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: Gregory.Johnson@state.co.us

Water Storage Projects: Anna.Mauss@state.co.us

Conservation, Land Use Planning: Kevin.Reidy@state.co.us

Engagement & Innovation Activities: Mara.MacKillop@state.co.us

Agricultural Projects: Brent.Newman@state.co.us

Environmental & Recreation Projects: 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 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 deadlines required.

Water Project Summary

Name of Applicant	Town of Firestone Water Activity Enterprise
Name of Water Project	Modeling Reservoir Operations for Direct Reuse

CWP Grant Request Amount	$ 71,500
Other Funding Sources _____	
Other Funding Sources _____	$
Applicant Funding Contribution	$ 89,400
Total Project Cost	$160,100

Last Updated: July 2017

Applicant & Grantee Information	
Name of Grantee(s)	Town of Firestone
Mailing Address	151 Grant Ave. Firestone, Colorado 80520
FEIN	84-0736777
Organization Contact	Julie Pasillas
Position/Title	Director of Community Resources
Email	jpasillas@Firestoneco.gov
Phone	(303) 833-3291
Grant Management Contact	Gregg Ten Eyck
Position/Title	President
Email	Gregg.TenEyck@LREWater.com
Phone	303-455-9589
Name of Applicant (if different than grantee)	Gregg Ten Eyck
Mailing Address	1221 Auraria Parkway, Denver, CO 80204
Position/Title	President
Email	Gregg.TenEyck@LREWater.com
Phone	303-455-9589

Last Updated: July 2017

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The Town of Firestone is a community of about 12,000 located in southwest Weld County, east of I-25 and south of the St. Vrain River. The Town has grown at about 10% per year since 2000. The Town of Firestone Water Activity Enterprise is the Grantee/Applicant. Until recently, the Town's water supply has been 100 percent Colorado Big Thompson units. In 2017 the Town purchased a reservoir to capture reuse water, native free river supplies and other augmentation water supplies to convert park irrigation to non-potable sources. An augmentation plan and SWSP are planned for 2018. In 2018 the Town will have 300 acre-feet of Windy Gap water in its portfolio; and is a participant in NISP.

Last Updated: July 2017

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)	
X	Study
	Construction
	Identified Projects and Processes (IPP)
	Other

Category of Water Project (check all that apply and include relevant tasks)	
X	Supply and Demand Gap Projects - Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap. *Applicable Exhibit A Task(s)*:3,4, 5, 6 7, and 8
	Water Storage Projects - Projects that facilitate the development of additional storage, artificial recharge into aquifers, and dredging existing reservoirs to restore the reservoirs' full decreed storage capacity. *Applicable Exhibit A Task(s):*
X	Conservation and Land Use Planning Projects - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. *Applicable Exhibit A Task(s):* 3,4, 5,6, 7, and 8
	Engagement & Innovation Projects - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application available on the website. *Applicable Exhibit A Task(s):*
	Agricultural Projects - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s):*
	Environmental & Recreation Projects – Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s):*

Last Updated: July 2017

	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	Weld
Latitude	40°10'30”
Longitude	105°55'57”.

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.

In 2018 the Town expects reusable water to be in the St Vrain Sanitation District (SVSD) WWTP effluent. The Town plans to recapture reusable water directly by piping water to a reservoir expected to be ready for storage in 2018.

The reuse reservoir operations model will help:

- Evaluate reliability of alternate water supply portfolio configurations—how much additional Windy Gap or NISP is necessary to meet 2047 demands?
- Evaluate how a direct use pipeline facilitates 2nd and 3rd reuse opportunities.
- Develop direct reuse pipeline capacity estimates for peak day demands.
- Evaluate performance of water supply configurations under scenarios of increased demands or reduced supplies.
- Estimate excess CBT available for agricultural leases under alternate configurations. In 2017 the Town expects to lease about 900 af to ag users.
- Evaluate need for additional storage to maximize reuse and minimize buy-and-dry.
- Evaluate opportunities to include partner entities’ reusable effluent from SVSD effluent in the direct reuse pipeline.

Taps: About 8,600 residential water taps are anticipated in 2047.

Sources: Current supplies include 5,500 units of CBT, 1,300 af of NISP, 300 af of Windy Gap, and about 150 af of reusable Boulder Creek water.

