FIRESTONE

A COMMUNITY IN MOTION

September 9, 2011

Ms. Deborah Burrell
Colorado Water Conservation Board
1313 Sherman Street, 7th Floor
Denver, CO 80203

RE: Town of Firestone Drought Management Planning Grant Application

Dear Ms. Burrell:

The Town of Firestone is interested in developing a Drought Management Plan to provide drought mitigation and response strategies for the Town. As you will see in the attached planning grant application, the Town of Firestone is committed to implementing effective drought management strategies as outlined in the Scope of Work.

As Town Manager, I will authorize funds and staff time to dedicate towards developing this Drought Management Plan. Once the Drought Management Plan is in place, I will authorize funds as they become available to implement the Plan.

Clear Water Solutions, Inc. has prepared the attached planning grant application for a Drought Management Plan. The total cost to complete the plan is $64,402. The Town proposes to match a total of $25,371, which consists of $23,371 of in-kind services and $2,000 cash. This equates to 39% of the total project. The Town requests a grant for $39,031 from CWCB to complete the plan. We respectfully submit this request for your consideration.

Respectfully,
Town of Firestone

Wes LaVanchy, *Town Manager*
Enclosures

151 Grant Ave. • P.O. Box 100 • Firestone, CO 80520
(303) 833-3291 • fax (303) 833-4863

CWCB DROUGHT MANAGEMENT PLAN GRANT APPLICATION SUBMITTAL REQUIREMENTS

1. *Contact information of entity seeking grant:*

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

2. *Selected firm and individuals to assist in development of Drought Management Plan:*

   Clear Water Solutions, Inc.
   Attn: Kim Frick
   8010 South County Road 5, Suite 105
   Windsor, CO 80528
   T: (970) 223-3706
   F: (970) 223-3763

   Clear Water Solutions, Inc. (CWS) will complete a Drought Management Plan (DMP) for the Town of Firestone. Individuals from CWS that will be involved in the project include Kim Frick and Steve Nguyen, P.E.

   Kim Frick has worked on several CWCB-approved water conservation plans and has over nine years of experience in water resources planning and management. She will oversee the entire process including developing plan objectives and the stakeholder committee, assessing historical droughts and development of drought mitigation and response strategies, and provide the development of a response program. Kim will serve as Project Manager for this DMP.

   Steve Nguyen is a Professional Engineer registered in the State of Colorado. He has over fourteen 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, water conservation and drought management. Steve will serve as a Technical Advisor on all portions of the DMP.

Town of Firestone

Wes LaVanchy is the Town Manager and will serve as the primary contact for the Town on this project. Wes will provide general direction on all aspects of the plan including profiling the existing system, stakeholder development, historical assessment, drought vulnerability assessment, development of drought mitigation and response strategies along with the drought stages and trigger points, plan implementation and monitoring as well as plan review and updates. Wes is essential in developing a DMP for the Town in which the Town Board will adopt and implement.

Dave Lindsay is a Professional Engineer and serves as the Town Engineer. He will provide insight concerning drought impacts, including water use habits, general performance of the Town's infrastructure during droughts, history of droughts and Town response, and system limitations during drought. Dave has been with the Town since 1991 and will provide valuable insight to historical operations.

Ron Lay is the Town Finance Director and will assess the financial impacts regarding potential revenue declines from drought management and provide an overview of cost for implementation. Ron will participate in the stakeholder committee process and development of the staged drought response.

Theo Abkes is the Director of Public Works and will provide detailed knowledge of the Town's infrastructure and water delivery system. His knowledge of operations and maintenance will be useful when planning potential water restriction scenarios.

Julie Pasillas is in charge of utility billing for the Town. She has a good understanding and access to information such as water use per customer category and revenues generated by each category. She will assist CWS with profiling the existing system, providing historic information and water use data for the Town. She will assist with all stages of plan development from the stakeholder process to the plan review and update.

3. *Identification of retail water delivery of the covered entity for past five years:*

The Town's average water usage for the past five years for each customer category is shown on **Table 1**. The total water usage has ranged from 1,589 to 1,862 acre-feet and averages 1,785 acre-feet. Since 2007, there has been a decreasing gallons per capita per day (gpcd) for the Town, which may be due in part to the water conservation plan that was completed in 2007 and a tiered rate structure that was implemented in 2008 as a result of a rate study that focused on water conservation rates.

The Town's water supply consists solely of Colorado-Big Thompson (CBT) units managed by the Northern Colorado Water Conservancy District (Northern Water). This water is treated and supplied to the Town by a water provider, Central Weld Colorado Water Conservancy District.

