



**Cherry Creek Basin Water Quality Authority
Technical Advisory Committee Meeting Agenda
Thursday, April 4, 2024, 9:00 a.m.**

In-person attendance is encouraged due to audio limitations in the meeting room.

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

**Virtual: Zoom
<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)
2. Meeting Minutes from March 7, 2024 (enclosed)
3. Highlights from the March 21, 2024 Board Meeting (Clary) (9:05) (5 minutes)
4. Action Items (9:10) (10 minutes)
 - a. Recommendation on Happy Canyon Creek at Jordan IGA Amendment (Loewen, enclosed)
 - b. Recommendation on [Appendix H](#) of the March 2024 Cherry Creek Southwest Tributaries Major Drainageway Plan: Cottonwood, Lone Tree, Windmill, and Dove Creeks (Clary, link attached)
 - i. CCBWQA-funded Portion of Plan in Cherry Creek State Park (Appendix H)
 - ii. Dropbox Link to Overall Lone Tree, Windmill, Dove and Cottonwood Major Drainageway Plan: [Final Report - Dropbox](#) (for broader context only)
5. Discussion Items (9:20) (45 minutes)
 - a. Muller Engineering on Cherry Creek Reach 1 Alternatives Analysis (John Yager, links attached)
 - i. Alternative Exhibits
 - a. [Alternative 1](#)
 - b. [Alternative 2](#)
 - c. [Alternative 3](#)
 - d. [SMS Velocity Results Alternative 2](#)
 - ii. Conceptual Level [Cost Estimate](#) for Each Alternative
 - iii. Existing Conditions Site Map and Photo Log*
 - iv. Summary Tables for the Water Quality Assessment of Alternatives*
 - v. Cost Benefit Analysis (matrix and summary of pros, cons, and costs)*
6. Presentations (10:05) (20 minutes)
 - a. Wetland Harvesting Update (Stewart, enclosed)*
7. TAC Member Updates (As Needed)
8. Updates (20 minutes)
 - a. Manager (Clary)
 - i. Congressionally-Directed Spending Submittal for Cherry Creek Reach 1 (Clary, enclosed)
 - ii. Status Update on Other Funding Sources for Cherry Creek Reach 1
 - iii. Watershed Planning Workshop - April 18, 2024 8:30-11:30 am
 - iv. Progress Update on Reservoir Model
 - b. Cherry Creek Stewardship Partners (Davenhill)
 - i. Conference Planning
 - c. [TAC Subcommittees](#) (As Needed)
 - i. Modeling Subcommittee
 - ii. Watershed Plan Subcommittee
 - iii. Cherry Creek Reach 1 Reservoir to Lakeview Drive Alternatives Analysis Subcommittee
 - iv. Lone Tree, Windmill, and Cottonwood Creek Subcommittee (**Recommended closure**)
 - v. CIP Subcommittee

d. Contractors (As Needed)

- i. [Water Quality Update](#) (Stewart)
- ii. Pollution Abatement Projects - CIP Status Report (Loewen, enclosed)
- iii. In-Park PRF and RDS Maintenance and Operations (Goncalves)
- iv. Regulatory (DiToro)
- v. [Land Use Referral Tracking](#) (Endyk)

9. Adjournment

[Board Binder](#) and [2024 Timeline](#)

***Supplemental Packet Enclosure**



**Cherry Creek Basin Water Quality Authority
Minutes of the Technical Advisory Committee Meeting
Thursday, March 7, 2024, 9:00 a.m.**

TAC Members Present

Alex Mestdagh, Town of Parker (zoom)
Ashley Byerley, TAC Vice Chair, SEMSWA (representing the City of Centennial)
Caitlin Gappa, Board Appointee, Douglas County Health Department (zoom)
Casey Davenport, Board Appointee, Cherry Creek Stewardship Partners
Cayla Cappello, City of Greenwood Village
David Van Dellen, Town of Castle Rock (zoom)
Diana Rashash, Board Appointee, Arapahoe County Public Health (zoom)
Jacob James, City of Lone Tree (zoom)
James Linden, SEMSWA - Alternate
Jeremiah Unger, CDOT
Jessica La Pierre, City of Aurora (zoom)
Jim Watt, Board Appointee, Mile High Flood District
Joseph Marencik, City of Castle Pines
Jon Erickson, Board Appointee, Colorado Parks and Wildlife (zoom)
Lisa Knerr, TAC Chair, Arapahoe County
Rick Goncalves, Board Appointee
Ryan Adrian, Douglas County (zoom)
Wanda DeVargas, Board Appointee, E-470 (zoom)

Board Members Present

Bill Ruzzo, Assistant Secretary, Governor's Appointee
Tom Stahl, City of Greenwood Village

Others Present

Alan Leak, RESPEC
Elysa Loewen, Loewen Engineers
Erin Stewart, LRE Water
Jane Clary, Wright Water Engineers, CCBWQA Technical Manager
Jessica DiToro, LRE Water (zoom)
Val Endyk, CCBWQA

1. Call to Order

Lisa Knerr called the meeting to order at 9:01 am.

2. Meeting Minutes from February 1, 2024

Ashley Byerley moved to approve the February 1, 2024 meeting minutes. Seconded by Rick Goncalves. The motion carried.

3. Highlights from the February 15, 2024 Board Meeting

Jane Clary provided an update on actions taken at the February 15, 2024 Board meeting. Minutes from the meeting can be found [here](#).

4. Action Items

a. Recommendation on the [WY 2023 Monitoring Report](#)

Erin Stewart provided the TAC with a link to the WY 2023 Monitoring Report in the meeting agenda distributed on March 1, 2024.

Ashley Byerley moved that the TAC recommends that the Board accept the WY 2023 Monitoring Report. Seconded by Jeremiah Unger. The motion carried.

b. Recommendation on Piney Creek Reaches 1&2 IGA Amendment

Elysa Loewen provided the TAC with an [Action Item Memo](#) detailing the Piney Creek Reaches 1&2 project. The project is located on Piney Creek between the confluence of Cherry Creek and Parker Road and the downstream limit of this project is the confluence with Cherry Creek within the State Park. This is a partner project with SEMSWA, the project lead. It is estimated that this 0.55 mile-long project will immobilize 49 pounds of phosphorus annually. Further project details including a review of past workshops, studies, and field trips involving this project can be found in the memo. Additionally, the memo includes a project vicinity map. Project funding was included in CCBWQA's 2024 Budget. A draft of the [IGA Amendment](#) with CCBWQA comments was included in the TAC packet.

Cayla Cappello moved that the TAC recommend that the Board authorize the execution of the IGA Amendment for Stream Improvements at Piney Creek Reaches 1&2 pending satisfactory resolution of CCBWQA's comments, if any, with an expenditure not to exceed \$39,000 for 2024. Seconded by Ryan Adrian. The motion carried.

5. Discussion Items

a. CIP Subcommittee Next Steps

Jane Clary and Lisa Knerr led the TAC in a discussion regarding the [draft CIP Subcommittee charter](#) and next steps. Bill Ruzzo's [notes](#) from the February 15, 2024 Board meeting were provided to the TAC along with a draft of procedures for requesting CIP funds.

Discussion included:

CCBWQA Board members will be invited to participate in the CIP Subcommittee.

The CIP Subcommittee will finalize the charter at its first meeting.

b. Real-Time Water Quality Monitoring Options for Cherry Creek Reservoir

Erin Stewart provided a [memo](#) on real-time monitoring options for Cherry Creek Reservoir including a breakdown of replacement DO logger costs and an option for upgraded equipment and requested the TAC provide feedback.

Discussion included:

The TAC acknowledged the benefits of the upgraded equipment and Jacob James moved to move agenda item 5b from a discussion item to an action item. Seconded by Rick Goncalves. The motion carried.

Rick Goncalves moved to recommend that the Board approve the upgraded real-time monitoring equipment as detailed in the memo dated March 7, 2024. Seconded by Jeremiah Unger. The motion carried.

c. WQCD 10-Year Water Quality Roadmap Updates

Jessica DiToro provided an update [memo](#) from her participation in the February 22, 2024 WQCD Roadmap meeting and requested the TAC provide feedback on recommended next steps.

- TMDL Prioritization: Review the WQCD's recommended candidate lakes list when made public in June 2024. Report back findings to CCBWQA TAC and Board and discuss next steps in summer 2024.
- Rescheduling of Regulation 38 RMH: Consider how rescheduling this RMH from 2025 to 2026 changes the timing of CCBWQA's site-specific standards proposal.

- Feasibility and Implementation Subgroup: CCBWQA Staff should participate in the Feasibility and Implementation Subgroup meetings for site-specific standard process discussions and proposed changes to the process to see how this could impact the CCBWQA's future site-specific standards proposal.

Discussion included:

A concern identified with the delay in the Reg 38 RMH would be that it would make the data set used in the analysis a year older, and it could potentially result in a request from one of the agencies to update Hydros' site-specific standards analysis with more recent data, which would not be a good use of funds for CCBWQA (i.e., rework). Because the Commission now requires longevity plans for site-specific standards, this issue could potentially be addressed in the longevity plan accompanying the site-specific standards. This approach has been discussed with CDPHE staff. CCBWQA staff will continue to coordinate with CDPHE, CPW and EPA as needed on this topic.

d. Cherry Creek Reach 1 Status Update (Loewen/Muller, enclosed)

i. Exhibits

Elysa Lowen provided an update [memo](#) from Muller Engineering on Cherry Creek Reach 1 Alternatives Analysis progress including a list of tasks completed to date and a description of the three [exhibits](#) provided to the TAC. Next steps for Muller include refining the preliminary alternatives based on CCBWQA feedback and preparing formal exhibits for each alternative along with a cost-benefit analysis. Muller will present the draft alternatives to the TAC on April 4, 2024.

e. Potential Modifications to the Land Use Referral Process

Jane Clary led the TAC in a discussion on the potential need for revisions to the [current Land Use Referral process](#).

Discussion included:

The two main areas where CCBWQA may want to provide a more detailed review include projects in the stream preservation area and CDOT projects. CCBWQA is already reviewing CDOT projects, based on a request from CDOT.

