



**Cherry Creek Basin Water Quality Authority
Technical Advisory Committee Meeting Agenda
Thursday, September 7, 2023, 9:00 a.m.**

**In-Person: SEMSWA
7437 S. Fairplay St.
Centennial, CO 80112**

**Virtual: Zoom¹
<https://us06web.zoom.us/j/87425775963> Passcode: CCBWQA
Phone (646)931-3860 Mtg ID: 874 2577 5963# Passcode: 815374**

TAC Meeting Documents can be found online at the link below.

<https://drive.google.com/drive/folders/12BoEhmFbnnMCxivnpjY2l7T5TzP8Azlq?usp=sharing>

1. Call to Order (9:00) (5 minutes)
 - a. Introduce Cayla Cappello Representing Greenwood Village
 - b. Introduce Michelle Seubert, Cherry Creek State Park
2. Meeting Minutes from August 3, 2023 (enclosed)
3. Highlights from the August 17, 2023 Board Meeting (Clary) (9:05) (5 minutes)
4. Action Items (none)
5. Discussion Items (9:10) (35 minutes)
 - a. 2023 CIP Budget Update (Borchardt, enclosed)
 - b. 2024-2033 CIP Schedule and Update (Borchardt)
 - c. Runoff Reduction Study Update and Discussion (Chris Olson, Wright Water Engineers)
6. Presentations (9:45) (15 minutes)
 - a. SEMSWA Stormwater Retrofit Grant Program (Ashely Byerley)
7. Updates (10:00) (15 minutes)
 - a. Cherry Creek Stewardship Partners (Davenhill)
 - b. TAC Members
 - c. TAC Subcommittees
 - i. Modeling Subcommittee
 - ii. Watershed Plan Subcommittee
 - iii. Cherry Creek Reservoir to Lake View Drive Alternatives Analysis Subcommittee
 - d. Contractors
 - i. [Water Quality Update](#) (Stewart)
 - ii. Pollution Abatement Projects (Borchardt, enclosed)
 - a. CIP Status Report
 - iii. In-Park PRF and RDS Maintenance and Operations Report (Goncalves)
 - iv. Regulatory (DiToro, enclosed)
 - v. [Land Use Referral Tracking](#) (Endyk)
 - e. Manager (Clary)
8. Upcoming Events
 - a. Watershed Plan Process Workshop - September 21, 2023 - 8:30-11:30 am
9. Adjournment

¹ If you are unable to participate on the CCBWQA's Zoom platform, please email val.endyk@ccbwwqa.org



**Cherry Creek Basin Water Quality Authority
Minutes of the Technical Advisory Committee Meeting
Thursday, August 3, 2023, 9:00 a.m.**

TAC Members Present

Alex Mestdagh, Town of Parker
Ashley Byerley, SEMSWA
Caitlin Gappa, Douglas County Health Department (zoom)
Casey Davenhill, Board Appointee, Cherry Creek Stewardship Partners
David Van Dellen, Town of Castle Rock (zoom)
James Linden, SEMSWA - Alternate (zoom)
Jeremiah Unger, CDOT (zoom)
Jessica La Pierre, City of Aurora (zoom)
Jim Watt, Board Appointee, Mile High Flood District (zoom)
Jon Erickson, TAC Chair, Board Appointee, Colorado Parks and Wildlife
Larry Butterfield, Board Appointee, Cherry Creek State Park
Lily Montesano, Wright Water Engineers, Representing City of Greenwood Village
Lisa Knerr, TAC Vice Chair, Arapahoe County
Rebecca Tejada, Board Appointee, Special Districts, Parker Water and Sanitation District
Rick Goncalves, Board Appointee
Ryan Adrian, Douglas County (zoom)
Steve Chevalier, Arapahoe County Public Health (zoom)

Board Members Present

Bill Ruzzo, Assistant Secretary, Governor's Appointee (zoom)
Roger Hudson, City of Castle Pines
Tom Downing, Governor's Appointee (zoom)

Others Present

Alan Leak, RESPEC
Andrew Earles, Wright Water Engineers (zoom)
Ashley Rust, Colorado Parks and Wildlife (zoom)
Christine Hawley, Hydros Consulting (zoom)
Erin Stewart, LRE Water
Jane Clary, Wright Water Engineers, CCBWQA Technical Manager
Jessica DiToro, LRE Water
Maggie Lewis, Wright Water Engineers (zoom)
Melynda May, Colorado Parks and Wildlife (zoom)
Richard Borchardt, R2R Engineers
Val Endyk, CCBWQA

1. Call to Order

Jon Erickson called the meeting to order at 9:00 am.

2. Meeting Minutes from July 6, 2023

Rick Goncalves moved to approve the July 6, 2023 meeting minutes. Seconded by Lisa Knerr. The motion carried.

3. Highlights from the July 20, 2023 Board Meeting

Jane Clary provided an update on actions taken at the June 15, 2023 Board meeting. Minutes from the meeting can be found [here](#).

4. Action Item

a. Cherry Creek Reservoir to Lake View Drive Alternatives Analysis TAC Subcommittee Request

Rich Borchardt provided the TAC with an [Action Item Memo](#) requesting the TAC create a subcommittee to provide feedback to Muller and report to the TAC on the Alternatives Analysis on Cherry Creek from the Reservoir to Lake View Drive (aka Reach 1). Background information and recommendations on subcommittee members can be found in the memo.

Muller's proposed project schedule can be found [here](#).

The TAC supports extending an invitation to other interested parties to join the subcommittee. TAC members will connect with others in their organization who may participate. Rich Borchardt, Jane Clary, and Bill Ruzzo will lead the subcommittee.