Table 1: Annual Water Delivery

Customer Category	2006	2007	2008	2009	2010	Source
Residential	1,308	1,263	1,312	1,094	1,325	CBT
Multi-Family	10	15	8	7	8	CBT
Commercial	137	142	176	168	189	CBT
Industrial	7	7	5	4	6	CBT
Parks	122	157	212	191	250	CBT
Open Space	214	199	149	125	117	CBT
Total	1,798	1,783	1,862	1,589	1,895	
Population	7,325	8,365	9,520	9,681	10,147	
Residential GPCD	159	135	123	101	117	
Total GPCD	219	190	175	147	167	

4. *Background characterizing the water system, potential growth and any other pertinent issues that relate to the stated evaluation criteria.*

(a) Within the last five years, Firestone has a total per capita water use that ranges from 147 to 219 gallons per capita per day (gpcd) with an average of 179 gpcd as shown in **Table 1**. This calculation was performed using the total billed usage and population estimates for the Town.

(b) Population projections used the 2007 Water Conservation Plan for the Town and recent 2010 Census data from the State Demography Office. **Table 2** shows the estimated population for the last five years, current year and the next ten years. We obtained current population data from the 2010 census, which showed a population of 10,147 for Firestone. Future growth rates were obtained from staff and shows a 6% growth rate from 2013 to 2015, 4% from 2016 to 2018 and 3% for 2019 to 2021.

(c) The estimated water savings goal for this Plan will be to lower the total water use by 5%-10% during a drought. This is in addition to the 12.3% savings goal outlined in the Town's Water Conservation Plan. This can be done with a combination of short-term drought mitigation strategies and long-term water conservation measures already addressed in their water conservation plan. The Town will revisit and revise this goal, as necessary, as it further analyzes the potential water savings that

corresponds to the drought stages through development of this Plan. The Town envisions having multiple savings goals that correspond to various drought levels.

Table 2: Firestone Population Growth

Year	Population	Growth Rate
2005	6,564	-
2006	7,325	11.59%
2007	8,365	14.20%
2008	9,520	13.81%
2009	9,681	1.69%
2010	10,147	2.25%
2011	10,375	2.25%
2012	10,609	2.25%
2013	11,033	4.00%
2014	11,695	6.00%
2015	12,397	6.00%
2016	13,141	6.00%
2017	13,798	5.00%
2018	14,350	4.00%
2019	14,780	3.00%
2020	15,223	3.00%
2021	15,680	3.00%

5. *Description of impacts from entity during 2002-2003 Drought.*

The Town's CBT water supplies provided adequate water during the drought from 2000 to 2003. Firestone's water dedication policy is such that developers dedicate water to the Town before the actual development occurs. Consequently, the Town has water ahead of the demand and this "cushion" helped immensely during the drought. In 2003, Northern Water originally issued a 30% quota, but later issued a supplemental quota of 20%. At the 50% total quota, Firestone was able to supply all of its potable water needs. However, if the quota had remained at 30%, Firestone likely would have experienced supply issues, especially if a low quota would be issued for several consecutive years.

Table 3 shows an average water use of 954 acre-feet for the drought years of 2002/03, which is much less than the average for the last five years (1,785 acre-feet). However, it is difficult to compare the 2002/03 data with the last five years because there has been such an increase in population that has consequently driven up demand. Firestone experienced a significant growth spurt that has brought its population to 10,147 in 2010, which is a 432% increase from 2000.

Table 3: Firestone 2002/2003 Water Usage

Customer Category	2002 (ac-ft)	2003 (ac-ft)
Residential	723	720
Multi-Family	8	7
Commercial	112	158
Industrial	6	6
Parks	22	33
Open Space	55	59
Total	926	983
Population	4,159	5,034

6. In this Plan, the Town of Firestone will perform the eight steps of drought planning as outlined in the *Drought Management Plan Guidance Document*. See **Attachment A** for the Scope of Work and **Attachment B** for a projected schedule for the Plan.

7. The Town will use the grant money for completion of the Plan and will provide CWS all information, including billing and financial information, as well as staff time to successfully complete the Plan. See **Attachment C** for the breakdown of Project Fees including projected hours and rates.

8. "The FirestoneTown Board is committed to water resource sustainability, conservation and drought management. Both staff and the Board understand the needs and benefits to implement a Drought Management Plan to ensure the Town is properly prepared to deal with and respond to a drought in a timely and sufficient manner to reduce economic, social and environmental impacts. We are committed to completing the Plan in its entirety to be approved by CWCB for the grant money requested."