CCBWQA would like to have input on projects at the pre-submittal stage when a project crosses Cherry Creek or is within the stream preservation area. Utility projects would be an example where CCBWQA could provide input on approaches that minimize impacts and include good revegetation approaches (e.g., seed mixes recommended for the Park).

Revegetation guidance could be posted on the CCBWQA website.

The TAC requested CCBWQA provide a memo on next steps for review at a future meeting.

f. CDOT Roadway BMP/SCM Survey

Jane Clary provided the TAC with a [draft survey](#) for information gathering on CDOT roadway projects and requested the TAC provide feedback. The TAC was generally supportive of the survey and recognizes the challenges of providing stormwater quality treatment in space-constrained linear transportation projects.

g. [Runoff Reduction Report](#) and [Supporting Documents](#)

Jane Clary provided a draft of the Runoff Reduction Field Monitoring Report prepared by Wright Water Engineers for MHFD, SEMSWA, and CCBWQA and requested the TAC provide feedback by the end of March.

6. Presentations

a. SPLASH P-free Fertilizer and Landscape Management Initiative (Byerley)

Ashley Byerley presented the 2024 Splash education and outreach strategy to the TAC.

Splash's updated outreach strategy is designed to comply with new and future MS4 requirements for education and outreach by identifying target audiences for nutrient sources and illicit discharges within Arapahoe County. 2024 tactics include participating in a phosphorus campaign, engaging in active social media messaging, and conducting rain barrel workshops.

Additionally Douglas County has a DC CLEAR group and is working towards launching a social media educational campaign. <https://www.onethingisclear.org/>

[SmartStormwater.org](https://www.smartstormwater.org/)

[Splashco.org](https://www.splashco.org/)

7. TAC Member Updates (As Needed)

MHFD hired a new Stormwater Quality Manager, Candice Owen.

8. Updates (20 minutes)

a. Manager (Clary)

i. **Watershed Planning Workshop - April 18, 2024 8:30-11:30 am**

ii. **Reminder: 2023 CCBWQA Annual Report on Activities Comments Due by March 14, 2024**

a. [2023 Annual Report on Activities - Draft](#)

b. [2023 Executive Summary - Draft](#)

iii. **Lake Loop Shoreline Stabilization Status Update**

Project is currently on hold due to challenges associated with permitting. Some sediment samples will be collected and analyzed to provide additional data to inform next steps.

iv. **Lone Tree Creek Master Plan Update**

A final draft will be provided for acceptance at an upcoming TAC meeting.

v. **Regulation 72 Hearing: February 12, 2024 Update**

https://drive.google.com/drive/u/1/folders/1CH5cOj9ym7Qr_cXi6n4uylyUZtfKs6gl

b. Cherry Creek Stewardship Partners (Davenhill)

i. **Conference Planning** First planning meeting scheduled for March 8, 2024.

Casey updated the TAC on the winner of the Science Fair.

[Metro Basin Roundtable](#) has open positions and is looking for stormwater expertise.

Upcoming events including a Dam Safety event on May 18, 2024.

The Education Center at CC State Park is scheduled to open Summer 2024.

c. [TAC Subcommittees](#) (As Needed)

i. **Modeling Subcommittee**

ii. **Watershed Plan Subcommittee**

iii. **Cherry Creek Reach 1 Reservoir to Lakeview Drive Alternatives Analysis Subcommittee**

iv. **Lone Tree, Windmill, and Cottonwood Creek Subcommittee**

d. Contractors (As Needed)

i. [Water Quality Update](#) (Stewart) Cherry Creek Reservoir is ice-free and opened last Friday which is a few weeks earlier than usual. The additional information needed for the WY 2023 has been provided or is in the process of being analyzed and a draft of the amended information will be coming in the following months.

ii. **Pollution Abatement Projects - [CIP Status Report](#) (Loewen)**

iii. **In-Park PRF and RDS Maintenance and Operations (Goncalves)**

Ingersoll Rand will provide RDS Maintenance and the RDS is scheduled to start up in April.

iv. **Regulatory (DiToro)**

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

9. Adjournment

[Board Binder](#) and [2024 Timeline](#)



ACTION ITEM MEMORANDUM

To: CCBWQA Technical Advisory Committee (TAC)
From: Elysa Loewen, Pollution Abatement Project Manager
Date: April 4, 2024
Subject: Happy Canyon Creek at Jordan IGA Amendment

Request: *Move that the TAC recommends that the Board authorize the execution of the IGA Amendment for Stream Improvements at Happy Canyon Creek pending satisfactory resolution of CCBWQA's comments, if any, with an expenditure not to exceed \$50,000 for 2024.*

Project/Issue: Happy Canyon Creek at Jordan

The Project is along Happy Canyon Creek near Jordan Road beginning downstream at the Confluence with Cherry Creek to the upstream limits of the project at the Douglas County line (upstream of Jordan Road), located in the City of Centennial and Arapahoe County (Project) see figure in the **Enclosure**. It is a partner project with the Mile High Flood District (MHFD) and Southeast Metro Stormwater Authority (SEMSWA) with MHFD as the project lead. The proposed stream reclamation benefits the water quality in Happy Canyon Creek, Cherry Creek, and the Cherry Creek Reservoir by reducing bed and bank erosion which immobilizes phosphorus in the adjacent soils. It is estimated that this 0.85-mile-long project will immobilize 77 pounds of phosphorus annually. The sediment deposition within the channel, especially from Jordan Road to the Cherry Creek confluence has increased annually and more significantly after Spring 2023 events (see photos below) A site walk was completed by the project stake holders in January 2024 to observe the conditions and discuss the assessment/study completed by Jacobs (the consultant); the project is moving forward with preparing alternative analysis for conceptual design.



Figure 1: Photo Downstream of Jordan Road at Drop Structure (Photo courtesy of SEMSWA, 2023)



Figure 2: Photo Upstream of Jordan Road at Drop Structure (Photo courtesy of SEMSWA, 2023)

Funding:

The IGA Amendment for Happy Canyon Creek at Jordan would include additional funding of \$500,000 (\$50,000 CCBWQA which is in the 2024 approved budget, \$200,000 SEMSWA, and \$250,000 MHFD). The table below provides a breakdown of funding by sponsors and shows CCBWQA’s participation is approximately 13%. Additional IGA Amendments are anticipated to bring in future funding from the sponsors’ capital improvement programs which currently include funding through 2032.

Funding Source	2022	2023	2024		
	Initial Funding	Additional Annual Funding	Additional Annual Funding	Cumulative Project Funding	Project Sponsor %
MHFD	\$350,000	\$290,000	\$250,000	\$890,000	49%
SEMSWA	\$300,000	\$202,000	\$200,000	\$702,000	38%
CCBWQA	\$93,000	\$88,000	\$50,000	\$231,000	13%
Total	\$743,000	\$580,000	\$500,000	\$1,823,000	100 %

Budget: The Project was included in CCBWQA’s 2024 Budget of \$50,000 (Happy Canyon Creek at Jordan)

Motion: *Move that the TAC recommends that the Board authorize the execution of the IGA Amendment for Stream Improvements at Happy Canyon Creek pending satisfactory resolution of CCBWQA’s comments, if any, with an expenditure not to exceed \$50,000 for 2024*

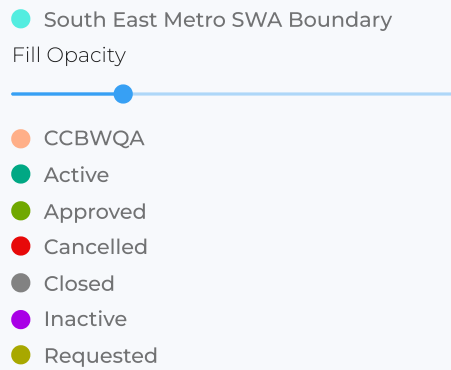
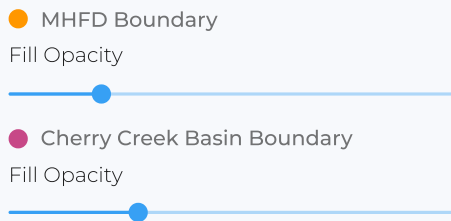
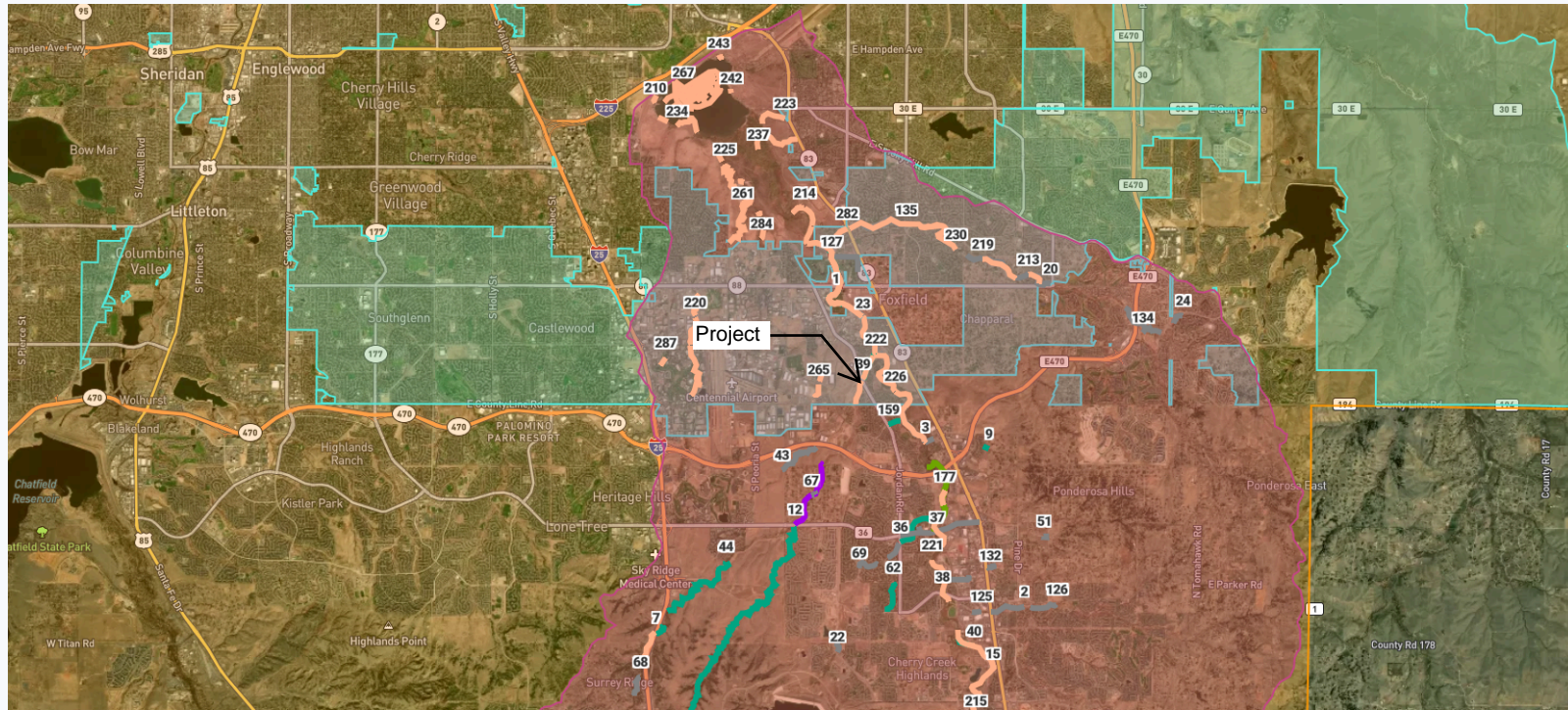
Enclosures: **Project Location Exhibit**



