COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: May 2021

Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage & Supply Projects	Matthew.Stearns@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Water Sharing & ATM Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to *waterplan.grants@state.co.us* in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	Boulder County Parks and Open Space and City of Boulder Utilities
Name of Water Project	Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project

CWP Grant Request Amount	$ 800,000
Other Funding Sources: Mile High Flood District	$1,127,956
Other Funding Sources: City of Boulder (Utilities)	$ 100,000
Other Funding Sources: Boulder County, In-Kind	$ 25,000
Applicant Funding Contribution: Boulder County (Parks & Open Space)	$ 75,000
Total Project Cost	$2,127,956

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Applicant & Grantee Information	
Name of Grantee(s)	Boulder County Parks and Open Space / City of Boulder
Mailing Address	P.O. Box 471, Boulder, CO 80306
FEIN	84-6000748
Organization Contact	Justin Atherton-Wood
Position/Title	Senior Planner
Email	jatherton-wood@bouldercounty.org
Phone	(303) 678-6273
Grant Management Contact	D'Ann Lambert
Position/Title	Grant Coordinator
Email	dlambert@bouldercounty.org
Phone	(303) 678-6276
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	

Description of Grantee/Applicant

Provide a brief description of the grantee's organization (100 words or less).

Since 1975, Boulder County Parks & Open Space (BCPOS) has been implementing high quality partnership projects in our watersheds consistent with the mission "to preserve and restore natural resources for the benefit of the environment and the public;" and "to promote and provide for sustainable agriculture in Boulder County." Approximately 25,000 acres of county-owned agricultural land supported by an expansive water portfolio are leased by BCPOS to tenants.

The City of Boulder Utilities Department provides water treatment and distribution, water storage and hydroelectric management, wastewater collection and treatment, and stormwater collection and conveyance services that protect human and environmental health.

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Type of Eligible Entity (check one)	
X	**Public (Government):** Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
	Non-governmental organizations (NGO): Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.

Type of Water Project (check all that apply)	
	Study
X	Construction
	Other

Category of Water Project (check the primary category that applies and include relevant tasks)		
X	Water Storage & Supply - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity, multi-beneficial projects, water sharing agreements, Alternative Transfer Methods, and those projects identified in basin implementation plans to address the water supply and demand gap. *Applicable Exhibit A Task(s):* ***Note:*** *For Water Sharing Agreements or ATM Projects - please include the supplemental application available on the CWCB's website.*	
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, water efficiency, and drought planning. *Applicable Exhibit A Task(s):*	
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. *Applicable Exhibit A Task(s):*	
X	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s):*	
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s):*	
	Other	Explain:

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Location of Water Project	
Please provide the general county and coordinates of the proposed project below in **decimal degrees**. The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Boulder County
Latitude	40°04'20.57" N or 40.0727 N
Longitude	105°04'37.86" W or 105.0775 W

Water Project Overview
Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.
The Howell Ditch Reconstruction and Boulder Creek Restoration project is located on Boulder Creek between Kenosha Road and Mineral Road. The Howell Ditch is jointly-owned by Boulder County and City of Boulder. It provides a 5 CFS flow-right for irrigating nearby county and city owned lands. The ditch's seasonal push-up dam must be made permanent in order to retain the water right. The improved ditch will be designed to deliver 50 CFS to a potential 1,000 to 2,500 AF water storage facility that may be developed by improving existing unlined gravel pits. Additionally, the historically channelized stream was impacted by the 2013 flood resulting in unstable conditions. Boulder County Parks & Open Space, the City of Boulder Utilities Department, and Mile High Flood District (MHFD) are partnering to implement this unique multi-objective project. In addition to perpetuating agricultural use and water storage functions, stream restoration will promote natural resilience, ecological function, and floodplain connectivity. The permanent diversion structure design incorporates passage for native fish species and sediment transport, along with other important ecological functions.

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Measurable Results		
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:		
See Other	New Storage Created (acre-feet)	
See Other	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
1800 LF	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
6 AC	Area of Restored or Preserved Habitat (acres)	
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
	Number of Coloradans Impacted by Engagement Activity	
See explanation	Other	Explain: • Diversion/Ditch reconstruction perfects 5 CFS right for agricultural use; • Diversion/Ditch supports future storage of 1,000 to 2,500 AF • Project creates environmental benefits with creek restoration, fish/sediment passage, and maximization of in-stream flows

Water Project Justification
Provide a description of how this water project supports the goals of Colorado's Water Plan, the Analysis and Technical Update to the Water Plan, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers). The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)
The project will benefit local agriculture through developing reliable and consistent headgate deliveries, increase storage for M&I uses, improve stream resilience and ecosystem health, and potentially support environmental flows. This multi-purpose project addresses agricultural, storage, and E&R goals included in the Colorado Water Plan and the South Platte Basin Implementation Plan. The Colorado Water Plan (CWP) states that the CWCB state-wide goals to meet agricultural needs includes "Implement efficiency and conversation measures to maximize beneficial use and production" (CWP, Chapter 6, Section 6.2, page 6-30). The CWP also states the South Platte E&R goal and measurable outcomes include "Fully recognize the importance of, and support the development of, environmental and recreational projects and multipurpose projects that support water availability for ecologically and economically important habitats and focus areas" and "Maintain or improve fish habitat by providing habitat enhancements, eliminating dry up points, and promoting connectivity." (CWP, Chapter 6, Section 6.2, page 6-50). The project aligns with following values listed in the CWP, Sec. 9.4: project proponents demonstrate a commitment to collaboration; addresses an identified water gap; demonstrates sustainability; and is fiscally and technically feasible.

South Platte Goals and Measurable Outcomes includes "Support strategies involving IPPs, new multipurpose projects, and innovative measures to address agricultural water shortages and maximize use of available water supplies" and "Support municipalities' and other local and state land-use authorities' strategies to reduce loss of irrigated land due to urbanization"(CWP, Chapter 6, Section 6.2, page 6-38 and SPBIP Chapter 1, Section 1.9, page 1-26). The project is an IPP listed in the 2015 CWP which meets the SPBIP goal "Bring a high percentage of entries in the updated IPP list on-line as a key strategy consistent with the "no/low regrets" scenario planning approach". It also meets the goal "To the extent possible, develop multipurpose storage, conveyance, system interconnections and other infrastructure projects to take advantage of limited remaining South Platte supplies and enhance water use efficiencies and supply reliability" and Measurable Outcome "Encourage multipurpose projects that provide E & R considerations" (SPBIP, Chapter 1, Section 1.9, page 1-27).