X CW A

Chad Auer, Mayor

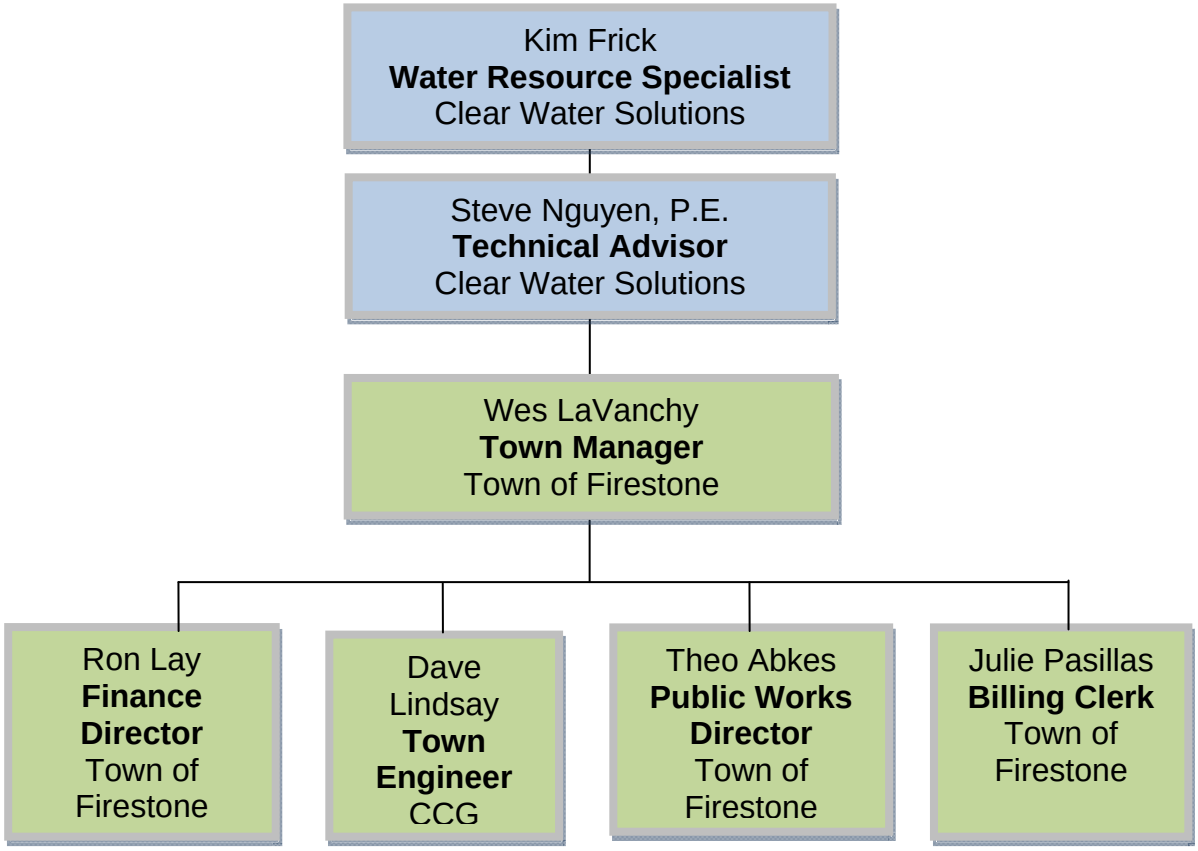
9. *Description of Public Review Process*

The Town will publish a notice in the local newspaper and post on its website that a Draft Plan is available for the public to review and comment. The public will have a 60-day period to provide comments to the Town.

Town of Firestone Drought Management Plan
Attachment A - Scope of Work

This Scope of Work describes the work to be performed by Clear Water Solutions, Inc. (CWS) for the Town of Firestone. The scope outlines the tasks required to successfully complete a Drought Management Plan (DMP) in accordance with CWCB's Drought Management Plan guidelines and policies.

The scope will be completed under the following structure:



DEVELOP DROUGHT MANAGEMENT PLAN

The Town is seeking grant assistance from the Office of Water Conservation and Drought Planning pursuant to the Water Conservation Act of 2004 HB04-1365 to develop a DMP. The main purpose of this DMP is to provide the Town with actions and procedures for responding to a drought.

The DMP will be developed following *CWCB's Drought Management Plan Development Guidance Document, August 2010.* This document outlines the requirements needed for CWCB's approval. CWS will submit a draft DMP to the Town for comments prior to a public-review period. Following the public-review process, CWS will incorporate public comments as appropriate and submit the DMP to CWCB for final approval.

Development of this DMP is divided into steps and subtasks similar to the CWCB Model Plan Template. This DMP includes all the essential items necessary for CWCB to approve the DMP.

INTRODUCTION

Purpose

The activities described under this task will provide general background on Firestone's existing water supply system, in addition to describing the stakeholder selection process and overall objectives of the DMP.

Approach

Kickoff Meeting with Town staff to discuss overall project and gather preliminary data.

I.1 - Profile Existing System

I.1.1 CWS, with the help of Town staff, will describe the Town's service area.

I.1.2 CWS, with the help of Town staff, will describe the Town's existing water supplies.

I.1.3 CWS, with the help of Town staff, will describe the service area, existing water supplies and customer profiles.

I.2 - Drought Mitigation and Response Planning

I.2.1 CWS will provide a description of a drought.

I.2.2 CWS will describe the impact of a drought on the Town's water supplies.

I.2.3 CWS will describe the purpose and benefits of drought mitigation and

response planning.

I.2.4 CWS will describe differences between drought mitigation and response planning.

I.3 - Historical Drought Planning Efforts

I.3.1 CWS, with help of Town staff, will describe any historical planning efforts to deal with drought conditions.

I.3.2 CWS and Town staff will explain how this plan has been modified from the current drought planning efforts and will be an improvement to historical efforts.

I.4 - Drought Planning and Water Conservation

I.4.1 CWS will discuss the difference between drought planning and water conservation planning.