Pipeline: The direct use pipeline length is estimated at 4,000 feet with a 1st reuse supply of 800 af/year.

Last Updated: July 2017

Water Project Overview

Measurable Results		
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:		
	New Storage Created (acre-feet)	
2,200 af	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive (total includes 1st, 2nd, 3rd, 4th reuse)	
	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Quantity of Water Shared through Alternative Transfer Mechanisms	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
	Other	Explain:

Last Updated: July 2017

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 South Platte Basin Implementation Plan identified NISP as an in-basin IPP (page 4-34). Firestone's participation in NISP (currently 1,300 af).and Windy Gap (currently 300 af) is a critical supply to meet 2047 demands. The Town will use this model to evaluate how much additional NISP and Windy Gap (unfirmed or firmed) supplies they should acquire to meet 2047 demands—each source has different delivery locations and return flow characteristics that need to be considered. This model will allow the Town to plan for future acquisitions of NISP and Windy Gap. Direct reuse of NISP reusable return flows is a critical water supply element for the Town.

Low Regrets/No Regrets: Goal 7 is *Implement Reuse Strategies*. Firestone has a goal of using direct reuse of Windy Gap, NISP and other augmentation credits to meet 25 percent of 2047 water demand. This reuse will reduce the need to pursue additional NISP, Windy Gap or buy-and-dry supplies. The 2,200 af of reuse mentioned above includes the estimated 800 af of 1st reuse and 1,400 af of 2nd, 3rd, and 4th reuse of Windy Gap and NISP water. This is about 8.8 percent of the 25,000 af basin-wide target for Goal 7. Collaboration with other entities with Windy Gap reusable flow in the St Vrain Sanitation District WWTP would increase this amount.

Alternative Transfer Mechanisms: The Town has historically leased CBT water that is not needed in a given year, on a year-by-year basis, after NCWCD releases its supplemental quota. The Town would like to be able to consider multi-year or interruptible leases as it develops more storage and reuse supplies.

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.

The Town is conducting a water demand study, focusing on demands in 2027 and 2050, which will be completed in 2017.

Last Updated: July 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 Firestone Water Activity Enterprise; Construction Fund Loan: Storage Development and Water Rights Purchase; South Platte; November 16-17, 2016; CWCB CMS 95596/CORE CT-2017-2880. Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Water Conservation Implementation Grant, **Contract/PO #** OE PDA 11-33; **Project Name** High Efficiency Rebate Program; Purchase Order **Date** 9/20/2010 Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Water Conservation Implementation Grant; **Contract/PO #** OE PDA 08-140; **Project Name** Town of Firestone 2008 Water Rate Study; **Date** 6/11/2008 Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Water Conservation Implementation Grant; Park and Residential Irrigation Retrofit Program; Purchase Order POGGO PDAA 2017-332; Date 8/12/2016 Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Drought Mitigation Planning Grant; Project Name Town of Firestone Drought Mitigation Plan; Purchase Order OE PD 12-21; Date 9/26/2011 Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Water Conservation Planning Grant; Project Name: Town of Firestone Water Conservation Plan; Purchase Order OE PDA 07-22; Date 9/6/06 Town of Firestone Water Activity Enterprise, Water Efficiency Grant, Water Conservation Planning Grant; Project Name Water Efficiency Plan Update; purchase Order OE PDA 14-115; Date 4/24/2014

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.
It is our understanding that the Town of Firestone Water Activity Enterprise is not subject to TABOR.

Last Updated: July 2017

Submittal Checklist	
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
	Statement of Work(1)
	Budget & Schedule(1) *(Spreadsheet)*
	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
	Map (if applicable)(1)
	Photos/Drawings/Reports
	Letters of Support (Support letter from Basin Roundtable encouraged)
	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	
	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.

Last Updated: July 5, 2017

Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	September 13, 2018
Name of Applicant:	Town of Firestone
Name of Water Project:	Modeling Reservoir Operations for Direct Reuse
Funding Source:	Town 2018 budget and Colorado Water Plan Grant

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.

