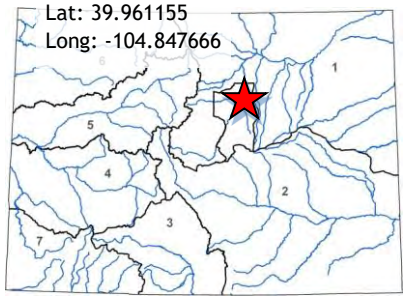
COLORADO
Colorado Water Conservation Board

Water Plan Grant Application

Cell 3 Design
City of Brighton, Water Enterprise
November 2018 Board Meeting



LOCATION
County/Counties: Adams
Drainage Basin: South Platte/Metro

DETAILS	
Total Project Cost:	$475,000
Water Plan Grant Request:	$95,000
Other CWCB Funding:	$0
Other Funding Amount:	$0
Applicant Match:	$380,000
Project Type(s): Study (Design)	
Project Category(Category):	Storage & Supply
Measurable Result : once constructed 2,700 acre-feet created	

Cell 3 is a gravel pit reservoir and is the third reservoir in the Ken Mitchell Lakes reservoir complex owned by the City of Brighton. The full storage of Cell 3 is 2,700 acre-feet. The reservoir's gravel operations are complete and a slurry wall was installed. Currently Cell 3 is capable of holding water; however, it is not yet fully functional because water cannot be efficiently transported in and out of the reservoir without: slope protection, inflowing and outflowing spillways, a diversion structure, and an augmentation station. Water Plan Grant funding will be used to help cover the cost of the design of these components.

Initially the City submitted two grant applications for Cell 3. One application ($75,000) for augmentation station design and one ($20,000) for slope protection and spillway design. Because both grants requests were for design efforts at Cell 3 and the measurable result was tied to one location, staff asked the City to combine the requests into one application.

Design elements of the grant request include: slope protection design that is expected to be comprised of grouted and un-grouted riprap that will be placed in areas prone to erosion to protect the integrity of the reservoir's walls; spillways that will be designed with the purpose of protecting the reservoir from major flood events; diversion structure design that will include multiple gravity lines and a pump station to move water from the South Platte River into Cell 3; and, an augmentation station that will include a pump station to return water from Cell 3 to the river.

20% of the design cost will be funded through the Water Plan Grant and the remaining 80% will be paid by the City's funds.

The City intends to complete the design work by the end of 2019.

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Department of Natural Resources

Last Updated: June 2018

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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 Projects	Anna.Mauss@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
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	City of Brighton
Name of Water Project	Ken Mitchell Lakes Cell 3 Slope Protection and Spillways Design

CWP Grant Request Amount	$20,000
Other Funding Sources _____	$
Other Funding Sources _____	$
Other Funding Sources _____	$
Applicant Funding Contribution	$80,000
Total Project Cost	$100,000

Note: Applicant applied for 2 Water Plan Grants. CWCB staff is recommending combining into one. Second application has been attached to this pdf. See $75,000 request for augmentation station design at same location (Cell 3)

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Applicant & Grantee Information
Name of Grantee(s)
Mailing Address: 500 South 4th Ave. Brighton, CO 80601
FEIN: 84-6000567
Organization Contact: Curtis Bauers
Position/Title: Director of Utilities
Email: cbauers@brightonco.gov
Phone: (303)655-2033
Grant Management Contact: Karl Gannon
Position/Title: Utilities Finance Analyst
Email: kgannon@brightonco.gov
Phone: (303)655-2134
Name of Applicant (if different than grantee): Applicant is the same as the grantee
Mailing Address: N/A
Position/Title: N/A
Email: N/A
Phone: N/A

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The City of Brighton is a Home Rule Municipality located approximately 20 minutes northeast of downtown Denver. As of 2015, Brighton was estimated to have a population of about 38,000 people. This grant is submitted by the City of Brighton Utilities Department, which manages Brighton's water, wastewater, and storm water infrastructure.