STEP 1 – STAKEHOLDERS, OBJECTIVES AND PRINCIPLES

Purpose

The activities described under this task will introduce the stakeholder process and the basic objectives of the DMP.

Approach

Stakeholder Committee Meeting #1 - Kickoff project and gather information for Steps 2 & 3.

1.1 - Drought Planning Committee

1.1.1 CWS will define the role of the drought committee in developing the overall DMP.

1.1.2 In coordination with Town staff, CWS will select members that will be involved as stakeholders throughout development of this DMP. A list of these members will be developed including their job titles and description of expertise.

1.2 - Objectives of DMP

1.2.1 In coordination with Town staff, CWS will discuss the major objectives for this DMP and how these objectives fit within broader water planning efforts.

1.2.2 CWS and Town staff will discuss how the objectives for the DMP reflect the water use priorities during a drought.

1.2.3 CWS and Town staff will develop a list of water use priorities for the DMP.

1.2.4 CWS and Town staff will discuss how the operating principles were incorporated into the overall DMP development and how they may be considered during implementation.

STEP 2 – HISTORICAL DROUGHT AND IMPACT ASSESSMENT

Purpose

The goal of this task is to collect historical drought information to help provide insight for future drought planning.

Approach

2.1 - Historical Assessment of Drought, Available Supplies, and Demands

2.1.1 CWS will collect historical information that may include streamflow data, reservoir levels, precipitation, groundwater levels, wholesale supplies, water quality issues, etc. to identify significant previous/current droughts and how they affected the Town's water supplies.

2.1.2 CWS will describe the existing operational factors, concepts, and terms essential to public communication (i.e. firm and safe yield, drought reserves, water rights, etc.)

2.1.3 CWS, with the help of Town staff, will outline the water demands during previous droughts, which may include per capita water demands (gpcd), demands by customer type, indoor and outdoor water usage, etc.

2.2 - Historical Drought Impact, Mitigation and Response Assessment

2.2.1 CWS will utilize *Worksheet A* from the guidance document to provide a list of historical and current drought related impacts.

2.2.2 CWS will utilize *Worksheets B & C* to provide a list of demand- and supply-side mitigation measures that were taken during previous/current droughts.

2.2.3 CWS will utilize *Worksheets B & C* to show the overall effectiveness of drought measures taken during previous/current droughts.

STEP 3 – DROUGHT VULNERABILITY ASSESSMENT

Purpose

The activities described under this task will provide an overview of water supply reliability and identify potential future drought impacts.

Approach

3.1 - Water Supply Reliability and Drought Management Planning

3.1.1 CWS will provide a summary of other water supply reliability documents, which may include raw water master plans, forecasting models, etc.

3.1.2 CWS will define key terms used to define water supply reliability, which may include firm yield, safe yield, etc.

3.1.3 CWS will describe how water supply reliability is related to drought planning.

3.1.4 CWS will describe other factors that could affect water quality and/or quality of water supplies or demands that are not directly incorporated into water reliability studies, such as Colorado compact call, sequential years of drought, water quality, etc.

3.2 - Drought Impact Assessment

3.2.1 CWS along with Town staff will identify potential impacts that could occur during future droughts. *Worksheet A* may be utilized as an outline.

3.2.2 CWS with Town staff will show the relative priority of the potential impacts. *Worksheet A* may be utilized as an outline.

STEP 4 – DROUGHT MITIGATION AND RESPONSE STRATEGIES

Purpose

The activities under this task will describe the selected drought mitigation and response strategies. Drought response measures target temporary savings through changes in customer behavior during a drought. Drought mitigation measures are taken prior to a drought to avoid or reduce the impacts from a drought.

Approach

Stakeholder Committee Meeting #2- Gather information for Step 4 & 5.

4.1 - Drought Mitigation Measures

4.1.1 CWS and Town staff will develop a list of drought mitigation measures.

4.1.2 CWS may utilize *Worksheets B & C* to select and screen supply and demand side response strategies. *Worksheet A* may be used to develop new mitigation action steps.

4.1.3 CWS will describe the criteria used to select the mitigation measures.

4.1.4 If water conservation measures are being used as drought mitigation measures, then CWS will provide a discussion of those measures.

4.2 - Supply-Side Response Strategies

4.2.1 CWS may utilize *Worksheet B* to develop a list of supply-side response strategies and specific measures that will be taken.

4.2.2 CWS will describe the criteria used to select the mitigation measures.

4.3 - Demand-Side Response Strategies

4.3.1 CWS may utilize *Worksheet C* to develop a list of demand-side response strategies and specific measures that will be taken.

4.3.2 CWS will describe the criteria used to select the mitigation measures.

4.4 - Drought Public Information Campaign

4.4.1 CWS may utilize *Worksheet D* to outline the information for the public drought campaign such as: target audience, communication tools for relaying information, specific key information to convey and opportunities for future synergies.

4.4.2 CWS with Town staff may develop prescript messages to be delivered to the public throughout the various stages of drought, if a public information campaign is selected.