In 2018 the Town expects that effluent from the St Vrain Sanitation District (SVSD) Wastewater Plant will contain Windy Gap return flows. Windy Gap and certain other return flows are reusable under Colorado water law. As the supply of Windy Gap return flows grows over time, and as the Town develops other fully consumable water rights (recapturing or exchanging the reusable water will be a critical water supply component.. The Town will eventually recapture reusable water directly by piping water to the Reservoir.

The Town needs to evaluate how the Firestone Reservoir (or reservoirs) will operate with these and other water supplies that the Town is evaluating for purchase.

Taps: About 8,600 single-family residential water taps are anticipated in 2047.

Sources: Current supplies include 5,500 units of CBT, 1,300 af of NISP, 300 af of Windy Gap, and about 150 af of augmentation water. Three water districts supply treated water to the Town.

Pipeline: The direct use pipeline length (from the SVSD WWTP to the Reservoir) is estimated at 4,000 feet with a 1st reuse supply of 800 af per year. A direct use pipeline that does not have to rely on exchanges in the St Vrain River will facilitate 2nd, 3rd and maybe 4th reuse of fully consumable supplies.

Objectives: List the objectives of the project.

Last Updated: July 5, 2017

The objectives of developing and operating a reservoir operations model are to:

- Evaluate reliability of alternate water supply portfolio configurations—how much additional Windy Gap or NISP is necessary to meet 2047 demands?
- Evaluate how a direct use pipeline facilitates 2nd and 3rd reuse opportunities?
- Develop direct reuse pipeline capacity estimates for peak day demands.
- Evaluate performance of water supply configurations under scenarios of increased demands or reduced supplies.
- Estimate excess CBT available for agricultural leases under alternate configurations. In 2017 the Town expects to lease about 900 af to ag users
- Evaluate need for additional storage to maximize reuse and minimize buy and dry.
- Evaluate opportunities to include partner entities' reusable effluent from SVSD effluent in the direct reuse pipeline.

Tasks

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

Task 1 –Water Demands

Description of Task:

Tabulate water demands for 10-year (2027) and 30-year (2047) planning horizons.

Method/Procedure:

Results of the water demand study currently underway will be tabulated and put into the format of the model for multi-year model runs.

Because of the opportunities for reuse special emphasis will be on demand by water district service area and by in-house versus outdoor use.

Last Updated: July 5, 2017

Tasks
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Monthly water demands in model format. Results will be included in the end-of-project memorandum.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Results will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 2 – Water Supplies
Description of Task:
Water supplies that will be modeled will be tabulated and defined so that the model can accurately represent projected yields. Limitations and characteristics of each supply will be identified, such as volumetric limits or reuse limits.
Method/Procedure:

Last Updated: July 5, 2017

Tasks
Review of water right decrees and/or project operation plans.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Description of current and potential water supplies in model format, including operational constraints or limitations, as appropriate. Results will be included in the end-of-project memorandum.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Results will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 3 – Partnerships
Description of Task:
Potential partnerships with the water districts that supply water to the Town and to the region will be tabulated and described in terms to allow modeling. The Town also expects land owners and their developer partners to offer water supply solutions for parcels that have been annexed into the Town. We anticipate that such offers could include reusable supplies. Partnerships could include shared ownership or operation of storage or treatment facilities, or water supply leases. The model will be constructed to allow future partnership arrangements to be added after the initial modeling is completed.
Method/Procedure:

Last Updated: July 5, 2017

Tasks
We will add supplies and demands for potential partners to the model as necessary. Partners will be asked to review our assumptions about monthly demands and supplies when appropriate.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Description of current and potential partnerships that are included in the model.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Results will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Last Updated: July 5, 2017

Tasks
Provide a detailed description of each task using the following format:
Task 4—Tool Development
Description of Task:
Develop a modeling tool in the form of a spreadsheet that will operate on a monthly time step. •
Method/Procedure:
The model will be created with individual sheets or modules that will include • Dashboard with toggles to vary select parameters to perform evaluations of scenarios. • Assumption page regarding losses, factors for climate change scenarios, priority of use of water sources, etc. • Table of water supply yields (CBT, Windy Gap, NISP, groundwater, reuse, irrigation rights, lawn irrigation return flows, etc.) • Table of demands (potable in-house, potable irrigation, non-potable irrigation, return flow releases for augmentation, reservoir evaporation) • Table of operations of supplies, reservoirs with storage for various water types, meeting demands, reporting shortages, etc. for various scenarios • Tables of results • Figures and graphs of results • Table summarizing results for comparison of scenarios • Table summarizing CBT water available owned by the Town that would be available for lease • System Map w/infrastructure and model results
Grantee Deliverable: Describe the deliverable the grantee expects from this task
The operating model is the deliverable.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task