Ashley Byerley moved to create a TAC subcommittee to support the Alternatives Analysis on Cherry Creek from the Reservoir to Lake View Drive project. Seconded by Casey Davenhill. The motion carried.

5. Discussion Items

a. Lone Tree, Windmill and Cottonwood Master Plan Alternatives

Maggie Lewis and Andrew Earles with Wright Water Engineers presented a summary of the results of the [Master Plan](#) work to identify project alternatives for the Lone Tree, Windmill, and Cottonwood (LWC) Creek watersheds in the Cherry Creek State Park (CCSP). The subject creeks pass through CCSP property prior to entering the Cherry Creek Reservoir. Supporting documents can be found [here](#).

The goal of this project is to connect the holistic master planning of the prior work completed on these streams all the way through the state park. The main focus is the erosion downstream of the Lone Tree Creek Pond which has likely been occurring over the last 5-10 years.

WWE asked the TAC to provide input on next steps.

Jane Clary recommended CCBWQA participate in the public outreach efforts and support the formation of a subcommittee to further work on project alternatives. Jane noted that CPW, SEMSWA, and MHFD are working with CCBWQA staff and others are welcome to join future conversations. Casey Davenhill expressed interest in participating in this subcommittee.

Future progress and updates will be provided to the TAC.

b. Site Specific Standards Approach and Next Steps

Christine Hawley with Hydros Consulting provided the TAC with an [update](#) on her work regarding Cherry Creek Reservoir TN and TP Site-Specific Standard Development.

Jane Clary recommended moving forward with proposed next steps including meeting with CDPHE to go through the methodology and incorporate input from CDPHE. Jane and Christine will meet with CDPHE and report back to the TAC and Board.

Jon Erickson suggested that EPA should be included in the meeting with CDPHE.

6. Presentations

7. Updates

a. Cherry Creek Stewardship Partners (Davenhill)

Casey encouraged participation in the upcoming Cherry Creek Watershed Conference.

b. TAC Members

c. TAC Subcommittees

i. Modeling Subcommittee (Leak/Clary)

Alan met with the WWTPs to determine the best available technology to reduce nitrogen in treated effluent for purposes of an updated model scenario. The model run will be based on feasible reductions without the use of reverse osmosis.

ii. Watershed Plan Subcommittee

d. Contractors

i. [Water Quality Update](#) (Stewart)

Erin Stewart provided a water quality update. The nutrient concentrations in storm samples collected so far this year were higher than those collected in the prior 5 years.

ii. Pollution Abatement Projects (Borchardt, enclosed)

a. CIP Status [Report](#)

b. Partner Coordination on 2024 to 2033 CIP

iii. In-Park PRF and RDS Maintenance and Operations [Report](#) (Goncalves, enclosed)

a. [May](#) and [June](#) Flood Damage Reports (enclosed)

iv. Regulatory (DiToro)

a. Regulation 86

Jessica DiToro provided an [update](#) to the TAC on the proposed changes to Regulation 86 (greywater control regulation) and specifically the proposed changes that are relevant to the CCBWQA. Staff recommends monitoring the RMH, but not participating.

v. [Land Use Referral Tracking](#) (Endyk)

e. Manager (Clary)

8. Upcoming Events

a. 25th Annual Cherry Creek Watershed Conference - August 24, 2023 - PACE Center, Parker

b. Watershed Plan Process Workshop - September 21, 2023 - 8:30-11:30 am

9. Adjournment

Jon Erickson adjourned the meeting at 11:08 am.



MEMORANDUM

DATE: September 1, 2023

TO: CCBWQA Technical Advisory Committee (TAC)

FROM: Richard G. Borchardt PE, CFM
Jane Clary, Wright Water Engineers, CCBWQA Technical Manager

SUBJECT: CCBWQA, Update on 2023 Pollution Abatement Fund Budget and Capital Improvement Program

PURPOSE: The purpose of this memorandum is to provide information to the TAC regarding potential opportunities for reallocation of CCBWQA’s 2023 Pollution Abatement Fund (PAF) to allow funding of projects that are “shovel ready” during 2023. Opportunities for fund reallocation are due to project delays resulting from significant inflation and other factors.

DISCUSSION: CCBWQA’s Board of Directors (Board) adopted their 2023 Budget on November 17, 2022. The 2023 Pollution Abatement Fund budgeted \$3,872,400 in expenditures for CCBWQA’s Capital Improvement Program (CIP).

Projects in the CIP have been affected by current market conditions and inflationary pressures have increased costs by about 27.5% from August 2020 to February 2023.¹ The projects have been value engineered and scopes reduced to try and fit within current budgets, but with limited success. In addition, the extended delays by the USACE in reviewing permit applications have also caused schedule uncertainties and delays. As a result, CCBWQA’s consulting staff and our project partners have determined that the impacted projects need additional funding to be secured before they can go to construction, which has resulted in schedule delays and impacts to the CCBWQA’s 2023 PAF budget.

The likely delays in project construction will reduce the CCBWQA’s PAF capital expenditures for 2023 by \$1,310,000 as shown in Table 1 below. Note that the values in Table 1 refer to the CCBWQA’s budget for participation and are not total project costs. If approved by the Board, these funds could be reallocated to other projects in 2023 and still remain within the 2023 PAF budget of \$3,872,400. Reallocation of funds does not require a budget amendment if the total PAF budget is not increased.

Whereas no specific requests from our project partners to increase funding have been made for 2023, three projects have been identified for consideration for additional funding. These include:

1. For the Dove Creek project from Otero to Chambers (PAF account 117885), CCBWQA could add the next planned phase of construction from Pond D1 to Chambers to increase our 2023 budget

¹ Engineering News-Record, Building Cost Index. Additionally, a recent cost analysis completed by Naranjo Civil Constructors for MHFD showed cost increases from 2020 to 2022 at 35% for rock and 28% for concrete.

from \$138,000 to \$678,000, which is an increase of \$540,000. To assure that the Dove Creek funds are included in CCBWQA's 2023 PAF budget, the IGA with the project partners would note that the funds are encumbered in 2023.

