



Last Updated: July 2017

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 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 | Town of Castle Rock (Castle Rock Water) | |
| Name of Water Project | Plum Creek Water Purification Facility Advanced Treatment Project | |
| CWP Grant Request Amount | \$200,000 | |
| Other Funding Sources _____ | \$ N/A | |
| Other Funding Sources _____ | \$ N/A | |
| Other Funding Sources _____ | \$ N/A | |
| Applicant Funding Contribution | Balance of the Construction Project | |
| Total Project Cost (estimate): \$27 million | Engineer’s OPCC = Work Package 0 (1 MG Blending Tank): \$1.8million | |



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| Applicant & Grantee Information | |
|--|--|
| Name of Grantee(s) | Town of Castle Rock (Castle Rock Water) |
| Mailing Address | 175 Kellogg Court; Castle Rock, CO 80109 |
| FEIN | 84-6000-640 |
| Organization Contact | Mark Marlowe |
| Position/Title | Director of Castle Rock Water |
| Email | mmarlowe@crgov.com |
| Phone | 720.733.6001 |
| Grant Management Contact | Walter Schwarz, P.E. |
| Position/Title | Project Manager |
| Email | wschwarz@crgov.com |
| Phone | 720.733.6036 |
| 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). |
| <p>Castle Rock Water oversees the Town's water, wastewater and stormwater systems and serves over 20,300 customers more than 64,000 people. Securing long-term water for our future is one of the most important goals that we strive to meet, and work towards every day.</p> <p>Currently, a large quantity (approximately 85 percent) of the Town's annual water supply comes from nonrenewable Denver Basin groundwater while only a small portion (approximately 15 percent) comes from renewable water along Plum Creek. The nonrenewable Denver Basin groundwater is a finite supply, so it's important that Castle Rock Water continue moving to a renewable water supply. Castle Rock Water is striving for a 75 percent renewable water supply by the year 2050.</p> |

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

| Type of Water Project (check all that apply) | |
|--|--|
| | Study |
| X | Construction (Water Treatment Facility upgrades) |
| | Identified Projects and Processes (IPP) |
| | Other |

| Category of Water Project (check all that apply and include relevant tasks) | |
|---|---|
| X | 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> |
| | 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> |
| | 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> |
| | 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> |
| | Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s):</i> |
| | Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s):</i> |



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| | | |
|--|-------|----------|
| | Other | Explain: |
|--|-------|----------|

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 | Douglas |
| Latitude | 39.386923° |
| Longitude | -104.863531° |

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.



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Water Project Overview

Construction of improvements to the Plum Creek Water Purification Facility (PCWPF) will give Castle Rock Water the ability to fully utilize our renewable water: water that the Town pumps and uses from the Denver Basin aquifer, WISE supplies and future imported supplies that can be used to extinction. Usage of these supplies represents approximately 35% of our future projected water supply (approximately 5,700 acre-feet). By reusing the water that the Town has the legal rights to, Castle Rock Water will decrease the reliance on the Denver Basin Aquifer, which will help the Town meet its goal of developing a water supply portfolio that consists of 75% renewable water sources and 25% non-renewable water sources by 2050.

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) |
| 3,800 - 5,700 AF (current - future) | New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive |
| N/A | 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 |



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| Measurable Results | | |
|--------------------|-------|----------|
| N/A | Other | Explain: |

| Water Project Justification |
|--|
| <p>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).</p> <p>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;)</p> <p>Implementation of the Plum Creek Water Purification Facility Advanced Treatment project aligns with Colorado's Water Plan (Plan) in that it takes advantage of the limited remaining South Platte supplies and enhances water use efficiency and supply reliability as indicated in Section 6.2 - South Platte Goals and Measurable Outcomes. Additionally, this project supports the Plan by reusing our legally available supplies to extinction, as indicated in Section 6.3.2 – Reuse.</p> |

| Related Studies |
|--|
| <p>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.</p> |



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Related Studies

Plum Creek Water Purification Facility Expansion – Final Basis of Design Report dated Sept 7, 2017

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.

