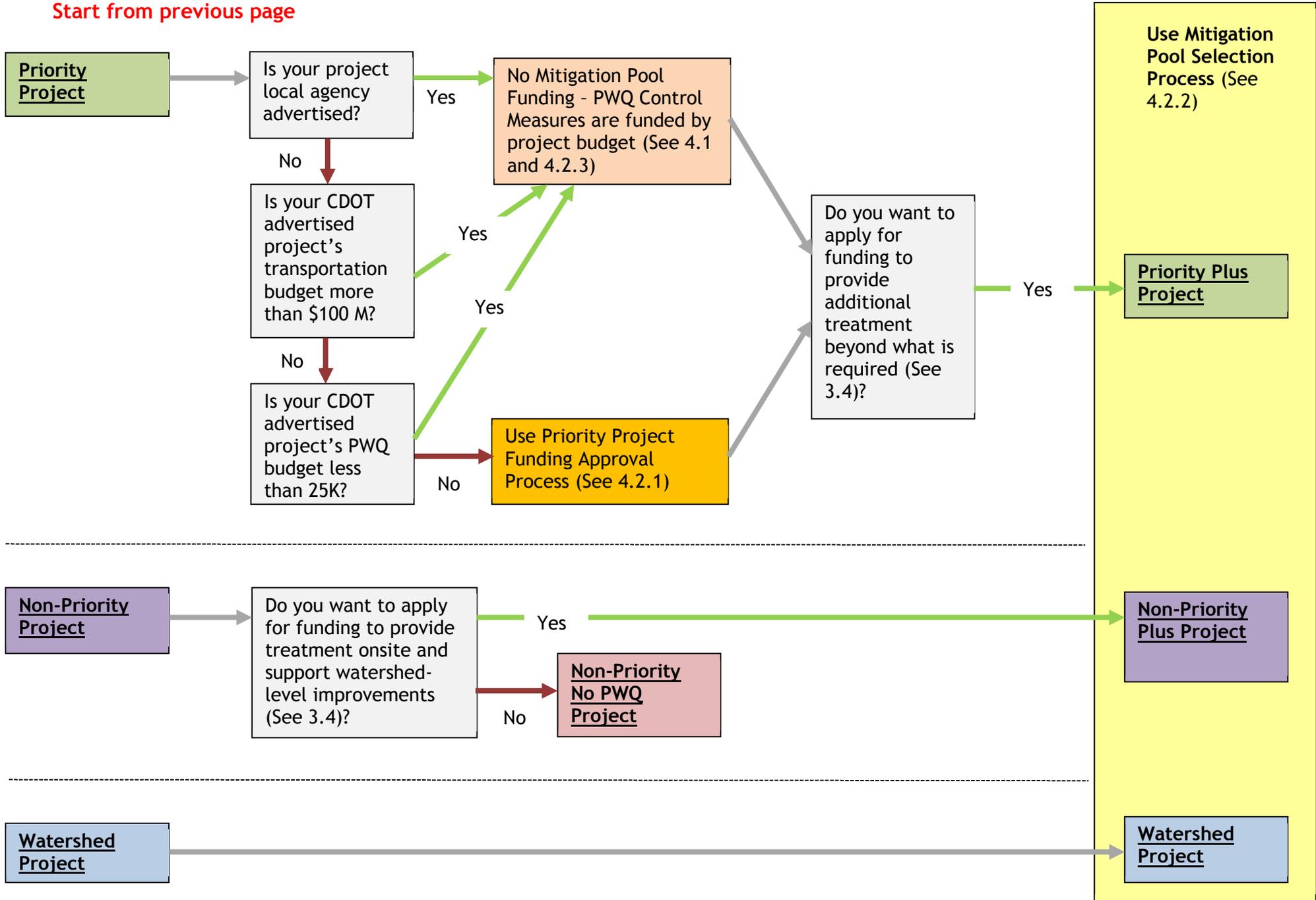
Appendix C: Flow Chart for Determining PWQ Project Categories



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Appendix D: Flow Chart for Determining Funding Related Processes

Start from previous page



Appendix E: Example Cost Estimate Spreadsheet

The example cost estimate spreadsheet is available on the [NDRD SharePoint site](#). It includes the following fields. Only elements required for PWQ should be included.

Example Cost Estimate Table for NDRD Interim Program Guidance

Region	Project Subaccount and Number	Project Name	Priority Project? CC=Cherry Cr., or EA/EIS = EA/EIS + 20%; or 303d= list segment+ 20%?	Priority-Plus Project (increased treatment beyond required)?	Total Project Cost	Dates	Milestones: Scoping, FIR, FOR, AD	Cost Categories: Estimates for all PWQ Costs					Non-CDOT Resources**		Estimated Total to be Reimbursed	Payments	Total Actual Costs	Status Notes
								ROW	Design, incl Enviro Clearances and Survey	Utilities	Construction include CE *	Misc	Funding from outside CDOT	In-kind from outside CDOT				
1	19000	I-25-related EA	EA															
	NHPP 0250-403	non-RAMP				1/20/13	Scoping	\$ 200,000	\$ 50,000	\$ 25,000	\$ 950,000		\$ 1,225,000					
		FY 14				3/15/14	FIR						\$ -					
		FY 15				6/15/14	FOR						\$ -					
						10/15/14	AD	\$ 225,000	\$ 75,000	\$ 28,000	\$ 925,000	\$ 350	\$ 1,253,350	\$ 50,000	\$ 30,000	\$ 1,173,350		In-kind is cost of 0.15 acres of permanent easement from Local Agency
													\$ -					Update final costs for reimbursement.
													\$ -					
													\$ -					
4	23000	bridge over a river	303d+20%			1/20/13	Scoping	\$ 500,000	\$ 50,000	\$ 25,000	\$ 950,000		\$ 1,525,000					
		CDOT RAMP Project; CDOT paying 75%	RAMP \$65 M			3/25/13	FIR						\$ -					
		FY14				6/2/14	FOR						\$ -					
		FY15				12/11/14	AD	\$ 300,000	\$ 75,000	\$ 30,000	\$ 925,000	\$ 350	\$ 1,330,350	\$ 332,588		\$ 997,763		Cost x 0.75 for CDOT=\$997,763 to be reimbursed.
													\$ -					Update final costs for reimbursement of 75%

* Include CDOT CE and indirect costs here. Currently, those equal 22.1% of the construction cost. Note % used in the "Status Notes."

** Describe Source of funds and type of in-kind resources that are being provided in the "Status Notes"