2. The Cherry Creek at Scott Road project (PAF account 117882) has experienced cost increases, and the Mile High Flood District (MHFD) and Douglas County are bringing in additional funding for 2023, possibly \$300,000 from MHFD and \$200,000 from Douglas County. No additional funding from CCBWQA was budgeted for 2023. CCBWQA has received a request from MHFD and Douglas County to help cover project cost increases. CCBWQA could assist up to an additional \$409,000 in 2023 to get up to 25% participation level. This would be consistent with CCBWQA's participation level in the project in 2021 and the typical historical percentage match of CCBWQA participation on partner projects.
3. The Cherry Creek from Reservoir to Lake View Drive (aka Reach 1) Alternatives Analysis (PAF account 117869) was contracted with Muller Engineering for \$256,765 and an amendment for \$17,628 is expected for engineering support related to the replacement of the culverts at Lake View Drive. The original agreement included Phase II services of \$180,847 for the conceptual design of the selected alternative, which could be authorized in 2023.

The total of these three projects is about \$1,130,000, which is less than the available funds of \$1,310,000 for potential reallocation. As suggested by Table 1, other partner requests for additional funding could be considered and remain with the 2023 PAF budget. If additional funding increase requests are made, CCBWQA staff would evaluate the requests with those discussed above and make recommendations to the TAC and Board.

CCBWQA has a statutory requirement to spend at least 60% of its revenues on Pollution Abatement Projects. CCBWQA evaluates compliance with the 60% requirement using a 5-year schedule. The adopted 2023 budget projected that CCBWQA would be reasonably close to meeting the 60% requirement. Unfortunately, with the impacted projects and the resulting budget implications, CCBWQA may not meet the 60% requirement; therefore, it is important to consider potential reallocation of PAF project budgets.

TABLE 1. POSSIBLE VARIANCE IN CCBWQA PAF BUDGET DUE TO INFLATION

Project	Impact	2023 Planned Budget	2023 Projected Actual Budget	Variance
East Shade Shelter	Value engineering required and construction delayed	\$599,000	\$99,000	\$500,000
Cherry Creek from Reservoir to Lake View Drive	Cost increases ²	\$200,000	\$275,000	(\$75,000)
McMurdo Gulch	Construction delay requested by Castle Rock	\$907,000	\$0	\$907,000
Cherry Creek at Dransfeldt	Cost increase	\$170,000	\$570,000	(\$400,000)
Cherry Creek at Arapahoe (Reaches 3 and 4)	Partner funding limited	\$605,000	\$300,000	\$305,000
Lone Tree Creek (Centennial Trail Project)	Construction requested for 2023 by Centennial	\$0	\$112,000	(\$112,000)
Contingency	N/A	\$185,000	\$0	\$185,000
TOTAL	Funds available for reallocation			\$1,310,000

REQUEST: Staff requests that the TAC provide review and input on potential 2023 PAF budget reallocation and discuss which projects, if any, should be reviewed for possible funding increases in 2023. This reallocation could consider the projects in this memorandum or other projects. Input is requested by 9/15/23. Staff will then evaluate all requests and bring the project funding requests back with recommendations to the TAC and Board at a future meeting for discussion, direction, and action.

² Alternatives analysis cost is more than planned budget and additional design cost for the Lake View Drive repair from the 2023 storms.

CHERRY CREEK BASIN WATER QUALITY AUTHORITY
2023 Capital Project Status Report
August 11, 2023

RESERVOIR PROJECTS

1. East Shade Shelters Phase III and Tower Loop Phase II Shoreline Stabilization (CCB-17.5 and CCB-17.7)
 - a. Description: These projects were identified in 2014 through the annual inspection. The Tower Loop Phase II connects to the Phase I project and extends shoreline protection 570 feet to the southeast towards Dixon Grove. The East Shade Shelters Phase III starts on the north end of the Shade Structure and goes 400-feet to the south.
 - b. Status: Consultant selection is scheduled for the 1st quarter. A consultant selection committee will be set in February (1/29/21). At the February TAC meeting Jason Trujillo, Jon Erickson, Lanae Raymond, Bill Ruzzo were interested in serving on the consultant selection committee (2/11/21). This selection committee was discussed at the 3/18/21 Board Meeting, and no further members were added. The Request for Proposals (RFP) has been posted on BidNet and Proposals are due 04/21/21 (3/25/21). The pre-proposal meeting was held on 4/7/21. 5 proposals were received on 4/28/21; the selection committee is reviewing them. Interviews were held and a selection is being brought to the May Board meeting (5/14/21). Board authorized negotiations with RESPEC (5/27/21). Agreement has been executed with RESPEC (10/15/21). Field Survey of project areas and topographic mapping is underway (12/30/21). A design kickoff meeting was held on 4/22/22. A design sprint workshop was held on 7/12/22 which included a site visit and evaluation of alternatives. RESPEC is developing a recommended alternative (9/8/22). RESPEC provided updated project costs for budgeting (10/13/22). The 30% submittal was received on 11/16/22 and is under review. CCBWQA provided comments on 30% review on 1/17/23; a value engineering effort is recommended as the project costs exceed the budget. The value engineering meeting was held on 2/24/23. RESPEC's request for additional services was approved by TAC and Board in May (5/25/23). *The reservoir water level has come down since the May and June storms and additional erosion was observed on 7/14/23; a site visit was made with RESPEC on 8/1/23 and the erosion areas at East Shade Shelters were measured.*