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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
	Construction
	Identified Projects and Processes (IPP)
X	Other

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

Last Updated: June 2018

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	Adams
Latitude	39.961155
Longitude	-104.847666

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 Ken Mitchell Lakes Cell 3 Slope Protection and Spillways Design project is an engineering design project that will produce the construction drawings for slope protection, as well as inflowing and outflowing spillways for Cell 3. The Cell 3 slope protection will be comprised of grouted and un-grouted riprap that will be placed in areas prone to erosion to protect the integrity of the reservoir's walls. Spillways will also be designed with the purpose to protect the reservoir from major flood events. The City intends to have the slope protection and spillways designed by a single engineering firm, and be combined in a single design package. CWP Grant funding would be used to help cover the cost of this design package. Cell 3 is a gravel pit reservoir and is the third and southernmost reservoir in the Ken Mitchell Lakes reservoir complex. The full storage volume of Cell 3 is approximately 2700 acre-feet. The reservoir's gravel operations have already been completed and a slurry wall has been installed, meaning that Cell 3 is capable of holding water. However, Cell 3 is not yet fully functional, because the reservoir requires the construction of slope protection and spillways to prevent erosion and flood damage. Also, the reservoir requires a diversion structure/augmentation station for the quick and efficient movement of water in and out of the reservoir. Design of this facility is being addressed in a separate project that is also seeking CWP Grant funding.

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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:		
N/A	New Storage Created (acre-feet)	
Unknown	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
2,700	Existing Storage Preserved or Enhanced (acre-feet)	
N/A	Length of Stream Restored or Protected (linear feet)	
N/A	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
N/A	Area of Restored or Preserved Habitat (acres)	
N/A	Quantity of Water Shared through Alternative Transfer Mechanisms	
N/A	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
N/A	Number of Coloradans Impacted by Engagement Activity	
N/A	Other	Explain: N/A

Last Updated: June 2018

Water Project Justification
Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, 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 benefits of the Cell 3 Slope Protection and Spillways Design project are straightforward: completion of the Cell 3 slope protection and spillways will help to bring 2,700 acre-feet of functional storage online in a reservoir adjacent to the South Platte River. Identifying new storage is one of the key actions outlined in Colorado's Water Plan. The Plan says: "Colorado's water infrastructure, including water storage, is critical to the ability to maintain stable water supplies" (CWP, Section 4, p. 4-14). The plan also states: "In addition, water storage infrastructure is essential in assisting with flood control; supporting all types of use – including agricultural, environmental, municipal, and industrial – in periods of drought; complying with interstate compacts; and augmenting stream systems to allow water use by water users that would otherwise not have a right to divert under the prior appropriation system." (CWP, Section 4, p. 4-14). The Colorado's Water Plan's statement particularly applies to Brighton because Brighton operates an augmentation system, which would not be possible without surface water storage.
While the Colorado's Water Plan espouses the value of water storage on a statewide basis, new storage is particularly needed in the South Platte Basin. The South Platte Basin Implementation Plan recommends to: "Develop new, in-basin, multipurpose water storage and conveyance mechanisms, [and] explore further integration of South Platte water supply systems to enhance yield and reliability". (South Platte BIP, Section S.5, p. S-13) Improving Cell 3 to make the reservoir fully functional is in accordance with these goals because an operational Cell 3 will enhance yield and reliability for Brighton's augmentation system. In addition, an operational Cell 3 will serve the needs of the South Platte Basin as a whole by utilizing free river. When the river is running without a call, a condition known as free river, Cell 3 will be prepared to fill with the openly available water, and return that water to the river at a later time. This mode of operation maximizes water usage on a basin-wide scale by capturing water when it is otherwise likely to go unused, and releasing it when a downstream user can benefit. Improving Cell 3 to bring additional storage online adjacent to the South Platte River also advances the goals of the State Water Supply Initiative. Using Cell 3 to make beneficial use of free river water aligns perfectly with the State Water Supply Initiative recommendation to "identify opportunities where additional water could be made available by increased regional cooperation, storage, exchanges, and other creative opportunities." (SWSI, Executive Summary, p. ES-41) Using storage to make use of free river water is exactly the kind of creative opportunity espoused by the SWSI that puts more water to beneficial use in Colorado.

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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.
No relevant studies have been performed.

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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1) City of Brighton; 2) Water Storage – Construction; 3) South Platte; 4) DNK; 5) CTGG1 2018-1618 / Contract CMS No. 107735; 6) 12.9%

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.
The City of Brighton does not have any TABOR issues that would impact the amount of grant money that the City is allowed to receive.