The project will keep basin water supplies in agriculture, improves system efficiency, and helps to reduce the agricultural demand gap in the South Platte basin discussed in the Analysis & Technical Update to the CWP. In addition, the project improves flow conditions, promotes stream resiliency, and provides reach connectivity for fish.

Related Studies

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

Boulder Creek at Bailey Ponds Alternatives Analysis, Olsson Associates, July 18, 2019. Building on Geomorphic assessment (below), this analysis evaluated multiple design concepts and identified priorities and preliminary costs for developing diversion infrastructure and creek restoration on Boulder Creek between Kenosha Road and Highway 52.

Rapid Geomorphic Assessment of Boulder Creek at Bailey Ponds, Olsson Associates, September 14, 2018. Proposed preferred location of diversion for Howell Ditch based on geomorphic conditions and provided considerations and recommendations for creek restoration to provide for a stable and sustainable channel.

Wittemyer Pond Storage Concepts, Olsson Associates, February 1, 2018. Assessed feasibility of developing 2,000 to 2,500 AF of storage by improving existing unlined gravel pits located adjacent to Boulder Creek (700 AF = current approximate volume); water would be delivered via Howell Ditch.

Boulder Creek Restoration Master Plan, ICON Engineering, Inc., December 2015. Recommendations in the Mile High Flood District's 2015 Master Plan for this reach of stream recommended stabilizing the Howell diversion ditch, providing modified aquatic and habitat passage, and undertaking stream restoration (Projects 4F and 4G).

*Following the September 2013 flooding, the State of Colorado began re-mapping many drainageways on the front range as part of the Colorado Hazard Mapping Program (CHAMP). Boulder Creek is being modeled to determine a new effective floodplain. Since the CHAMP study will become the effective floodplain for Boulder Creek, flows from this model were used when developing project alternatives outlined above.

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

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Year	Water Activity Name	Approving Round table	CWCB Board Meeting Date	Contract #	Amount	% of CWCB to Cost
2021	Colorado Watershed Restoration and Forest Restoration and Wildfire Risk Management Grant Programs	Unknown	Unknown	CMS 169387	$550,000	7%
2021	Colorado Watershed Restoration and Forest Restoration and Wildfire Risk Management Grant Programs	Unknown	Unknown	CMS 172101	$ 496,300	26%
2020	Species Trust Fund	Unknown	Unknown	CMS 161756	$ 428,387	77%
2016	Water Supply Reserve Account	South Platte Basin	Unknown	CMS 84433	$ 200,000	25%

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

TABOR will not affect this application

Last Updated: May 2021

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
X	Statement of Work(1)
X	Budget & Schedule(1)
X	Engineer's statement of probable cost (projects over $100,000)
X	Letters of Matching and/or Pending 3rd Party Commitments(1)
X	Map (if applicable)(1)
X	Photos/Drawings/Reports
X	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
	Certificate of Good Standing with Colorado Secretary of State(2)
	W-9(2)
NA	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Water Sharing Agreements and Alternative Transfer Methods ONLY	
NA	Water Sharing Agreements and Alternative Transfer Methods Supplemental Application(1)

(1) Required with application.
(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as "project" in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?

Describe how you plan to measure and evaluate the success and impact of the project?
What research, evidence, and data support your project?
Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).

Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

Innovation Track
Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.
Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.
Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	November 1, 2021
Name of Grantee:	Boulder County Parks & Open Space
Name of Water Project:	Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project
Funding Source:	Colorado Water Plan grant

Water Project Overview:

The project is located along a reach of Boulder Creek between Kenosha Road and Mineral Road in Boulder County. The Howell Ditch, which is co-owned by the County and the City, diverts from Boulder Creek and currently serves as the feeder ditch for storage in Wittemyer Ponds and irrigates Boulder County agricultural land to the north and east. Currently, a temporary push-up dam on Boulder Creek diverts water into a bypass channel which leads to the Howell Ditch diversion structure located approximately 700 feet downstream. The push-up dam requires annual maintenance and repair and the Howell Ditch diversion structure itself needs to be reconstructed.

The project goal is to replace the seasonally constructed temporary push-up dam with a permanent diversion that diverts irrigation water to the county's Wheeler Ranch and storage water for municipal supply, as well as to support environmental flows during low flow periods in the creek. The diversion structure would be designed to accommodate diversions of 2-50 cfs. Required reconstruction of the push-up dam and modifications to the bypass channel and diversion structure will provide efficient and reliable water delivery to Wittemyer Ponds and to Boulder County's Wheeler Ranch property. The Mile High Flood District (MHFD) has allocated funds for design and construction of stream channel stabilization improvements to promote natural resilience, ecological function, and floodplain connectivity. The diversion structure would incorporate passage for native fish species, sediment transport, and other important ecological functions.

Boulder County Parks and Open Space is partnering with the City of Boulder for grant funding and additional funding is provided by MHFD. The project will advance conversation and water efficiency goals, reliable storage for municipal supply, improve stream and ecosystem health, and potentially support a robust in-stream flow program.