STEP 5 – DROUGHT STAGES, TRIGGER POINTS AND RESPONSE TARGETS

Purpose

The activities described under this task will present the drought stages, trigger points and response targets. These tasks will be incorporated into a drought declaration and response effort.

Approach

5.1 - Drought Stages, Trigger Points and Response Targets

5.1.1 CWS will present the drought stages and, if applicable, corresponding drought trigger points and response targets. *Worksheet E* may be used to present this information.

5.1.2 CWS will explain how each drought stage corresponds to the severity of the drought and the amount of water that needs to be saved, if applicable.

5.2 - Drought Declaration and Predictability

5.2.1 CWS will discuss the nature of weather in Colorado and the challenges for detecting drought early.

5.2.2 CWS with Town staff will develop a final list of drought indicators and how they reflect current water supply conditions.

5.2.3 CWS will describe why the drought triggers were selected as opposed to other possible triggers.

5.2.4 CWS will discuss how drought indicators, triggers and other pertinent data are incorporated into the decision making process.

5.2.5 CWS will discuss how the drought indicators should be monitored and the frequency and any other critical times to monitor.

Stakeholder Committee Meeting #3- present proposed drought stages to get feedback

Meet with Town Board to present proposed drought stages to get feedback

STEP 6 – STAGED DROUGHT RESPONSE PROGRAM

Purpose

The activities described under this task outline the drought response measures that correspond to each drought stage developed under Step 5.

Approach

6.0.1 CWS will present the supply- and demand-side response measures, by drought stage, and may utilize *Worksheets F & G*.

6.0.2 CWS will present a summary table of the drought response measures including the drought stages, trigger points and response targets. *Worksheet H* may be utilized for this task.

6.0.3 CWS will present the staged public drought campaign along with the drought stages, if the provider decides to do a public drought campaign. This may be included in an appendix if appropriate.

6.0.4 CWS will develop a staged drought program with input from Town staff and Board along with the stakeholder committee.

STEP 7 – IMPLEMENTATION AND MONITORING

Purpose

The activities described under this task will outline full implementation of the DMP which includes: mitigation plan, drought indicator monitoring, drought declaration protocol, implementation and enforcement of the staged drought response program, revenue planning and continued monitoring of the DMP and revising when necessary.

Approach

<u>7.1 - Mitigation Action Plan</u>

7.1.1 CWS with Town staff will list the drought mitigation actions to be performed. *Worksheet I* may be utilized.

7.1.2 CWS with Town staff will outline the steps necessary to implement each mitigation action. *Worksheet I* may be utilized.

7.1.3 CWS with Town staff will set milestone deadlines for the DMP. *Worksheet I* may be utilized.

7.1.4 CWS with Town staff will outline the entities and/or staff responsible for administrating the mitigation action. *Worksheet I* may be utilized.

<u>7.2 - Monitoring of Drought Indicators</u>

7.2.1 CWS will outline the drought data that is to be monitored on an annual

and seasonal basis.

7.2.2 CWS will detail the frequency of the monitoring schedule.

7.2.3 CWS will outline the entities and/or staff responsible for drought monitoring.

7.3 - Drought Declarations

7.3.1 CWS will present the trigger points and/or drought indicator data to be used by staff to evaluate drought conditions.

7.3.2 CWS will outline the decision makers responsible for declaring a drought and corresponding drought stages where applicable.

7.3.3 CWS will discuss the importance of declaring a drought in a timely manner as well as addressing the timing of when the decision makers and the general public will be informed.

7.3.4 CWS will outline the entities and/or staff responsible for announcing drought declaration to the public.

7.4 - Implementation of Staged Drought Response Program

7.4.1 CWS, with Town staff, will outline the entities and/or staff responsible for administering the staged drought response program.

7.4.2 CWS, with Town staff, will outline the staff responsible for administering the public drought campaign.

7.4.3 CWS, along with Town staff, will outline the coordination and communication between various entities and Town staff.

7.5 - Enforcement of Staged Drought Response Program

7.5.1 CWS, along with Town staff, will decide what enforcement policies are appropriate for each stage of drought. *Worksheet G & H* may be used to present this information.

7.5.2 CWS, along with Town staff, will decide the level of monitoring/patrolling necessary for each stage of drought.

7.5.3 CWS, along with Town staff, will outline how the enforcement information will be conveyed to the public if deemed appropriate.

7.5.4 CWS, along with Town staff, will decide who is responsible for the

administration effort and approving exceptions to the enforcement policy.

7.6 - Revenue Implications and Financial Budgeting Plan

7.6.1 CWS will discuss how the reduction of water use can lead to loss of revenue and provide financial hardship.

7.6.2 CWS and Town staff will analyze what financial resources may be necessary to implement the response programs such as the public drought campaign or stated drought response program. CWS will also evaluate if any additional funds may be necessary to intensify drought monitoring efforts.

7.6.3 CWS, along with Town staff, will develop strategies to address potential revenue losses and determine the general timing for implementing these strategies.