Cherry Creek Basin Water Quality Authority Map

Happy Canyon Creek at Jordan

Created: March 27th 2024, 3:53pm



3 mi



THIRD AMENDMENT TO
AGREEMENT REGARDING
DESIGN AND CONSTRUCTION
OF DRAINAGE AND FLOOD CONTROL IMPROVEMENTS FOR
HAPPY CANYON CREEK FROM JORDAN ROAD TO BRONCOS PARKWAY

Agreement No. 21-05.24C
Project No. 108514

THIS THIRD AMENDMENT TO AGREEMENT (hereinafter called "THIRD AMENDMENT"), by and between URBAN DRAINAGE AND FLOOD CONTROL DISTRICT D/B/A MILE HIGH FLOOD DISTRICT (hereinafter called "DISTRICT") and SOUTHEAST METRO STORMWATER AUTHORITY (hereinafter called "SEMSWA") and CHERRY CREEK BASIN WATER QUALITY AUTHORITY (hereinafter called "CCBWQA"), known singularly herein as "PARTY" and collectively known as "PARTIES";

WITNESSETH:

WHEREAS, PARTIES have entered into "Agreement Regarding Design and Construction of Drainage and Flood Control Improvements for Happy Canyon Creek from Jordan Road to Broncos Parkway" (Agreement No. 21-05.24) dated June 30, 2021, as amended by First Amendment (Amendment No. 21-05.24A), dated May 22, 2022, as amended by Second Amendment (Amendment No. 21-05.24B), dated May 21, 2023 (collectively called "AGREEMENT"); and

WHEREAS, PARTIES now desire to proceed with design and construction of drainage and flood control improvements for Happy Canyon Creek from Jordan Road to Broncos Parkway (hereinafter called "PROJECT"); and

WHEREAS, PARTIES desire to increase the level of funding by \$500,000; and

WHEREAS, DISTRICT's Board of Directors has authorized additional DISTRICT financial participation for PROJECT (Resolution No. , Series of 2024); and

WHEREAS, the PARTIES Boards of Directors, have authorized, by appropriation or resolution, each PARTY's share of PROJECT costs.

NOW, THEREFORE, in consideration of the mutual promises contained herein, PARTIES hereto agree as follows:

1. Paragraph 4. PROJECT COSTS AND ALLOCATION OF COSTS is deleted and replaced as follows:

4. PROJECT COSTS AND ALLOCATION OF COSTS

A. PARTIES agree that for the purposes of this AGREEMENT, PROJECT costs shall consist of and be limited to the following:

1. Final design services;
2. Construction of improvements;
3. Contingencies mutually agreeable to PARTIES.

B. It is understood that PROJECT costs as defined above are not to exceed \$1,823,000 without amendment to this AGREEMENT.

PROJECT costs for the various elements of the effort are estimated as follows:

<u>ITEM</u>	<u>AS AMENDED</u>		<u>PREVIOUSLY AMENDED</u>
1. Final Design	\$	700,000	\$ 700,000
3. Construction	\$	1,123,000	\$ 623,000
4. Contingency*	\$	-0-	\$ -0-
Grand Total	\$	1,823,000	\$ 1,323,000

* It is anticipated that funds for contingency shall be added to this Agreement at a future date.

This breakdown of costs is for estimating purposes only. Costs may vary between the various elements of the effort without amendment to this Agreement provided the total expenditures do not exceed the maximum contribution by all PARTIES plus accrued interest, if applicable.

C. Based on total PROJECT costs, the maximum percent and dollar contribution by each party shall be:

	<u>Percentage Share</u>	<u>Previously Contributed</u>	<u>Additional Contribution</u>	<u>Maximum Contribution</u>
DISTRICT	48.8%	\$640,000	\$250,000	\$890,000
SEMSWA	38.5%	\$502,000	\$200,000	\$702,000
CCBWQA	12.7%	\$181,000	\$50,000	\$231,000
TOTAL	100.00%	\$1,323,000	\$500,000	\$1,823,000

D. DISTRICT and SEMSWA acknowledge that (i) CCBWQA does not by this Agreement irrevocably pledge present cash reserves for payments in future fiscal years, and (ii) It is understood and agreed that notwithstanding any other provision contained herein to the contrary, any additional contribution obligation of CCBWQA hereunder, whether direct or contingent, shall extend only to funds duly and lawfully appropriated and encumbered by the Board of Directors of CCBWQA for the purposes of the Agreement, and paid into the Treasury of CCBWQA, and shall under no circumstances exceed \$231,000 without CCBWQA's prior express written consent.

2. Paragraph 5. MANAGEMENT OF FINANCES is deleted and replaced as follows:

5. MANAGEMENT OF FINANCES

As set forth in DISTRICT policy (Resolution No. 11, Series of 1973, Resolution No. 49, Series of 1977, and Resolution No. 37, Series of 2009), the funding of a local body's share may come from its own revenue sources or from funds received from state, federal or other sources of funding without limitation and without prior DISTRICT approval.

Payment of each PARTY's full share (SEMSWA - \$702,000; CCBWQA - \$231,000; DISTRICT - \$890,000) shall be made to extent not previously paid, shall be made to DISTRICT subsequent to execution of this

AGREEMENT and within 30 days of request for payment by DISTRICT. The payments by PARTIES shall be held by DISTRICT in a special fund to pay for increments of PROJECT as authorized by PARTIES, and as defined herein. DISTRICT shall provide a periodic accounting of PROJECT funds as well as a periodic notification to SEMSWA and CCBWQA and COUNTY of any unpaid obligations. Any interest earned by the monies contributed by PARTIES shall be accrued to the special fund established by DISTRICT for PROJECT and such interest shall be used only for PROJECT upon approval by the contracting officers (Paragraph 13).

Within one year of completion of PROJECT if there are monies including interest earned remaining which are not committed, obligated, or disbursed, each party shall receive a share of such monies, which shares shall be computed as were the original shares; or at SEMSWA or CCBWQA or COUNTY request, SEMSWA or CCBWQA or COUNTY share of remaining monies shall be transferred to another special fund held by DISTRICT.

3. All other terms and conditions of this AGREEMENT shall remain in full force and effect.

WHEREFORE, PARTIES hereto have caused this THIRD AMENDMENT to be executed by properly authorized signatories as of the date and year written below.

URBAN DRAINAGE AND FLOOD
CONTROL DISTRICT
D/B/A
MILE HIGH FLOOD DISTRICT

By _____

Name Laura A. Kroeger

Title Executive Director

Date _____

Checked By

SOUTHEAST METRO STORMWATER
AUTHORITY

By _____

Name _____

Title _____

Date _____

CHERRY CREEK BASIN
WATER QUALITY AUTHORITY

CCBWQA Checked by

By _____

Name _____

Title CCBWQA Chairman

Date _____

Attest:

APPROVED AS TO FORM:

Timothy J. Flynn, General Counsel for
CCBWQA



SUMMARY MEMORANDUM

To: CCBWQA TAC
From: Jane Clary, Technical Manager
Date: March 29, 2024
Subject: Application for FY25 Congressionally Directed Spending

On March 28, 2024, CCBWQA submitted an application for FY25 Congressionally Directed Spending to Senators Bennet and Hickenlooper, with a copy provided to Congressman Jason Crow's office. The "receipt" for the on-line Google Form is attached, along with supplemental cost information and an outreach summary. Letters of support were provided by Mayor Stephanie Piko of the City of Centennial, Chairperson Carrie Warren Gully of the Arapahoe County Commissioners, and Joe Maxwell with the U.S. Army Corps of Engineers. CCBWQA staff and Executive Committee members coordinated with the USACE Tri Lakes Office prior to submittal of the application to confirm that the project had a reasonable nexus to the USACE Operations and Maintenance funding category in the grant application. (The grant application required selection of a federal program for funding.)

Prior to the submittal of the application, CCBWQA staff and Mayor Piko also coordinated with staff in Senator Bennet's who are aware of CCBWQA's application. Representative Crow's office confirmed receipt of a copy of the application and will let CCBWQA know when Congressman Crow's funding application is available.

Enclosure

Note: Google Form Receipt does not include original formatting or show which yes/no answers were selected in the application; therefore, this "receipt" is for general information only.

From: [Manager](#)
To: [Jane Clary](#)
Subject: FW: FY25 Congressionally Directed Spending Official Request Form for U.S. Senators Michael Bennet and John Hickenlooper
Date: Thursday, March 28, 2024 2:51:30 PM

From: Google Forms <forms-receipts-noreply@google.com>
Sent: Thursday, March 28, 2024 2:23 PM
To: Manager <manager@ccbwqa.org>
Subject: FY25 Congressionally Directed Spending Official Request Form for U.S. Senators Michael Bennet and John Hickenlooper

Google Forms



Thanks for filling out [FY25 Congressionally Directed Spending Official Request Form for U.S. Senators Michael Bennet and John Hickenlooper](#)

Here's what was received.