Last Updated: May 2021

Project Objectives:
Replace current temporary Boulder Creek diversion dam rock structure with permanent structure to provide consistent, reliable diversions for irrigation and storage Realign Howell Ditch Diversion bypass channel to efficiently transport water supplies Construct new Howell Ditch diversion and headgate that incorporates fish passage and sediment transport Restore Boulder Creek channel impacted by 2013 flood causing channel migration and to maximize in-stream flows

Tasks
Task 1 – Final Design and Permitting
Description of Task:
Completion of final design in fulfillment of the project objectives stated above and preparation of construction documents . Preparation and submittal of applications for Federal, State, and local permits including FEMA Conditional Letter of Map Revision, U.S. Army Corps of Engineers Nationwide Permit, and Boulder County Limited Impact Special Use Review.
Method/Procedure:
The engineering consultant will utilize input on preliminary design from Project Partners and other stakeholders to finalize design of the project and prepare construction documents. MHFD will retain a construction specialist to also provide input for construction considerations and value engineering. The engineering consultant and project partners will prepare federal, state, and local permit applications, including applications to FEMA and USACE. Boulder County Parks & Open Space staff will lead application to Boulder County Community Planning & Permitting for Limit Impact Special Use Review for approval of the project under the Boulder County Land Use Code. BCPOS staff will also assist with obtaining construction-related permits at the time that the project moves into the construction phase.

Last Updated: May 2021

Deliverable:
Construction documents FEMA Conditional Letter of Map Revision application U.S. Army Corps of Engineers Nationwide Permit application Boulder County Limited Impact Special Use Review application (LISU) Boulder County construction permits as identified in LISU process (grading, flood

Tasks
Task 2 – Construction
Description of Task:
Construction of the permanent ditch diversion and carrier ditch, along with stream restoration work based on natural channel design principals.

Last Updated: May 2021

Method/Procedure:
Mile High Flood District will retain a construction contractor consistent with their policies and procedures and in consultation with Boulder County and the City of Boulder Utilities. The construction contractor will construct the project consistent with the construction plans and specifications. The engineering consultant will provide construction stage engineering to ensure that the project is constructed in conformance with the plans and specifications. Representatives of the county and the city will regularly participate in the project coordination.
Deliverable:
A completion report summarizing how the project was completed including: - A description of any obstacles encountered and how they were overcome; - Confirmation that all the matching commitments were fulfilled - Photographs of the project - Summaries of meetings - Any engineering reports and designs

Tasks
Task 3 –Grant Administration and Project Coordination
Description of Task:
Ensure the requirements of the Water Plan Grant contract are adhered to, including reporting requirements and payment requests. Coordinate project partner/owner input and efforts during design and construction.

Last Updated: May 2021

Method/Procedure:
Prepare and submit regular progress reports to CWCB about the project including status of tasks identified in the statement of work and any major issues that have been encountered and corrective action taken to address any issues. Prepare a final report at the end of the project as described under Task 2. Over the course of design and construction, work with engineering consultant and project manager at Mile High Flood District to ensure that input from project partners is integrated appropriately into the overall project.
Deliverable: Progress Reports every 6 months following execution of a contract with CWCB.

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit C. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

Last Updated: May 2021

Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	December 1, 2021
Name of Grantee:	Boulder County Parks & Open Space
Name of Water Project:	Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project
Funding Source:	Colorado Water Plan grant

Water Project Overview:

The project is located along a reach of Boulder Creek between Kenosha Road and Mineral Road in Boulder County. The Howell Ditch, which is co-owned by the County and the City, diverts from Boulder Creek and currently serves as the feeder ditch for storage in Wittemyer Ponds and irrigates Boulder County agricultural land to the north and east. Currently, a temporary push-up dam on Boulder Creek diverts water into a bypass channel which leads to the Howell Ditch diversion structure located approximately 700 feet downstream. The push-up dam requires annual maintenance and repair and the Howell Ditch diversion structure itself needs to be reconstructed.

The project goal is to replace the seasonally constructed temporary push-up dam with a permanent diversion that diverts irrigation water to the county's Wheeler Ranch and storage water for municipal supply, as well as to support environmental flows during low flow periods in the creek. The diversion structure would be designed to accommodate diversions of 2-50 cfs. Required reconstruction of the push-up dam and modifications to the bypass channel and diversion structure will provide efficient and reliable water delivery to Wittemyer Ponds and to Boulder County's Wheeler Ranch property. The Mile High Flood District (MHFD) has allocated funds for design and construction of stream channel stabilization improvements to promote natural resilience, ecological function, and floodplain connectivity. The diversion structure would incorporate passage for native fish species, sediment transport, and other important ecological functions.

Boulder County Parks and Open Space is partnering with the City of Boulder for grant funding and additional funding is provided by MHFD. The project will advance conversation and water efficiency goals, reliable storage for municipal supply, improve stream and ecosystem health, and potentially support a robust in-stream flow program.

Last Updated: May 2021

Project Objectives:
Replace current temporary Boulder Creek diversion dam rock structure with permanent structure to provide consistent, reliable diversions for irrigation and storage. Realign Howell Ditch Diversion bypass channel to efficiently transport water supplies. Construct new Howell Ditch diversion and headgate that incorporates fish passage and sediment transport. Restore Boulder Creek channel impacted by 2013 flood causing channel migration and to maximize in-stream flows.

Tasks
Task 1 – Final Design and Permitting
Description of Task:
Completion of final design in fulfillment of the project objectives stated above and preparation of construction documents . Preparation and submittal of applications for Federal, State, and local permits including FEMA Conditional Letter of Map Revision, U.S. Army Corps of Engineers Nationwide Permit, and Boulder County Limited Impact Special Use Review.
Method/Procedure:
The engineering consultant will utilize input on preliminary design from Project Partners and other stakeholders to finalize design of the project and prepare construction documents. MHFD will retain a construction specialist to also provide input for construction considerations and value engineering. The engineering consultant and project partners will prepare federal, state, and local permit applications, including applications to FEMA and USACE. Boulder County Parks & Open Space staff will lead application to Boulder County Community Planning & Permitting for Limit Impact Special Use Review for approval of the project under the Boulder County Land Use Code. BCPOS staff will also assist with obtaining construction-related permits at the time that the project moves into the construction phase.

Last Updated: May 2021

Deliverable:
Construction documents FEMA Conditional Letter of Map Revision application U.S. Army Corps of Engineers Nationwide Permit application Boulder County Limited Impact Special Use Review application (LISU) Boulder County construction permits as identified in LISU process (grading, flood

Tasks
Task 2 – Construction
Description of Task:
Construction of the permanent ditch diversion and carrier ditch, along with stream restoration work based on natural channel design principals.

