



## 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:

Supply and Demand Gap Projects  
Water Storage Projects  
Conservation, Land Use Planning  
Engagement & Innovation Activities  
Agricultural Projects  
Environmental & Recreation Projects

Gregory.Johnson@state.co.us  
Anna.Mauss@state.co.us  
Kevin.Reidy@state.co.us  
Mara.MacKillop@state.co.us  
Brent.Newman@state.co.us  
Linda.Bassi@state.co.us

Applicants interested in submitting an ‘Intent to Apply’ in the future are encouraged to check here ☐ and fill in all sections with the best information available at the time. Exhibits may be excluded.

This “Intent to Apply” will help CWCB prioritize Projects that are not ready for fully completed Water Plan Grant Application due to the initial timeframe and required deadlines.

**FINAL SUBMISSION:** Submit all application materials to [waterplan.grants@state.co.us](mailto:waterplan.grants@state.co.us) in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents.

#### Water Project Summary

Name of Applicant	Colorado State University
Name of Water Project	Investigation of Barriers to Policy for Low Impact Development
CWP Grant Request Amount	\$ 10,000
Other Funding Sources _____	\$
Other Funding Sources _____	\$
Other Funding Sources _____	\$
Applicant Funding Contribution	\$ 2,500
Total Project Cost	\$ 12,500



Applicant & Grantee Information	
Name of Grantee(s)	Colorado State University
Mailing Address	2002 Campus Delivery, Fort Collins, CO 80523-2002
FEIN	293183
Organization Contact	Linda Loing
Position/Title	Research Administrator
Email	Linda.Loing@colostate.edu
Phone	(970) 491-6586
Grant Management Contact	William Moseley
Position/Title	Interim, Senior Research Administrator
Email	Bill.Moseley@colostate.edu
Phone	(970) 491-1541
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).
Colorado State University is a land grant university that is one of the top schools in Colorado and the United States for water resources research. The Civil and Environmental Engineering Department has been awarded several projects advancing the field of water resources through federally funded grants to local public-private partnerships. Within the Department of Civil and Environmental Engineering is the Colorado Stormwater Center (CSC). The CSC provides stormwater-related education, training and research for maintaining and improving healthy water bodies through proper stormwater management. The CSC prides itself on building relationships with Colorado municipalities to collectively develop solutions for stormwater problems.

Type of Eligible Entity (check one)	
X	<b>Public (Government):</b> 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.
	<b>Public (Districts):</b> Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	<b>Private Incorporated:</b> Mutual ditch companies, homeowners associations, corporations.
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> Private parties may be eligible for funding.
	<b>Non-governmental organizations (NGO):</b> Organization that is not part of the government and is non-profit in nature.
	<b>Covered Entity:</b> As defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a> .

Type of Water Project (check all that apply)	
X	Study
	Construction
	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check all that apply and include relevant tasks)	
	Supply and Demand Gap - Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap. <i>Applicable Exhibit A Task(s):</i> N/A
	Water Storage - Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity. <i>Applicable Exhibit A Task(s):</i> N/A
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i> N/A
X	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. <i>Applicable Exhibit A Task(s):</i> <i>Task 1 - Questionnaire and Survey Development for GI/LID Policy Barriers</i> <i>Task 2 - Municipality Interviews and Surveys</i> <i>Task 3 - Summarizing and Reporting Results</i>



	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i> N/A	
	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i> N/A	
	Other	Explain: N/A

### 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/Countries	Across Colorado (5-10 municipalities)
Latitude	
Longitude	

### 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.

## Water Project Overview

The Colorado Water Plan promotes sustainable water resources across Colorado. Even in a semi-arid region, stormwater can pollute local water bodies and alter natural hydrology. Current stormwater management strategies involves capturing and treating the water quality capture volume and control and release of varying levels of design storms. Low Impact Development (LID) is a different technique that provides an alternative water source for non-consumptive use, improves water quality of water bodies, restores natural hydrologic processes in the urban environment, promotes groundwater recharge, and provides several aesthetic and other benefits to communities. Adopting policies that promote the use of LID can lead stormwater management in a direction that is cohesive with the goals in the Colorado Water Plan. Despite the many benefits of LID, many municipalities are still hesitant to adopt LID policies. The Colorado Stormwater Center seeks to help municipalities overcome these barriers and provide examples of functioning LID sites. In order to promote LID it must first be known what the policy barriers municipalities are facing. For that reason the Colorado Stormwater Centers proposes to conduct an in-depth engagement of municipalities to determine current LID programs and identify barriers municipalities are facing in adopting LID policy.

