



July 13, 2010

Mr. Kevin Reidy
Colorado Water Conservation Board
Office of Water Conservation and Drought Planning
1313 Sherman Street, Room 721
Denver, CO 80203

RE: *Water-Efficiency Grant Application for Town of Firestone 2010 Rebate Program*

Dear Kevin:

The Town of Firestone completed a Water Conservation Plan (June 2007) that has been approved by the Colorado Water Conservation Board (CWCB). This is the first water conservation plan completed by the Town, and we are excited to implement our plan and help the community save water.

Clear Water Solutions, Inc. submitted the original cover letter for the application for a water-efficiency grant. However, we would like to supplement the application with this letter and our acknowledgement that we will commit the necessary resources for this project. The grant will be used to cover a portion of the proposed 2010 Rebate Program. The total project cost is \$59,160.98. The Town will meet its portion with both in-kind and monetary participation. The Town will contribute \$18,130.98 total, which consists of \$6,000 cash and \$12,130.98 in-kind. This is 31% of the total project. We are requesting a CWCB water-efficiency grant of \$41,030.00.

We believe this project will help us to achieve the conservation goals outlined in our Water Conservation Plan. We truly appreciate your consideration and are excited to take this step in conserving water.

Sincerely,
Town of Firestone

Chad Auer, Mayor

cc: Steve Nguyen, Clear Water Solutions, Inc.

**CWCB WATER-EFFICIENCY GRANT APPLICATION SUBMITTAL REQUIREMENTS
PROJECT: 2010 Rebate Program**

1. Contact information of entity seeking grant:

Town of Firestone
Attn: Wes LaVanchy, Town Manager
151 Grant Avenue
P.O. Box 100
Firestone, CO 80520-0100
T: (303) 833-3291
F: (303) 833-4863

2. Selected firms and individuals to assist in development of the Project:

Clear Water Solutions, Inc.
Steve Nguyen, P.E.
8010 S. County Road 5, Suite 105
Windsor, CO 80528
T: (970) 223-3706
F: (970) 223-3763

Clear Water Solutions, Inc. completed the 2007 Water Conservation Plan for the Town of Firestone and recently completed their 2007 Raw Water Master Plan.

Steve Nguyen is a Professional Engineer registered in the State of Colorado. He has over thirteen years of experience in the water rights and water planning arena. He has helped many clients manage their water resources including water supply, water acquisition, water usage, and water conservation. Through previous planning efforts with Firestone, Steve has gained detailed knowledge of the Town's water usage, water infrastructure needs, and water conservation goals. Steve will assist staff with the overall coordination of this program. He will work with staff with the advertising of the program and measuring success of implementation.

Wes LaVanchy is the Town Manager and will give, from the Town's perspective, Clear Water Solutions direction on implementation of the water conservation rebate program. Wes will be paramount in the development of the project and will serve as the primary liaison between staff and the Town Board.

Ron Lay is the Finance Director and will help to monitor program costs and revenue impacts.

Julie Pasillas is in charge of utility billing at the Town of Firestone. She will be involved first hand in the development, advertisement, and communication of the project. Furthermore she will also track and provide water usage data in order to analyze success. Julie will discuss the program with interested customers and maintain the program into the future. Therefore she will serve as the lead for the Town in this effort.

Linda O’Keefe is in charge of accounts payable for the Town. She will be working with Julie during the processing of the rebate checks.

Nickerson and Company LLC is in charge of the upkeep on the Town’s website. The Town will use them to create a new page on our website for the rebate program. They will also create the electronic rebate from that residents will use when signing up for this program from our website.

TimberLAN is in charge of the Towns IT. TimberLAN will need to purchase and install a website SSL security certificate from GeoTrust for the rebate program electronic form. TimberLAN will also need to add SQL server hosting capabilities to the Town’s website to handle the data being collected on the rebate program application.

3. a) **Identification of retail water delivery by covered entity for past five years:**

Table 1 – Past Five Years Water Use by Customer Category

Customer Class	2005	2006	2007	2008	2009
	(ac-ft)				
Residential	1160	1308	1263	1312	1094
Multi-Family	4	10	15	8	7
Commercial	72	137	142	176	168
Industrial	7	7	7	5	4
Parks	116	116	157	212	191
Open Space	94	214	199	149	125
Total	1454	1798	1783	1862	1590
Population	6564	7325	8365	9520	9681
GPCD*	198	219	190	175	147

*gallons per capita per day

All water provided by Firestone at this time is surface water from the Colorado Big Thompson (CBT) Project.

b) **Background characterizing the local water system, potential growth and any other pertinent issues.**

i) **Current and past per capita water use for the last five years.**

Table 1 includes water use from Town records and population data from the Colorado Department of Local Affairs (CDOLA). The Town believes CDOLA estimates are low.

ii) **The past, current and predicted population served.**

Table 1 above and Table 2 include past and predicted population.