Last Updated: May 2021

Method/Procedure:
Mile High Flood District will retain a construction contractor consistent with their policies and procedures and in consultation with Boulder County and the City of Boulder Utilities. The construction contractor will construct the project consistent with the construction plans and specifications. The engineering consultant will provide construction stage engineering to ensure that the project is constructed in conformance with the plans and specifications. Representatives of the county and the city will regularly participate in the project coordination.
Deliverable:
A completion report summarizing how the project was completed including: - A description of any obstacles encountered and how they were overcome; - Confirmation that all the matching commitments were fulfilled - Photographs of the project - Summaries of meetings - Any engineering reports and designs

Tasks
Task 3 –Grant Administration and Project Coordination
Description of Task:
Ensure the requirements of the Water Plan Grant contract are adhered to, including reporting requirements and payment requests. Coordinate project partner/owner input and efforts during design and construction.

Last Updated: May 2021

Method/Procedure:
Prepare and submit regular progress reports to CWCB about the project including status of tasks identified in the statement of work and any major issues that have been encountered and corrective action taken to address any issues. Prepare a final report at the end of the project as described under Task 2. Over the course of design and construction, work with engineering consultant and project manager at Mile High Flood District to ensure that input from project partners is integrated appropriately into the overall project.
Deliverable: Progress Reports every 6 months following execution of a contract with CWCB.

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Department of Natural Resources

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Water Plan Grant - Exhibit C
Budget and Schedule

Prepared Date: 11/21/2021

Name of Applicant: Boulder County and City of Boulder Utilities

Name of Water Project: Howell Ditch Diversion Reconstruction and Boulder Creek Restoration

Project Start Date: 1/1/2022

Project End Date: 6/1/2023

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Final Design and Permitting	1/1/2022	10/1/2022	$0	$12,000	$12,000
2	Construction	10/1/2022	5/1/2023	$800,000	$1,302,956	$2,102,956
3	Proj. Coordination and Grant Administration	1/1/2022	6/1/2023	$0	$13,000	$13,000
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
			Total	$800,000	$1,327,956	$2,127,956

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Department of Natural Resources

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Water Plan Grant - Detailed Budget Estimate

Fair and Reasonable Estimate

Prepared Date: 11/21/2021
Name of Applicant: Boulder County and City of Boulder Utilities
Name of Water Project: Howell Ditch Reconstruction and Boulder Creek Restoration

EXAMPLE C: Construction

Task 1 - Final Design and Permitting

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Permitting (County staff)	Hours	160	$ 75	$ 12,000	$ -	$ 12,000

Task 2 - Construction

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Clearing and Grubbing	AC	7.30	$ 8,000	$ 58,400	$ 22,432	$ 35,968
Mobilization	LS	1.00	$ 134,000	$ 134,000	$ 53,600	$ 80,400
Surveying	LS	1.00	$ 40,500	$ 40,500	$ 15,795	$ 24,705
Traffic Control	LS	1.00	$ 10,000	$ 10,000	$ 5,000	$ 5,000
Water Control	LS	1.00	$ 150,000	$ 150,000	$ 37,500	$ 112,500
Project Sign	EA	1.00	$ 1,100	$ 1,100	$ -	$ 1,100
Remove Structures and Obstructions	LS	1.00	$ 10,000	$ 10,000	$ 4,000	$ 6,000
Remove Pipe	LF	930.00	$ 20	$ 18,600	$ 18,600	$ -
Remove Tree	EA	12.00	$ 400	$ 4,800	$ 2,400	$ 2,400
Erosion Control*	LS	1.00	$ 20,000	$ 20,000	$ 8,000	$ 12,000
Erosion Control Blanket, Straw-Coconut Mix	SY	11,317.00	$ 10	$ 113,170	$ 45,268	$ 67,902
Erosion Control Blanket, Koirmat 700 over Straw	SY	3,756.00	$ 15	$ 56,340	$ 10,857	$ 45,483
Bio-engineered Improvements/In-Stream Wood	LS	1.00	$ 100,000	$ 100,000	$ -	$ 100,000
Revegetation	AC	5.00	$ 25,000	$ 125,000	$ 50,000	$ 75,000
Soil Preparation and Fine Grading	AC	5.00	$ 4,700	$ 23,500	$ 4,700	$ 18,800
Earthwork, Excavation, Fill On Site	CY	7,883.00	$ 20	$ 157,660	$ 64,641	$ 93,019

Excavation with Haul Off Site	CY	1,762.00	$ 25	$ 44,058	$ 12,997	$ 31,061
Topsoil, Excavate, Stockpile, and Replace, 6-Inch	CY	5,889.00	$ 15	$ 88,330	$ 17,666	$ 70,664
Aggregate Base Course, 6-Inch	CY	450.00	$ 65	$ 29,250		$ 29,250
Boulders, Grouted, 36-Inch	SY	381.00	$ 400	$ 152,400	$ 152,400	$ -
Soil Riprap, Type M	CY	1,838.00	$ 100	$ 183,800	$ 18,380	$ 165,420
Riprap, Void-Filled, Type H	CY	117.00	$ 150	$ 17,550	$ 17,550	$ -
Sheet Pile, Steel, Heavy	SF	1,355.00	$ 40	$ 54,200	$ 43,360	$ 10,840
Reinforced Concrete Pipe (RCP), Class III, 42-Inch Diameter	LF	-	$ 220			
Structural Concrete, 6-Inch Thick, Ditch Lining	CY	-	$ 1,500		$ -	$ -
Diversion Headgate and Equipment	LS	1.00	$ 25,000	$ 25,000	$ 25,000	$ -
Contingency (30%)	EA	0.30	$ 1,617,658	$ 485,297	$ 169,854	$ 315,443

Task 3 - Grant Administration and Project Coordination

Sub-task	**Unit**	**Quantity**	**Unit Cost**	**Total Cost**	**CWCB Funds**	**Matching Funds**
Grant Administration	Hours	40	$ 70	$ 2,800	$ -	$ 2,800
Project Coordination	Hours	136	$ 75	$ 10,200	$ -	$ 10,200
TOTAL				**$ 2,127,955.83**	**$ 800,000**	**$ 1,327,956**

Note: Construction budget is based on 11/15/2021 Engineer's Opinion of Probable Cost for an open, concrete-lined ditch. For this budget, the concrete-lining has been omitted. It will not be included in the scope of the project. And, the amount of Aggregate Base Course has been reduced due to recent design refinements.