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



### 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;)

Low Impact Development (LID) is a method of deploying stormwater management strategies that accomplish numerous goals set out by the Colorado Water Plan. LID is able to provide alternative water sources for non-consumptive use, improve water quality of stormwater that is discharged to local water bodies, restore natural hydrologic processes in the urban environment, promote groundwater recharge, as well as provide several aesthetic and other benefits to communities. By identifying and overcoming barriers that municipalities face in adopting LID policy, stormwater across Colorado can join the rest of water resources in supporting the Colorado Water Plan.

### 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.

N/A

### Previous CWCB Grants, Loans or Other Funding



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

### 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.

N/A

### 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.

N/A

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the <a href="#">Standard Contract</a> .
Exhibit A	
X	Statement of Work <sup>(1)</sup>
X	Budget & Schedule <sup>(1)</sup>
X	Letters of Matching and/or Pending 3 <sup>rd</sup> Party Commitments <sup>(1)</sup>
Exhibit C	
	Map (if applicable) <sup>(1)</sup>
	Photos/Drawings/Reports
	Letters of Support (Support letter from Basin Roundtable encouraged)
	Certificate of Insurance (General, Auto, & Workers' Comp.) <sup>(2)</sup>
	Certificate of Good Standing with Colorado Secretary of State <sup>(2)</sup>
	W-9 <sup>(2)</sup>
	Independent Contractor Form <sup>(2)</sup> (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
X	Engagement & Innovation Supplemental Application <sup>(1)</sup>

(1) Required with application.

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



**Last Updated: July 5, 2017**



# COLORADO

Colorado Water  
Conservation Board

Department of Natural Resources

# Colorado Water Conservation Board

## Water Plan Grant - Exhibit A Budget and Schedule

**Date: September 27, 2018**

Name of Applicant: Colorado State University

**Name of Water Project:** Investigation of Barriers to Policy for Low Impact Development

Task No.	Task Description	Start Date <sup>(1)</sup>	End Date	Water Project Funding Category	Grant Funding Request	Match Funding	Total
1	Questionnaire and Survey Development for GI/LID Policy Barriers	April 1, 2018	April 15, 2018	Engagement	\$2,000	\$400	\$2,400
2	Municipality Interviews	April 15, 2018	June 30, 2018	Engagement	\$5,000	\$1,500	\$6,500
3	Summarizing and Reporting Results	July 1, 2018	July 31, 2018	Engagement	\$3,000	\$600	\$3,600
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
							\$0
Total					\$10,000	\$2,500	\$12,500

**(1) Start Date for funding under \$100K, minimum 45 Days from Board Approval; Start Date for funding over \$100K, minimum 90 Days from Board Approval.**

• Round values up to the nearest hundred dollars.

- Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

.NTP will not be accepted as a start date. Project activities may commence as soon as grantee enters contract and receives formal NTP if prior to the listed "Start Date".

The applicant shall provide a progress report every 6 months, beginning from the date of contract execution.

.CWCB will withhold disbursement of the last 10% of the total grant amount until a Final Report is completed to the satisfaction of CWCB staff (2017 CWP Grant Guidelines).



# Arkansas Basin Roundtable

December 27, 2017

Via Electronic Mail: [mara.mackillop@state.co.us](mailto:mara.mackillop@state.co.us)

Ms. Mara Mackillop  
Colorado Water Conservation Board  
1313 Sherman Street, Room 721  
Denver, CO 80203

Re: Investigation of Barriers to Policy for Low Impact Development Project

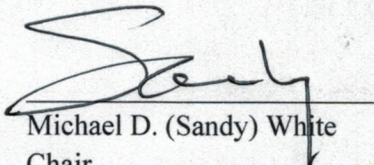
Dear Mara:

At its December 13, 2017, meeting, the Arkansas Basin Roundtable's Needs Assessment Committee approved a letter of support for Colorado State University's project - Investigation of Barriers to Policy for Low Impact Development.

The Arkansas Basin Needs Assessment Committee supports the investigation of the two primary objectives of the proposed project. The first objective, to identify barriers municipalities are facing when attempting to adopt LID policies at the municipal level. The second objective, to identify steps necessary to allow municipalities to overcome barriers to adopting LID policies.

Should you have any questions or concerns, please feel free to contact me either by telephone, 719-742-6164 or by email, [sandy@white-jankowski.com](mailto:sandy@white-jankowski.com).