7.7 - Monitoring Plan Effectiveness

7.7.1 CWS, along with Town staff, will outline the data to be collected during a drought such as: demand data, lessons learned, conditions of the water supply system during the drought (e.g., reservoir levels), public perceptions and the general response to a drought, and the administrative staged drought response program (e.g., number of citations issued).

7.7.2 CWS, along with Town staff, will outline the staff responsible for data collection, evaluation and recommendations on DMP improvements.

Stakeholder Committee Meeting #4- Committee reviews draft plan and provides comments.

STEP 8 – FORMAL PLAN APPROVAL AND UPDATES

Purpose

The activities described under this task will address the public review and formal approval process for the necessary ordinance(s) and agreement(s) of the DMP.

Approach

8.1 - Public-Review Process

8.1.1 CWS and the Town will publish a notice in the local newspapers and make a draft plan publically available for a 60-day comment period.

8.1.2 If members of the community are involved in the drought committee, a description of their involvement will be provided by CWS.

8.1.3 CWS and the Town will outline the public-review process and describe how the public will be able to access the DMP.

8.2 - Adoption of Ordinances and Official Agreements

8.2.1 CWS and Town staff will summarize the ordinances or policies necessary to implement this DMP and may include policy changes in order to facilitate the formal declaration of a drought; implement and enforce the staged drought response program and public drought campaign; and adopt revenue changes.

8.2.2 Town staff will provide official agreements with other entities for drought-related coordination, if needed.

8.2.3 CWS will provide copies of official Ordinances or Agreements if they are developed.

8.3 - Drought Management Plan Approval

8.3.1 CWS, along with Town staff, will describe the governmental body that either approves or adopts the DMP.

8.3.2 CWS, along with Town staff, will provide the date of the approval or adoption of the final DMP.

8.3.3 CWS will provide a copy of the official approval/adoption.

8.4 - Periodic Review and Update

8.4.1 CWS, along with Town staff, will discuss the frequency of when they hope to update the DMP and provide an anticipated date for the next update. CWCB recommends a DMP update every five years.

8.4.2 CWS, along with Town staff, will provide an anticipated date for the next update.

8.4.3 CWS, along with Town staff, will provide the staff member(s) responsible for initiating the next DMP update and collecting the appropriate data.

Meeting with Town Board to present draft plan

STEP 9 – SUGGESTED APPENDICES

9.0.1 Official copies of adopted ordinances(s) and/or official agreement(s)

9.0.2 Copy of Plan approval documents

REQUIREMENTS

1. Town Board and staff will review a final draft of the DMP and provide comments.
2. CWS will incorporate the Town's comments prior to the public-review process.
3. Public comments will be solicited and incorporated into the DMP as necessary.
4. The Town will formally adopt the final DMP.
5. CWS will submit the final DMP to CWCB.
6. CWCB will review final DMP.

DELIVERABLES

CWS will submit the following:

- Monthly invoices to the Town with brief progress reports.
- Submit 25%, 50% and 75% progress reports to CWCB.
- Three meetings with Staff and Town Board.
- Four meetings with Stakeholder Committee.
- Provide draft DMP to the Town for comments prior to submission to CWCB.
- Final DMP submitted electronically to CWCB with all comments, including public input.
- Ten hard copies of the final DMP submitted to the Town after CWCB's final approval.

ATTACHMENT B

Project Schedule

Town of Firestone Drought Management Plan

Task	Date
CWCB approves grant and PO issued	9/19/2011
Kick-off meeting with Town staff (stakeholder selection)	10/5/2011
Kick-off meeting with Stakeholder Committee for Goal Development	10/12/2011
Submit 25% progress report to CWCB	10/19/2011
Submit 50% progress report to CWCB	11/16/2011
Submit 75% progress report to CWCB	12/14/2011
Submit draft plan to staff for review and comment	1/9/2012
Staff provides comment from review	1/13/2012
Submit draft report to Town Board for review	1/16/2012
Present draft report at Town Board meeting and collect comments	1/25/2012
Notify public of draft plan in paper and website	1/26/2012
Public review period (60 days)	1/26 - 3/27/2012
Town provides public input comments to CWS	3/28/2012
CWS incorporates public comments	3/30/2012
Town Board formally adopts final report	4/11/2012
CWS submits final report to CWCB	4/12/2012
CWCB approves final report	*up to 90 days*

