

# **Water Efficiency Grant Application**

## **For Preparation of Water Conservation Plan Update**

### **City of Lamar**

#### **Introduction**

This water efficiency grant application has been prepared for the consideration of the Colorado Water Conservation Board (CWCB) and the Office of Water Conservation and Drought Planning by the City of Lamar, Colorado (hereafter the “City”). For the purposes of this grant application and in the advent of award, the execution of the proposed project, the City is the lead organization. However, given that the City is included in the efforts of the Southeastern Colorado Water Conservancy District (hereafter the “SECWCD”) to enhance and implement its Regional Water Conservation Plan, both organizations will have a role in the work to be performed by the City in updating its current State approved Water Conservation Plan (dated June 2010). Noteworthy is that the City, which by the State’s definition is a covered entity<sup>1</sup>, will be conducting the Water Conservation Plan update to not only make current it’s existing plan with regarding to the water conservation and water use efficiency efforts that have been implemented locally by the City in the past 4 years, but to also incorporate regional water management and water use efficiencies programs that compliment and coordinate with the work of the SECWCD and its partners working in and along the Lower Arkansas River basin to the extent practical.

#### **Organizational Background and Overview of Water Supply**

The City of Lamar is a legally and regularly created, established, organized and existing home rule city, municipal corporation and political subdivision under the provisions of Article 20 Section 6 of the Constitution of the State of Colorado and the Home Rule Charter of the City. Lamar was incorporated on May 24, 1886, and operates under a City Charter. Lamar is located in eastern Prowers County and serves as the County seat. At the end of 2013, the City’s water utility served a full-time population of about 8,000 and the City boundaries encompassed about 4.2 square miles. Lamar began operating a municipal water system in 1887 which currently provides potable water to customers contained within the City and adjacent to the City over a 4.5 square mile service area.

#### **Water Source Information**

The City of Lamar’s water supply source is comprised of one hundred percent (100%) ground water, which is extracted from a series of production wells that tap the Clay Creek Aquifer, which is surface

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<sup>1</sup> A covered entity is defined by the State as a municipality, agency, utility, including any privately owned utility, or other publicly owned entity with a legal obligation to supply, distribute, or otherwise provide water at retail to domestic, commercial, industrial, or public facility customers, and that has an annual total demand for such customers of two thousand acre-feet or more.

water influenced groundwater such that production must be offset by augmentation and/or replacement water. Table 1 summarizes some of the relevant attributes of the water system utilized by the City.

<b>Table 1 Summary of Water System Attributes</b>		
<b>Water Sources</b>	28 groundwater production wells	Chlorination and fluoride addition prior to distribution
<b>Master Meter</b>	1 master meter prior to treatment plant	12-inch master meter tested annually for accuracy; Meter replaced in 2010
<b>Meter Readings</b>	Monthly (end of the month)	3.5% AMR only with the remaining AMR with AMI; match production days to billing days (to assist with water loss management) (entire system read in one day)
<b>Billings</b>	Monthly (1 <sup>st</sup> of the month)	Was month plus one month delay (i.e., January bill was November use); now billing is month after use (i.e., January bill is December use)

AMR – automated meter reading devices; AMI – advanced meter reading infrastructure (e.g., telemetry)

The City of Lamar owns 3,200 shares of the Fort Bent Ditch Company and 360 shares of the Lamar Canal Company. The amount of water available from these shares can vary drastically from year to year due to calls on the river that influence the amount of water senior and junior water rights owners can utilize. Water from the shares is used as replacement water for the well pumping and to recharge the Clay Creek Aquifer. In 2010, groundwater pumping depletions were replaced with 466 AF (386 shares) of the Fort Bent Ditch pursuant to the City's existing augmentation plan in case # W-4015, and an additional 907 AF of pumping was replaced by recharge from 933 shares of the Fort Bent Ditch and Fryingpan-Arkansas Project replacement water under the City's current Rule 14 plan. 1,246 AF of pumping was replaced by accretion to the river from return flows of all pumped waters, stream channel, and ditch transit losses. Table 2

<b>Table 2 Decree Dates for Ditch and Canal Rights</b>			
<b>Fort Bent Ditch</b>	<b>Cubic Feet per Second</b>	<b>Lamar Canal</b>	<b>Cubic Feet per Second</b>
4/1/1886	27.77	Prior to 1886	15.75
3/10/1889	32.77	11/4/1886	72.09
9/11/1889	11.7	4/16/1887	13.64
8/12/1890	26.77	7/16/1890	184.27
1/1/1893	50		
12/31/1900	80		

summarizes the decrees for the Fort Bent Ditch and Lamar Canal.