Bailey Ponds - Howell Ditch and Boulder Creek Improvements

Engineer's Conceptual Opinion of Probable Construction Costs

Olsson Project No. A17-25350

Monday, November 15, 2021

Howell Ditch - Open Channel Option

MHFD Bid Item Number	Item No.	Item Description	Unit	Quantity	Unit Cost	Item Cost
GN-01-001	1	Clearing and Grubbing	AC	7.3	$ 8,000.00	$ 58,400.00
GN-02-001	2	Mobilization	LS	1	$ 134,000.00	$ 134,000.00
GN-04-001	3	Surveying	LS	1	$ 40,500.00	$ 40,500.00
GN-05-001	4	Traffic Control	LS	1	$ 10,000.00	$ 10,000.00
GN-06-001	5	Water Control	LS	1	$ 150,000.00	$ 150,000.00
GN-07-001	6	Project Sign	EA	1	$ 1,100.00	$ 1,100.00
RR-06-001	7	Remove Structures and Obstructions	LS	1	$ 10,000.00	$ 10,000.00
RR-06-011	8	Remove Pipe	LF	930	$ 20.00	$ 18,600.00
RR-06-018	9	Remove Tree	EA	12	$ 400.00	$ 4,800.00
LS-0X-00X	10	Erosion Control*	LS	1	$ 20,000.00	$ 20,000.00
LS-02-004	11	Erosion Control Blanket, Straw-Coconut Mix	SY	11317	$ 10.00	$ 113,170.00
UC-01-001	12	Erosion Control Blanket, Koirmat 700 over Straw	SY	3756	$ 15.00	$ 56,340.00
LS-0X-00X	13	Bio-engineered Improveements/In-Stream Wood	LS	1.0	$ 100,000.00	$ 100,000.00
LS-0X-00X	14	Revegetation	AC	5.0	$ 25,000.00	$ 125,000.00
LS-12-001	15	Soil Preparation and Fine Grading	AC	5.0	$ 4,700.00	$ 23,500.00
ESP-02-001	16	Earthwork, Excavation, Fill On Site	CY	7883	$ 20.00	$ 157,660.00
ESP-02-002	17	Excavation with Haul Off Site	CY	1762	$ 25.00	$ 44,058.33
ESP-03-001	18	Earthwork, Imported Fill	CY	0	$ 40.00	$ -
ESP-07-001	19	Topsoil, Excavate, Stockpile, and Replace, 6-Inch	CY	5889	$ 15.00	$ 88,330.00
RW-01-001	20	Aggregate Base Course, 6-Inch	CY	1832	$ 65.00	$ 119,080.00
RW-07-004	21	Boulders, Grouted, 36-Inch	SY	381	$ 400.00	$ 152,400.00
RW-12-003	22	Soil Riprap, Type M	CY	1838	$ 100.00	$ 183,800.00
RW-11-004	23	Riprap, Void-Filled, Type H	CY	117	$ 150.00	$ 17,550.00
SC-18-001	24	Sheet Pile, Steel, Heavy	SF	1355	$ 40.00	$ 54,200.00
SS-03-003	25	Slab Manhole, 4-Foot Diameter	EA	0	$ 8,000.00	$ -
SS-03-009	26	Slab Manhole, 6-Foot Diameter	EA	0	$ 10,250.00	$ -
SS-06-003	27	Reinforced Concrete Pipe (RCP), Class III, 18-Inch Diameter	LF	0	$ 100.00	$ -
SS-06-007	28	Reinforced Concrete Pipe (RCP), Class III, 42-Inch Diameter	LF	0	$ 220.00	$ -
UC-01-001	29	Structural Concrete, 6-Inch Thick, Ditch Lining	CY	648	$ 1,500.00	$ 972,000.00
UC-01-001	30	Diversion Headgate and Equipment	LS	1	$ 25,000.00	$ 25,000.00
					Subtotal	$2,679,488
					Contingency (30%)	$804,000
					Total Cost =	**$3,483,488**

Note: *Construction fence and silt fence were assumed to not be needed along full reach of project.

RESOLUTION 2021-81

A resolution supporting the application to the Colorado Water Conservation Board for a Water Plan Grant for the Howell Ditch Reconstruction and Boulder Creek Restoration Project.

WHEREAS, the County of Boulder and City of Boulder Utilities each own a 50% interest in the Howell Ditch located on Boulder Creek in eastern Boulder County; and

WHEREAS, the County of Boulder and City of Boulder Utilities are working in partnership with the Mile High Flood District to design and construct the Howell Ditch Reconstruction and Boulder Creek Restoration Project consisting of a permanent diversion and other improvements to the Howell Ditch and to restore a segment of Boulder Creek in the vicinity of the diversion; and

WHEREAS, the County of Boulder and Mile High Flood District have previously entered into an intergovernmental agreement, and subsequent amendments, documenting their mutual commitment toward the project; and

WHEREAS, the County of Boulder and City of Boulder Utilities are jointly requesting a Water Plan Grant in the amount of $800,000.00 from Colorado Water Conservation Board to support the Howell Ditch Reconstruction and Boulder Creek Restoration Project; and

WHEREAS, Colorado Water Conservation Board has requested the Board of County Commissioners of the County of Boulder ("BOCC") state its support for the Water Plan Grant application for the Howell Ditch Reconstruction and Boulder Creek Restoration Project; and

---

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF BOULDER THAT:

Section 1: The BOCC supports the application to the Colorado Water Conservation Board for a Water Plan Grant for the Howell Ditch Reconstruction and Boulder Creek Restoration Project.

Section2: The BOCC hereby authorizes the Chair of the BOCC to sign any agreement should the Colorado Water Conservation Board award the grant.

