CWCB Water Efficiency Grant Program Fund
Water Conservation Planning Grant

1. Contact information of entity seeking grant

Lead Applicant/Fiscal Agent:
City of Steamboat Springs
Attn: Joe Zimmerman
PO Box 775088
Steamboat Springs, CO 80477
(970) 879-2060
jzimmerman@steamboatsprings.net

Project Partners:
Mount Werner Water
Attn: Jay Gallagher
PO Box 880339
Steamboat Springs, CO 80488
(970) 879-2424

Steamboat II Metropolitan District
Attn: Doug Baker
PO Box 771277
Steamboat Springs, CO 80477
(970) 879-7671

NOTE: Project partners have already completed a substantial portion of the scope of work for the overall water conservation plan. We are seeking grant funding in order to complete the water conservation plan to CWCB standards. The following proposal and scope of work discuss the entire planning process, however the budget focuses only on those tasks and activities that still need to be complete and are proposed to be funded within this grant proposal.

2. Organizations / individuals assisting in preparation of the Plan

Project Staff
Joe Zimmerman, Utilities Superintendent, City of Steamboat Springs. Mr. Zimmerman will provide all project management, coordination and oversight for this project, and will represent the City of Steamboat Springs within this project. Mr. Zimmerman has 34 years of experience with the City's water system and is familiar with all aspects of the City's water system, including water distribution, water installation, metering and meter reading, billing, and public education.

Laura Frolich, Construction Services Technician, City of Steamboat Springs. Mrs. Frolich will work with the project consultant to gather any additional needed information, carry out project logistics, communicate planning processes and planning information with the community, and ensure adequate public notice and comment. Mrs. Frolich holds a BS in Earth Sciences and has

experience in administering and developing the water conservation program for The City of San Luis Obispo.

Jay Gallagher, General Manager, Mt. Werner Water District. Mr. Gallagher will represent the Mt. Werner Water District within this project. Mr. Gallagher has spent considerable time gathering the information which was necessary to carry out and complete all of the planning items within the Scope of Work that have already been completed. Mr. Gallagher has four years' experience as GM for Mt. Werner Water. Mr. Gallagher holds a MSc. in Economic Geology from the Colorado School of Mines and has 30 years' experience in industry, having served in senior management positions with developers of GIS and industrial imaging technologies and in corporate planning and technical field positions in the mining industry.

Doug Baker, District Manager, Steamboat II Metro District. Mr. Baker will represent the Steamboat II Metro District in this project. Mr. Baker has 18 years of experience as the District Manager of the Steamboat II Metro District. He holds certifications as a Class 3 Distribution Operator and a Class C Water Operator.

Project Consultant
Lyn Halliday
Environmental Solutions Unlimited, LLC
PO Box 883071
Steamboat Springs, CO 80488
(970) 879-6323

Ms. Halliday is the professional consultant proposed by project partners to complete the development of the Water Conservation Plan. Ms. Halliday was the consultant that worked on the Scope of Work items that have been completed to date. Please Attachment 3 for the Statement of Qualifications for Ms. Halliday and Environmental Solutions Unlimited.

3. The identification of retail water delivery by the entity for each of the past five years (in acre-feet) and additional information characterizing past water use by sector and source.

Project partners have the following retail water delivery:

			millions of gallons			
		2004	**2005**	**2006**	**2007**	**2008**
	Mt Werner District	462	473	506	543	511
	City District	445	451	472	481	474
	Total	907	924	981	1,023	984
			Acre-Feet (AF)			
		2004	**2005**	**2006**	**2007**	**2008**
	Mt Werner District	1,418	1,452	1,553	1,667	1,568
	City District	1,366	1,384	1,458	1,473	1,452
	Total	2,784	2,836	3,011	3,140	3,020

Breakdown by Sector for 2008

	Residential	Commercial	Combined Commercial	Active Other	Unknown	Total
Mt Werner District	1097.6 AF	250.9 AF	94.1 AF	125.44 AF		1568 AF
	70%	16%	6%	8%		
City District	710.2 AF	368.9 AF	44.4 AF	0.34 AF	328.0 AF	1452 AF
	49%	25%	3%	---	22.60%	