The City of Lamar is a benefactor of the Fryingpan-Arkansas Project (Fry-Ark Project) operated by the US Bureau of Reclamation and administered by the SECWCD.

<b>Table 3 Allocated Water Received By the City From the Fry-Ark Project (in acre-feet)</b>					
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Requested</b>	2,000	2,000	2,000	2,000	2,000
<b>Received</b>	2,000	1,600	1,600	176	1,077

The Project is a trans-mountain diversion that diverts water from the Fryingpan River near Basalt, CO, on the western slope, to the Arkansas River Valley to be used by agriculture and municipal entities. The SECWCD's boundaries extend from Buena Vista to Lamar. The City of Lamar purchases Fry-Ark

Project water to recharge the ground water. Over the last 5 years the City has requested 2,000 acre feet to be allocated from the Fry-Ark Project, but has typically received a lesser amount (see Table 3).

### Potable Water Treatment and Storage

The City's raw water supply is stored in two tanks, a six million gallon tank and a two million gallon tank, for a combined eight million gallons of raw water storage. The two million gallon tank was installed in 2002. The City uses Fryingpan-Ark Project water and ditch and canal water to recharge the ground water in the well field. Water from the well field is pumped to the Lamar Water Treatment Facility (WTF). The WTF is located at 8502 County Road DD.8. The WTF has 5.76 million gallons per day (MGD) peak capacity (or 4,000 gallons per minute). The City's current peak and average daily demand are 5.76 MGD and 2.4 MGD respectively.

### Waste Water Treatment and Storage

The Lamar wastewater treatment facility (WWTF) is located at 1221 Century Drive. It consists of evaporative lagoons. The only discharge is to ground water, hence there is no discharge to the river. Lamar's National Pollutant Discharge Elimination System (NPDES) permit number CO 0023671 was reissued in 1990 and amended in 1993. The WWTF has a capacity of 1.5 MGD average and 3.0 MGD peak, and the average use is 0.95 MGD and the maximum use is 3.0 MGD. Presently there are no planned changes to the WWTF.

### Current Water Demand and Population Served

Table 4 summarizes the amount of produced water and water sales associated with the City, as well as the population and the per capita water use.