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
X	Statement of Work(1)
X	Budget & Schedule(1)
N/A	Engineer's statement of probable cost (projects over $100,000)
N/A	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
N/A	Map (if applicable)(1)
N/A	Photos/Drawings/Reports
*	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)
**	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
N/A	Engagement & Innovation Supplemental Application(1)

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*A Letter of Support from the Metro Roundtable is intended to be provided after the submission of this grant application
**Will be supplied at a later date pending grant approval by CWCB.

(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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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**7/31/2018**
Name of Grantee:	**City of Brighton**
Name of Water Project:	**Ken Mitchell Lakes Cell 3 Slope Protection and Spillways Design**
Funding Source:	**City of Brighton Water Enterprise Fund**

Water Project Overview:

The Ken Mitchell Lakes Cell 3 Slope Protection and Spillways Design project will be focused on the design of slope protection as well as inflowing and outflowing spillways to protect Cell 3 of the Ken Mitchell Lakes reservoir complex. The slope protection installations and the spillways are the two main components needed to protect the reservoir from gradual erosion and flooding. The reservoir must be protected in order to prevent expensive damage that would be likely to occur if the reservoir were left unprotected.

The slope protection installations will be sections of riprap spaced in specific places to prevent erosion of the reservoir banks. The riprap will be specially selected large rocks, designed to dissipate the energy of the waves breaking against the sides of the reservoir, which would otherwise cause erosion. Quality slope protection is essential for the success of a reservoir, because without it, erosion will cause the reservoir banks to recede backwards. If left unchecked, severe erosion could lead to reservoir failure.

The two spillways will protect the reservoir from severe flood events. The spillways are basically large reinforced cut-outs of the reservoir walls that are designed to overflow with water before any other part of the reservoir walls during a flood event. The in-flowing spillway will overtop and fill the reservoir in a severe flood. Once the reservoir fills, the outflowing spillway will overtop, allowing floodwater to flow out of Cell 3 in a controlled manner. The spillways will also protect the Cell 3 in a major flood, even if the reservoir were entirely submerged by floodwater. In this event, the spillways will act as a reinforced channel, directing water through the reservoir in a path through the spillways that would prevent the reservoir walls from receiving severe damage.

Project Objectives:

Last Updated: Jan 16, 2018

As with any design project, the objective is to complete a fully functional and constructible design at the lowest possible cost. City staff is confident that this objective can be met based on staff's experience from recently undertaken design and construction of slope protections and spillways for two other reservoirs in the Ken Mitchell Lakes reservoir complex.

Tasks

Task 1 -- Undertake and Complete Design

Description of Task:

This project has only one overarching task, which is to undertake and complete the slope protection and spillways design.

Method/Procedure:

To begin the design process, the City will solicit proposals for the project from qualified engineers. City staff will evaluate the proposals, assigning significant value to cost efficiency, but also considering qualifications and related experience. Provided that at least one proposal was submitted by a qualified bidder, the City will select the proposal that provides the best value to the City. The City will then engage in the contracting phase of the procurement process. Once the contracting phase is complete, work will commence on the design.

Once a design engineer is under contract, their first major task will be the completion of the conceptual design. To begin the conceptual design, the engineer will perform a preliminary analysis to ensure that the design will meet the City's requirements for the intended operation of the reservoir and the flooding potential in the area. This preliminary analysis will determine where riprap will be placed on the reservoir and to what depth down the reservoir's banks. Preliminary analysis of the local flood conditions will also inform the design of the spillways to ensure their size and reinforcement are adequate for the character and severity of flooding that the reservoir may experience. The design engineer will then use the results of the preliminary analysis to develop a proposed general layout and complete the conceptual design.

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Tasks
Once a conceptual design is complete, it will be submitted to City staff for comment. The design engineer will review and implement the City's comments, and then continue the design to the creation of a 60% complete design package. After another round of City review, a 90% design package will be created and submitted to the City. After a final round of review, the engineer will integrate any final City comments and produce a final set of construction drawings and specifications. The City will then use these documents to solicit bids for the construction of the project.
Deliverable:
The deliverables for this project are an engineer's stamped set of construction drawings and specifications.

Tasks
Task 2 – N/A
Description of Task:

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Tasks
N/A
Method/Procedure:
N/A
Deliverable:
N/A

Repeat for Task 3, Task 4, Task 5, etc.

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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.

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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.