Source Water

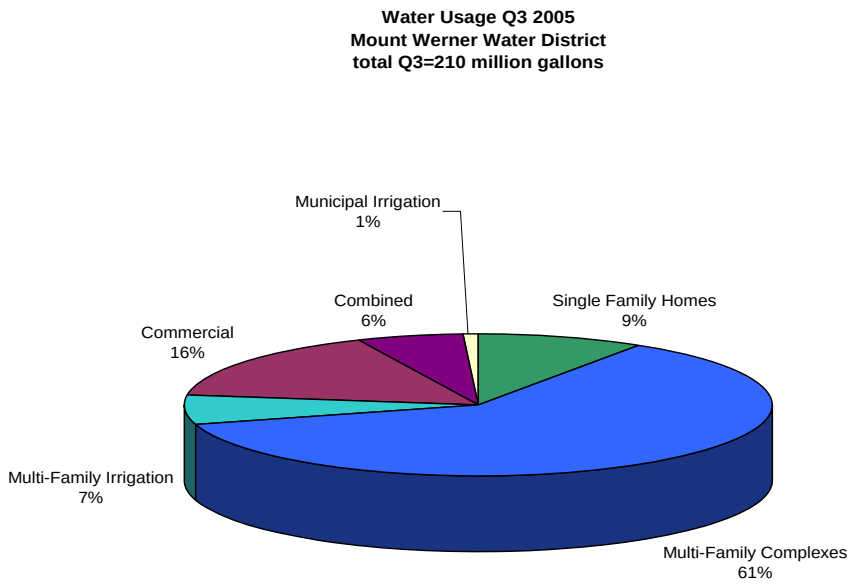
surface water	92%
groundwater	8%

Current Annual Water Use

The Steamboat Springs community is served by both the City of Steamboat Springs and Mt. Werner Water. The current (2008) average annual water use of the combined districts, with a service area roughly 10 square miles, is approximately 3,020 AF per year. The served population in our community is different than that of traditional rural communities in that the resort area served by Mount Werner Water District includes a transient population of part-time residents with second homes and an even larger population of destination resort visitors and seasonal tourists.

In the Mount Werner Water District, residential properties, including muti-family complexes and single family homes, account for 70% of total usage followed by commercial properties using 16%, combined commercial at 6% and irrigation using 8% (See Water Usage breakdown chart).

Water Usage Breakdown – Mt. Werner Water District



The City Service Area follows more traditional usage patterns: Residential accounts consume most of the water, at 49%, followed by commercial properties at 25% , combined commercial at 3% and then unknown at 22.6%, which includes fire hydrant flushing, street cleaning, and potential leaks and other unidentified loss.

Growth in the Mount Werner Water District is limited to build-out and redevelopment with its roughly 4 square mile area; The City, however, has significant growth potential in the West Area between Old Town and Steamboat II.

Water usage triples from winter high season to summer high season. Every summer, irrigation for landscaping strains our ability to provide filtered water for all users. Demand on peak days can exceed average daily demand by more than 40%. The City and the District must maintain filtration capacity at the filtration plant that is sufficient to meet the 7 to 10 peak-demand days each summer.

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

According to the Division of Local Government's State Demography Office the population of Routt County is forecasted to increase by 2.4 percent over the next five year period starting in

2010 until 2015. The mean percent increase in water consumption for the City of Steamboat Springs from 2004 to 2009 is 1.6 percent. The Mt. Werner Water and Sanitation Districts mean percent increase for water consumption from 2004 to 2009 is 2.7 percent. Averaging those values provides an estimate of 2.2 percent increase for the next five years retail annual retail water demand.

The City of Steamboat Springs Council recently approved an annexation of 700 acres that is to increase population by 50% over the next 25years. The Water Demand Report submitted by The Steamboat 700 Group as part of the annexation application estimates the Ultimate Buildout demand at 1111.7 acre feet. However this water demand figure is for a twenty five year phased development. To quantify this added component of our future demand for the next five years, we took the equivalent residential unit (EQR) which is considered to be a three bedroom, two bathroom home up to 2,500 square feet which equates to a maximum day water demand of 600 gpd and a design maximum day wastewater flow of 280 gpd. The projected maximum expected development is 100 units a year starting in 2012. Multiplying those daily home figures by 365 days in a year for 100 individual units in 2012 and 2012 equates to 67 acre feet for each of the two years.