Population data was obtained from the 2007 Water Conservation Plan. Future projections are the best estimate considering the past

and current rate of growth and the potential development projects the Town has in the queue.

Table 2 – Predicted Population

Year	Estimated Population	Population Growth Rate (%)
2007	8365	12.0%
2008	9520	10.0%
2009	9681	10.0%
2010	10721	8.0%
2011	11579	8.0%
2012	12505	8.0%
2013	13255	6.0%
2014	14051	6.0%
2015	14894	6.0%
2016	15489	4.0%
2017	16109	4.0%
2018	16753	4.0%
2019	17256	3.0%
2020	17774	3.0%
2021	18307	3.0%
2022	18673	2.0%
2023	19046	2.0%
2024	19427	2.0%
2025	19816	2.0%
2026	20212	2.0%
2027	20616	2.0%
2028	21029	2.0%
2029	21449	2.0%
2030	21878	2.0%
2031	22316	2.0%
2032	22762	2.0%
2033	23217	2.0%
2034	23682	2.0%
2035	24155	2.0%
2036	24638	2.0%
2037	25131	2.0%
2038	25634	2.0%
2039	26147	2.0%
2040	26669	2.0%
2041	27203	2.0%
2042	27747	2.0%
2043	28302	2.0%
2044	28868	2.0%
2045	29445	2.0%
2046	30034	2.0%
2047	30635	2.0%
2048	31248	2.0%
2049	31873	2.0%
2050	32510	2.0%

iii) **Estimated water savings goals to be achieved.**

Estimated water-savings goals from Firestone's 2007 Water Conservation Plan over the ten-year planning horizon are as follows: Residential (4.7%), Commercial (13.4%), Parks (12.1%), and Open Space (19.0%).

The rebate program will not only save water, but will promote and over time create a water conserving consciousness within the community. It has been shown that over time, customers of water providers that promote a conservation environment come to expect a higher level of stewardship.

The proposed programs will account for approximately 16.6 AF or 12% of the residential water use reduction goal per the Town's 2007 Water Conservation Plan.

iv) **Estimates of water savings realized in the past five years through water conservation.**

The 2007 Water Conservation Plan is Firestone's first conservation plan. Although the Town has implemented some water conservation practices (such as educational materials being made available to water customers), associated water savings have not been measured in detail due to the Town not being able to monitor who has received these materials.

The Town completed its 2008 Water Rate Study which helped determine that Firestone's past water rates were not encouraging water conservation; this is because Firestone has had minimal increases for consumption as water use escalates. By Firestone changing their water rates, customers are no longer given an allotted amount of water with their base rate and customers are charged higher tiered rates to encourage efficient use of water. As a result, Firestone has found that this has had an impact on the amount of water that is being consumed during the irrigation season.

In fact, Firestone experienced a 14% reduction in water usage in 2009 from 2008. Firestone does believe at least 10% of the reduction was related to a very wet 2009 and the remaining 4% reduction was associated to the change of the water rate structure. Firestone will continue to monitor and collect its' water consumption to measure future success.

As proposed in the recently approved 2007 Water Conservation Plan, proper data will continued to be collected to measure success.

v) **Adequacy, stability, and reliability of water system.**

The Town of Firestone owns and operates a water distribution network of approximately 25 miles of pipeline and associated facilities. Over 95% of this network was installed after 1995 and is in excellent operating condition. The remaining portion of the network is located in the historic “old town” area and was installed in the early 1970’s. This older portion of the network is primarily 4”, 6”, and 8” diameter asbestos cement pipe. The integrity of the older pipe is adequate but system capacity evaluations have shown that over time this portion of the network needs to be replaced with larger capacity pipe to improve delivery, especially for fire suppression flows.

The pipe network installed since 1995 has been subject to design and installation in strict accordance with the Town’s published criteria and standards. Meticulous adherence to these standards has helped to create a pipe network that has been virtually maintenance free.

The Town has excellent maintenance staff that performs regular preventative maintenance to the system. In addition, the Town operates within a very minimal budget for repair and replacement of system components. Every service connection on the distribution system, regardless of use, is metered. All of the system meters are read monthly (at a minimum) so that all water used within the Town is accounted for, including hydrant meters used by contractors that buy construction water. The water use monitoring program the Town has used for the past six years is integral to the maintenance department’s efforts to eliminate system leakage.

Firestone does not currently operate a water treatment plant and is a wholesale purchaser of potable water. The sole supplier of treated water is the Central Weld County Water District. The Town owns approximately 4,600 units of CBT Project water. Additional CBT water is turned over to the Town by new development as it occurs. CBT water is transferred to Central Weld’s water treatment plant at Carter Lake, outside of Berthoud. Central Weld treats and then delivers the water to Firestone through a distribution network. Firestone has 11 points of connection to Central Weld’s distribution system, each consisting of a master meter vault and appurtenances. Water storage has been contractually provided by Central Weld in the past, but the Town is currently constructing a 1.5 Million Gallon water storage tank.

c) Description of the Project.