STREAM RECLAMATION PROJECTS

1. Cherry Creek Stream Reclamation at Arapahoe Road aka Reaches 3 and 4 (CCB-5.14C)
 - a. Description: This project continues the work on Cherry Creek by CCBWQA, MHFD, and local partners. It ties into the previous stream reclamation projects of Cherry Creek Eco Park to Soccer Fields (CCB-5.14A) and Cherry Creek at Valley Country Club (CCB-5.14B). The 5,167 Linear Feet of stream reclamation reduces bed and bank erosion immobilizing approximately 88 pounds of phosphorus annually. The project is anticipated to be funded over several years and likely be broken into phases.
 - b. Status: In 2021, an IGA was executed between CCBWQA, MHFD, City of Aurora, and SEMSWA to begin this work. IGA Amendment that brings in 2022 funding is under review (5/13/22). Board authorized IGA Amendment for 2022 funding on 7/21/22 (8/12/22). IGA Amendment has been revised to show Aurora's lower participation; CCBWQA's participation was lowered accordingly to meet 25% partner project level; revised IGA Amendment received TAC recommendation and is being taken to Board for their consideration in October (10/13/22). Board authorized the IGA Amendment for 2022 funding at their 10/22/22 meeting. It appears that CCBWQA's 2023 participation will be reduced as a result of less partner funding available for this project (2/24/23). The IGA Amendment that brings in 2023 funding was recommended by the TAC and authorized by the Board at their June meetings (6/29/23).
2. Cherry Creek Stream Reclamation – Upstream of Scott Road (CCB-5.17)

- a. Description: Design and construction of stream reclamation is in partnership with Douglas County and MHFD. It improves 4,100 feet of Cherry Creek and is located upstream of Scott Road.
 - b. Status: IGA was approved by the Board at their April 2020 meeting. Muller had been selected as consultant, and design scope of work is being prepared. Kickoff meeting was held on 12/11/20; a follow-up field visit will be scheduled for early 2021. Site visit was held on 1/29/21. Conceptual design is complete, negotiations are underway to contract for 60% design (4/8/21). Muller is working on alternatives (4/30/21). Muller is working on preliminary design and an IGA Amendment to bring in additional 2021 funding from Douglas County is being brought to the Board in October (10/15/21); IGA Amendment has been executed (11/11/21). Muller is preparing 60% Design Submittal (1/28/22). Muller submitted 60% Design on 2/2/22; comments have been provided on 60% Design Submittal (3/10/22). IGA Amendment bringing in 2022 funding is scheduled for TAC and Board consideration in June (5/27/22). IGA Amendment was authorized at the June 16th Board Meeting (6/30/22). Muller is working on Final Design and held a progress meeting on 4/14/23, a site visit is being scheduled to support the 90% design submittal. The 90% site visit was held on 5/22/23.
3. Cherry Creek Stream Reclamation at Dransfeldt (CCB-5.17.1B)
 - a. Description: Design and construction of stream reclamation is in partnership with Town of Parker and MHFD. It improves 2,400 feet of Cherry Creek near the future location of Dransfeldt bridge which is just downstream of the Cherry Creek at KOA project.
 - b. Status: Initial scoping has begun, and a partners meeting was held on 1/30/21. IGA is scheduled for CCBWQA's May TAC and Board meetings (4/30/21). IGA was approved by all parties and has been executed (6/25/21). Muller Engineering has submitted their Draft Scope of Work for Design Services, and the project sponsors have reviewed it (7/8/21). Design kickoff meeting was held on 10/14/21. Alternatives are being evaluated (12/9/21). Pre-submittal meeting for the 404 permit is being scheduled (12/30/21). CLOMR is being prepared for project (3/10/22) and was submitted to FEMA on 3/31/22. CEI was selected for as project partner to provide contractor input during the design (5/27/22). CLOMR is under review by FEMA (8/12/22). Muller has received comments on CLOMR and is preparing responses; 90% Submittal is scheduled for early February (1/27/23). Comments on 90% Submittal were provided on 2/22/23; project is experiencing substantive cost increases due to current market conditions (2/24/23). TAC at their 3/2/23 meeting recommended that the Board authorized the IGA Amendment to bring in 2023 funding along with an increase in CCBWQA's 2023 funding from \$170,000 to \$570,000. The Board authorized the IGA Amendment with the increased 2023 funding of \$570,000 at their 3/16/23 meeting. The Conditional Letter of Map Revision (CLOMR) was issued by the Federal Emergency Management Agency (FEMA) on April 28, 2023 (5/12/23). The sanitary sewer relocation will be contracted to start with, in order to avoid a pipe material cost increase, and to get it out of the way for the forthcoming stream reclamation (7/13/23). *The sanitary sewer relocation has been contracted for with Concrete Express Inc. or CEI (8/11/23).*
4. McMurdo Gulch Priority 3 Stream Reclamation (CCB-7.2)
 - a. Description: The design and construction of stream reclamation is in partnership with Castle Rock. Castle Rock is the lead agency. This phase continues the work from the previous phase. Muller Engineering is the design consultant.
 - b. Status: Board authorized IGA for Priority 3 at their May 19,2022 meeting. Muller submitted their 30% deliverable on 10/31/22, review comments were returned on 11/8/22. Easements needed for projects have been identified (1/23/22). The 60% Submittal was received on 1/30/23 and comments have been provided on 2/7/23. Muller is working on updating their construction cost estimate (2/8/23). On 2/23/23, Castle Rock requested that CCBWQA's 2023 funding be deferred to 2024 to match their schedule.
5. Lone Tree Creek in Cherry Creek State Park (CCB-21.1)
 - a. Description: This project includes a trail connection to Cherry Creek State Park and includes 570 linear feet of stream reclamation on Lone Tree Creek from the State Park Boundary to

the Windmill Creek Loop Trail. The City of Centennial is the project lead. CCBWQA participation is for stream reclamation only.