Town of Castle Rock; Drought Management Plan (\$35,000 grant); PO Number = POGGI PDAA 201700000058

City of Aurora; Town of Castle Rock (co-applicants) (\$100,000 grant); Lost Creek Storage Study; Approval on May 18, 2017 [Pagosa Springs]

As a partner in the South Metro Water Supply Authority
SMWSA on behalf of the Water Infrastructure and Supply Efficiency (WISE) Partnership; Western Pipeline Connection Engineering and Design (\$1.57M grant); Metro Basin Roundtable; September 2013; Contract # CTGG1 2015-391; 2.97%

SMWSA on behalf of the Water Infrastructure and Supply Efficiency (WISE) Partnership; Conjunctive Use Infrastructure (\$915,000 grant); Metro Basin, North Platte Basin, South Platte Basin, Colorado Basin, Arkansas Basin, Gunnison Basin, and Yampa/White Basin; September 2015; Contract # CTGG1 2016-1081; 1.64%

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.

Castle Rock Water is exempt from the Town of Castle Rock's TABOR calculation since enterprise activity is not subject to TABOR. Additionally, Castle Rock Water receives well under the 10% TABOR threshold of its annual revenue in grants from all Colorado state and local governments.



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| 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 | Letters of Matching and/or Pending 3 rd Party Commitments ⁽¹⁾ |
| Exhibit C | |
| X | Map (if applicable) ⁽¹⁾ |
| X | Photos/Drawings/Reports |
| N/A | Letters of Support (Support letter from Basin Roundtable encouraged) |
| X | Certificate of Insurance (General, Auto, & Workers' Comp.) ⁽²⁾ |
| N/A | Certificate of Good Standing with Colorado Secretary of State ⁽²⁾ |
| X | W-9 ⁽²⁾ |
| N/A | Independent Contractor Form ⁽²⁾ (If applicant is individual, not company/organization) |
| Engagement & Innovation Grant Applicants ONLY | |
| N/A | Engagement & Innovation Supplemental Application ⁽¹⁾ |

(1) Required with application.

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

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Water Plan Grant - Exhibit A

Statement Of Work

| | |
|-------------------------------|---|
| Date: | January 26, 2018 |
| Name of Applicant: | Town of Castle Rock (Castle Rock Water) |
| Name of Water Project: | Plum Creek Water Purification Facility (PCWPF) Advanced Treatment Project |
| Funding Source: | Grant Request and balance of construction cost by applicant |

Water Project Overview: Please provide a summary of the proposed water project (200 words or less). The same summary can be used from Page 5 of the CWP Grant Application.

Implementation of the PCWPF Advanced Treatment project aligns with Colorado's Water Plan (Plan) in that it takes advantage of the limited remaining South Platte supplies and enhances water use efficiency and supply reliability as indicated in Section 6.2 - South Platte Goals and Measurable Outcomes. Additionally, this project supports the Plan by reusing our legally available supplies to extinction, as indicated in Section 6.3.2 – Reuse.

Objectives: List the objectives of the project.

Design of the PCWPF Advanced Treatment project will include the addition of a new multiple barrier advanced treatment approach to treat the new source water for removal of pathogens, organics, regulated drinking water contaminants, and non-regulated contaminants of emerging concern (CECs). The primary goal of the PCWPF Advanced Treatment Project is to meet or exceed requirements of the US EPA Safe Drinking Water Act, as well as additional requirements from the Colorado Department of Public Health and Environment (CDPHE).

The PCWPF Advanced Treatment project will include a new 1 million gallon raw water blending tank, an ozone system for advanced oxidation, a biologically activated carbon (BAC) filter conversion, granular activated carbon contactors, an ultraviolet disinfection system, facilities for onsite handling of solids, and a new 1,250kW generator to provide emergency electrical power.

Construction of the PCWPF Advanced Treatment project will be phased using three Work Packages.