Project costs not covered by those or other grants, and are therefore the responsibility of the grantee, will be eligible for CWCB funds at the following percentages of project costs:

	Percent of Project Costs		
Type of Activity	Recommended Grant Funding Request	Max Grant Funding Request (All CWCB Sources)	Minimum Funding Match (Non-CWCB Sources)
Engineering & Construction	20%	50%	50%
Feasibility Study	50%	50%	50%
Reducing Agricultural Dry Up	50%	80%	20%
Conservation/Efficiency Methods	50%	80%	20%
Educational Efforts	50%	80%	20%
Environmental Conservation	50%	80%	20%
Watershed Improvements	50%	80%	20%
Stream Improvements	50%	80%	20%
Land Use Planning	20%	50%	50%
Recreational Projects	20%	80%	20%

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 CWCB in hard copy and electronic format 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 B. 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.

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Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B
Budget and Schedule

Date: 7/31/2018

Name of Applicant: City of Brighton

Name of Water Project: Ken Mitchell Lakes Cell 3 Slope Protection and Spillways Design

Project Start Date: 3/1/2019

Project End Date: 12/1/2019

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Undertake and Complete Design	3/1/2019	12/1/2019	$20,000	$80,000	$100,000
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
			Total	$20,000	$80,000	$100,000

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Water Plan Grant Application

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Water Project Summary

Name of Applicant	City of Brighton
Name of Water Project	Ken Mitchell Lakes Cell 3 Augmentation Station Design

CWP Grant Request Amount	$75,000
Other Funding Sources _____	$
Other Funding Sources _____	$
Other Funding Sources _____	$
Applicant Funding Contribution	$300,000
Total Project Cost	$375,000

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Colorado Water Conservation Board

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Applicant & Grantee Information
Name of Grantee(s)
Mailing Address: 500 South 4th Ave. Brighton, CO 80601
FEIN: 84-6000567
Organization Contact: Curtis Bauers
Position/Title: Director of Utilities
Email: cbauers@brightonco.gov
Phone: (303)655-2033
Grant Management Contact: Karl Gannon
Position/Title: Utilities Finance Analyst
Email: kgannon@brightonco.gov
Phone: (303)655-2134
Name of Applicant (if different than grantee): Applicant is the same as the grantee
Mailing Address: N/A
Position/Title: N/A
Email: N/A
Phone: N/A

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The City of Brighton is a Home Rule Municipality located approximately 20 minutes northeast of downtown Denver. As of 2015, Brighton was estimated to have a population of about 38,000 people. This grant is submitted by the City of Brighton Utilities Department, which manages Brighton's water, wastewater, and storm water infrastructure.

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	Type of Eligible Entity (check one)
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	Other	Explain:

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Latitude	39.961155
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Measurable Results		
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2,700	Existing Storage Preserved or Enhanced (acre-feet)	
N/A	Length of Stream Restored or Protected (linear feet)	
N/A	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
N/A	Area of Restored or Preserved Habitat (acres)	
N/A	Quantity of Water Shared through Alternative Transfer Mechanisms	
N/A	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
N/A	Number of Coloradans Impacted by Engagement Activity	
N/A	Other	Explain: N/A

Last Updated: June 2018

Water Project Justification

Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, 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 benefits of the Cell 3 Augmentation Station Design project are straightforward: completion of the Cell 3 Augmentation Station will help to bring 2,700 acre-feet of functional storage online in a reservoir adjacent to the South Platte River. Identifying new storage is one of the key actions outlined in Colorado's Water Plan. The Plan says: "Colorado's water infrastructure, including water storage, is critical to the ability to maintain stable water supplies" (CWP, Section 4, p. 4-14). The plan also states: "In addition, water storage infrastructure is essential in assisting with flood control; supporting all types of use – including agricultural, environmental, municipal, and industrial – in periods of drought; complying with interstate compacts; and augmenting stream systems to allow water use by water users that would otherwise not have a right to divert under the prior appropriation system." (CWP, Section 4, p. 4-14). The Colorado's Water Plan's statement particularly applies to Brighton because Brighton operates an augmentation system, which would not be possible without surface water storage.