Future Annual Retail Demand 2009-2013

Acre Feet (AF)					
YEAR	**2009**	**2010**	**2011**	**2012**	**2013**
Mt Werner District	1602	1638.8	1675.6	1712.4	1749.3
City District	1488.4	1522.2	1555.9	1589.7	1626.5
Steamboat 700				67	67
Total	3090.4	3161.0	3231.5	3369	3442.8

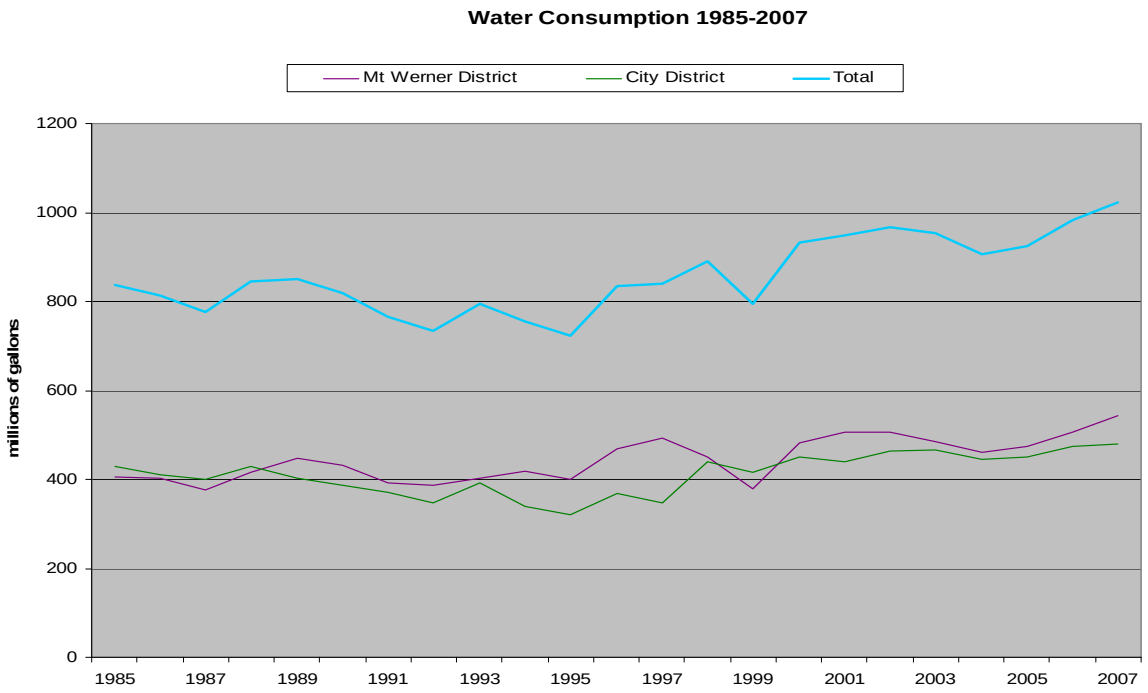
Data Sources:

1. TABLE 3. PRELIMINARY POPULATION FORECASTS BY COUNTY, 2000 - 2035. DOLA Website.
2. Water Demand Report, Steamboat 700. Revision date: September 22,2009
3. Steamboat Springs Billing and Usage Summary Reports
4. Mount Werner: Water Delivery report

5. Background characterizing the water system, potential growth and any other pertinent issues provided in 4c. Information must include:

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

The following chart provides water consumption information for the Steamboat Springs community.



Based on discussion between the City and District staff it was decided that these four years, (2004-2007) be selected as a reasonable estimate of average annual demand on per capita basis. On this basis a reasonable estimate for projected average water demand is 239 gpcd as illustrated in the following table.

Projected Average Daily Water Demand (GPCD)

Year	Total System Annual Water Demand, mg	Population	Average Annual Unit Demand, gdcd
2004	907	10,724	231
2005	924	10,846	233
2006	982	11,083	243
2007	1,024	11,361	247
			Average 239

Source: Steamboat Water Supply Master Plan (draft): Stantec: July 21, 2008.