Last Updated: July 5, 2017

Tasks
Model description will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 5 – Configuration and Scenario Development
Description of Task:
Using the information developed from Tasks 1 through 4 a configuration reflecting a “baseline” infrastructure configuration will be constructed. A baseline supply/demand scenario will be developed. These will be used to evaluate and compare how alternative configurations perform and how sensitive the system is to alternate supply/demand scenarios. In the discussion below we use the term “configuration” in reference to water supply and storage infrastructure and the term “scenario” in reference to water supply yields and water demands.
Method/Procedure:
A baseline configuration will be developed based on discussions with Town Staff. Four alternative configurations will be developed to reflect likely delivery and storage infrastructure alternatives. Specifically, the percent of water demand met by the existing treatment capacity (Windy Gap and CBT supplies) and by a future treatment plant (NISP and reuse supplies), the amount of storage (current ownership and optioned ownership) and the presence or absence of a direct use pipeline will be variables in the configurations Two additional configurations will be developed to reflect the most likely partnership scenarios. A baseline supply/demand scenario will be developed using a 20 to 30 year period based on recent hydrology and on demand projections from the ongoing demand study. Two additional scenarios will be designed to reflect changes in supply or demand as a result of climate change. These two new scenarios will be applied to the baseline and two other configurations, to evaluate how each of the three configurations evaluated will respond to changes in water supply yields or changes in water demands. All of the above will be modeled with the same annual/monthly demand pattern over the 20 to 30 year period of water supply inflows to allow estimation of firm yields. For one or two selected configuration/scenario combinations the model will be operated using the same inflow hydrology as above, with a modeled time series of increasing demand and a variable storage

Last Updated: July 5, 2017

Tasks
component to reflect an increase of storage in year N, or installation of a direct reuse pipeline in year N, for example. This will be used to evaluate what triggers might be developed to schedule the timing of installation of components. Examples include: when reuse supplies from the SVSD treatment plant reach X acre-feet, the direct reuse pipeline should be installed or, when demand reaches X acre-feet an additional Y acre-feet of storage should be on line.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
Results from the configuration/scenario model runs will be described in tabular and graphic format.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Results will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 6 – Peaking Model
Description of Task:
A peaking model to reflect daily operations during the peak summer months will be developed. The daily model will only be used to model three configurations, and only using one supply/demand scenario.

Last Updated: July 5, 2017

Tasks
Method/Procedure:
Daily data will be used when available, or monthly data will be disaggregated into daily data. Historic peak deliveries and estimated consumptive use demands will be evaluated to develop the peak three-month period to be modeled. The peaking model will be run to evaluate infrastructure requirement and sequencing of water supplies to meet peak summer demands.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
The operating daily model will be the deliverable for this task. .
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Description of the daily model, including supply and demand data used, will be included in the end-of-project memorandum.

CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
Results will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 7 – Model Operations
Description of Task:

Last Updated: July 5, 2017

Tasks
The monthly and daily models will be exercised for the configurations and scenarios described in Tasks 5 and 6. The results will provide valuable information about infrastructure alternatives and timing of implementation of new components of the system.
Method/Procedure:
The model will be executed and results will be interpreted and tabulated. Anticipated model runs for the annual model include: The baseline supply/demand scenario will be used for evaluation of each of the seven configurations by making a series of 20 to 30 model runs that reflect variation in the amount of Windy Gap or NISP water. The objective to be able to create graphs that plot firm yield versus Windy Gap and NISP ownership for each configuration. We anticipate 140 to 210 model runs using the baseline supply/demand scenario. The two climate change scenarios will be used to evaluate firm yields of the same configurations and Windy Gap/NISP ownership amounts as modeled above. We anticipate 140 to 210 model runs for each of the alternative supply/demand scenarios.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
The description of the model runs and results of the model runs will be the deliverable for this task.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
The description of the model runs and results of the model runs will be included in the Final Report. A short memorandum confirming the completion of the task will be provided to the CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 8 –Document Model Results
Description of Task:

Last Updated: July 5, 2017

Tasks
Preparation of Final Report for CWCB approval.
Method/Procedure:
A Final Report will be prepared to document the process and results of the study. A Draft Final Report will be provided to the CWCB staff for review and approval.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
The deliverable is the Final Report. .
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
The Final Report .