While the Colorado's Water Plan espouses the value of water storage on a statewide basis, new storage is particularly needed in the South Platte Basin. The South Platte Basin Implementation Plan recommends to: "Develop new, in-basin, multipurpose water storage and conveyance mechanisms, [and] explore further integration of South Platte water supply systems to enhance yield and reliability". (South Platte BIP, Section S.5, p. S-13) Improving Cell 3 to make the reservoir fully functional is in accordance with these goals because an operational Cell 3 will enhance yield and reliability for Brighton's augmentation system. In addition, an operational Cell 3 will serve the needs of the South Platte Basin as a whole by utilizing free river. When the river is running without a call, a condition known as free river, the Cell 3 augmentation station will be prepared to fill the reservoir with the openly available water, and return that water to the river at a later time. This mode of operation maximizes water usage on a basin-wide scale by capturing water when it is likely to go unused, and releasing it when a downstream user can benefit.

Improving Cell 3 to bring additional storage online adjacent to the South Platte River also advances the goals of the State Water Supply Initiative. Using Cell 3 to make beneficial use of free river water aligns perfectly with the State Water Supply Initiative recommendation to "identify opportunities where additional water could be made available by increased regional cooperation, storage, exchanges, and other creative opportunities." (SWSI, Executive Summary, p. ES-41) Using storage to make use of free river water is exactly the kind of creative opportunity espoused by the SWSI that puts more water to beneficial use in Colorado.

Last Updated: June 2018

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.
No relevant studies have been performed.

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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1) City of Brighton; 2) Water Storage – Construction; 3) South Platte; 4) DNK; 5) CTGG1 2018-1618 / Contract CMS No. 107735; 6) 12.9%

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.
The City of Brighton does not have any TABOR issues that would impact the amount of grant money that the City is allowed to receive.

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
X	Statement of Work(1)
X	Budget & Schedule(1)
N/A	Engineer's statement of probable cost (projects over $100,000)
N/A	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
N/A	Map (if applicable)(1)
N/A	Photos/Drawings/Reports
*	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)
**	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
N/A	Engagement & Innovation Supplemental Application(1)

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*A Letter of Support from the Metro Roundtable is intended to be provided after the submission of this grant application
**Will be supplied at a later date pending grant approval by CWCB.

(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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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**7/31/2018**
Name of Grantee:	**City of Brighton**
Name of Water Project:	**Ken Mitchell Lakes Cell 3 Augmentation Station Design**
Funding Source:	**City of Brighton Water Enterprise Fund**

Water Project Overview:

The Ken Mitchell Lakes Cell 3 Augmentation Station Design project will be focused on the design of a diversion structure and augmentation station to serve Cell 3 of the Ken Mitchell Lakes reservoir complex. The diversion structure will include multiple gravity lines and a pump station, both of which will transport water from the South Platte River into Cell 3. Water going into Cell 3 will be designed to have a very high maximum flow rate, allowing the City to take full advantage of free river when available.

The design will also include an augmentation pump station that will transport water from Cell 3 back to the river. This pump station will have smaller design flow rates because this pump system will be primarily designed to meet Brighton's augmentation requirements and therefore does not need as much flow capacity as is needed for water coming into the reservoir.

The reservoir itself has already been excavated and has a slurry wall installed. As a result, Cell 3 can currently hold water, but moving water in and out of the reservoir requires the use of temporary pumps, which are inefficient and do not allow the City to take full advantage of free river conditions. With the construction of the augmentation station, as well as the reservoir protection infrastructure addressed in a separate grant application, Cell 3 will have become a fully functional reservoir for use within the City of Brighton's augmentation system.

Project Objectives:

As with any design project, the objective is to complete a fully functional and constructible design at the lowest possible cost. City staff is confident that this objective can be met based on staff's experience from recently undertaken design and construction of augmentation stations for two other reservoirs in the Ken Mitchell Lakes reservoir complex.