****NOTE: This is the most current data available at this time. The more current averages require further research and analysis; therefore we have included refining past gpcd and defining current gpcd projections in our scope of work.**

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

Population data and population projections for Steamboat Springs, as provided by the State Demography Office, are:

Population Data of the Past Five Years for Steamboat Springs	
Year	**Estimated Population**
2008	11939
2007	11361
2006	11083
2005	10846
2004	10724

*Source: Based on DOLA estimates

Year	July, 2009	July, 2010	July, 2015	July, 2020
Routt County	23,989	24,340	27,394	31,204
Steamboat Springs	12,954	13,144	14,793	16,850

***** Source: State Demography Office. Note: The City equates to 54% of county population based on SDO estimates. These projections reflect that amount.

Projected Demand

The City of Steamboat Springs Planning Department currently utilizes a 2.2% per year population growth estimate. Current (2008) city population is estimated at 11939. Extrapolating current population with the growth rate and utilizing gallon per capita per day peak demand water conservation targets in Section 1.2, peak demand residential water use with and without conservation can be estimated (see figure below).

Table 4.1 Projected Population and Water Use

Year	Projected Population	Projected Peak Demand Water Use w/out Conservation MGD*	Projected Peak Demand Water Use With Water Conservation at Specified Targets in MGD*
2008	12,130	6.8	
2015	14,126	11.0	9.9
2020	15,750	13.1	11.1
2025	17,560	14.9	12.0

*This number is for residential demand only. It is difficult to project tourism-related demand due to major fluctuations. This projected population data is from the City of Steamboat Springs Planning Department. The DOLA projections for 2008 are slightly lower than the local data; therefore fine tuning to remedy these inconstancies is required and included in our scope.

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

Project partners have already completed a substantial portion of the scope of work for the overall water conservation plan. The current draft of this plan includes the following water savings goals:

- 10% reduction of peak day gpcd demand by 2015
- 15% reduction of peak day gpcd demand by 2020
- 20% reduction of peak day gpcd demand by year 2030

5 –year target: REDUCE PEAK DAY GPCD DEMAND BY 10% BY YEAR 2015

Water conservation component	Savings/Metrics
Interior water savings through adoption of water saving devices & behavioral best practices	2%
Irrigation Efficiency	6%
Xeriscape & Landscaping Best Management Practices	1%
Industrial/Commercial/Institutional (ICI)	1%
Total	10%

10 –year target: REDUCE PEAK DAY GPCD DEMAND BY 15% by 2020

Water conservation component	Savings/Metrics
Interior water savings through adoption of water saving devices & behavioral best practices	1.5%
Irrigation Efficiency	2%
Xeriscape & Landscaping Best Management Practices	.75%
Industrial/Commercial/Institutional (ICI)	.75%
Total	5%

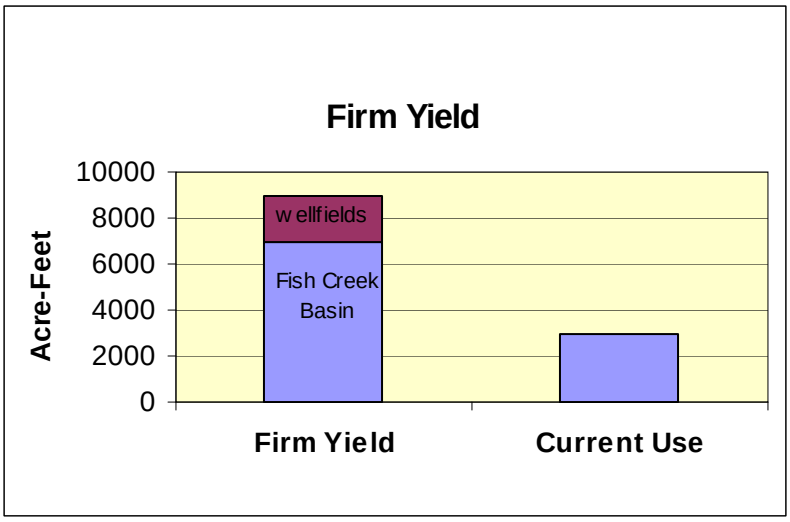
20 –year target: REDUCE PEAK DAY GPCD DEMAND BY 20% BY 2030

