



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board Water Efficiency Grant Fund Grant Application

Instructions
<p>All WEGF grant applications shall conform to Grant Guidelines. Please do not recycle previously used applications; download a current version directly from CWCB.</p> <p>If you have questions, please contact CWCB staff:</p> <p style="text-align: center;">Ben Wade Ben.wade@state.co.us 303-866-3441 ext 3238</p>

WEGF Submittal Checklist (Required)	
X	I acknowledge I have read and understand the WEGF Criteria and Guidelines.
Attachments	
X	Scope of Work ⁽¹⁾ (<i>Word – see Template</i>)
X	Budget & Schedule ⁽¹⁾ (<i>Excel Spreadsheet – see Template</i>)
	Letters of Support (For Public Education/Outreach Grants)
Contracting Documents (For Public Education/Outreach Grants)	
	W-9 ⁽²⁾
	Certificate of Insurance ⁽²⁾ (General, Auto, & Workers' Comp.)

(1) Required with application if applicable.

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

Water Efficiency Project Summary	
Name of Applicant	City of Northglenn
Name of Grant Project	City of Northglenn Water Efficiency Plan Update
WEGF Grant Request Total	\$37,865
In-Kind Match	\$12,788
Cash Match	\$0
Total Project Costs	\$50,653



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Applicant Information	
Name of Applicant	City of Northglenn
Mailing Address	12301 Claude Court Northglenn, CO 80241
Applicant's Organization Contact ⁽¹⁾	Tamara Moon
Position/Title	Water Resource Administrator
Email	tmoon@northglenn.org
Phone	303-450-4070
Grant Management Contact ⁽²⁾	Tamara Moon
Position/Title	Water Resource Administrator
Email	tmoon@northglenn.org
Phone	303-450-4070
Name of Consultant (if applicable)	Beorn Courtney
Mailing Address	P.O. Box 140785 Denver, CO 80214
Position/Title	President – Water Resources Engineer
Email	bcourtney@elementwaterinc.com
Phone	303-481-2365

(1) Person with signatory authority

(2) Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Organizations & Individuals Assisting on the Project
A list of the organizations and/or individuals including those hired or otherwise retained by the entity that will assist in the project, and a written statement of their role and contributions
<p>City of Northglenn: Applicant As the Project Applicant, the City of Northglenn will oversee and coordinate project progress.</p> <p>ELEMENT Water Consulting, Inc: Technical Support and Plan Development ELEMENT will provide the City of Northglenn with project technical support, Water Efficiency Plan preparation, project management, and grant administration. ELEMENT is currently assisting the City of Northglenn with the development of an Integrated Water Resources Plan (IWRP) and will utilize relevant information prepared for the IWRP to eliminate the duplication of efforts.</p>



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Type of Eligible Entity (check one)	
X	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes
	Non-covered Entity/ State or Local Governmental Entity
	Public or Private Agency: entity whose primary purpose includes the promotion of water resource conservation. Please disclose your organizational structure and charter (or equivalent)

Type of Project (check one)	
	Drought Management Plan
	Drought Management Implementation
X	Water Efficiency Plan
	Water Efficiency Implementation
	Public Education & Outreach

Location of Entity	
Please provide the county and applicants (if needed) location identified by the Colorado Water Plan Technical Analysis (formerly known as SWSI)	
Basin	South Platte



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Retail Water Delivery over Past 5 Years

Please identify retail water delivery by the entity for each of the past five years (in acre feet) and additional information characterizing past water use by sector (e.g., residential, commercial, industrial, irrigation) and source (e.g., surface water, groundwater, etc.).

Surface water is the primary source of potable residential water use served under the City of Northglenn. Below is a table showing the last five years of water use by sector (values in AF).