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Tasks
Task 1 – Undertake and Complete Design
Description of Task:
This project has only one overarching task, which is to undertake and complete the augmentation system design.
Method/Procedure:
To begin the design process, the City will solicit proposals for the project from qualified engineers. City staff will evaluate the proposals, assigning significant value to cost efficiency, but also considering qualifications and related experience. Provided that at least one proposal was submitted by a qualified bidder, the City will select the proposal that provides the best value to the City. The City will then engage in the contracting phase of the procurement process. Once the contracting phase is complete, work will commence on the design. Once a design engineer is under contract, their first major task will be the completion of the conceptual design. To begin the conceptual design, City staff will outline the required operational capacities of the augmentation station. The engineer will then take these requirements and perform a preliminary analysis to ensure that the design proposed will meet the City's needs. This preliminary analysis will determine items such as pump capacities, pipeline diameters, and other similar specifics, which will form the foundation of the design. The design engineer will then use the results of the preliminary analysis to inform the conceptual design, which will include a general proposed layout of the buildings and pipelines. The conceptual design is a crucial step in the design process, because the greatest amount of change can be enacted, such as changing the number of pumps, numbers and sizes of pipes, and infrastructure locations. These major items would be more difficult to change later in the design process, when more of the details have been completed. Once a conceptual design is complete, it will be submitted to City staff for comment. The design engineer will review and implement the City's comments, and then continue the design to the creation of a 60% complete design package. After another round of City review, a 90% design package will be created and submitted to the City. After a final round of review, the engineer will integrate any final City comments and produce a final set of construction drawings and specifications. The City will then use these documents to solicit bids for the construction of the project.
Deliverable:

Last Updated: Jan 16, 2018

Tasks
The deliverables for this project are an engineer's stamped set of construction drawings and specifications.

Tasks
Task 2 – N/A
Description of Task:
N/A
Method/Procedure:

Last Updated: Jan 16, 2018

Tasks
N/A
Deliverable:
N/A

Repeat for Task 3, Task 4, Task 5, etc.

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.

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Reporting Requirements

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.

Project costs not covered by those or other grants, and are therefore the responsibility of the grantee, will be eligible for CWCB funds at the following percentages of project costs:

	Percent of Project Costs		
Type of Activity	Recommended Grant Funding Request	Max Grant Funding Request (All CWCB Sources)	Minimum Funding Match (Non-CWCB Sources)
Engineering & Construction	20%	50%	50%
Feasibility Study	50%	50%	50%
Reducing Agricultural Dry Up	50%	80%	20%
Conservation/Efficiency Methods	50%	80%	20%
Educational Efforts	50%	80%	20%
Environmental Conservation	50%	80%	20%
Watershed Improvements	50%	80%	20%
Stream Improvements	50%	80%	20%
Land Use Planning	20%	50%	50%
Recreational Projects	20%	80%	20%

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 CWCB in hard copy and electronic format 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 B. 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

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Performance Measures
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.

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Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B
Budget and Schedule

Date: 7/31/2018

Name of Applicant: City of Brighton

Name of Water Project: Ken Mitchell Lakes Cell 3 Augmentation Station Design

Project Start Date: 3/1/2019

Project End Date: 1/15/2020

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Undertake and Complete Design	3/1/2019	1/15/2020	$75,000	$300,000	$375,000
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
			Total	$75,000	$300,000	$375,000

August 10, 2018

Anna Mauss
Department of Natural Resources
Colorado Water Conservation Board
Water Project Loan Program
1313 Sherman St, Room 718
Denver, CO 80203

RE: Support for Grant Funding of City of Brighton Cell 3 Improvement Grants

Dear Ms. Mauss,

The Metro Roundtable is pleased to announce our support of the City of Brighton's applications to the Colorado's Water Plan Grant Fund for the Cell 3 Augmentation Station Design and Cell 3 Slope Protection and Spillways Design projects. Funding from the grant would go towards the design of diversion and augmentation facilities as well as slope protection and spillways for Cell 3, an existing reservoir adjacent to the South Platte River. The City of Brighton's funding request advances Brighton's goals of increasing water storage and by doing so, advances the water storage goals of the South Platte Basin as a whole.

The Metro Roundtable members are confident that improving Cell 3 to increase Brighton's available water storage will be valuable to the citizens of Brighton, and also contribute to sustainable water management in the South Platte Basin, and voted unanimously to approve the applicatioan. The completion of these improvements at Cell 3 will allow for greater storage along the South Platte, which is directly in accordance with the goals of the Colorado's Water Plan and the South Platte Basin Implementation Plan.

As the City of Brighton continues to pursue progressive water projects that promote efficient and sustainable water management, the Metro Roundtable and I will continue to support their efforts and advocate on their behalf. I highly recommend this project for grant funding and look forward to hearing about its success and contribution to the City of Brighton and the South Platte Basin.

Sincerely,

Barbara Biggs

Metro Roundtable Chairperson