Water conservation component	Savings/Metrics
Interior water savings through adoption of water saving devices & behavioral best practices	1.5%
Irrigation Efficiency	1.5%
Xeriscape & Landscaping Best Management Practices	1%
Industrial/Commercial/Institutional (ICI)	1%
Total	5%

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

The City of Steamboat Springs is located in Northwest Colorado within the Yampa/White/Green River basin according to the Colorado Statewide Water Supply Initiative (SWSI). See attached Map. The firm yield of Steamboat's water system is estimated at 9000 AF per year including

7,000 for Fish Creek Basin and 2,000 AF for the Yampa wellfields. While it appears that this is ample water to meet our current and future needs, most of the water available in the Fish Creek Basin runs off by mid-July and, for the following ten months, the community must live on the most senior in-stream flow rights and the storage available in the two reservoirs.



Colorado experiences a wide range of climatic conditions from year-to-year as well as from season to season. Climatological records and research conducted by the National Center for Atmospheric Research indicated a pattern of major droughts in Colorado occurring every 20 to 22 years. Water suppliers in the West accommodate this uncertainty through reservoir storage, consideration of "firm yields" in estimates of water availability, raw water supply development, and "demand side" strategies such as voluntary or mandatory restrictions on outdoor water usage. Plans to reduce usage are necessary to stretch the available water supply through periods of drought.

Water supply systems are also at risk from possible forest fire, floods, failure of dams, mains, wells, and contamination of all or part of the raw water supply. In emergency or drought situations, contingency plans should be designed for implementation of mandatory measures in stages that minimize impacts to the economy, life-styles, and environment of the community.

6. Scope of Work

A detailed scope of work for this project is enclosed as Attachment 2. Project partners have already completed a significant portion of this scope of work. The first draft of the Community Water Conservation Program was created in 2001 at the Mt. Werner Water and Sanitation during a time of drought as a response to the lack of water supply. The proposed template was from the Denver Water Board's Drought Response Plan. There is no evidence of a directive from the Mt. Werner Board of Directors or City Council. No work was done 2002-2007. The new District Manager, Jay Gallagher, re-initiated the effort in 2007, noting that it was important that the Mt. Werner Water District and the City of Steamboat Springs, who share the same water source and system, develop and adopt a uniform set of drought response measures. The bulk of the effort to develop the first draft went into outlining the document and describing

1. Climate, raw water resources, water treatment facilities, and storage and distribution system of the Steamboat community;
2. How water is currently used in our community;
3. Benefits of water conservation were described;
4. Current efforts and proposed additional efforts to conserve water.
5. Three levels of water use restrictions from existing plans with proposed trigger points.

Environmental Solutions Unltd, LLC, an environmental consulting firm located in Steamboat Springs, was retained by Mount Werner Water and Sanitation District on February 20, 2009 to review, reorganize, and revise the information and data needed for the water conservation plan. Work conducted by Environmental Solutions has resulted in the current draft of the water conservation plan.

Below are dates during which Jay Gallagher worked on Mt Werner Water District's first draft which was delivered to City Public Works April 7, 2008. These dates are taken from the editing log for the first draft. The actual hours are not listed but may be interpolated from the editing logs.

2007	Aug-14	Mt. Werner Water District General Manager Jay Gallagher begins process of customizing Denver Water Board "Drought Response Plan" for Steamboat Springs
	Oct.16	JG downloads Eagle River Water District conservation documents as an example.
2008	Mar-11	Renamed "Community Conservation Program" emphasizing conservation measures and including drought response measures.
	Mar-18	Developed white paper introducing the benefits of community water conservation to serve as introduction
	Apr-07	Final annotations- Jay Gallagher delivered first draft to City Public Works.
2009		
	Feb	Environmental Solutions was hired to fine tune the initial draft by Mt. Werner Water.
	March	City signed letter of agreement with ESU to revise, reorganize, and edit work completed to date.
	Apr-10	Current Draft version completed.
	Apr-14	Plan presented to City Council in a public work session. Plan presented to Mt. Werner board meeting.
	Apr-14	60-day Public Comment Period begins
	Apr 29	Submitted draft version to CWCB for comments
	May 12	Received comments back indicating the necessity for enhancement and clarification on certain aspects of current draft. Lacked information and required further efforts to develop a complete plan. Realized more resources would be needed to complete plan per CWCB requests.
	May-15	Steamboat II Metropolitan District was incorporated as community partner on plan.