Year	Single-Family Residential	Townhome, Residential	Apartments, Residential	Commercial / Industrial	School	City Accounts	Total
2014	2,304	171	738	565	105	195	4,077
2015	2,327	175	767	594	110	207	4,180
2016	2,468	172	797	615	121	259	4,431
2017	2,300	162	772	596	106	209	4,144
2018	2,422	169	755	627	130	233	4,335

Projections of Future Annual Retail Demand

A reasonable estimate must be submitted with detailed projections of future annual retail demand for the next five years based on predicted population (provide source of data), building permits, expected new taps, and/or some other credible information

Based on planned development and available population projections for Northglenn and Adams County, the Northglenn IWRP projects a 10% increase in population through 2050. Applying this growth, the projected population for **2023 is about 39,400** with a corresponding projected systemwide demand of about **4,900 acre-feet per year** based on current per capita production demands.



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Background Characterizing the Water System

Current and past system wide and single family residential per capita water use for the last five years, and the basis for those calculations.

Population as reported annually through the State Demographer was applied to total annual water use (using billed metered water demands only) and single-family residential water use for the last five years. Below is a table showing total per capita metered water use and single-family residential per capita water use for the last five years (values in gpcd).

Year	Total Metered Per Capita Water Use (using State Demographer population)	Single-Family Residential Per Capita Water Use (using State Demographer population)
2014	94.8	53.5
2015	96.5	53.7
2016	101.8	56.7
2017	95.6	53.1
2018	99.2	55.4

Potential Growth – Population

Provide population for the past five years, current year and 10 year population projection served by the entity and the source of this information

Population as reported annually through the State Demographer is shown annually below through 2018. Population estimates for 2019 and 2028 were calculated using a growth rate of approximately 117 additional residents each year, resulting in the ultimate 10% growth through 2050.

Year	Estimated Population (from State Demographer 2014-2018, based on IWRP Population Projection for 2019 and 2028)
2014	38,407
2015	38,661
2016	38,855
2017	38,694
2018	38,811
2019	38,928
2028	39,981



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Estimated Water Savings Goals

Estimate water savings goals to be achieved through implementation of the Plan in acre feet and as a percentage.

Northglenn's 2007 Water Conservation Plan set a conservation savings of 600 acre-feet as a water conservation goal. Realized savings from the 2007 plan and projected future savings goals will be evaluated as part of the work being funded by this grant. Based on planning references such as the Colorado Water Plan Technical Update and preliminary forecasts under the IWRP, Northglenn estimates that implementation of the Water Efficiency Plan has the potential to reduce water demands by approximately 11% over the next 20-years or 18% through 2050 as a result of passive and active programs. If 11% is determined to be an achievable target through 2038, this would equate to an average savings of over 300 ac-ft/yr for the City. These goals will be updated as part of the work supported by the grant.

Estimated Water Savings Goals - Monitoring

Indicate how the activities will be monitored to estimate actual water savings during Project implementation (Implementation & Public Education/Outreach Projects)

N/A

Drought Impacts (Drought Management Planning Grants Only)

Description of the impacts experienced by the covered entity, or state or local governmental entity, during the 2000-2003, 2012-2014 & 2018 droughts including a breakdown by water use sector (e.g. municipal, commercial, industrial, irrigation, etc.) of those adverse impacts and steps taken to address drought impacts to date. Include short term and long-term impacts, as well as social and economic impacts where applicable and as feasible.

N/A

Adequacy, Stability, and Reliability

Explain the adequacy, stability, and reliability of the entity's water system and provide the entities location with respect to areas of current and future water needs as identified by the Statewide Water Supply Initiative (SWSI).

Northglenn is located nine miles north of Denver, Colorado in western Adams County and within the South Platte River Basin, as identified by the Colorado Water Plan. Northglenn is currently updating its Integrated Water Resources Plan (IWRP) to evaluate its ability to meet drought year demands. The IWRP and Water Efficiency Plan update planning efforts will evaluate the current supply adequacy and collectively develop supply and demand management solutions to ensure future system reliability.



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Outreach Goals & Efforts

Identify the groups, individuals, organizations and/or institutions that will be included within the education and outreach efforts to be proposed as the Project.