Section 3: The BOCC hereby authorizes the expenditure of funds as necessary to meet the terms and obligations of the application and any subsequent grant agreement.

Section 4: The BOCC assures that the County of Boulder has the ability to complete this project in partnership with the City of Boulder Utilities and Mile High Flood District.

Section 5: This resolution to be in full force and effect from and after its passage and approval.

PASSED AND APPROVED ON: _____

APPROVED BY:
Boulder County Board of County Commissioners

COUNTY OF BOULDER, a body corporate and politic

By: Matt Jones
Matt Jones, Chair

By: Marta Loachamin
Marta Loachamin, Vice Chair

Excused
By: Claire Levy, Commissioner

ATTEST:

Cecilia Lacey
Cecilia Lacey
Clerk to the Board

City of Boulder
Utilities Department

November 23, 2021

Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

Subject: Letter of Commitment for a Water Plan Grant Application for the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project

To Whom it may concern,

City of Boulder Utilities and Boulder County Parks & Open Space jointly own the Howell Ditch and collaborate in the management of lands owned by each of our agencies in this area. Together we are working in partnership Mile High Flood District (MHFD) to design and construct the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project located in Boulder County. On behalf of the City of Boulder Utilities Department, I am writing this letter of commitment of the city's joint application with Boulder County Parks & Open Space for Water Plan Grant funding to support the construction of our partnership project.

The strength of this project is its partnership approach. Our three agencies share a desire to increase the overall resilience of Boulder Creek by implementing a project that supports a multitude of goals and objectives important to each of our agencies' missions. This project will improve the reliability, efficiency, and administration of water diverted for agricultural use, make incremental progress toward meaningful water storage on Boulder Creek, and result in a more stable and resilient channel consistent with MHFD's most recent master plan.

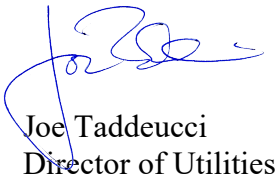
Elements of the project include construction of a permanent, multi-objective diversion structure and realignment of the delivery channel for the Howell Ditch. This structure will replace a seasonally constructed, temporary earthen ("push-up") dam. The new diversion structure and realigned delivery channel will accommodate the possibility of increasing diversions from 5 cfs to 50 cfs when water storage capability comes on-line.

In addition, this reach of Boulder Creek was impacted by the 2013 flood. This project will restore the creek channel and stabilize the creek banks to improve natural resiliency, ecological function, and floodplain connectivity benefitting upland areas and terraces near the creek. The restored reach of Boulder Creek will support the newly construction diversion and delivery channel to provide more consistent diversions.

After the 2013 flood, the City of Boulder and Boulder County worked together to restore the function of our jointly-owned Howell Ditch. We are now partnering to construct this permanent diversion in order to make more efficient use of our shared water right and in a way that is more ecologically sensitive. City of

Boulder Utilities is committed to providing the funding and staffing needed to see the project through to implementation over the next couple of years.

Thank you,



Joe Taddeucci
Director of Utilities
City of Boulder

MHFD
MILE HIGH FLOOD DISTRICT

2480 W. 26th Ave Suite 156-B | Denver, CO 80211
TEL 303 455 6277 | FAX 303 455 7880

www.mhfd.org

November 17, 2021

Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

RE: Letter of Support for the Boulder County Parks & Open Space and City of Boulder Utilities Water Plan Grant Application for the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project

To Whom it may concern,

Mile High Flood District (MHFD) is working in partnership with Boulder County Parks & Open Space (BCPOS) and the City of Boulder Utilities (COBU) to design and construct the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project located in Boulder County. On behalf of MHFD, I am writing this letter of support of the county and city's joint application for Water Plan Grant funding to support the construction of our partnership project.

The strength of this project is its partnership approach. Our three agencies share a desire to increase the overall resilience of Boulder Creek by implementing a project that supports a multitude of goals and objectives important to each of our agencies' missions. This project will improve the reliability, efficiency, and administration of water diverted for agricultural use, make incremental progress toward meaningful water storage on Boulder Creek, and result in a more stable and resilient Boulder Creek channel that is consistent with MHFD's most recent master plan.

Elements of the project include construction of a permanent, multi-objective diversion structure and realignment the delivery ditch. This structure will replace the Howell Ditch bypass ditch diversion, which is currently a seasonally constructed temporary push-up dam. The proposed diversion and feeder ditch will accommodate the possibility of increasing diversions from 5 cfs to 50 cfs when a future proposed water storage capability comes online.

Also, this reach of Boulder Creek was impacted by the 2013 flood. This project will restore the creek channel and stabilize the banks to improve natural resiliency, ecological function, and floodplain connectivity benefitting upland areas and terraces near the creek. This restored reach of Boulder Creek will support the newly construction diversion and bypass channel to provide more consistent diversions.

MHFD and Boulder County have entered into an IGA to describe the roles and financial responsibilities as they relate to the project. This IGA will be amended again in the future as construction costs are refined. MHFD is committed to seeing the project through to implementation.

Sincerely,

Jim Watt, PE, CFM
Watershed Manager
Mile High Flood District

AMENDMENT TO AGREEMENT REGARDING DESIGN AND CONSTRUCTION OF DRAINAGE AND FLOOD CONTROL IMPROVEMENTS FOR BOULDER CREEK FROM KENOSHA ROAD TO HIGHWAY 52 BOULDER COUNTY

Agreement No. 17-10.10D
Project No. 106830

THIS AGREEMENT, by and between URBAN DRAINAGE AND FLOOD CONTROL DISTRICT D/B/A MILE HIGH FLOOD DISTRICT (hereinafter called "DISTRICT") and THE COUNTY OF BOULDER, a body corporate and politic (hereinafter called "COUNTY") and collectively known as "PARTIES";

WITNESSETH:

WHEREAS, PARTIES have entered into "Agreement Regarding Design and Construction of Drainage and Flood Control Improvements for Boulder Creek from Kenosha Road to Highway 52, Boulder County" (Agreement No. 17-10.10) dated December 13, 2017, as amended; and

WHEREAS, PARTIES now desire to continue with the construction of drainage and flood control improvements for Boulder Creek from Kenosha Road to Highway 52; and

WHEREAS, PARTIES desire to increase the level of funding by $325,000; and

WHEREAS, DISTRICT's Board of Directors reviewed and authorized expenditures for the 2021 Work Program (Resolution No. 66, Series of 2019); and

WHEREAS, the County Commissioners of COUNTY and the Board of Directors of DISTRICT have authorized, by appropriation or resolution, all of PROJECT costs of the respective PARTIES.