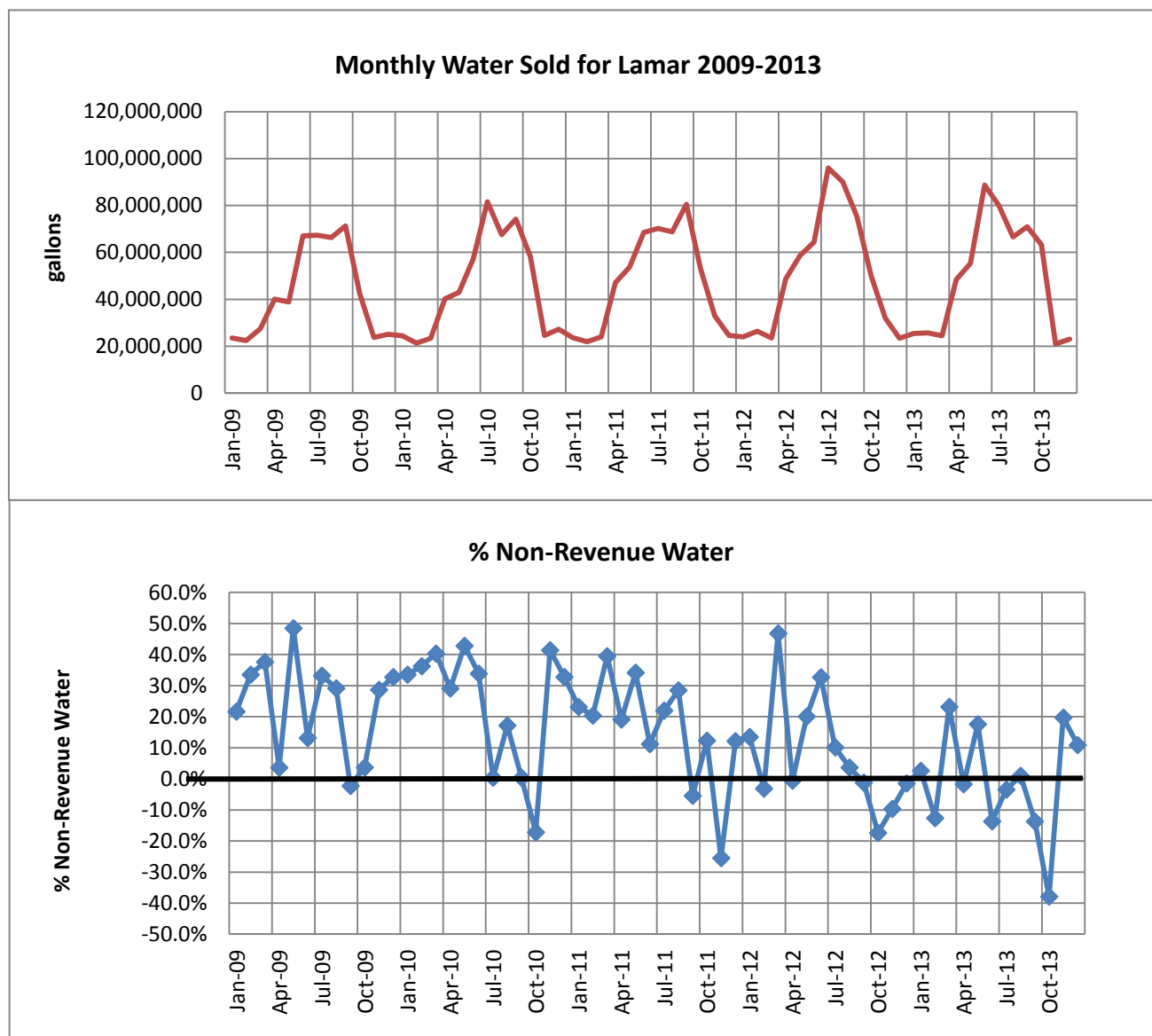
<b>Table 4 Water Production and Use Summary for Lamar – 2009 to 2013</b>									
	Thousands of Gallons								
	Production	Residential	Commercial	Total Water Sold	Unbilled	%Non-revenue <sup>1</sup>	% Non-Revenue Less Known Unbilled	Population <sup>2</sup>	Per Capita <sup>3</sup> (gpcd)
2009	681,100	313,759	201,853	515,612	3,886	24.3%	23.7%	7,874	179.41
2010	698,301	330,497	212,621	543,118	3,843	22.2%	21.7%	7,943	187.33
2011	692,540	346,305	222,791	569,096	3,865	17.8%	17.3%	7,912	197.06
2012	684,695	372,621	239,722	612,343	3,865	10.6%	10.0%	7,835	214.12
2013	578,637	360,847	232,147	592,994	3,865	-2.5%	-3.1%	7,860	206.70
<sup>1</sup> non-revenue water is calculated as water to distribution (production) less water sold divided by water production.									
<sup>2</sup> From <a href="http://www.city-data.com/city/Lamar-Colorado.html">www.city-data.com/city/Lamar-Colorado.html</a> , except 2013 which is estimated.									
<sup>3</sup> Per capita water use (which is measured in gallons per person per day (gpcd)) is calculated as total water sold divided by population									

Based on the data presented in the above table, it can be seen that water production has declined sharply in 2013 whereas customer demand (total water sold) has remained fairly steady. This is evidenced by the over 15% drop in production from 2012 to 2013, with only a 3% drop in use. This

observation may be an artifact of measuring water flow out of the water treatment plant, or influenced by systematic errors in water sold, timing of data collection, and/or instrument error.