Identify the specific goals of the Project (e.g., identify target audience(s) to reach, policy changes, outcomes of educational efforts, etc.) with respect to promoting the benefits of water resource conservation and water efficiency through education and outreach activities. Make note of how the goals of the Project tie to the mission and objectives of the CWCB and its programs (Colorado Water Plan/Basin Implementation Plans), as appropriate.

Identify in detail the specific activities and tasks to be funded with the Water Efficiency Grant Program monies, including all meetings, workshops, fairs, printings, mailings and all other tasks and activities that will be used to promote the benefits of water resource conservation and water efficiency.

As noted in the CWCB Municipal Water Efficiency Plan Guidance Document, water efficiency and water resource planning processes that are "open and transparent can significantly improve the quality and community support of a plan. This is especially applicable to water efficiency planning, where the success of a plan is highly dependent on the public's participation in conserving water." Additionally, the 2010 SWSI Conservation Levels Analysis Final Report indicates that Colorado water providers identified public information and education as "the most valuable measure and program", even considering these programs have not been shown to create water savings independently.

In its 2007 WEP, Northglenn recognized public participation as critical to the success of the City's conservation program as most measures and programs rely on residents to modify water use practices and to utilize programs. Educating its residents on the importance of water as a valuable and limited resource will help the City's efficiency programs reach greater potential. Northglenn's ongoing outreach and public engagement will elevate outreach efforts and recruit community involvement for the smart and efficient use of water into the future. Educational measures and programs will work together with the full suite of efficiency programs within Northglenn to provide the greatest opportunity for success.

Northglenn has an active website dedicated to water conservation in the City that provides information on local efficiency guidelines, restrictions, conservation tips, and rebate programs. Local residents and businesses will continue to be targeted and involved with Northglenn's education and outreach efforts as the City develops and implements their IWRP and Conservation Planning projects. This WEP update will place greater emphasis on how best to connect Northglenn's community with its water resources to bolster and support the City's efficiency programs.

Signature of an individual with the authority to commit the resources of the entity seeking Water Efficiency Grant program monies.

Juanita Mon

Name/Title

Water Resources Administrator

Sept 19, 2019

Date



Water Efficiency Grant Fund	
<u>Scope of Work</u>	
Date:	September 26, 2019
Project Name:	City of Northglenn Water Efficiency Plan Update
Grant Applicant:	Water Efficiency Planning Grant
<p>The scope of work shall state the purpose and primary features of the project, end products to be delivered, clear timelines and provide a detailed narrative of all tasks to be performed for completion of plan. (Timelines must include 50 and 75% progress reports and final plan submission dates.) Each task within the scope of work must:</p> <ul style="list-style-type: none">• Be numbered• Contain a detailed description of work to be performed• Identify those responsible for performing the task• Identify funding sources, such as; grant monies, entity funds, in-kind services, and cash contributions, necessary to complete the task.• Include estimated dates for progress reports and the final report.	
<p>The City of Northglenn ("City" or "Northglenn") is developing an updated Municipal Water Efficiency Plan as part of its current efforts to develop an Integrated Water Resources Plan ("IWRP"). ELEMENT Water Consulting, Inc. ("ELEMENT" or "consultant") is assisting the City in the development of both the WEP and the IWRP with the intention that these plans are fully integrated and work hand-in-hand to meet the City's water resources needs. Some components that are typically included in the preparation of a WEP will be developed through the IWRP process, allowing the WEP to focus on evaluating, selecting, and planning implementation for targeted conservation and efficiency programs. Through the IWRP, demand management and efficiency programs will be evaluated as a water supply alternative project at the same level of consideration as adding or expanding infrastructure, new supply projects, operational changes, and partnerships. The two plans will be developed in parallel, aiming to most efficiently and effectively evaluate all water supply solutions.</p>	
Objectives: (List the objectives of the project)	
<p>The City of Northglenn recognizes the value of its water and the need to use this resource as wisely as possible. Increasing water efficiency can help ensure adequate water supplies for future generations and reduce the risk of water shortages. It is the City's policy to manage its water supply and distribution systems to minimize waste and encourage the efficient use of its water supply. The purpose of this Water Efficiency Plan (WEP) update is to develop water conservation goals and select water efficiency programs and measures which will enable the City to meet these goals. Objectives for this updated WEP include:</p> <ol style="list-style-type: none">1. Leverage the system evaluation and initial demand planning scenario being completed under the IWRP to evaluate potential efficiency programs.2. Evaluate previous water efficiency activities and identify benefits and lessons learned from those activities.3. Evaluate and select conservation and efficiency activities that will compliment other planning goals and activities within Northglenn, specifically those identified and selected through the IWRP process.	