- b. Status: 95% submittal is under review (5/13/22); review comments have been returned (5/27/22). Project funding was brought to TAC at their 7/7/22 meeting, during drafting of IGA it was discovered that future maintenance of stream reclamation should be considered, project will be brought back to TAC at an upcoming meeting for maintenance discussion and recommendation (8/12/22). A stakeholder meeting was held on 9/29/22 to discuss maintenance. A stakeholder meeting was held on 11/2/22 to discuss findings from CCBWQA's site visit and findings included in Wright Water Engineers report. The Board supports CCBWQA's partnering with Centennial at their 11/17/22 meeting. A Memo of Understanding is under review by Colorado Parks and Wildlife (CPW) affirming maintenance responsibilities for the stream reclamation fit under the current agreement between CCBWQA and CPW (3/30/23). CCBWQA sent the Draft IGA to Centennial for review on 5/23/23.
6. Happy Canyon Creek – County Line to Confluence with Cherry Creek (aka Jordan Road, CCB-22.1)
- a. Description: The design and construction are in partnership with Southeast Metro Stormwater Authority and MHFD and includes 2,500 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$325,000. The total project cost is estimated at \$1,300,000.
 - b. Status: IGA is scheduled for June TAC and Board meetings (5/27/21). IGA has been approved and executed by all parties (7/29/21). Jacobs has been selected as design consultant and project scoping is underway; limits have been extended upstream to the County Line and sediment capture area and transport will be included with the project (10/15/21). Jacobs has submitted their scope of work and fee for design which is under review by project sponsors (11/11/21). Project sponsors have completed a review of Jacobs' fee and scope of work and the agreement is being routed for signatures (1/28/22). IGA Amendment to bring in 2022 funding is in process (3/10/22). A project kickoff meeting was held on 3/28/2022. A site visit was performed on 4/12/22 to document existing conditions and identify sediment source/transport/deposition areas. Project Team is preparing a sampling plan for bank and bed materials to determine phosphorous content (5/13/22). The project team met on 5/24/22 to discuss project goals and Jacobs is progressing through the study. Jacobs and ERC are working on sediment transport analysis and model (6/30/22). The results from the sediment transport model were presented at the 8/23/22 progress meeting and an upstream sediment capture area just south of the JWPP was included in the alternatives analysis (8/26/22). The alternative analysis report is expected to be completed before the end of 2022 (10/13/22). Lab results from stream soil samples were sent to Jacobs so that they include phosphorus reduction in the alternatives analysis report; a groundwater investigation is needed to inform sediment capture facility and stream reclamation alternatives, scoping and negotiations are in progress (11/11/22). Groundwater scope of work has been reviewed and approved by project sponsors (1/13/23). The IGA Amendment bringing in the 2023 funding was recommended by TAC and authorized by the Board in April (5/12/23).
7. Happy Canyon Creek - Upstream of I-25 (CCB-22.2)
- a. Description: The design and construction are in partnership with Douglas County, City of Lone Tree, and MHFD and includes 2,500 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$500,000. The total project cost is estimated at \$2,000,000.
 - b. Status: Douglas County, City of Lone Tree, and MHFD have initially funded and selected Muller Engineering as the design engineer. Design has started and a progress meeting was held on 1/27/21. Design is progressing (2/11/21). Muller has submitted 60% Design Deliverables (5/27/21). IGA for 2021 Funding is being brought to Board in September (9/9/21). 2021 IGA Amendment has been executed (11/11/21). Coordination with CDOT and easement acquisitions are on-going (1/13/22). Board authorized 2022 funding and IGA Amendment at their June 16th meeting (6/30/22). The project received environmental clearance from CDOT (8/12/22). The 90% design submittal is scheduled for delivery by end

of September (8/26/22). The 90% design submittal is being reviewed (10/13/22). Comments were provided on 90% submittal (11/11/22). Muller completed the 100% design submittal on 11/22/22. CDOT permit was issued, and pre-construction meeting was held on 1/10/23; construction start is scheduled for 1/30/23 pending execution of easement documents from Surrey Ridge which has agreed to terms and easement language. Notice to Proceed on construction is pending execution of easement documents (1/27/23). Easements have been signed by property owners and Notice to Proceed has been issued to Naranjo Civil Constructors (2/8/23). Construction is underway with initial construction BMPs/stormwater controls in place; water diversion and control is being set up for the downstream section of the project (3/10/23). Water control is in place and construction of stream reclamation is underway for downstream sections of the project (3/30/23). Riffle and Boulder Cascade drop structures on downstream third of project are nearing completion (4/13/23). Construction is underway in the middle third of the project; efforts consist of stream grading and installation of Riffle and Boulder Cascade drop structures (5/12/23). The storm damage from May 11 to 13, 2023 event is being identified and repaired (5/25/23). Construction on the middle third is substantially complete and work has begun on the upstream third (7/27/23).