FY25 Congressionally Directed Spending Official Request Form for U.S. Senators Michael Bennet and John Hickenlooper

Please submit your Congressionally Directed Spending (CDS) request for fiscal year 2025 (FY25) by **11:59 PM MT on Friday, March 29th.**

As our offices work to secure important federal funding for Colorado, we welcome CDS requests for the upcoming FY25. The CDS process is an opportunity for state and local government entities and nonprofits to request funding from members of Congress for specific projects in their home states.

Funding for projects, if selected by the Senate Committee on Appropriations and ultimately passed into law by Congress, would be distributed as part of the federal appropriations process during FY25.

Senators Bennet and Hickenlooper are providing a joint application process for FY25 CDS projects. Applicants will be able to complete *one* application form which will be received by both offices. **Each Senator will then review project requests and submit to the Senate Committee on Appropriations individually.**

Please ensure your submission is consistent with the guidelines set by the Senate Committee on Appropriations. Our staff will carefully review all requests. Please note the submission of requests **does not** guarantee funding. If you have any questions, please contact one of our regional offices. You can find office locations and contact information for Senator Bennet [here](#) and Senator Hickenlooper [here](#).

All requests for CDS must include one letter of support from either state, local, or tribal governments or community leaders that details the community benefits and support for the project. Please email your letter of support to both cds@hickenlooper.senate.gov and directedspending@bennet.senate.gov.

Please provide your email address below to receive a copy of your request responses. If you would like to review the full form, please view [this PDF](#).

If you are looking for the FY25 programmatic request form, please visit our websites: [Senator Michael Bennet Programmatic Request Form](#) and [Senator John Hickenlooper Programmatic Request Form](#). Note: the senators have separate programmatic request forms.

Email *

manager@ccbwwqa.org

Primary Contact Information

Please provide information for the primary point of contact from the requesting organization or government entity. This individual is the person who will be contacted by the agency for dispersal of funds. Their personal contact information will not be publicized.

First and Last Name *

Jane Clary

Organization *

Cherry Creek Basin Water Quality Authority

Title *

Technical Manager

Phone *

303-803-5187

Email *

manager@ccbwqa.org

Street Address *

P.O. Box 3166

City *

Centennial

State *

CO

Zip Code *

80161

Is this form being filled out by the point of contact listed above? *

Yes

No

Project Information

If your request is submitted by either Senator, it will be listed the project on their website as an official fiscal year 2025 (FY25) request.

Project Title *

Cherry Creek Reservoir Basin Stream Restoration

Statement of Project Purpose: Please provide a brief description of the project, including the specific activities that will be funded and its benefit to the community. *

The purpose of this project is restoration of Cherry Creek in Cherry Creek State Park between the Cherry Creek Reservoir and Lakeview Drive. This stream reach (Reach 1) is experiencing severe and progressive erosion that adversely impacts water quality in Cherry Creek Reservoir, impacts Cherry Creek State Park trails and infrastructure, places Aurora Water's water pipeline at risk, and may impact the U.S. Army Corps of Engineers' operation of the reservoir for flood control. The Basin Authority has completed a series of engineering studies on Cherry Creek to quantify the impacts of the erosion problem, dividing the channel into three reaches of concern, with Reach 1 being the highest priority. (Studies are accessible at <https://www.cherrycreekbasin.org/projects-prf-pap> under Cherry Creek, Reach 1 folder.) Alternative engineering solutions have been identified with cost estimates to restore the stream channel and surrounding riparian area. This request for funding focuses on construction of

the most urgent phase of the project (Phase 1 of Reach 1), with project tasks and costs provided in #39 of this application. As additional background, the Colorado legislature established the Cherry Creek Basin Water Quality Authority to protect and improve water quality in the reservoir and in Cherry Creek, particularly from nutrient pollution that leads to algal blooms. Despite very stringent total phosphorus limits for wastewater treatment plants in the basin and other projects, phosphorus loading to the reservoir remains high and the reservoir does not meet its chlorophyll-a water quality standard, with occasional harmful algal blooms occurring. Erosion of the stream channel in Reach 1 is an ongoing significant source of sediment and phosphorus loading (>1,680 pounds/year) to the reservoir. Stabilization of this channel is a high priority for the Basin Authority, with concerns increasing following the damaging summer floods of 2023; however, the Basin Authority's near-term funds are insufficient to complete the project without outside funding. The timeline for the project includes completion of a selected alternative for channel restoration (spring 2024), conceptual design (fall 2024), engineering design, permitting and contractor selection (spring-summer 2025), and construction beginning in the early fall of 2025 (during low flow conditions). The project will provide these benefits to the citizens of Colorado:

- Reduced phosphorus loading to Cherry Creek Reservoir, which is experiencing summer algal blooms, including some harmful algal blooms requiring closure of parts of the reservoir to recreation.
- Supports U.S. Army Corps of Engineers' operation and maintenance objectives for flood control functions of the reservoir.
- Protection of Aurora Water's major water supply line through the State Park.
- Increased channel stability for Cherry Creek during flood conditions, reducing damage to trails and Colorado Parks and Wildlife's only road crossing the State Park (Lakeview Drive).
- Improved stream function for aquatic life, floodplain reconnection and riparian vegetation.
- Improved experience of a natural amenity for over 1.5 million annual visitors to Cherry Creek State Park.

Exact Project Address *

Cherry Creek State Park, 4201 S. Parker Rd., Aurora, CO 80014 (Cherry Creek downstream of Lakeview Dr.)

County where the project is located *

Arapahoe

Proposed project start date: *

MM DD YYYY

09 / 01 / 2025

Proposed project completion date: *

MM DD YYYY

12 / 31 / 2027

Describe how the proposed project purpose is consistent with the activities and mission of the federal agency which would fund the project. If you are unsure of which agency you are requesting funding from, please identify which agencies best oversee the project's purpose. *

The project is located on property owned by the U.S. Army Corps of Engineers and within the flood pool of the Cherry Creek Reservoir, which was constructed and is operated for flood control. The project is consistent with Operations and Maintenance of the reservoir because it will reduce sediment loading to the reservoir, reduce algal blooms, and reduce large woody debris hazards in the reservoir under flood conditions. The incised and eroding channel is surrounded by dying and dead trees that can be transported into the reservoir under flood events.

Why is this project a good use of taxpayer funds and how will it benefit the state of Colorado? *

This project is a good use of taxpayer funds because it protects and restores a public resource that experiences over 1.5 million park visitors per year. It is an urban oasis that is easily accessible within the metro-Denver area. Families of diverse ethnic and socioeconomic backgrounds access the park to enjoy the trail system, birds and other wildlife, fishing, camping, water recreation, picnicking and other activities. On an annual basis, Colorado Parks and Wildlife harvests over 100 million walleye eggs from the reservoir to support other fisheries throughout Colorado. The cost of the project exceeds the near-term available funds of the Basin Authority and its partners, with more erosion occurring and costs increasing the longer the project is delayed. Additionally, Cherry Creek Reservoir is considered "impaired" for elevated chlorophyll-a and this project helps to reduce over 1,600 pounds of annual phosphorus loading that "feed" algal blooms, which can be harmful and result in beach closures to the public and a diminished experience.

What is the total cost of the project? *

\$11.74 million for Phase 1 of Cherry Creek Reach 1

What amount is being requested for Congressionally Directed Spending? *

\$3 million

Is this a one-time request for Congressionally Directed Spending? *

Yes

No

If additional federal support is necessary, when will the project be self-sustaining? *

Not applicable

What are the sources of the remaining non-federal funding (private or other governmental funding) and when will that funding be secured? *

Cherry Creek Basin Water Quality Authority, Mile High Flood District, and Aurora Water are primary non-grant-related funding partners. Grant applications in progress to Colorado Water Conservation

Board and Great Outdoors Colorado. Funding request made to Colorado Parks and Wildlife. Funding expected to be secured for use within a 5-year window from partners.

Please list all organizations that have committed funds or are expected to commit funds for this project

Cherry Creek Basin Water Quality Authority, Mile High Flood District, and Aurora Water are primary non-grant-related funding partners. Grant applications in progress to Colorado Water Conservation Board and Great Outdoors Colorado. Funding request made to Colorado Parks and Wildlife.

Does the request include a request for construction, the acquisition of property, or renovation of buildings? *

Yes

No

Other:

If the request includes a request for new construction, has this construction already begun? *

Yes

No

Not Applicable

If the request includes construction, have you begun the process of any necessary environmental review? *

Yes

No

Unsure

N/A

Is this project, or a portion of this project, contingent on receiving CDS funding?

*

Yes, the entire project is contingent on receiving CDS funding

Yes, a portion of this project is contingent on receiving CDS funding

No

Please explain any necessary funding or timing contingencies for this project. If there are none, you may leave this answer blank.

The Basin Authority's timeline for the project includes: 1) completion of a selected alternative for channel restoration (stakeholder meeting on April 4, 2024, with report completion in the spring 2024); 2) conceptual design (fall 2024); 3) engineering design, permitting and contractor selection (spring-summer 2025); and 4) construction targeted to begin in the early fall of 2025 (during low flow conditions). Depending on the timing of environmental permits and funding, construction timelines could be extended. The Basin Authority is concurrently applying for other grants and aligning funding timelines with partners. Funds are available for Steps 1-3 of the timeline; the focus of this CDS funding request is Step 4 focused on construction. The project timeline is targeted to be completed within a five-year period; however, this planned timeline is not a requirement by other funding partners. The Basin Authority desires to construct the project as soon as feasible because damages and costs are likely to increase the longer the project is delayed.

Does this project have multiple phases or phase out options? If so, please explain them; include funding amounts required for each phase. If there are none, you may leave this

answer blank.

Yes; however, this funding request is limited to the most urgent minimum phase of the project referred to as "Phase 1 of Cherry Creek Reach 1 channel and overbank stabilization" as described in the engineer's planning level opinion of probable project costs, also provided separately by email. The project scope is the minimum phase/scope that is practical for the project, based on current information. The overall cost for Reach 1 is \$18-24 million, with an additional \$10 million or more upstream of Lakeview Drive.