ATTACHMENT C
Project Fee Estimate
Town of Firestone Drought Management Plan

ITEMS OF WORK	CWS Kim Frick HOURS $115	CWS Kim Frick SUB TOTAL	CWS Steve Nguyen HOURS $150	CWS Steve Nguyen SUB TOTAL	Town of Firestone Staff (In-Kind) Town Manager HOURS $63.54	Town Manager SUB TOTAL	Town Engineer HOURS $110	Town Engineer SUB TOTAL	Finance Director HOURS $58.40	Finance Director SUB TOTAL	Public Works Director HOURS $55.09	Public Works Director SUB TOTAL	Billing Clerk HOURS $24.13	Billing Clerk SUB TOTAL	Labor Total	Expense Total	Grand Total	Cash Contribution	CWCB Grant Request
Introduction																			
I.1 Profile Existing System	2	$230	1	$150		$0	1	$110		$0		$0		$0	$490		$490		$380
I.2 Drought Mitigation & Response Planning	3	$345	1	$150		$0	1	$110		$0		$0		$0	$605		$605	$250	$245
I.3 Historical Drought Planning Efforts	1	$115	1	$150		$0	1	$110		$0		$0	2	$48	$423		$423		$265
I.4 Drought Planning and Water Conservation	1	$115		$0		$0		$0		$0		$0		$0	$115		$115		$115
Kick-off meeting with Town Staff	6	$690	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,762		$1,762		$1,140
Sub-Total	***13***	***$1,495***	***6***	***$900***	***2***	***$127***	***5***	***$550***	***2***	***$117***	***2***	***$110***	***4***	***$97***	***$3,396***	***$0***	***$3,396***	***$250***	***$2,145***
Step 1 - Stakeholders and Plan Objectives and Principles																			
1.1 Drought Planning Committee	3	$345	1	$150	2	$127	2	$220		$0		$0		$0	$842		$842		$495
1.2 Objectives of Drought Management Plan	4	$460	1	$150	2	$127	2	$220	1	$58	1	$55	4	$97	$1,167		$1,167		$610
Stakeholder Committee Meeting #1	6	$690	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,762		$1,762		$1,140
Sub-Total	***13***	***$1,495***	***5***	***$750***	***6***	***$381***	***6***	***$660***	***3***	***$175***	***3***	***$165***	***6***	***$145***	***$3,771***	***$0***	***$3,771***	***$0***	***$2,245***
Step 2 - Historical Drought and Impact Assessment																			
2.1 Historic Assessment of Drought, Supplies & Demands	12	$1,380	1	$150	4	$254	4	$440		$0	2	$110	8	$193	$2,527		$2,527	$250	$1,280
2.2 Historical Drought Impact, Mitigation & Response Assessment	16	$1,840	1	$150	4	$254	4	$440		$0	2	$110	8	$193	$2,987		$2,987		$1,990
Sub-Total	***28***	***$3,220***	***2***	***$300***	***8***	***$508***	***8***	***$880***	***0***	***$0***	***4***	***$220***	***16***	***$386***	***$5,515***	***$0***	***$5,515***	***$250***	***$3,270***
Step 3 - Drought Vulnerability Assessment																			
3.1 Water Supply Relability & Drought Management Planning	8	$920	4	$600	4	$254	2	$220		$0	2	$110	2	$48	$2,153		$2,153	$250	$1,270
3.2 Drought Impacts Assessment	8	$920	4	$600	4	$254	2	$220		$0	2	$110	2	$48	$2,153		$2,153		$1,520
Sub-Total	***16***	***$1,840***	***8***	***$1,200***	***8***	***$508***	***4***	***$440***	***0***	***$0***	***4***	***$220***	***4***	***$97***	***$4,305***	***$0***	***$4,305***	***$250***	***$2,790***
Step 4 - Drought Mitigation and Response Strategies																			
4.1 Drought Mitigation Measures	4	$460	1	$150	1	$64	1	$110	1	$58	1	$55	1	$24	$921		$921	$250	$360
4.2 Supply-side Response Strategies	4	$460	1	$150	4	$254	2	$220	4	$234	4	$220	4	$97	$1,635		$1,635		$610
4.3 Demand-side Response Strategies	4	$460	1	$150	4	$254	2	$220	4	$234	4	$220	4	$97	$1,635		$1,635		$610
4.4 Drought Public Information Campaign	8	$920	4	$600	4	$254	2	$220	1	$58	1	$55	4	$97	$2,204		$2,204		$1,520
Stakeholder Committee Meeting #2	6	$690	3	$450	4	$254	2	$220	1	$58	1	$55	4	$97	$1,824		$1,824		$1,140
Sub-Total	***26***	***$2,990***	***10***	***$1,500***	***17***	***$1,080***	***9***	***$990***	***11***	***$642***	***11***	***$606***	***17***	***$410***	***$8,219***	***$0***	***$8,219***	***$250***	***$4,240***
Step 5 - Drought Stages, Trigger Points & Response Targets																			
5.1 Drought Stages, Trigger Points and Response Targets	16	$1,840	4	$600	4	$254	4	$440		$0	4	$220	1	$24	$3,379		$3,379	$250	$2,190
5.2 Drought Declaration and Predicability	16	$1,840	4	$600	4	$254	4	$440		$0	4	$220	1	$24	$3,379		$3,379		$2,440
Stakeholder Committee Meeting #3	6	$690	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,762		$1,762		$1,140