4. Develop demand savings projections for screened measures and programs to be included under the IWRP water supply alternatives evaluation, for consideration along with other supply and infrastructure alternatives.
5. Create a clear plan for implementation of the selected water efficiency and demand management programs.

Tasks

Provide a detailed description of each task using the following format:

Task 1 – Draft Water Efficiency Plan

Description of Task:

This task will entail all work necessary to prepare the Draft Plan. Some demand and supply analyses will be completed under the Northglenn IWRP that is currently underway. The WEP will refer to relevant information that is included in the IWRP but generally will not be duplicated in the WEP. ELEMENT Water will create the draft document working closely with Northglenn staff. The following report elements will be developed through the Task 1 efforts:

1. Overview of water demands and historical water demand management.
 - a. This section will refer to the IWRP, which will include a full system profile and analyses of historical water demands and supplies.
2. Identify Conservation Goals
 - a. This will include an overview of the goal development process and resulting goals.
3. Identify and Evaluate Conservation Measures and Programs
 - a. Overview of prior plan's selected measures and programs and observed effectiveness.
 - b. Based on IWRP goals and current conservation activities, a list of measures and programs for further evaluation and consideration will be developed.
 - c. Evaluation criteria will be defined.
 - d. Initial screening to evaluate identified programs and measures will result in initial elimination of those programs that do not meet the criteria.
 - e. Costs and water savings will be estimated for those programs and measures that met the initial screening requirements.
 - f. Based on initial screening, estimated costs, and estimated water savings, a group of programs and measures will be selected for implementation. Some programs will be recommended for future consideration based on evaluation outcome.
4. Integrate Resources and Modify Forecasts
 - a. Demand forecasts will be modified to reflect estimated savings based on selected measures and programs.



Tasks

- b. Estimated savings will be utilized to evaluate demand management alternatives in the IWRP scenario evaluation process. Results will be discussed in the WEP.

5. Develop Implementation and Monitoring Plan

- a. A recommended schedule for implementation of the selected programs and measures will be developed along with detailed steps.
- b. A plan for public participation and program implementation will be developed.
- c. Ongoing monitoring and program evaluation will be outlined, and a recommended process will be developed.
- d. Develop a plan for updating and revising the WEP based on CWCB recommendations for plan updates.
- e. Milestone dates will be identified.

6. Prepare Draft Plan

- a. Draft plan incorporating all categories as described in subtasks 1 through 6.

Method/Procedure:

The consultant team will work closely with Northglenn staff on both the IWRP and the WEP development, utilizing the following assumptions, methods, and procedures:

- Some of the data collection to support this task will occur under the current IWRP efforts, reducing the need for similar efforts under this Grant. Any relevant data not collected or utilized under the IWRP will be collected and assessed under this task.
- A narrative will be developed to describe the ongoing organizational needs and opportunities related to water supply reliability and sustainability, and to identify how water conservation and water use efficiencies could benefit the planning entity.
- Identify water demand reductions that the City identifies as valuable and worthy of future investments related to planning for and implementing water efficiency measures and programs.
- Based on the water efficiency goals of the City, candidate demand management programs will be evaluated for applicability and effectiveness. Candidate water efficiency programs will be selected based on cost and benefit, as well as the interests of the City Leadership and staff, to the extent reasonable.
- Plan for implementation will be developed and will include schedule, customer engagement, monitoring and evaluation, updating and revising the plan, and funding strategy for the plan.
- Up to three project coordination meetings with City staff and the consulting team will be held to discuss plan development, key assumptions, selection of candidate water efficiency measures, and implementation strategies. Project team will coordinate to complete the WEP draft and final reports and will participate in one City Council meeting or workshop to present the WEP draft report for review and comment.