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Work Package Zero (WP0) will include design and construction of the 1 million gallon raw water blending tank. It is the intent of Castle Rock Water to use the new blending tank for the demand season 2019, should the Town need additional water available from an East Plum Creek Diversion. In any event, the blending tank is to be online as soon as possible to help minimize sand from flowing into the current treatment system. Additional advanced treatment components such as ozone, BAC, UV, and GAC are scheduled to be completed in 2020 with Work Packages One and Two.

Castle Rock Water plans to use the grant funds (\$200,000 grant requested) towards construction of the 1 million gallon raw water blending tank.

| Tasks |
|--|
| Provide a detailed description of each project task using the following format: |
| Task 1 – Work Package Zero (WP0) to include construction of a 1 million gallon raw water blending tank |
| Description of Task: |
| WP0 will include construction of a 1 million gallon concrete raw water blending tank. This task will include site grading and earth compaction, installation of buried raw water delivery piping, post tensioned concrete work (foundation, tank walls and tank top), metal access hatch, access stairs and safety hand rails, electronic equipment such as water level monitoring equipment, and software coordination with the overall facility (SCADA work). |
| Method/Procedure: |
| The tank will be constructed using a post tensioned concrete method. Post tensioning has advantages over conventionally reinforced concrete structures. One advantage of post tensioned concrete construction is that cracking of concrete is minimized and any shrinkage cracks that do form are held tightly together. Another benefit of post tensioning is that structural members can be designed and constructed thinner (not compromising any structural strength). |



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| Tasks |
|--|
| Grantee Deliverable: Describe the deliverable the grantee expects from this task |
| Deliverable from this task is construction a 1 million gallon raw water blending tank. It is the intent of Castle Rock Water to use the new blending tank for the demand season 2019, should the Town need additional water available from an East Plum Creek Diversion. In any event, the blending tank is to be online as soon as possible to help minimize sand from flowing into the current treatment system. |
| CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task |
| Castle Rock Water (grantee) and the design engineer will provide CWCB with documentation confirming that the 1 million gallon raw water blending tank is substantially complete (able to be used for its intended purpose). When substantially complete the tank will have passed inspections and testing completed by the project team (including the structural engineer). Integrity testing (leak testing) will be part of the process completed prior to issuing a notice of substantial completion. |

| Tasks |
|---|
| Provide a detailed description of each task using the following format: |
| Task 2 – N/A |
| Description of Task: |
| |
| Method/Procedure: |



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| Tasks |
|--|
| |
| Grantee Deliverable: Describe the deliverable the grantee expects from this task |
| |
| CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task |
| |

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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted. |



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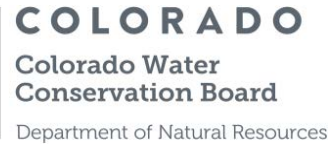
Reporting Requirements

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 withhold disbursement the last 10% of the budget 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 grant will be closed without any further payment.

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Water Plan Grant - Exhibit A Budget and Schedule