8. Dove Creek - Otero to Chambers Rd. (CCB-23.1)

- a. Description: The design and construction are in partnership with Southeast Metro Stormwater Authority (SEMSWA) and with Mile High Flood District (MHFD) being a key stakeholder; it includes 1,300 feet of stream reclamation. The Authority's water quality component share for design and construction is estimated to be \$175,000. The total project cost is estimated at \$700,000.
- b. Status: SEMSWA is drafting the Intergovernmental Agreement to bring in the 2021 funding for the project (3/12/21). RESPEC is the design consultant; two conceptual design alternatives have been prepared and reviewed during meeting on 3/15/21. IGA is scheduled for CCBWQA's May TAC and Board meetings (4/30/21). IGA has been approved and executed by all parties (7/29/21). 30% Design Review Meeting was held on 8/23/21. A Progress meeting is scheduled for 2/26/22 with 60% Plan submittal expected to follow (1/28/22). The 60% Design was submitted on 2/16/2022, comments were provided, and a design review meeting was held on 2/23/2022. IGA Amendment to bring in 2022 funding is in process (3/10/22). Construction costs were prepared by CEI based on 60% submittal (5/13/22). A design progress meeting was held 6/14/22 and 90% design submittal is being prepared (6/30/22). 90% design submittal is expected by the end of July (7/15/22). The 90% design submittal was reviewed, and comments were submitted on 8/22/22. *Construction is anticipated in 2023 (10/13/22)*. A progress meeting was held on 11/8/22, project will likely be done in 2 phases, IGA Amendment will be needed early in 2023 so that construction can start ahead of storm season. Dove Creek IGA for construction of Phase 1 is scheduled for TAC and Board in January 2023, construction is expected to start shortly afterwards (12/30/22). Construction is scheduled to start mid-February; construction agreement and engineering construction services amendment are currently being reviewed (1/27/23). Construction and engineering construction services have been finalized and a preconstruction meeting was held on 2/2/23. Notice to Proceed has been issued to Concrete Express; construction is underway with initial construction BMPs/stormwater controls in place (3/10/23). Water control is in place and construction of stream reclamation is on-going (3/30/23). Step pool drop structures have been constructed and work on soil wraps is underway (4/13/23). Low-flow or bank full channel work (soil wraps and erosion control blanket) and step-pool structures are complete, water diversion has been removed, and is active to storm flows; work continues in upland areas and higher elevations of stream reclamation (5/12/23). Storm damage from May 11 to 13, 2023 event is being repaired (5/25/23). Construction punch list is being completed (6/29/23). Construction is complete (7/27/23).

9. Piney Creek from Fraser Street to Confluence with Cherry Creek aka Reaches 1 and 2 (CCB-21.1)

- a. Description: This project includes 2900 liner feet of stream reclamation on Piney Creek. The project partners are SEMSWA and CCBWQA.

- b. Status: Project coordination meeting was held with SEMSWA on 6/29/22. IGA drafted and is being reviewed by SEMSWA (8/12/22). IGA was approved by CCBWQA at the 9/15/22 Board meeting. IGA Amendment to bring in 2023 funding was recommended by the TAC and authorized by the Board in May (5/25/23). CCBWQA sent the Draft IGA Amendment to SEMSWA for review on 6/29/23. *SEMSWA has no comments on the IGA Amendment and plans to take it to their Board in October (8/11/23).*
10. Mountain and Lake Loop Shoreline Stabilization Phase II (OM 4.6)
- a. Description: This project was identified in through the 2020 annual inspection and design and permitting started in 2021. It adds about 40 feet of shoreline protection where it has eroded leaving a 1-2 foot tall vertical bank.
 - b. Status: Construction Plans have been prepared and the GESC was submitted to Arapahoe County for review (1/13/22). Plans are being reviewed by US Army Corps of Engineers for 408 clearance (5/13/22).
11. Cherry Creek from Reservoir to Lake View Drive (OM 4.6)
- a. Description: This project is in follow up to CCBWQA's study of Cherry and Piney Creeks in Cherry Creek State Park (CCSP). Muller completed two reports on Cherry Creek from Reservoir to State Park Boundary, Stream and Water Quality Assessment and Baseline Channel Monitoring Report, in 2022. These reports highlight the need for this project.
 - b. Status: A workshop is scheduled for the 3/16/23, to seek CCBWQA Board and TAC input on this project and Cherry and Piney Creeks in CCSP (3/10/23). *The follow up from workshop is underway – project overview and funding flyer has been created*, Muller is scoping the next step of design for Reach 1 and providing a fee, and multi-pronged approach is in development for workshop priority reaches that prioritizes Reach 1 and reduces risk from upstream reaches; these items will be brought to TAC and Board for discussion, direction, and/or action at upcoming meetings (3/30/23). A site visit for partner outreach and funding was held on 5/25/23 at 1-4 pm (6/8/23). A coordination meeting was held with Aurora on 6/23/23 and they showed interest in partnering on the project to protect their water lines. The Mile High Flood District has provided their budget/CIP schedule and Arapahoe County Open Space has been contacted to investigate potential partnering opportunities (7/13/23). *The TAC created a subcommittee for this project on 8/3/23; which will attend progress meetings, provide timely feedback to Muller, and to coordinate with TAC as-needed.*

Memorandum

To: CCBWQA TAC
From: Jessica DiToro, PE, LRE Water
Jane Clary, CCBWQA Technical Manager, Wright Water Engineers
Date: August 28, 2023
Subject: Colorado Water Quality Rulemaking Hearing Information

In the Colorado water quality world there are four types of hearings¹:

1. Water Quality Control Commission (WQCC) Rulemaking Hearing (RMH) Proceedings:
 - RMH proceedings are where formal WQCC rules (e.g., Regulations 31-38²) are approved³.
 - Currently upcoming/ongoing WQCC RMHs can be found at the following webpage: <https://cdphe.colorado.gov/wqcc-rulemaking-proceedings>
 - Recently completed WQCC RMHs can be found at the following webpage: <https://cdphe.colorado.gov/completed-wqcc-hearings>
 - If you would like older RMHs that are no longer available on the Recently Completed Webpage, call me. These take some effort to dig up.
2. Administrative Action Hearings (AAH):
 - AAHs are where documents that are not formal rules (i.e., WQCC policies⁴, 208 water quality management plans, nonpoint source management programs, etc.) are approved.
 - Ongoing and recently completed AAHs can be found at the following webpage: <https://cdphe.colorado.gov/wqcc-administrative-action-hearings>
3. Public Informational Hearings (IH):
 - Public IHs are informal WQCC hearings that do not result in any formal action by the WQCC. Some examples of public IHs include issues scoping hearings⁵ (ISH) and issues formulation hearings⁵ (IFH).