With warm regards



Michael D. (Sandy) White  
Chair

Copy via email:

Applicant  
ABRT Executive Committee



**Utilities**

electric · stormwater · wastewater · water  
700 Wood Street  
PO Box 580  
Fort Collins, CO 80522

**970.221.6700**

970.221.6619 – fax  
970.224.6003 – TDD  
[utilities@fcgov.com](mailto:utilities@fcgov.com)  
[fcgov.com/utilities](http://fcgov.com/utilities)

January 3<sup>rd</sup>, 2018

Mr. Tyler Dell  
Research Associate  
Civil and Environmental Engineering Department  
Colorado State University  
1372 Campus Delivery  
Fort Collins, CO 80523

Subject: Letter of Support for the Investigation of Barriers to Policy for Low Impact Development (LID) Proposal for the Colorado Water Plan Grant Program

Dear Mr. Dell:

The City of Fort Collins is pleased to provide this letter of support to Colorado State University's Colorado Stormwater Center in support of your proposal to the Colorado Water Plan Grant Program. The proposed investigation into policy barriers for Low Impact Development (LID) is needed to help communities better understand what is preventing stormwater in Colorado from being viewed as a beneficial asset. The City believes that LID can play a critical role in achieving the goals of the Colorado Water Plan while promoting changes within the field of stormwater management. As such, it is important to understand why LID has yet to be widely adopted and implemented by governments and municipal organizations and to assess what policies and procedures are necessary to overcome any potential barriers to the adoption of such policies.

Urbanization can dramatically impact the water quality and quantity of urban runoff that drain into urban streams and waterways; therefore, we must continue to reassess and update stormwater policies and practices with the aim of protecting and enhancing our watersheds' ecologic health. An initial report on barriers to LID adoption was completed and distributed as a White Paper in December 2008. Since the distribution of that White Paper, many more efforts have been directed at overcoming barriers addressed by the paper. Personal interaction with various municipalities and public outreach through surveys have provided an effective method of determining barriers to the adoption of LID practices. A review of progress that has been made to date could be of tremendous benefit and could help identifying any current barriers to LID adoption, and guiding municipalities in initiating new policies and procedures and encouraging the adoption of newly identified LID practices and technologies.



We look forward to the results of such a study. To that end we would be happy to support in any capacity we have and more specifically, as a municipality that is an early adopter of LID practices and technologies, any effort and study that would be undertaken by Colorado State University's Stormwater Center in that regard.

Sincerely,

A handwritten signature in black ink that reads "B. HAMDAN" with a stylized flourish at the end.

**Basil Hamdan P.E.**  
[Stormwater Quality Engineer, Utilities](#)  
[City of Fort Collins](#)  
970-224-6035 office  
970-222-1801 mobile  
[bhamdan@fcgov.com](mailto:bhamdan@fcgov.com)



11/16/2017

Tyler Dell  
Research Associate  
Civil and Environmental Engineering Department  
Colorado State University  
1372 Campus Delivery  
Fort Collins, CO 80523

Subject: Letter of Support for the Investigation of Barriers to Policy for Low Impact Development Proposal for the Colorado Water Plan Grant Program

Dear Mr. Dell:

We are pleased to provide this letter of support to Colorado State University's Colorado Stormwater Center in support of your proposal to the Colorado Water Plan Grant Program. The proposed investigation into policy barriers for low impact development is needed to help communities better understand what is preventing stormwater in Colorado from being viewed as a beneficial asset. LID can play a critical role in achieving the goals of the Colorado Water Plan while promoting changes within the field of stormwater management. As such, it is important to understand why LID is still not being widely adopted among municipalities and to see what activities are needed to overcome these barriers.

Urbanization can dramatically impact the water quality of our rivers; therefore, we must continue to improve stormwater practices and keep our watersheds healthy. An initial report on barriers to LID adoption was completed and distributed as a white paper in December 2008. Since its distribution, many efforts have been made toward overcoming barriers addressed by the paper. Personal interaction with municipalities and outreach through a survey have been shown to provide an effective method of determining barriers to LID. After 9 years, a review of progress that has been made would be a beneficial project in identifying the current barriers to LID adoption, and identifying the next steps toward overcoming those.

We look forward to the results of your study.

Sincerely,

A handwritten signature in black ink that reads "Candice" followed by a stylized, looped flourish.

Candice Owen, P.E  
Keep It Clean Partnership Representative