Town Board Meeting	3	$345	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,417		$1,417		$795
Sub-Total	***41***	***$4,715***	***14***	***$2,100***	***12***	***$762***	***12***	***$1,320***	***4***	***$234***	***12***	***$661***	***6***	***$145***	***$9,937***	***$0***	***$9,937***	***$250***	***$6,565***
Step 6 - Staged Drought Response Program																			
6.1 Supply- & Demand-Side Response Measures by Drought Stage	4	$460	2	$300	4	$254	2	$220	1	$58	1	$55	1	$24	$1,372		$1,372	$250	$510
6.2 Summary table of Drought Stages, Trigger Points, etc.	4	$460	2	$300	4	$254	2	$220	1	$58	1	$55	1	$24	$1,372		$1,372		$760
6.3 Public Information Campaign Plan by Drought Stage	4	$460	2	$300	4	$254	2	$220	1	$58	1	$55	1	$24	$1,372		$1,372		$760
Sub-Total	***12***	***$1,380***	***6***	***$900***	***12***	***$762***	***6***	***$660***	***3***	***$175***	***3***	***$165***	***3***	***$72***	***$4,115***	***$0***	***$4,115***	***$250***	***$2,030***
Step 7 - Implementation & Monitoring																			
7.1 Mitigation Action Plan	4	$460	2	$300	4	$254	2	$220	4	$234	1	$55	1	$24	$1,547		$1,547	$250	$510
7.2 Monitoring of Drought Indicators	2	$230	2	$300	2	$127	2	$220	1	$58	1	$55	2	$48	$1,039		$1,039		$530
7.3 Drought Declaration	4	$460	4	$600	2	$127	4	$440	1	$58	1	$55	2	$48	$1,789		$1,789		$1,060
7.4 Implementation of Staged DRP	2	$230	2	$300	2	$127	2	$220		$0		$0	2	$48	$925		$925		$530
7.5 Enforcement of Staged DRP	8	$920	2	$300	8	$508	2	$220	1	$58	1	$55	8	$193	$2,255		$2,255		$1,220
7.6 Revenue Implications & Financial Budgeting Plan	16	$1,840	2	$300	2	$127	4	$440	8	$467	16	$881	4	$97	$4,152		$4,152		$2,140
7.7 Monitoring of Plan Effectiveness	4	$460	1	$150	1	$64	1	$110	1	$58	1	$55	1	$24	$921		$921		$610
Stakeholder Committee Meeting #4 (post draft review)	6	$690	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,762		$1,762		$1,140
Sub-Total	***46***	***$5,290***	***18***	***$2,700***	***23***	***$1,461***	***19***	***$2,090***	***18***	***$1,051***	***23***	***$1,267***	***22***	***$531***	***$14,391***	***$0***	***$14,391***	***$250***	***$7,740***
Step 8 - Plan Review and Updates																			
8.1 Public Review Process	8	$920	4	$600	4	$254	1	$110	2	$117	2	$110	4	$97	$2,208		$2,208	$250	$1,270
8.2 Adoption of Ordinances & Official Agreements	4	$460	1	$150	2	$127	1	$110		$0		$0	4	$97	$944		$944		$610
8.3 Drought Management Plan Approval	2	$230	4	$600	1	$64	1	$110		$0		$0	1	$24	$1,028		$1,028		$830
8.4 Periodic Review & Update	2	$230	1	$150	1	$64	1	$110		$0		$0		$0	$554		$554		$380
Board Meeting - Present draft to Board	3	$345	3	$450	2	$127	2	$220	2	$117	2	$110	2	$48	$1,417		$1,417		$795
Sub-Total	***19***	***$2,185***	***13***	***$1,950***	***10***	***$635***	***6***	***$660***	***4***	***$234***	***4***	***$220***	***11***	***$265***	***$6,150***	***$0***	***$6,150***	***$250***	***$3,885***
Step 9 - Suggested Appendices																			
9.1 Offical copies of Adopted Ordinances & Agreements	1	$115	1	$150	1	$64		$0		$0		$0	1	$24	$353		$353		$265
9.2 Copy of Plan Approval Document	1	$115	1	$150	1	$64		$0		$0		$0	1	$24	$353		$353		$265
Sub-Total	***2***	***$230***	***2***	***$300***	***2***	***$127***	***0***	***$0***	***0***	***$0***	***0***	***$0***	***2***	***$48***	***$705***	***$0***	***$705***	***$0***	***$530***
General Project Expenses																			
Reproduction of Reports - 10 copies x $100/copy + 3 hours x $70/hr																$1,210	$1,210		$1,210
Travel - 7 meetings x $0.556/mi x 85 mi																$331	$331		$331
Submit 3 progress reports	6	$690	2	$300			1	$110					1	$24	$1,124		$1,124		$990
Final incorporation of CWCB comments	4	$460	4	$600	1	$64	1	$110		$0		$0		$0	$1,234		$1,234		$1,060
Sub-Total	***10***	***$1,150***	***6***	***$900***	***1***	***$64***	***2***	***$220***	***0***	***$0***	***0***	***$0***	***1***	***$24***	***$2,358***	***$1,541***	***$3,899***	***$0***	***$3,591***
TOTAL FEE	**226**	**$25,990**	**90**	**$13,500**	**101**	**$6,418**	**77**	**$8,470**	**45**	**$2,628**	**66**	**$3,636**	**92**	**$2,220**	**$62,861**	**$1,541**	**$64,402**	**$2,000**	**$39,031**