Provide an itemized budget outlining how the requested funding will be used. Please provide as much detail as possible for each individual expense.

For reference, [here](#) is an example itemized budget template used by many federal agencies.

*

Summary provided below. Engineer's planning level opinion of probable project costs also provided separately by email. Additional project information posted here:

<https://www.cherrycreekbasin.org/projects-prf-pap> under folder Cherry Creek Reach 1. PROJECT COST CHERRY CREEK REACH 1, PHASE 1 Primary Channel Stabilization = \$5,500,000 Fill/Reclaim Existing Channel = \$1,020,000 Selective Tertiary Overflow Path Enhancement = \$ 500,000 Construction Subtotal = \$7,020,000 Construction Contingency (25%) = \$1,755,000 Engineering Final Design Services (12%) = \$1,053,000 Environmental Permitting Services (3%) = \$ 263,250 Construction Services (10%) = \$ 877,500 Total (2024) Project Dollars = \$10,970,000 Total (2025) Project Dollars (w/inflation) = \$11,740,000 TOTAL FUNDING REQUEST BREAKDOWN CDS Funds Requested = \$3,000,000 Estimated Cost Share by Applicant = \$3,000,000 Estimated Cost Share Provided by Others = \$5,740,000

Has funding for this project been included in any prior Presidential Budget Request? If so, please detail years, accounts, and requested amounts. *

No

Has this project previously received federal funding? If so, please details amounts, dates, and sources. *

No

Have you previously requested this project for Congressionally Directed Spending? If yes, please list the Member(s) of Congress from whom you requested CDS funding. *

No (but we plan to reach out to Jason Crow)

Has this project previously received CDS funding? If so, please also list the members credited with the request and the fiscal year it was requested. *

No

Please select the topic/appropriations subcommittee that best aligns with your project. *

Energy and Water

Energy and Water

Please note that Department of Energy projects have up to a 50% federal cost share. For U.S. Army Corps of Engineers projects, please contact your local district (Albuquerque or Omaha) to confirm specific project cost shares and eligibility.

Please select the account you would like your request to receive funding from: *

U.S. Army Corps of Engineers; Investigations

U.S. Army Corps of Engineers; Construction

U.S. Army Corps of Engineers; Operations & Maintenance

U.S. Army Corps of Engineers; Mississippi River & Tributaries: Investigations

U.S. Army Corps of Engineers; Mississippi River & Tributaries: Construction

U.S. Army Corps of Engineers; Mississippi River & Tributaries: Operation & Maintenance

Bureau of Reclamation; Water and Related Resources

Department of Energy; Renewable and Clean Energy Projects

Department of Energy; Electricity and Energy Resiliency Projects

Department of Energy; Cybersecurity and Energy Security Projects

Department of Energy; Nuclear Energy Projects

Department of Energy; Fossil Energy or Carbon Management Projects

Many of the Department of Energy accounts have cost-share or match requirements (up to 50%), depending on the scope and technological maturity of the project. Is your organization prepared to provide match funding if your request is funded under one of these accounts? *

Yes

No

Not Applicable

Requesting Organization Information

Is the requesting organization a public or 501(c)3 non-profit organization? *

Yes

No

Please provide the organization's Employer Identification Number (EIN) *

84-1116288

Is the proposed recipient currently in material non-compliance of a prior grant award made by the proposed Federal funding agency? *

Yes

No

Has the organization or any potential sub-grantees been subject to sanction or litigation by State, Local, or Federal governments in the past five years? *

Yes

No

If your organization or any potential sub-grantees been subject to sanction or litigation by State, Local, or Federal governments in the past five years, please provide additional details here:

Not Applicable

Community Support

All requests for CDS must include one letter of support from either the state, local, or tribal governments, or community leaders that details the community benefits and support for the project. Please email a PDF version of the letter of support to directedspending@bennet.senate.gov and cds@hickenlooper.senate.gov.

What individual or entity wrote/will write a letter of support for your project? *

Jane Clary, Technical Manager, Cherry Creek Basin Water Quality Authority

Have you emailed your letter of support? *

Yes

No

Are you submitting this request to other Members of Congress?

If you plan to submit your Congressionally Directed Spending request to multiple members of Colorado's federal delegation for consideration, we ask that you submit identical applications.

Have you submmitted this request to another Member of Congress from Colorado? *

Representative Diana DeGette

Representative Joe Neguse

Representative Lauren Boebert

Representative Ken Buck

Representative Doug Lamborn

Representative Jason Crow

Representative Brittany Pettersen

Representative Yadira Caraveo

None

Have you submitted, or will you submit any different CDS requests (including separate phases of this same request or requests for this project that are not identical to the request you are currently submitting) to Senators Bennet and Hickenlooper or any other Member of Congress this fiscal year?

If yes, please list the following information for each other request:

- 1) Project name and a general outline of the request
- 2) Amount requested
- 3) How, if at all, the projects relate to each other (for example, some projects may be separate phases of a larger project, or construction projects on the same site); please explain the extent of any overlap between any of these projects and the project you are currently requesting from us
- 4) Which Members of Congress have received or will receive these requests

If you are not submitting any other requests to Members of Congress this fiscal year, you

may leave this section blank.

We intend to submit a substantively similar application to Jason Crow's office.

Additional Information

Please share any information that is relevant for consideration of your application, which may not be reflected elsewhere on this form

Basin Authority staff have coordinated with the U.S. Army Corps of Engineers Tri-Lakes office in advance of this application, with local staff providing a letter of support for this application. Coordination between the Tri Lakes and Omaha USACE offices was in progress at the time this application was submitted. A PDF containing key figures and a more detailed cost estimate are being emailed separately to support this application, if needed by reviewers.

Does your project have a website? If so, please provide a link here. Note that this is optional, and submissions lacking websites will not be penalized.

<https://www.cherrycreekbasin.org/projects-prf-pap>

[Create your own Google Form](#)

[Report Abuse](#)

We Need Your Help to Protect Cherry Creek and the Reservoir!

Where:

Cherry Creek State Park (CCSP, see Figure 1) and Cherry Creek Reservoir serve as an oasis for the Denver metro area and Colorado Front Range. CCSP is in Arapahoe County, surrounded by Denver, Greenwood Village, Aurora, and Centennial. CCSP sees over 2 million park visitors annually that enjoy the natural resources and recreation provided by Cherry Creek and the Reservoir.

Who:

The Cherry Creek Basin Water Quality Authority (CCBWQA) and Colorado Parks and Wildlife (CPW) are working to protect the water quality in Cherry Creek and the Reservoir. For more, see <https://www.cherrycreekbasin.org/>.

Issue:

Severe erosion (see photos 1 and 2) is occurring in Cherry Creek in CCSP and in Piney Creek immediately upstream. The erosion is threatening the surrounding environment, wildlife corridors, critical infrastructure, and water quality. Additionally, downed trees could become debris in a large flood event potentially impacting the flood control purpose of the Reservoir.

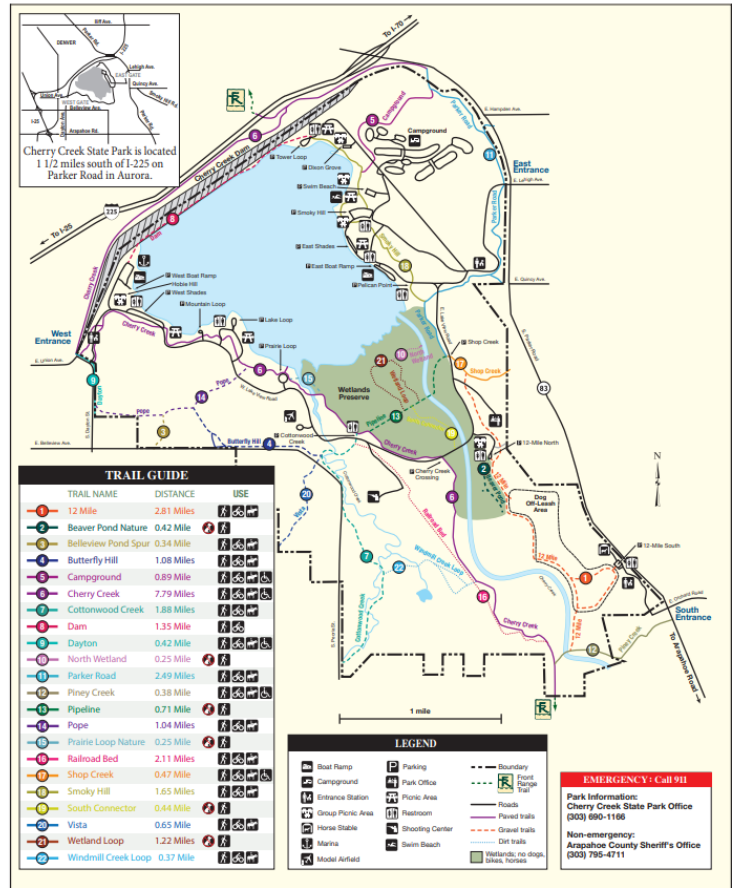


Figure 1 - Cherry Creek State Park



Photo 1 – Cherry Creek in CCSP



Photo 2 – Cherry Creek upstream of CCSP



We Need Your Help to Protect Cherry Creek and the Reservoir!

Background:

Muller Engineering Company recently completed a stream channel and water quality assessment on Cherry and Piney Creeks (see Figure 2) for CCBWQA that identified serious issues requiring a major capital investment to repair. Key findings include:

- erosion in the lower reach of Cherry Creek is estimated to contribute over 1,700 pounds of phosphorus per year, which can contribute to harmful algal blooms in the reservoir,
- initial estimate of channel reclamation cost is over \$23 million within the park and an additional \$10 million upstream of the park, which exceeds the combined resources of CCBWQA and Cherry Creek State Park. A more detailed alternatives evaluation is being completed to identify a phased approach to the project and to refine project costs, and
- risks of inaction include continued erosion, environmental impacts, loss of wildlife habitat and natural resources, risk to infrastructure including a water supply pipeline and roads, significant on-going phosphorus and sediment loading to the Reservoir, and increased damages when flooding occurs.