Tasks
<ul style="list-style-type: none"> Draft plan will be provided for City staff review and ultimately for City Council review and commenting. Council comments will be incorporated into the Plan version distributed for public, state, and other stakeholder review.
Applicant Deliverable: (Describe the deliverable the applicant expects from this task)
<ul style="list-style-type: none"> Applicant deliverable under Task 1 of this Scope of Work will be a full draft WEP document for review. Up to three project coordination meetings with City staff and consulting team will be held to support Task 1 efforts.
CWCB Deliverable: (Describe the deliverable the applicant will provide CWCB documenting the completion of this task)
<ul style="list-style-type: none"> WEP draft report submitted for CWCB review. Estimated submittal of January 31, 2020.

Tasks
Provide a detailed description of each task using the following format:
Task 2 – Public Review and Finalize Water Efficiency Plan
Description of Task:
<p>The consultant team will work with Northglenn staff to complete the WEP and receive final approval from City leadership, City Council, and the CWCB. The following will be included under this Task 2 to support the WEP final report:</p> <ol style="list-style-type: none"> Staff and internal City leadership will review WEP draft report and comments will be compiled for incorporation. Public review and approval process will be followed based on City's 60-day public review period requirements. Support CWCB review process. <ol style="list-style-type: none"> Final WEP draft report will be submitted to CWCB for review and approval. Comments provided by CWCB will be addressed and any coordination or communication with CWCB staff will be included. WEP report will be revised based on staff, City leadership, public, and CWCB review comments and input.
Method/Procedure:
<p>This task will utilize the following assumptions, methods, and procedures:</p> <ul style="list-style-type: none"> The WEP will be completed to serve as a guiding companion document to the IWRP. This Task will entail coordinating the initial plan review by the CWCB and providing guidance and support to the City as it advertises for and receives public input during the 60-day public comment period.



Tasks
<ul style="list-style-type: none">WEP will be finalized based on comments received and the prepared comment responses. WEP will be provided to City Council for approval and adoption.
Applicant Deliverable: (Describe the deliverable the applicant expects from this task)
<ul style="list-style-type: none">Applicant deliverable for Task 2 will be the WEP final report.
CWCB Deliverable: (Describe the deliverable the applicant will provide CWCB documenting the completion of this task)
<ul style="list-style-type: none">WEP final report submitted for CWCB review and approval. Estimated submittal of May 15, 2020.

Tasks
Provide a detailed description of each task using the following format:
Task 3 – Project Management and Administration
Description of Task:
<p>The consultant team will work with Northglenn staff to develop the WEP as an integral part of its IWRP efforts while meeting all grant submittal requirements. The following will be included under this Task 3 to support the WEP Project Management and Administration:</p> <ol style="list-style-type: none">Technical support for City Council reporting and presentation.Development and submittal of required CWCB Water Efficiency Grant Progress Reports:<ol style="list-style-type: none">50% Progress Report75% Progress ReportFinal WEP ReportPreparation and submittal of project invoices.
Method/Procedure:
<p>This task will utilize the following assumptions, methods, and procedures:</p> <ul style="list-style-type: none">The consulting team will provide appropriate technical and presentation support for Northglenn staff to present the final plan for review to City Council.CWCB project progress reports will be created and submitted at 50% and 75% complete to update the CWCB on project progress, successes, challenges and potential changes to scope, schedule and/or budget, as appropriate.Project invoices will be created on a monthly basis and consultant team will provide support to the grant project manager in reporting and invoicing the CWCB as the project progresses.

**Tasks**

Applicant Deliverable: (Describe the deliverable the applicant expects from this task)

- Water Efficiency Plan Final Report.
- 50% and 75% progress reports to be provided to CWCB.
- Up to three in-person meetings with City and Consultant project team and one presentation to City Council.