Tasks
Provide a detailed description of each task using the following format:
Task 9 –Project Management
Description of Task:

Last Updated: July 5, 2017

Tasks
Project Management
Method/Procedure:
Monthly invoices will be submitted to the CWCB, including a short description of activities by Task during the reporting period. A progress report will be prepared to accompany the invoice for month 6 of the project. Memoranda documenting completion of Tasks during the first six months will be included in the progress report.
Grantee Deliverable: Describe the deliverable the grantee expects from this task
The deliverables are invoices and the Progress Report.
CWCB Deliverable: Describe the deliverable the grantee will provide CWCB documenting the completion of this task
The final invoice to close out the grant and to release retainage will document the completion of the project.

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.

Last Updated: July 5, 2017

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.
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.

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:

Name of Applicant:

Name of Water Project:

Task No.	Task Description	Start Date[(1)]	End Date	Grant Funding Request	Match Funding	Total
1	Tabulate water demands for 2027 and 2047	2/1/2018	3/15/2018	$0	$3,900	$3,900
2	Tabulate and define water supplies to be modeled	2/1/2018	3/15/2018	$0	$5,200	$5,200
3	Tabulate and configure partnership opportunities to be modeled	2/1/2018	3/15/2018	$2,600	$2,600	$5,200
4	Model development (monthly time step)	3/1/2018	6/1/2018	$19,000	$19,000	$38,000
5	Scenario development	4/1/2018	5/15/2018	$6,100	$6,100	$12,200
6	Peaking model development (daily in summer months)	4/1/2018	5/31/2018	$4,800	$4,800	$9,600
7	Operate model	6/1/2018	8/15/2018	$29,500	$29,500	$59,000
8	Document model results	8/1/2018	10/31/2018	$9,500	$9,500	$19,000
9	Project management and administration	2/1/2018	12/31/2018	$0	$8,800	$8,800
						$0
						$0
						$0
						$0
			Total	$71,500	$89,400	$160,900

(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.