¹ WQCC Hearings: <https://cdphe.colorado.gov/wqcc-hearings>

² WQCC Regulations: <https://cdphe.colorado.gov/water-quality-control-commission-regulations>

³ From Regulation 21, p. 3, a RMH may be conducted through written comments only: “The Commission may determine that receipt of only written comments on a published proposal, and any substantive written response(s) to such comments or issues raised in such comments, is sufficient public participation to establish an adequate record for Commission deliberation and decision-making. If the proponent of a proposal disagrees with any written comments submitted, the proponent shall submit a written response in accordance with the deadline established in the rulemaking proceeding notice. An opportunity shall be provided to other interested persons to submit written responses to comments in accordance with a deadline established in the rulemaking proceeding notice.”

⁴ WQCC Policies: <https://cdphe.colorado.gov/wqcc-policies>

⁵ “For surface water quality classifications and standards which are organized by river basin and for the Basic Standards and Methodologies for Surface Water, the Commission has established a three-step triennial review process. The Issues Scoping Hearing is the first step in the process. In short, the Issues Scoping Hearing provides an opportunity for early identification of potential issues

- With respect to Control Regulations (i.e., Regulations 71-74 and 81-86²), the WQCC will first hold an IH to receive staff input and public comment. Depending on the outcome of the IH, the WQCC will decide if a formal RMH is needed.
- Upcoming and recently completed IHs can be found at the following webpages: <https://cdphe.colorado.gov/wqcc-public-informational-hearings>
https://drive.google.com/drive/folders/1vWZlpzixW4Y0_CJ2adoFY2ldcoZ7Wh3

4. Adjudicatory Hearings:

- Adjudicatory hearings are quasi-judicial proceedings by the WQCC or the Water Quality Control Division (WQCD) to review specific types of decisions by the WQCD with respect to individual regulated entities⁶. The procedures for these hearings are spelled out in WQCC Regulation 21⁷ (Procedural Rules).
- Ongoing and recently completed WQCC adjudicatory hearings can be found at the following webpage: <https://cdphe.colorado.gov/wqcc-adjudicatory-hearings>

Anyone can sign up to receive notice of any of the described upcoming hearings at the following WQCC webpage. The link below will send you to a google form where you can “pick your own adventure” and choose exactly what regulations, policies, etc. you would like to be notified about:

https://docs.google.com/forms/d/e/1FAIpQLSeKpmSyDnGrMZfpGBqHxMmWvKEzp-xktDqpoAD_q0jX4Qrtnw/viewform

For additional information on the above hearings, please reference the WQCC’s Public Participation Website and Public Participation Handbook (February 2017):

Website: <https://cdphe.colorado.gov/wqcc-public-participation>

Handbook: https://drive.google.com/file/d/166i2sWZ8c-59MLp7kDhQOWTDbCo_TQGS/view

The following table lists the scheduled upcoming hearings through 2027, with hearings of interest to the Cherry Creek Basin Water Quality Authority (CCBWQA) highlighted in red and bolded. This information can also be found online in two places:

that may need to be addressed in the next major rulemaking hearing for particular regulations, and for identification of any issues that may need to be addressed in rulemaking prior to that time. The second step in the triennial review process – the Issues Formulation Hearing – results in the identification of the specific issues to be addressed in the next major rulemaking hearing. The third step is the Rulemaking Hearing, where any revisions to the water quality classifications and standards are formally adopted. The timing of the three steps is as follows: (1) the Issues Scoping Hearing is held in October of Year 1; (2) the Issues Formulation Hearing is held in November of Year 2; and (3) the Rulemaking Hearing is held in June of Year 3. More complete descriptions of these three steps in the triennial review process for surface water quality classifications and standards are posted on the Commission’s web site, under the section entitled ‘Water Quality Standards.’” Public Participation Handbook, p. 4-5.

⁶ This is not to be confused with a permit adjudication which is an administrative hearing requested by a Colorado Discharge Permit Systems (CDPS) permittee or other stakeholder, to challenge the terms and conditions of an issued permit, challenge permit denials, or challenge other permitting actions. These hearings are held by the Office of Administrative Courts, not the WQCC.

⁷ Regulation 21: <https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=7100&fileName=5%20CCR%201002-21>

1. The WQCC Long-Range Schedule – Usually covers the upcoming two to three years of hearings in detail, and is updated regulatory. The Long-Range Schedule can be found at the following link⁸:
<https://drive.google.com/file/d/14UKyKRF4mIVdM8bmeJNuLXVuKUIA2RT2/view>⁹
2. The Index of WQCC Regulations and Policies – Usually covers the upcoming two to three years of Regulatory and Policy hearings. Also includes the date of last WQCC action. The Index of WQCC Regulations and Policies can be found at the following link¹⁰:
https://drive.google.com/file/d/11cxHB5ce76Dp34UYaIWefvgqg9xq_wL1/view⁹

⁸ Please note that as of the date of this memorandum, the WQCC Long-Range Schedule was last updated in July 2023.

⁹ Main website for access: <https://cdphe.colorado.gov/wqcc-meetings>

¹⁰ Please note that as of the date of this memorandum, the Index of WQCC Regulations and Policies was last updated May 2023.