May-27	Water Conservation Open House 4pm to 6pm. Presentation on beginnings of plan, question and answer period, displayed maps and graphs, and encouraged public input. 4 City Staff, 1 Mt. Werner water representative, 8 people from the public attended.
May-30	Water Conservation booth at the Home and Garden Show 10am to 2pm. City and Mt. Werner officials answered questions, displayed draft plan, and reached out to interested community members.
June 12	Sustainable Business Networking Luncheon – presentation on Water Conservation Plan and business-related recommendations
Sept.	Phase 3 scope of work with ESU.

Items to be completed with grant and match funding consist of items that are shown in red (items for completion by consultant) and green (items for completion by staff) on the attached Scope of Work. We anticipate that work remaining on task items 1-8 will begin in January 2010 and be complete by April 2010. A 50% completion progress report would be filed at the end of February and a 75% completion progress report would be filed at the end of March. The draft Plan would be submitted to CWCB in April 2010. A 60 day public comment period would follow any needed revisions to the plan based on CWCB comment. Our goal is to schedule formal adoption of the Plan by June 2010.

7. Detailed Budget

A detailed budget for this project is enclosed as Attachment 1. Project partners have already spent significant funds completing several tasks associated with developing the proposed water conservation plan. Partners respectfully request $15,358 in grant funds, which will be matched by $5,119 – consisting of $622 in cash and $4,497 of in-kind services, for a total project budget of $20,477 to carry out the scope of work needed to develop and incorporate into the existing document those elements missing from the current draft of the plan that are required by the Colorado Water Conservation Board's approval guidelines.

8. Authorization / Commitment of Resources

The City of Steamboat Springs understands and commits that upon approval of a grant of $15,358 from the Colorado Water Conservation Board, the City will provide a match of $5,119 and will complete development of the Steamboat Springs Community Water Conservation Plan to comply with all of the conservation measures identified in the Colorado Water Conservation Board model plan as required.

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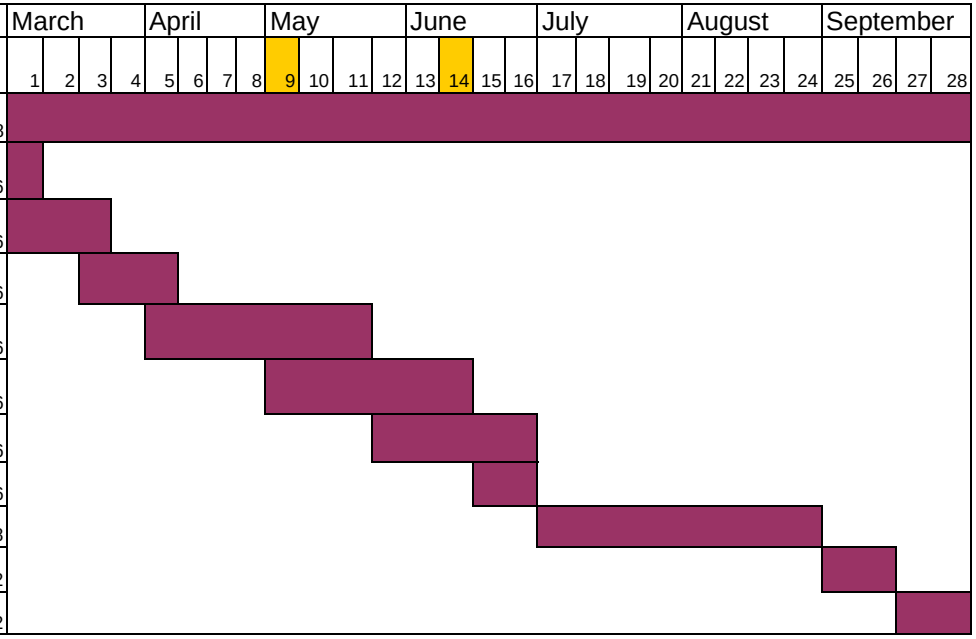
Jon B. Roberts
City Manager
City of Steamboat Springs

CWCB Water Efficiency Grant Program Fund: Water Conservation Development Timeline