This is further illustrated in Figure 1, which shows the change of monthly water sold during the period 2009 to 2013, and the percent of non-revenue water for the same period. Normally, non-revenue water reductions over time are a result of improved water loss management through more accurate metering and enhanced/more timely water line replacement (for example). However, in the City's case, non-revenue water is negative for an increasingly large percentage of the year starting with one month in 2010, two months in 2011, six months in 2012, and six months in 2013. This trend suggests that the City will need to investigate and resolve its master metering equipment and data management as part of the effort to update its water conservation plan.

**Figure 1 – Comparison of Trends – Water Sold Versus % Non-Revenue Water 2009 – 2013**



It is important to note that the City has just recently completed (August 2013) a major upgrade to its customer meters, installing all new automated meter reading devices and advanced meter infrastructure to substantially improve the data collection and management components of customer water use monitoring and billing. This system will allow the City to create standardized data profiling programs to identify low and high use accounts, locate and characterize potential customer-side leaks, and increase staff efficiency for data collection and management, such that other system maintenance programs can be more thoroughly supported (e.g., value exercise program, system flushing programs, etc.).

For this reason, the water conservation plan update is considered well timed and valuable to the City, since new data collection and assessment methods are being developed. These new methods will then inform the City in its efforts to evaluate current water conservation efforts and make determinations regarding which programs to continue and which to either discontinue or enhance based on the needs of the City and its customers.

### Population Served and Per Capita Water Use

The City of Lamar has seen a substantial downturn in population since the turn of the century. Based on US Census data, from 2000 to 2010, the City's population dropped by about 10%. As shown in Table 4, population has averaged about 7,885 since 2009, fluctuating by less than 1% from this average over the past 5 years. Water use, as indicated by total water sold and per capita water use, has varied by about 7 percent<sup>2</sup> over the past five years. The variation in water use does not appear to be related to shifts in population, but rather outdoor irrigation demand based on evapotranspiration (ET).

Table 5 presents the ET estimated for Lamar during the period 2009 through 2013. A comparison of ET to water use indicates that the wettest year (2009) was the year with the lowest total water sold and per capita water use (about 179 gpcd), and the driest year (2012) was the year with the highest total water sold and per capita water use (about 214 gpcd). Therefore, variations in water demand at the City appear to be more directly correlated to weather conditions than population change.

<b>Table 5</b> <b>Estimated ET for Lamar – 2009 to 2013</b>	
Year	Estimated ET <sup>1</sup> (inches)
2009	54.50
2010	56.77
2011	55.94
2012	58.29
2013	55.62
<sup>1</sup> based on Blaney-Criddle method as estimated by the State Climatologist's Office	

<sup>2</sup> The coefficient of variation (standard deviation divided by mean) for total water use and per capita water use from 2009 to 2013 is 6.8% and 7.1%, respectively.

Future changes in population in the area are predicted to be fairly flat, with Prowers County estimated to have less than 1% growth per year over the planning horizon<sup>3</sup>. Water conservation planning will therefore focus on management of current and future water resources and improved efficiencies without substantial concerns for increasing future demands (at least for the planning period of 5 to 7 years).

## **SWSI Water Planning Nexus**

The City of Lamar is located in the Arkansas River Basin. During development of the second phase of the State Water Supply Initiative (SWSI), Arkansas River Basin roundtable members developed water supply options for the Basin to address current and future water needs. Participants sought ways to meet multiple objectives with collaborative solutions. The decisions were based on shared, not individual, needs. Strategies include enlarging existing storage reservoirs, acquiring agricultural water rights and transferring them to municipal and industrial use, and enhancing water conservation and reuse programs. Current and planned water projects and management options are expected to supply approximately 80 percent of the additional 630,000 acre-feet of water needed in the basin by 2030. In spite of the progress, SWSI found that there are not firm plans for the remaining 20 percent, or 126,000 acre-feet per year, of municipal and industrial water needed by 2030.

The work being proposed by the City, in conjunction with other local and regional planning and implementation efforts (e.g., the SECWCD's Regional Water Conservation Plan) will assist in addressing this gap, as well as help to improve local and regional efficiencies that may help to reduce the size of the expected gap.