Table 1. Water Quality Control Commission Regulation Hearing Timeline

Hearing Date	Rule	Event ¹¹	Potential Relevance to CCBWQA
October 2023	Regulation 61 – Colorado Discharge Permit System Regulations	RRIH	Relevance low, but should track to understand changes being proposed and if any changes are relevant to Regulation 72
November 2023	Regulation 38 – South Platte Water Quality Standards	ISH	Relevance high, monitor to see potential issues
	Regulation 86 – Graywater Control Regulation	RMH	Relevance potentially high, scope includes the use of graywater in P Control Basins – Staff monitoring RMH but will not request party status
February 2024	Regulation 72 – Cherry Creek Reservoir Control Regulation	RMH	Relevance high, PWSD + CR’s proposal re short-term construction dewatering discharge TP limit – Continue to participate in stakeholder workgroup and determine if CCBWQA will take a position and if so what one
March 2024	Regulation 73 – Chatfield Reservoir Control Regulation	TRIH	Relevance low, but of interest if CCBWQA wants to learn more about its sister-entity
August 2024	Regulation 64 – Biosolids Regulation	RMH	Relevance low, but applicable to Basin WWTFs
November 2024	Regulation 31 – Basic Standards for Surface Water	ISH	Relevance potentially high, CCBWQA should attend ISH to see what potential issues are planned for RMH in 2026, particularly changes to Lakes Nutrient Criteria (if any)

¹¹ “Event” Definitions:

TRIH – Triennial Review Informational Hearing; ISH – Issues Scoping Hearing; IFH – Issues Formulation Hearing; RMH – Rulemaking Hearing; AAH – Administrative Action Hearing; RRIH – Routine Review Informational Hearing

Hearing Date	Rule	Event ¹¹	Potential Relevance to CCBWQA
	Regulation 38 – South Platte Water Quality Standards	IFH	Relevance high, CCBWQA should attend IFH to see what will likely be proposed for RMH in 2025
December 2024	Regulations 32-38 - Temporary Modifications	RMH	Relevance low, unless temporary modifications applied to Cherry Creek Reservoir
March 2025	Regulation 22 – Site Location and Design Approval Regulation for Domestic Wastewater Treatment Works	RMH	Relevance potentially high, likely to address outstanding issues from March 2020 RMH such as historical lift stations. (Designated Mgmt. Agency roles revisited?)
	Regulation 43 – Onsite Wastewater Treatment System Regulations	RRIH	Relevance low, but should track to understand changes being proposed and if any changes are relevant to Regulation 72
May 2025	Regulation 93 – Colorado's Section 303(d) List and M&E List	RMH	Relevance likely low, Cherry Creek Reservoir is currently on the 303(d) List for DO and Chlorophyll-a, Windmill Creek for selenium, and the Mainstem of Cherry Creek is on the M&E List for manganese
	Regulation 84 – Reclaimed Water Control Regulation	TRIH	Relevance low, but should track to understand changes being proposed and if any changes are relevant to Regulation 72
June 2025	Regulation 38 – South Platte Water Quality Standards	RMH	Relevance high, CCBWQA should monitor and determine if party status is needed based on issues identified at 2024 IFH
April 2026	Regulation 85 – Nutrients Management Control Regulation	TRIH	Relevance high, could revisit nonpoint source progress, and assess whether additional regulatory requirements are needed to replace current voluntary approach, focusing on

Hearing Date	Rule	Event ¹¹	Potential Relevance to CCBWQA
			agriculture (upper basin may be affected)
November 2025	Regulation 31 – Basic Standards for Surface Water	IFH	Relevance high, CCBWQA should attend IFH to see what will likely be proposed for RMH in 2026
	Regulations 85 – Nutrients Management Control Regulation	RMH	Relevance potentially high
June 2026	Regulation 31 – Basic Standards for Surface Water	RMH	Relevance high, CCBWQA should monitor and determine if party status is needed based on issues identified at 2025 IFH
TBD 2027	Regulations 31-38 – Lakes & Reservoirs Nutrients	RMH	Relevance high, TN and TP standards for Cherry Creek and Reuter-Hess Reservoirs to be set – Developing site-specific standards for this RMH
	Regulations 31-38 – Stream Nutrients	RMH	Relevance potentially high, TP and TN water quality standards applied to all streams and rivers in Colorado

Water Quality 10-Year Roadmap for Work Groups, Documents and Schedules:

<https://cdphe.colorado.gov/water-quality-10-year-roadmap>


2023 Work Group Documents here: [2023 Roadmap Meeting Materials - Google Drive](#)

From: **CDPHE Regulation #93 Data Submittal** <noreply@formresponse.com>

Date: Fri, Sep 1, 2023 at 10:26 AM

Subject: We have received your response for Colorado Water Quality Control Division - Reg # 93 Data Call Submission

To: <erin.stewart@lrewater.com>

 Colorado Water Quality Control Division - Reg # 93 Data Call Submission	
Name	Erin Stewart
Phone Number	(720) 556-8896
Email	erin.stewart@LREWater.com
Organization	CCBWQA
Sub-basin(s) I am submitting data for...	South Platte (<i>basin updated by email</i>)
Data Type?	Stream Chemistry Lake/Reservoir Chemistry Lake/Reservoir Temperature
Additional Comments	CCBWQA's SAP can be accessed here: https://www.cherrycreekbasin.org/water-quality . Flow monitoring is not included in this submittal, but can be accessed through the CCBWQA data portal https://www.cbwqportal.org/ .
Dataset Upload	CCBWQA CDPHE-WQCD Lakes-Physical Chemical.xlsx
Dataset Upload (optional)	CCBWQA CDPHE-WQCD Rivers - Physical Chemical.xlsx
Data Certification	Certified