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 $875,000 without amendment to this Agreement.

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

	ITEM	AS AMENDED	PREVIOUSLY AMENDED
1.	Final Design	$ 45,000	$ 45,000
2.	Construction	$ 830,000	$ 505,000
3.	Contingency	$ -0-	$ -0-
	Grand Total	$ 875,000	$ 550,000

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.

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

	Percentage Share	Previously Contributed	Additional Contribution	Maximum Contribution
DISTRICT	92.57%	$510,000	$300,000	$810,000
COUNTY	7.43%	$ 40,000	$ 25,000	$ 65,000
TOTAL	100.00%	$550,000	$325,000	$875,000

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 Board approval.

Payment of each party's full share (COUNTY - $65,000; DISTRICT - $810,000) 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 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 COUNTY

request, COUNTY share of remaining monies shall be transferred to another special fund held by DISTRICT.

3. All other terms and conditions of Agreement No. 17-10.10 shall remain in full force and effect.

WHEREFORE, PARTIES hereto have caused this instrument 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 Ken A. MacKenzie

Title Executive Director

Date _____

_____
Checked By

COUNTY OF BOULDER

By Matt Jones

Name Matt Jones

Title Chair

Date 11/30/2021

COLORADO
Division of Water Resources
Department of Natural Resources
Water Division 1 - Main Office

October 21, 2021

Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

Subject: Grant Application by Boulder County Parks & Open Space
Howell Ditch Diversion and Prince Lake No. 1 Reconstruction Projects

To Whom It May Concern:

I am writing concerning the grant requests by Boulder County Parks & Open Space (BCPOS). The funding will be used for the reconstruction of the Howell Ditch diversion and Prince Lake No. 1. My office supports both projects. The Howell Ditch diversion reconstruction will benefit the water users and assist in the Division of Water Resources administrative efforts. The Prince Lake No. 1 dam rehabilitation is necessary to comply with State of Colorado Dam Safety rules, protect the residents, and improve the functionality of the storage infrastructure.

Grant funds are for the purpose of design and reconstruction of the Howell Ditch diversion structure and bypass ditch realignment. The project goal is to replace a seasonally constructed temporary push-up dam with a permanent diversion that diverts irrigation water for BCPOS and storage water for municipal supply and to support an in-stream flow program during low flow periods in Boulder Creek.

The hazard class of Prince Lake No. 1 was raised from Low to Significant. Modifications need to be made to the dam to comply with Dam Safety Regulations for that hazard class and to reduce the safety risks to the residents of Brownsville. Modifications to the outlet structure, spillway and embankment are required for compliance.

These projects will improve the effectiveness and efficiency of administration of water rights in my office, will benefit water users within Water Division 1, and reduce safety risks to the public.

Thank you.

Corey J. DeAngelis

_____

Corey DeAngelis, P.E.
Division Engineer, Water Division 1

ec: Audrey Butler, Boulder County Parks & Open Space (abutler@bouldercounty.org)

Garrett Varra, South Platte Basin Roundtable Chair

Ben Wade
Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

November 29, 2021

Subject: Letter of Support for Boulder County Parks & Open Space and City of Boulder Colorado Water Plan Grant Application for the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Project

Dear Ben,

At the November 9, 2021 meeting of the South Platte Basin Roundtable the membership unanimously voted to support the Boulder County Parks and Open Space and City of Boulder Colorado Water Plan Grant application referenced above. A quorum of the membership was present at the meeting.

Boulder County Parks & Open Space and the City of Boulder are co-applicants pursuing CWCB Colorado Water Plan grant funds for the Howell Ditch Diversion Reconstruction and Boulder Creek Restoration project. The City and County presented to the South Platte Basin Roundtable (SPBRT) on November 9, 2021 and the roundtable unanimously supported the project. As such, the SPBRT recommends approval of the associated Colorado Water Plan grant request.

The Howell Ditch Diversion Reconstruction and Boulder Creek Restoration project is located in Boulder County north of the Town of Erie. The Howell Ditch, jointly-owned by Boulder County and the City of Boulder, is currently served by a seasonal push-up dam which diverts the creek into a bypass channel which runs adjacent and to the north of Boulder Creek. The push-up dam leading to the bypass channel completely disconnects flow from the main creek channel and requires annual maintenance. Repair of the Howell Ditch diversion structure, located at the end of the bypass channel, is required to retain the water right. Additionally, the stream channel has been impacted by historical and recent flooding resulting in the channel leaving its historical banks creating unstable upland conditions.

The project will benefit local agriculture through development of reliable and consistent headgate deliveries, increase storage for M&I uses, improve stream resilience and ecosystem health, and potentially support an in-stream flow program. This multi-purpose project addresses agricultural, storage, and E&R goals included in the Colorado Water Plan (CWP) and the South Platte Basin Implementation Plan (SPBIP). South Platte Goals and Measurable Outcomes identified in the SPBIP include supporting strategies involving IPPs, new multi-purpose projects, and innovative measures to address agricultural water shortages and maximize use of available water supplies as well as to support strategies to reduce loss of irrigated land due to urbanization. This project is an IPP listed in the CWP which also meets the goal to develop multi-purpose storage and infrastructure projects to take advantage of limited remaining South Platte supplies and enhance water use efficiencies and supply reliability.

The project will keep basin water supplies in agriculture, improves system efficiency, provides additional storage, and helps to reduce the agricultural demand gap in the South Platte basin discussed in the Analysis & Technical Update to the CWP. In addition, the diversion structure would incorporate passage

for native fish species, sediment transport, and other important ecological functions. We encourage CWCB approval of the grant funding for this project.