Date: January 26, 2018

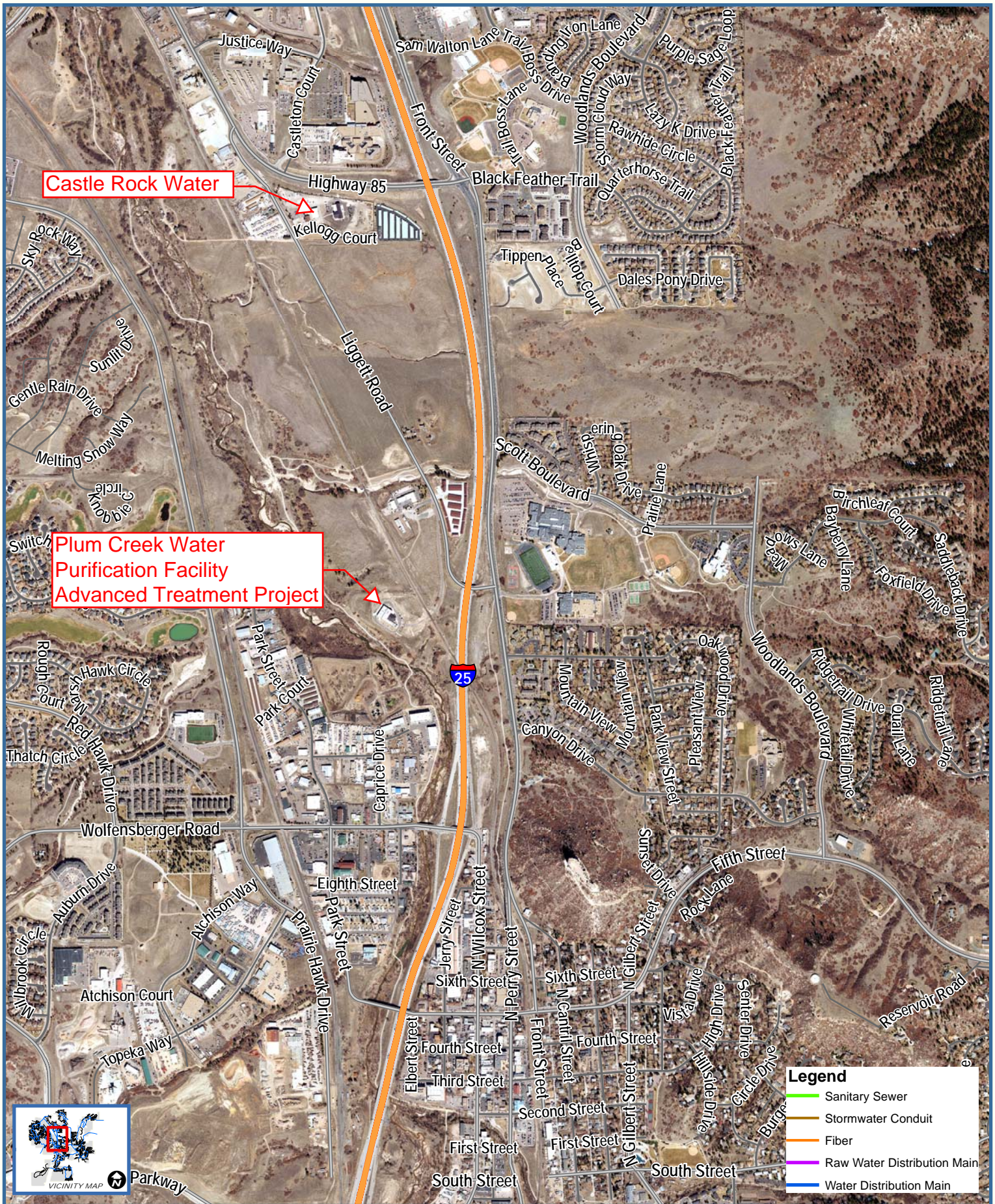
Name of Applicant: Town of Castle Rock (Castle Rock Water)

Name of Water Project: Plum Creek Water Purification Facility Advanced Treatment Project

| Task No. | Task Description | Start Date⁽¹⁾ | End Date | Grant Funding Request | Match Funding | Total |
|-----------------|---|---------------------------------|-----------------|------------------------------|----------------------|--------------|
| 1 | Work Package 0 - Construction of 1 Million Gallon Raw Water Blending Tank | 25-Jul-18 | 20-Mar-19 | \$200,000 | \$1,600,000 | \$1,800,000 |
| 2 | | | | | | \$0 |
| 3 | | | | | | \$0 |
| | | | | | | \$0 |
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| | | | | | | \$0 |
| | | | | | | \$0 |
| | | | | | | \$0 |
| Total | | | | \$200,000 | \$1,600,000 | \$1,800,000 |

(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
- 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



Disclaimer: The data presented has been compiled from various sources, each of which introduces varying degrees of inaccuracies or inconsistencies. Such discrepancies in data are inherent and in supplying this product the Town of Castle Rock assumes no liability for its use or accuracy. Questions or comments regarding the cartographic composition of this map including, but not limited to, errors, omissions, corrections, and/or updates, should be directed to the Utilities Department, Town of Castle Rock, (720) 733-6087. Copyright 2012, Town of Castle Rock Utilities Mapping.

CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