Task	Duration (weeks)
Overall Project Management/Coordination	28
Profile Existing Water Systems	16
Characterize Water Use/Forecast Demand	16
Identify Conservation Goals	16
Identify Conservation Measures and Programs	16
Evaluate/Selection of Measures and Programs	16
Integrate Resources/ Modify Forecasts	16
Develop Implementation Plan	16
Public Comment Period	8
Plan Adoption	2
Printing and Distribution	2



Week 9 - 50% completion target
Week 14 - 75% completion target

Attachment 2

City of Steamboat Springs - WATER CONSERVATION PLAN
Estimated Project Budget

Environmental Solutions (ES) Consultant hourly rate: $ 85.00

Joe Zimmerman hourly rate: $ 51.88

Laura Frolich hourly rate: $ 26.56

	Information		GRANT FUNDS			MATCHING FUNDS						
Project Task Breakdown	*Environmental Solutions Consultant Hours*	*Total ES Consultant Cost*	Grant funded ES Consultant Fees	Grant Funded Project Expenses	**CWCB Grant**	ES Consultant Fees To be paid with City Funds	Joe Zimmerman (In-Kind)	Laura Frolich (In-Kind)	City Match funded Project Expenses	**Total Match**	**Total Plan Cost**
Overall Project Manegement/Coordination							10	10			
Project management and coordination	*21*	*$1,785*	$1,163	$0	**$1,163**	$622	$519	$266			
Sub-Total	***21***	***$1,785***	**$1,163**	**$0**	**$1,163**	**$622**	**$519**	**$266**	**$0**	**$1,406**	**$2,569**
Step 1 - Profile Existing Water System							0	9			
1.1 Profile Existing Water System	*11*	*$935*	$935	$0	**$935**			$239			
Sub-Total	***11***	***$935***	**$935**	**$0**	$935	**$0**	**$0**	**$239**	**$0**	**$239**	**$1,174**
Step 2 - Characterize Water Use & Demand Forecast							0	0			
2.1 Characterize Water Use and Demand Forecast	*22*	*$1,870*	$1,870	$0	**$1,870**						
Sub-Total	***22***	***$1,870***	**$1,870**	**$0**	$1,870	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,870**
Step 4 - Identify Conservation Goals							0	0			
4.1 Identify Conservation Goals	*22*	*$1,870*	$1,870	$0	**$1,870**						
Sub-Total	***22***	***$1,870***	**$1,870**	**$0**	$1,870	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,870**
Step 5 - Identify Conservation Measures & Programs							0	0			
5.1 Identify Conservation Measures & Programs	*46*	*$3,910*	$3,910	$0	**$3,910**						
Sub-Total	***46***	***$3,910***	**$3,910**	**$0**	$3,910	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,910**
Step 6 - Evaluate & Select Conservation Measures & Programs							0	59			
6.1 Evaluate & Select Conservation Measures & Programs	*20*	*$1,700*	$1,700	$0	**$1,700**			$1,567			
Sub-Total	***20***	***$1,700***	**$1,700**	**$0**	$1,700	**$0**	**$0**	**$1,567**	**$0**	**$1,567**	**$3,267**
Step 7 - Integrate Resources and Modify Forecasts											
7.1 Integrate Resources & Modify Forecasts	*20*	*$1,700*	$1,700	$0	**$1,700**		0	0			
Sub-Total	***20***	***$1,700***	**$1,700**	**$0**	$1,700	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,700**
Step 8 - Develop Implementation Plan							0	4			
8.1 Develop Implementation Plan	*23*	*$1,955*	$1,955	$0	**$1,955**			$106			
Sub-Total	***23***	***$1,955***	**$1,955**	**$0**	$1,955	**$0**	**$0**	**$106**	**$0**	**$106**	**$2,061**
Step 9 - Prepare Water Conservation Plan							0	0			
9.1 Prepare Water Conservation Plan	*3*	*$255*	$255	$0	**$255**						
Sub-Total	***3***	***$255***	**$255**	**$0**	$255	**$0**	**$0**	**$0**	**$1,800**	**$1,800**	**$2,055**
Total	*188*	*$15,980*	$15,358	$0	**$15,358**	$622	$519	$2,178	$1,800	**$5,119**	**$20,477**

Match is 25%