While the Roundtable supports this project, it has some concern that all of the funding for this project request comes in the form of a grant. Some other reconstruction project requests in the South Platte include a loan from the CWCB. The Roundtable recommendation is for approval of a grant commensurate with other similar type projects in the South Platte and remainder of the state. The Roundtable takes a stance that stewarding the State's tax dollars is of the utmost importance. There are times when the Roundtable doesn't know what it doesn't know and we rely upon the CWCB board and staff to ensure we are shepherding projects to the appropriate funding sources.

Thank you,

Garrett Varra, South Platte Basin Roundtable Chair

Colorado Water Conservation Board
1313 Sherman Street
Denver, CO 80203

Subject: Letter of Support for the Boulder County Parks and Open Space and City of Boulder Colorado Water Plan Grant Application for the Howell Ditch Diversion Reconstruction Project

To Whom it may concern,

Boulder County Parks and Open Space, working in partnership with the City of Boulder, are pursuing CWCB Colorado Water Plan grant funds for the Howell Ditch Diversion Reconstruction project located in Boulder County. I am currently leasing the land where the project is located from Boulder County. My farming operations will directly benefit from this effort and I would like to write in support of the project.

The grant request is for the design and reconstruction of the Howell Ditch diversion structure and realignment of the bypass ditch approximately 100 to 200 feet to the north. As the tenant farmer, this project will benefit my agricultural production and create a more reliable water supply from the Howell Ditch. The project will replace the Howell Ditch bypass ditch diversion, which is currently a seasonally constructed temporary push-up dam, with a permanent diversion that diverts irrigation water to the land that I lease and farm. The permanent diversion structure will provide more consistent diversions allowing me a more reliable supply and planned operations.

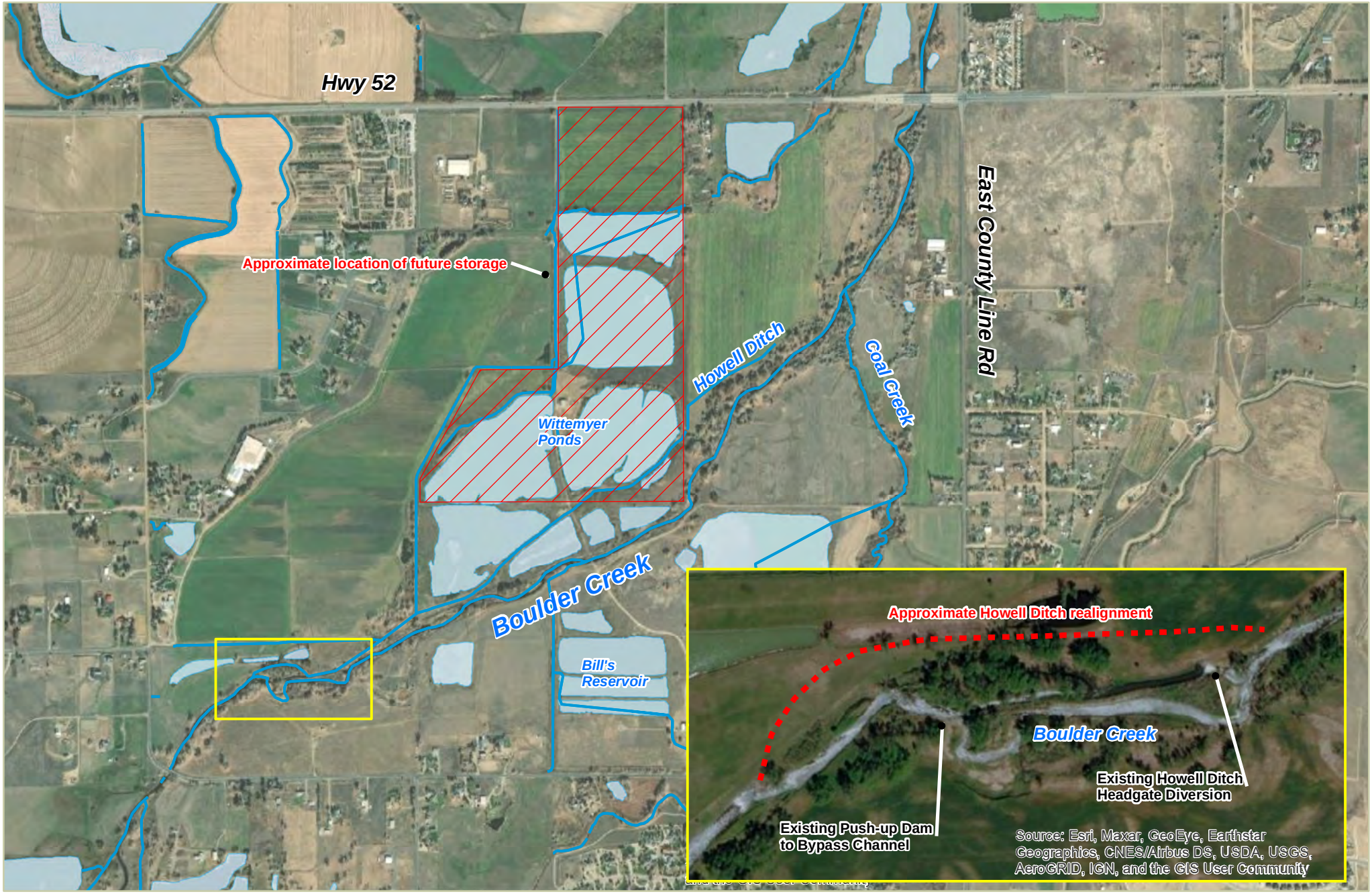
Also, this reach of Boulder Creek was impacted by the 2013 flood. This project will also restore the creek channel and stabilize the creek banks to improve natural resiliency, ecological function, and floodplain connectivity benefitting upland areas and terraces near the creek. This restored reach of Boulder Creek will support the newly construction diversion and bypass channel to provide more consistent diversions.

Thank you,

Dee Jay Smith

DRAFT Howell Ditch Diversion Reconstruction and Boulder Creek Restoration Location

Boulder County Parks & Open Space



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Miles

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