With the grant monies, the Town of Firestone intends to implement two conservation programs as identified in the 2007 Water Conservation Plan. The programs include: rebate program for High-Efficiency Toilets and rebate program for high-efficiency clothes washers.

Rebate Program for High Efficiency Toilets and High-Efficiency Washing Machine for Residential Customers

The concept for these programs is to offer an incentive for residential customers to purchase High-Efficiency Toilets and Washing Machines. This Rebate Program will illustrate financial friendly conservation techniques that can easily be implemented in households served by Firestone. Rebate programs will be \$75 for toilets and \$125 for washing machines. Efforts will be made to make this program readily available to residential water customers in Town as a motivational tool, which will lead to water conservation.

The High-Efficiency Toilet and High-Efficiency Washing Machine Rebate Program can be broken down into the following tasks:

1. Development
2. Promotion
3. Distribution
4. Measuring Success

Task 1 – Development

The Town will develop an application form and qualifying product list that will be used by residents during the application process. A quote has been obtained for web development services. The web development includes creating an electronic rebate request form and file attaching capability for the Town's website. The Town feels that having this form available to the residents to be completed online will increase participation in these programs.

All of the text for the website will be provided by the Town. After hiring the web developer, the staff will work closely with this person to ensure quality and accuracy.

Applicants will be required to provide the following information in the application process:

- Town of Firestone Utility account number
- Name
- Service address in Firestone
- Mailing address
- Telephone number
- Email address
- Toilet or Washing Machine Manufacturer
- Toilet or Washing Machine Model Number
- Washing Machine serial number
- Number of bathrooms in home
- Number of persons living in household
- Estimated Age of Toilet or Washing Machine being replaced
- Copy of receipt of purchase
- Photograph of the replaced toilet removed or photograph of installed washing machine

The Town will develop a database that will be used in track the information above for each of the applicants receiving a rebate from the Town. In addition, the Town will monitor and record past winter usage and future winter usage for the applicants. All the information obtained will be used to manage and report success of the program.

Task 2 –Promotion

Once the High-Efficiency Toilet and High-Efficiency Washing Machine Rebate Program begins, the Town will notify its residents via: the Town newsletter, an ad in two local newspapers including the Times-Call and Farmer and Miner, postings at Town Hall, postings on the Town’s website, and an insert in the monthly water bill.

Task 3 –Distribution

Once a completed Rebate application, copy of the receipt of purchase and photograph of the replaced toilet or installed washing machine is received, the Town will review the form. If the applicant meets all of the required qualifications, they will receive a letter from the Town informing them that they qualify for the rebate and will receive a check in the mail in four to six weeks. Further, the letter will contain a link to an online survey wherein customers will be asked to complete as part of the follow-up of this program. A hard copy of this survey will be available for any customers that do not have access to the internet.

Task 4 – Measuring Success

Success of the Rebate Program will be measured in two ways. The first measure will be the results of the survey residents are asked to complete. This survey will contain questions like:

- Why did you decided to install a new High-Efficiency Toilet or Washing Machine?
- Compared to your old toilet, does your new toilet require double flushing?
- Compared to your old washing machine, does your new washing machine allow you to wash more clothes per load?

The second measure will be monitoring the winter month’s water usage. We will record the usage for the winter months prior to the toilet or washing machine being installed. We will then record the usage for the winter months after the toilet or washing machine was installed.

As with the aforementioned measurements, tracking water usage of rebate recipients will be a good measure of the effectiveness of the Town’s water conservation program.

I. Reporting Progress

Per CWCB requirements, a 50% and 75% progress report will be submitted. The reports will comment on the following items:

- Success of meeting the identified goals
- Obstacles encountered
- Preliminary findings or accomplishments
- Potential need for revisions to the scope of work and timelines

A Final Project Report will be prepared and submitted to CWCB summarizing activities completed and actual water savings after one year of implementation.

4. **Proposed Project Schedule.**

Table 3 – Proposed Project Schedule

Task	Date
Grant application submitted to CWCB for approval	7/13/2010
CWCB approves grant and issues PO	8/30/2010
Implement measures/programs	9/1/2010
Submit 50% progress report to CWCB	11/30/2010
Submit 75% progress report to CWCB	3/31/2011
Complete final report documenting activities and savings	7/31/2011
Submit final report to CWCB	8/31/2011

5. **Project Budget.** See attached Table 4.

6. **List all funding sources.** See attached Table 4.

7. The Town intends to use the grant money to create a rebate program for High-Efficiency Toilet and Washing Machines. These programs will help the Town achieve the water-savings goals outlined in their 2007 Water Conservation Plan.

“The Town Board of Firestone is committed to water resource sustainability and water conservation. The Town intends to do its part to preserve water for future generations. Both staff and the Board understand the needs and benefits to implement long-term water conservation measures. Our Raw Water Master Plan shows that 15% of our future water demand needs to be met through water conservation. We are committed to implementing the water conservation educational program.”



Chad Auer, Mayor