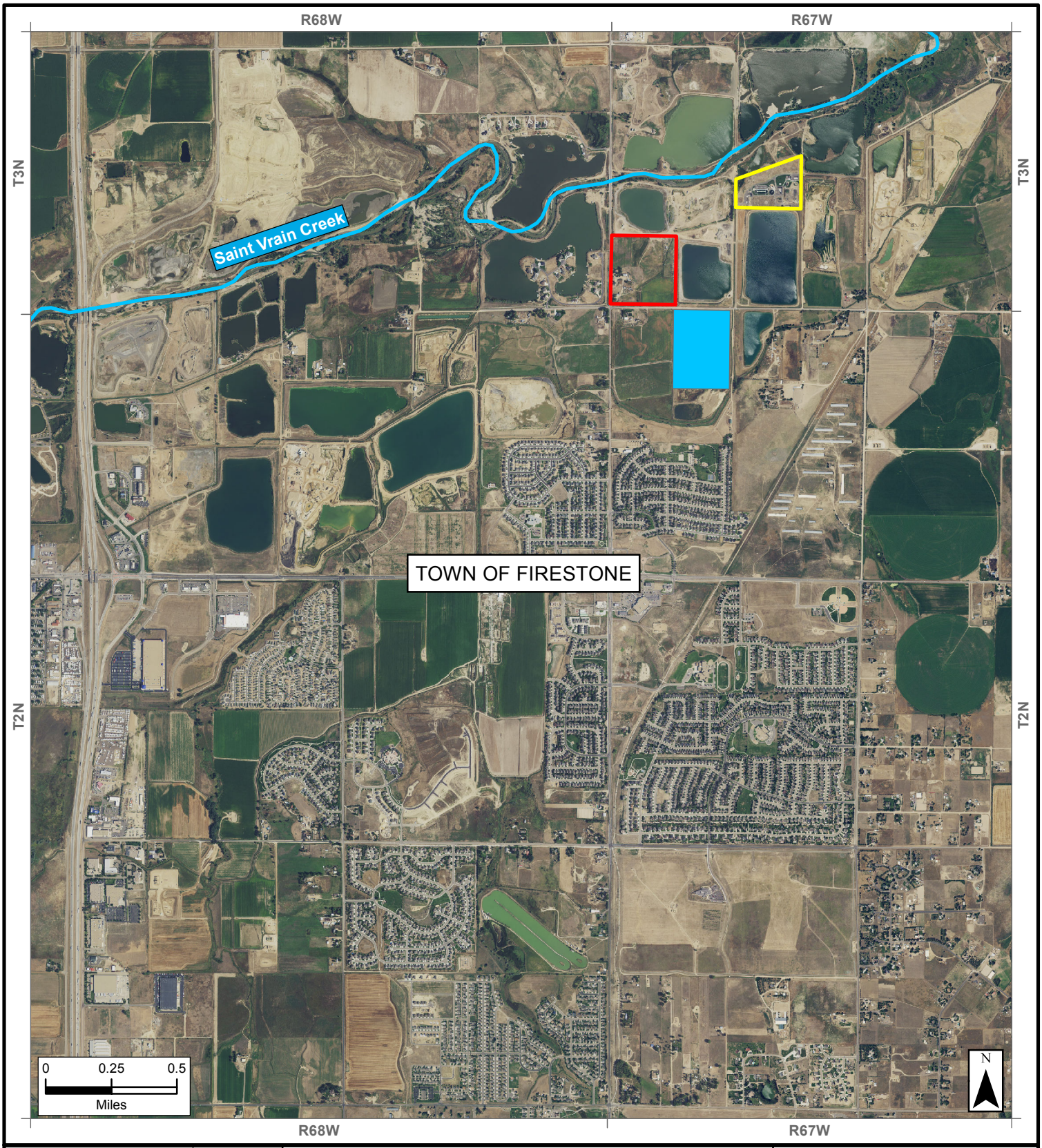
·Round values up to the nearest hundred dollars.

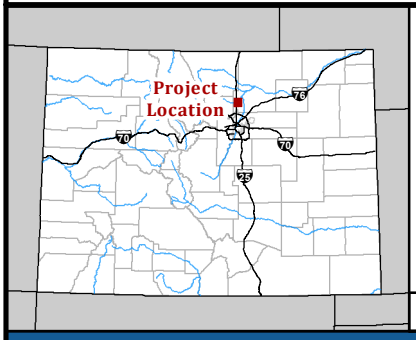
·Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (NTP)

·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 repost 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).





Town of Firestone Reservoir

Proposed Water Treatment Plant

St. Vrain Sanitation District

Rivers

This product is for reference purposes only and is not to be construed as a legal document or survey instrument.

COLORADO WATER PLAN GRANT APPLICATION

TOWN OF FIRESTONE PROJECT AREA

LeonardRice ENGINEERS, INC.

September 2017

Little Thompson Water District

District Manager:
Michael T. Cook, P.E.
835 E Highway 56
Berthoud, CO 80513

P: 970-532-2096
F: 970-532-3734
www.LTWD.org

August 14, 2017

Greg Johnson
Program Manager
Colorado Water Conservation Board,
1313 Sherman St., Room 718
Denver, CO 80203

Dear Greg:

The Little Thompson Water District (District) supports the Town of Firestone's grant application for the Modeling Reservoir Operations for Direct Reuse study. The District is already invested in water reuse in the Lower St. Vrain Creek basin. The District serves a large development on the north side of the St. Vrain Creek with wholly consumable water and has infrastructure and a Water Court decree to reuse a portion of the effluent from the St. Vrain Water Sanitation District outfall.

Additional water projects in the Lower St. Vrain basin will be developed either by the District or other water providers, generating reusable effluent that will be available for exchange, purchase or direct treatment. A holistic evaluation of the reuse and treatment options may identify partnership possibilities.

Please contact me if you have questions.

Regards,

Michael T. Cook P.E
District Manager
(970) 344-6835
mtcook@ltwd.org