Our Request:

Because of the high capital cost needed to complete these repairs in a timely manner, CCBWQA and CPW are seeking funding partners to support stream reclamation similar to the example shown in Photos 3 and 4 in Chatfield State Park. In 2023, CCBWQA is preparing an alternatives analysis that will result in a refined plan for reclamation and a refined cost estimate. We are currently identifying partners who may be able to help fund this high priority project.



Photo 3 – Example of Similar Degraded in Plum Creek in Chatfield State Park Prior to Stabilization

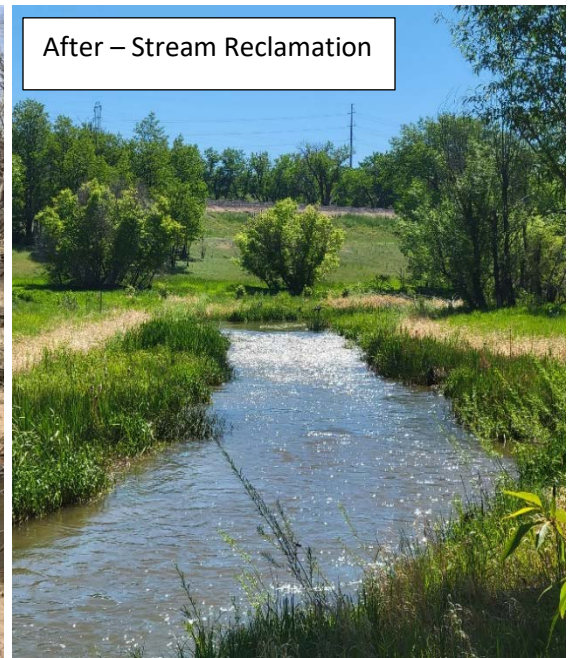
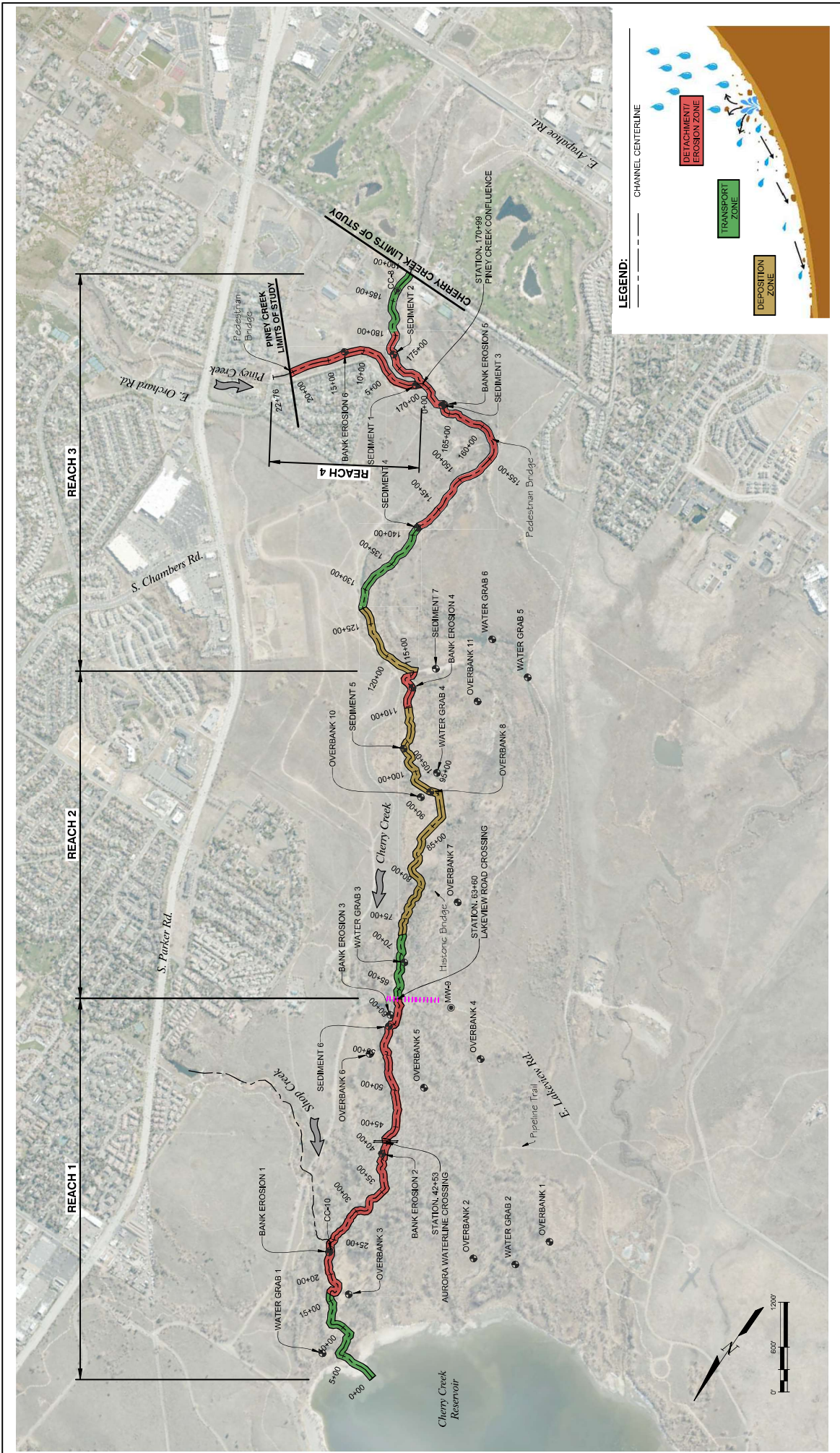


Photo 4 – Example Reclaimed Channel of Plum Creek in Chatfield State Park





<p>FIGURE 2</p>	<p>DATE: 5/20/2021</p>
	<p>DRAWING NO.</p>
<p>CHERRY CREEK RESERVOIR TO 12 MILE GEOMORPHIC SUMMARY</p>	<p>SHEET NO. 1 OF 1</p>
	<p>DATE: 8/17/2022 1:54:26 PM PLOTTED: F:\2022\PROJECTS\2022\02 SITE SEGMENT EXHIBIT 2.DWG</p>



Cost Estimate - Upper Range						
BID ITEM #	DESCRIPTION OF BID ITEM	QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	COMMENTS
Channel and Overbank Stabilization						
1	Primary Channel Stabilization	5500	LF	\$ 1,000	\$ 5,500,000	
2	Secondary Channel Stabilization	5000	LF	\$ 800	\$ 4,000,000	
3	Tertiary Overflow Path Enhancement	1	LS	\$ 2,000,000	\$ 2,000,000	
Channel and Overbank Stabilization Subtotal					\$ 11,500,000	
Lakeview Drive Improvements						
4	36" Reinforced Concrete Pipe	770	LF	\$ 320	\$ 246,400	
5	36" Flared End Section	22	EA	\$ 5,000	\$ 110,000	
6	20' Span x 3' Rise Concrete Box Culvert	2	EA	\$ 500,000	\$ 1,000,000	
7	Asphalt Removal	290	SY	\$ 27	\$ 7,830	
8	Asphalt Replacement	160	TON	\$ 220	\$ 35,200	
9	Embankment Protection, Type M Soil Riprap	2400	CY	\$ 116	\$ 278,400	
10	Misc. Roadway Costs	1	LS	\$ 419,458	\$ 419,458	25% of culvert and asphalt costs
Lakeview Drive Improvements Subtotal					\$ 2,097,288	
Subtotal Construction					\$ 13,597,288	
Contingency (25%)					\$ 3,399,322	
Total Construction					\$ 16,996,609	
Engineering Final Design Services (12%)					\$ 2,039,593	
Environmental Permitting Services (3%)					\$ 509,898	
Construction Services (10%)					\$ 1,699,661	
Total Project (2024 Dollars)					\$ 21,245,762	
Total Project (2025 Dollars)					\$ 22,730,000	
Total Project (2026 Dollars)					\$ 24,320,000	

Cost Estimate - Lower Range						
BID ITEM #	DESCRIPTION OF BID ITEM	QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	COMMENTS
Channel and Overbank Stabilization						
1	Primary Channel Stabilization	5500	LF	\$ 1,000	\$ 5,500,000	
2	Secondary Channel Enhancement	5000	LF	\$ 500	\$ 2,500,000	
3	Tertiary Overflow Path Enhancement	1	LS	\$ 1,500,000	\$ 1,500,000	
Channel and Overbank Stabilization Subtotal					\$ 9,500,000	
Lakeview Drive Improvements						
4	36" Reinforced Concrete Pipe	770	LF	\$ 320	\$ 246,400	
5	36" Flared End Section	22	EA	\$ 5,000	\$ 110,000	
6	20' Span x 3' Rise Concrete Box Culvert	1	EA	\$ 500,000	\$ 500,000	
7	Asphalt Removal	290	SY	\$ 27	\$ 7,830	
8	Asphalt Replacement	160	TON	\$ 220	\$ 35,200	
9	Embankment Protection, Type M Soil Riprap	2400	CY	\$ 116	\$ 278,400	
10	Misc. Roadway Costs	1	LS	\$ 294,458	\$ 294,458	25% of culvert and asphalt costs
Lakeview Drive Improvements Subtotal					\$ 1,472,288	
Subtotal Construction					\$ 10,972,288	
Contingency (25%)					\$ 2,743,072	
Total Construction					\$ 13,715,359	
Engineering Final Design Services (12%)					\$ 1,645,843	
Environmental Permitting Services (3%)					\$ 411,461	
Construction Services (10%)					\$ 1,371,536	
Total Project (2024 Dollars)					\$ 17,144,199	
Total Project (2025 Dollars)					\$ 18,340,000	
Total Project (2026 Dollars)					\$ 19,620,000	

Note: This is a planning level opinion of probable project costs. Engineering, permitting, and construction services will be refined as the scope becomes further defined.