CWCB Deliverable: (Describe the deliverable the applicant will provide CWCB documenting the completion of this task)

- Task progress and update included in submitted 50% Progress Report. Estimated submittal of January 31, 2020.
- Task progress and update included in submitted 75% Progress Report. Estimated submittal of March 20, 2020.
- Final Report submitted for CWCB review and approval. Estimated submittal of May 15, 2020.

Reporting Requirements

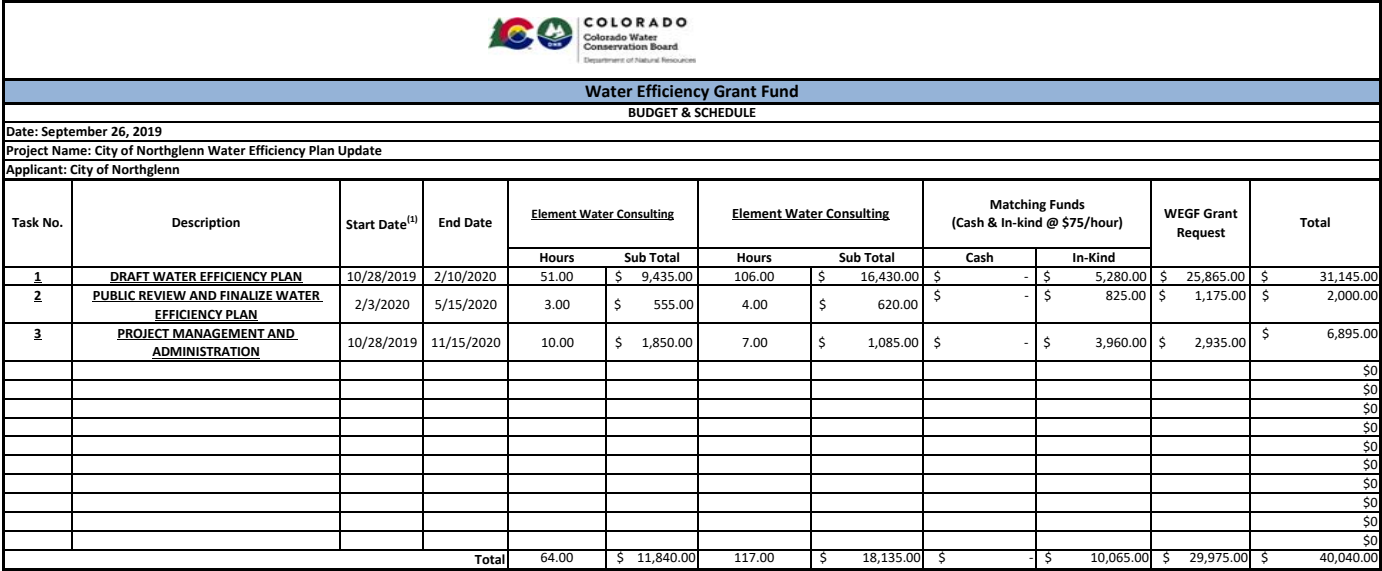
Reporting: The applicant shall provide the CWCB a Progress Report at 50% & 75% completion of the project. The Progress Report shall address the following:

- the success of meeting previously identified goals and objectives
- obstacles encountered
- preliminary findings or accomplishments
- potential need for revisions to the scope of work and timelines

(The CWCB may withhold reimbursement until satisfactory Progress Reports have been submitted.)

Final Deliverable: At the completion of the project, the applicant shall provide the CWCB a final report on the applicant's letterhead including a review of the activities completed, an estimate of actual water savings realized (for covered entities), and other information that is relevant to the Board's record of the Project and future use of the Project outcomes.

The CWCB will withhold the last 10% of the grant request until 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 contract will be closed without any further payment.



(1) Start Date for funding under \$50K ~ 30 Days from Application Submittal; Start Date for funding over \$50K ~ 30 Days from Board Approval.

Project may begin as soon as the grantee enters contract/purchase Order

CWCB will withhold the last 10% of the entire grant budget until the Final Report (Deliverable) is completed and accepted (per the WEGF Criteria & Guidelines).