CDOT CPI - Inflation		
2023 Q1	1.87	7.0%
2023 Q4	2.00	

Note: average annual inflation 2012-2023 is 7.8%

Cherry Creek Reach 1

Planning Level Opinion of Probable Project Costs - Phase 1

5-Mar-24

Cost Estimate - Phase 1						
BID ITEM #	DESCRIPTION OF BID ITEM	QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	COMMENTS
1	Primary Channel Stabilization	5500	LF	\$ 1,000	\$ 5,500,000	
2	Fill/Reclaim Existing Channel	3400	LF	\$ 300	\$ 1,020,000	
3	Selective Tertiary Overflow Path Enhancement	1	LS	\$ 500,000	\$ 500,000	
Phase 1 Subtotal					\$ 7,020,000	
Contingency (25%)					\$ 1,755,000	
Total Construction					\$ 8,775,000	
Engineering Final Design Services (12%)					\$ 1,053,000	
Environmental Permitting Services (3%)					\$ 263,250	
Construction Services (10%)					\$ 877,500	
Total Project (2024 Dollars)					\$ 10,970,000	
Total Project (2025 Dollars)					\$ 11,740,000	
Total Project (2026 Dollars)					\$ 12,560,000	

Note: This is a planning level opinion of probable project costs. Engineering, permitting, and construction services will be refined as the scope becomes further defined.

CDOT CPI - Inflation		
2023 Q1	1.87	7.0%
2023 Q4	2.00	

Note: average annual inflation 2012-2023 is 7.8%

Cherry Creek Reach 1
 Planning Level Opinion of Probable Project Costs - Phase 2

5-Mar-24

Cost Estimate - Phase 2						
BID ITEM #	DESCRIPTION OF BID ITEM	QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	COMMENTS
1	20' Span x 3' Rise Concrete Box Culvert	1	EA	\$ 500,000	\$ 500,000	East Culvert Only
2	Asphalt Removal (only over new culvert)	290	SY	\$ 27	\$ 7,830	
3	Asphalt Replacement (only over new culvert)	160	TON	\$ 220	\$ 35,200	
4	Embankment Protection, Type M Soil Riprap	2400	CY	\$ 116	\$ 278,400	
5	Misc. Roadway Costs	1	LS	\$ 205,358	\$ 205,358	25% of culvert and asphalt costs
Phase 2 Subtotal					\$ 1,026,788	
Contingency (25%)					\$ 256,697	
Total Construction					\$ 1,283,484	
Engineering Final Design Services (12%)					\$ 154,018	
Environmental Permitting Services (3%)					\$ 38,505	
Construction Services (10%)					\$ 128,348	
Total Project (2024 Dollars)					\$ 1,610,000	
Total Project (2025 Dollars)					\$ 1,730,000	
Total Project (2026 Dollars)					\$ 1,860,000	

Note: This is a planning level opinion of probable project costs. Engineering, permitting, and construction services will be refined as the scope becomes further defined.

CDOT CPI - Inflation		
2023 Q1	1.87	7.0%
2023 Q4	2.00	

Note: average annual inflation 2012-2023 is 7.8%

Cherry Creek Reach 1
Planning Level Opinion of Probable Project Costs - Phase 3

5-Mar-24

Cost Estimate - Phase 3						
BID ITEM #	DESCRIPTION OF BID ITEM	QUANTITY	PAY UNIT	UNIT PRICE	TOTAL COST OF BID ITEM	COMMENTS
1	Secondary Channel Enhancement	5000	LF	\$ 800	\$ 4,000,000	
2	Tertiary Overflow Path Enhancement	1	LS	\$ 500,000	\$ 500,000	
3	36" Reinforced Concrete Pipe	770	LF	\$ 320	\$ 246,400	
4	36" Flared End Section	22	EA	\$ 5,000	\$ 110,000	
5	20' Span x 3' Rise Concrete Box Culvert	1	EA	\$ 500,000	\$ 500,000	West Culvert Only
6	Asphalt Removal (assume entire length of crossing)	2670	SY	\$ 27	\$ 72,090	
7	Asphalt Replacement (assume entire length of crossing)	1340	TON	\$ 220	\$ 294,800	
8	Misc. Roadway Costs	1	LS	\$ 305,823	\$ 305,823	25% of culvert and asphalt costs
Phase 3 Subtotal					\$ 6,029,113	
Contingency (25%)					\$ 1,507,278	
Total Construction					\$ 7,536,391	
Engineering Final Design Services (12%)					\$ 904,367	
Environmental Permitting Services (3%)					\$ 226,092	
Construction Services (10%)					\$ 753,639	
Total Project (2024 Dollars)					\$ 9,430,000	
Total Project (2025 Dollars)					\$ 10,090,000	
Total Project (2026 Dollars)					\$ 10,800,000	

Note: This is a planning level opinion of probable project costs. Engineering, permitting, and construction services will be refined as the scope becomes further defined.

CDOT CPI - Inflation		
2023 Q1	1.87	7.0%
2023 Q4	2.00	

Note: average annual inflation 2012-2023 is 7.8%



Administration Building
5334 South Prince Street
Littleton, Colorado 80120
303-795-4630
arapahoeco.gov

March 25, 2024

Senator John Hickenlooper
Byron Rogers Federal Building
1961 Stout Street
Suite 12-300
Denver CO 80294

Senator Michael Bennet
Cesar E. Chavez Memorial Building
1244 Speer Boulevard
Denver, CO 80204

Dear Senator Hickenlooper and Senator Bennet,

We are writing to express our support for the Cherry Creek Basin Water Quality Authority’s application for FY25 Congressionally Direct Spending regarding restoration of Cherry Creek in Cherry Creek State Park. This critical project would improve flood control and capacity within the park and adjacent areas as well as preserve the City of Aurora’s main water line, and improve stream function for aquatic life, floodplain reconnection and riparian vegetation.

Cherry Creek State Park is an urban oasis visited by over 1.5 million Colorado and national visitors each year. IT directly borders four cities within the metropolitan area (Denver, Aurora, Centennial and Greenwood Village) and is within a 10-mile radius of the Town of Parker, City of Lone Tree, and Foxfield. Families of diverse ethnic and socioeconomic backgrounds access the park to enjoy the trail system, wildlife, fishing, water recreation, picnicking and other activities. The park is accessible and connected by 42 miles of a multi-use trail system spanning from Castlewood Canyon to Downtown Denver. On an annual basis, Colorado Parks and Wildlife harvests over 100 million walleye eggs from the reservoir to support fisheries throughout Colorado.

The Cherry Creek Basin Water Quality Authority (Basin Authority) was established by the Colorado legislature to protect and improve water quality in the reservoir and in Cherry Creek, particularly from nutrient pollution that leads to algal blooms. Despite very stringent total phosphorus limits for wastewater treatment plants and other projects in the basin, phosphorus loading to the reservoir remains high and the reservoir does not meet its chlorophyll-a water quality standard, resulting in harmful algal blooms. Through recent engineering studies, the Basin Authority identified a severely eroding channel condition for Cherry Creek in the park between the reservoir and Lakeview Drive (“Reach 1”) that is not only contributing ongoing significant sediment and phosphorus loading (>1,680 pounds/year) to the reservoir, but it is

also impacting trails and vegetation (loss of trees), placing Aurora Water's major water pipeline at risk and causing other environmental impacts. Based on an engineering alternatives analysis, the Phase 1 cost to stabilize and restore Reach 1 is estimated at nearly \$12 million of an overall \$18 to \$24 million effort for the stream reach, far exceeding near-term resources available from the Basin Authority, local governments, Colorado Parks and Wildlife, and The Mile High Flood District, who are supportive of this project.

Your prioritization of Cherry Creek restoration as a Congressionally Directed Spending project will yield the following benefits to Colorado residents and the 1.5 million park visitors alike:

- Reduce phosphorus loading to Cherry Creek Reservoir, which would help reduce routine closures of the reservoir to recreational uses.
- Reduce sediment loading to Cherry Creek Reservoir, which would help maintain the U.S. Army Corps of Engineers flood control capacity and function within the park and adjacent areas.
- Increase channel stability for Cherry Creek during flood conditions, reducing damage to 2.25-miles of trails and the only road crossing the State Park (Lakeview Drive).
- Protect the City Aurora's water supply line through the State Park.
- Improve stream function for aquatic life, floodplain reconnection, over 40 mammal species, and riparian vegetation.

Thank you for your consideration of this critical project.

Sincerely,

ARAPAHOE COUNTY BOARD OF COMMISSIONERS



Commissioner Carrie Warren-Gully
Chair of the Board

CITY COUNCIL

District 1
Robyn Carnes
Amy Tharp

District 2
Tammy Maurer
Christine Sweetland

District 3
Richard Holt
Mike Sutherland

District 4
Marlo Alston
Don Sheehan

Dear Senators Bennet and Hickenlooper,

I am writing on behalf of the City of Centennial in support of Cherry Creek Basin Water Quality Authority's FY25 Congressionally Directed Spending application for the restoration of Cherry Creek in Cherry Creek State Park.

The initial estimate of channel reclamation cost is over \$23 million within Cherry Creek State Park and an additional \$10 million upstream of the park, exceeding the combined resources of Cherry Creek Basin Water Quality Authority and Cherry Creek State Park, which makes federal funding for this project imperative. The Authority's request is focused on Phase 1 of the highest priority portion of the stream reach, with an estimated cost of \$12 million. The erosion is threatening the surrounding environment, wildlife corridors, critical infrastructure, and water quality.

Risks of inaction include continued erosion, environmental impacts, loss of wildlife habitat and natural resources, risk to infrastructure including a water supply pipeline and roads, significant on-going phosphorus and sediment loading to the Reservoir, and increased damages from flooding.

We support this project to protect the tremendous asset that is Cherry Creek Reservoir. It is important to not only improve and protect the water quality in Cherry Creek and the Reservoir, but to provide access to nature in our urban landscape, protect the species that reside within the basin and ensure continued access for the health of our community.

Thank you for your consideration of this request.

Sincerely,



Mayor Stephanie Piko
City of Centennial
spiko@centennialco.gov
303-754-3374

CC: Centennial City Council
Representative Jason Crow



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
TRI-LAKES PROJECT
9307 S. WADSWORTH BLVD
LITTLETON, CO 80128

27 MAR 2024

Jane Clary
Technical Manager,
Cherry Creek Basin Water Quality Authority
Cherry Creek Lake State Park
Aurora, CO

Jane,

Thank you for the discussion on 26 MAR 2024 regarding the proposed Reach 1 of the Cherry Creek erosion control/repair/mitigation project. We appreciate you sharing information about the need for the project, the proposal, and the upcoming deadline for submitting Congressionally Directed Spending applications.

The Tri-Lakes Project supports the work of the Cherry Creek Basin Water Quality Authority in general, and the proposed Reach 1 project specifically.

We have been in contact with our Omaha District subject matter expert on this type of proposal and look forward to connecting the CCBWQA with the District to explore funding opportunities for this important work.

Joseph R Maxwell
Joseph Maxwell,
Operations Project Manager
Tri-Lakes Project Office

CHERRY CREEK BASIN WATER QUALITY AUTHORITY
2024 Capital Project Status Report
March 29, 2024

RESERVOIR PROJECTS

1. East Shade Shelters Phase III and Tower Loop Phase II Shoreline Stabilization (CCB-17.5.1 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. It has been estimated that roughly 14 cubic yards of soil was eroded from the 2023 storms (9/15/23). A progress meeting was held on 9/15/23, RESPEC will refine the breakout of components between recreational (CPW responsibility), water quality (CCBWQA responsibility), and shared (both CPW and CCBWQA responsibilities) costs and work on 408 review submittal to US Army Corps of Engineers. RESPEC was provided by the US Army Corps of Engineers' guidance on cut and fill and asked to prioritize the 408 application and review; they are coordinating with Gene Seagle in preparation for this submittal. RESPEC has provided a draft plan of action for the 408 permit submittal to be discussed with Gene (1/15). A meeting was held with Gene on (01/25/2024) to discuss the 408 requirements, subsequently RESPEC followed up with a submittal package PDF of the summary of impact for the project via email to Gene and Joe with USACE on (02/02/2024). Per email from Joe at USACE the proposed bank stabilization proposal is approved under routine operations and maintenance for 408 permitting. *The project team is moving forward with preparation of 90% Design completion. Per discussion with CPW (Michelle), there will be shared funding available in July 2024 for the project.*

Tower Loop Phase II –

2. Final design and construction are currently scheduled for 2032 and 2033.

STREAM RECLAMATION PROJECTS

1. Cherry Creek Stream Reclamation at Arapahoe Rd. - Valley Country Club to Soccer Fields, Reaches 3 to 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). MHFD is starting consultant selection process (10/13/23). Jacobs, Olsson, and Muller were shortlisted for interviews which are scheduled for mid-December (11/10/23). Muller was selected as the consultant (12/28/23). A scoping meeting for the project was held on (01/30/2024), a design scope is anticipated in the next month. *Muller provided a scope and fee, a meeting with the project stakeholders is scheduled for April 3rd to discuss.*

2. Cherry Creek - Reservoir to Lake View Drive Alternatives Analysis and Development of Preferred Alternative (CCB-5.16A)

- 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. The alternatives analysis kickoff meeting

was held on 8/29/23. A site visit was held on 9/22/23 to look at multiple flow paths and potential risks for consideration in alternatives analysis. It was verbally reported at the 11/16/23 Board meeting that Colorado Parks and Wildlife's repair of Lake View Drive is underway which includes the alternatives of concrete pipe and trash racks, cleaning out of culverts 1-9 and the beaver debris, and it is scheduled for completion by mid-December. Muller was provided US Army Corps of Engineers' guidance on cut and fill for consideration in their alternatives analysis (12/1/23). Muller is working through the Alternative Analysis and is coordinating a meeting (02/02/2024) to discuss alternatives in late February with the team. Muller presented a design alternatives overview in a meeting held on (02/28/2024) and is working to compile the alternatives analysis with costs to present at the April TAC meeting. *Muller is scheduled to present at the April TAC meeting (04/04/2024)*

3. 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. Muller submitted their 90% design submission on 9/14/23; the engineer's estimate confirms that additional funding is needed for construction. IGA Amendment for additional funding is scheduled for TAC and Board consideration at October meetings and 90% review meeting was held on 10/13/23. Comments were provided for 90% submittal and discussed at the review meeting (11/10/23).

4. 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 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). Construction of stream reclamation will start once Individual Permit Authorization has been received (11/10/23). CEI has sent final contract pricing to MHFD via email (01/26/2024) updated from pricing in October 2023. The Individual Permit authorization under section 404 of the Clean Water Act for the project was received on (02/29/2024). *The construction kickoff meeting was held on 03/18/2024.*

5. Piney Creek - Cherry Creek to Parker Road, Reaches 1 to 2 (SEMSWA) (CCB-6.5)

- 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). The project site was walked w/ith SEMSWA and Olsson and Associates on 8/30/23, Olsson is preparing their scope of work and fee for design. Comments on Olsson's scope of work and fee were provided to and coordinated with SEMSWA (11/10/23). Olsson's scope of work and fee have been finalized and SEMSWA is planning on contracting for the initial design phase in early 2024 (12/1/23). The design contract with Olsson was completed on (01/19/2024). A site visit is set with Nicole with SEMSWA for 02/12/2024 to observe and discuss the project. The project design kickoff meeting was held on 02/29/2024. *IGA 2nd Amendment was authorized by the Board on 03/21/2024 for funding of \$39,000 for 2024.*

6. Piney Creek south of Orchard Rd., Reaches 4 to 5 (SEMSWA) (CCB-6.6)

- a. Description: This project includes approximately 3,800 liner feet of stream reclamation on Piney Creek. The project partners are MHFD, SEMSWA and CCBWQA.
- b. Status: A site visit is set with Nicole with SEMSWA for 02/12/2024 to observe and discuss the project. A meeting was held with SEMSWA and MHFD to discuss IGA and potential consultants for design (03/07/2024)

7. McMurdo Gulch Priority 3 Stream Reclamation (CCB-7.4)

- 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. A meeting

was held on 01/24/2024 to help determine the approach for obtaining 404 permitting (including Muller, ERO, Castle Rock and CCBWQA). Wetland mitigation under a nationwide permit was recommended by ERO and potential cost impacts for this approach were discussed. Muller's is working on updating estimated construction costs but anticipates being able to move forward with one complete project instead of phasing into two (separating the work on the upstream reach). Muller provided a breakdown of the estimated construction cost versus budget in a meeting with Castle Rock on (02/08/2024) showing the potential to construct both projects in one phase.

8. Lone Tree Creek in CCSP downstream of Pond (CCBWQA Only) (CCB-21.1)

- a. Description: *New Project 2024 – Description TBD*
- b. Status:

9. Lone Tree Creek in Cherry Creek State Park (CCB-21.3)

- 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. The project is included in CCBWQA's 2024 Budget and 10-year CIP (11/10/23). UASCE is currently reviewing this project as of a letter requesting comments dated (12/15/2023). 100% Construction Documents were submitted (02/20/2024).

10. Happy Canyon Creek at Jordan Road (SEMSWA) (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 phosphorus 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). A progress meeting was held on 10/30/23 where the groundwater information was reviewed and the impacts from the 2023 storms were discussed; MHFD is planning additional sediment removals accordingly. A project site walk with the project team is scheduled for 1/31/2024. A site walk was held on 01/31/2024 with SEMSWA, MHFD and the design team to discuss the study and observe the changes in the project since the 2023 storms. MHFD has performed sediment removals, and that quantity information was shared with the project team. (01/31/2024). A design progress meeting was held on (02/26/2024) to discuss the direction moving forward in the alternatives analysis from the assessment phase of the project. *The IGA 3rd Amendment for additional \$50,000 funding is scheduled for the April 2024 TAC/Board.*

11. 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 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). The construction is nearly complete with the punch list walk on 9/13/23; contractor is working on completing

plantings and resolving punch list items. Asphalt repairs on the frontage road are being scheduled and some of the plantings will need to be done during the 2024 spring planting window to improve their chance for success (11/10/23). Asphalt repairs have been made and the project summary has been prepared (12/1/23). Post construction LOMR services agreement amendment for Muller draft has been prepared by MHFD and sent to CCBWQA for review (03/06/2024). *Post construction services for wetland monitoring, permitting closeout and revegetation has been submitted by ERO resources, an agreement has been sent to project partners by MHFD and reviewed.*

12. 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 of Phase 1 is complete (7/27/23). Project summary has been prepared (12/1/23).

13. Dove Creek - Chambers Rd. to Pond D-1 (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. Construction was broken into 2 phases with Phase 2 scheduled for 2024.

- b. Status: CCBWQA acted at their October meeting to advance their funding for Phase 2 Construction to 2023 with SEMSWA's funding scheduled for 2024, IGA has been prepared and scheduled for signatures after SEMSWA's November Board meeting, phosphorus estimates for sediment capture areas for the project were provided to Technical Manager (11/10/23). A progress meeting was held on 01/23/204 and construction is expected to start on 02/05/2024 completing 07/2024. GESC and State Stormwater Permitting was obtained week of the 02/05/2024 allowing the work to commence. Potholing for the project has been completed and results of waterline depths in the project area, appear to reduce encasements required throughout the project reach as reported in the progress meeting (02/06/2024). Water diversion is in place as of (02/20/2024). Forebay Slabs at Digicomm and Fairplay forebays have been poured as of (03/12/2024). *Channel riffle – pool features have been completed in the channel as off week ending 03/22/2024; revegetation contractor will mobilize to the site starting 04/15/2024.*

14. Mountain and Lake Loop Shoreline Stabilization Phase II (OM-)

- a. Description: This project was identified 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). *Comments were received from the US Army Corps of Engineers on 8/29/23.* A meeting has been scheduled for 11/16/23 with USACOE's local staff and CPW staff to discuss the cut and fill balance requirements on this project and other planned projects in Cherry Creek State Park (11/10/23). A site meeting with CPW is being scheduled to determine the feasibility of the project after the 2023 storm damage (12/1/23). The 12/20/23 site meeting with Michelle Seubert identified 2 possible alternatives to address 2023 storm damage and meet USACOE cut and fill requirements while maintaining access to the swim beach. An updated project cost is about \$90,000 which is over the \$65,000 budgeted in 2024 (12/28/23). After discussion with Gene at USACE, further analysis to determine project feasibility is necessary and will be provided. *Soil samples have been collected at the project site (03/7/2024) for further analysis of the project benefits.*