## **Approach to Water Conservation Planning and Implementation**

Water conservation planning and implementation by the City has progressed in recent years, in part due to local planning efforts supported by the CWCB, and regional planning efforts conducted by the SECWCD supported by the CWCB and the Bureau of Reclamation. An important component of these past planning efforts involved conducting a system wide water audit as part of the development of the SECWCD's regional water conservation plan. Through this process, the City was able to characterize its water loss and evaluate its water loss management programs which helped to focus the City's water conservation programs and related investments. To this point, the City decided to implement a \$3.5 million meter replacement and instrumentation program system wide – replacing nearly all of its customer meters, and installing badger transmitters and Aclara telemetry and software to fully automate its customer water use metering program.

As a result of this program, it is anticipated that apparent water losses associated with the non-revenue water will be reduced, and therefore a more cohesive program for water loss management can be developed and implemented. It is also anticipated that customer water use efficiency will

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<sup>3</sup> Based on data provided by the State Demographer and included in SWSI Phase 2 Report (2007).

improve as more sophisticated data collection and management methods are developed by the City to support customer water use understanding. Updating the City's water conservation plan will hinge on the use, and benefits, of the new technology to better direct future water conservation program expenditures – coupling needs with costs and benefits – such that the City can better integrate water conservation with other aspects of water resources management and utility business operations.

One other relevant component of updating the water conservation plan for the City will be to integrate regional water resources programs into the City's water use efficiency efforts. For example, the City has various water rights that it uses for potable water supply and for replacement water related to groundwater extractions. Different water supplies carry different costs related to the use and timing of their use. Selecting water conservation measures and programs may be influenced by the nature of the water supplies and the impact of improved water use efficiency. Therefore, some of the opportunities and benefits of local water conservation within the City's service area, including creating options for the City to lease and exchange water will be considered within the framework of the updated water conservation plan. Given that the City realized transit losses of greater than 60% in deliveries of water down the Arkansas River from the Pueblo Reservoir last year, regional water exchanges facilitated by the SECWCD or some of its partners (e.g., Lower Arkansas Valley Water Conservancy District) may be an important outcome of improvements in water use efficiency that the City evaluates within the process of updating its water conservation plan.

To support the required effort to review the implementation of the current water conservation plan and update the plan to be consistent with current practices and future needs, the City is seeking Water Efficiency Grant funding to support the development of a local water conservation plan created in conjunction and/or shared resources with other local and regional water conservation planning efforts.

The water conservation plan will be prepared using the State's Water Efficiency Plan Guidance Document and the related Water Conservation Plan Template, to the extent that these references are relevant to the City given its size, nature of its service population (i.e., economic status of the City's service area), and geography (i.e., low in the watershed). Finally, the updated water conservation plan is anticipated to be a living document that is used to guide and direct the real time allocation of resources related to the improvements of local water use efficiency for the management of City infrastructure and customer demands.

The specific components of the proposed scope of work for updating the City's water conservation plan will include the following:

- Updating the profile of the existing water supply system
- Updating the characterization of current and future water demands including the characterization of non-revenue water and real water loss

- Developing water conservation goals that are consistent with the needs of the City and the available resources
- Integrating updated planning and water efficiency benefits and goals with future water supply needs
- Identifying, evaluating and selecting new and/or continued water conservation programs – for both local and regional implementation
- Developing the implementation and monitoring plan needed to track costs and benefits of implemented water conservation and water efficiency programs

A detailed scope of work, described task by task, as well as the proposed project budget and schedule are provided in Attachment A.

## Contact Information

The official contact information for the team is as follows:

City of Lamar

Mr. Josh Cichocki

Water and Wastewater Director

City of Lamar

102 E. Parameter Street

Lamar, CO 81052

T: 719.336.2002

## Roles and Responsibilities

*Mr. Josh Cichocki, Water and Wastewater Utility Director*, will serve as the Project Coordinator. Mr. Cichocki, who has over twelve years of water utility operations experience, has been an employee with the City for about two years and has been involved with all aspects of the City's water conservation, public engagement and outreach programs, as well as all components of water utility operation and management.

*Tracy Bouvette, Sustainable Practices*. Mr. Bouvette is the past Executive Director of Great Western Institute, a Colorado non-profit focused on promoting the benefits of water conservation and water use efficiency. Mr. Bouvette will serve as the project consultant developing and assessing data, evaluating water conservation activities and developing the local water conservation plan. Mr. Bouvette has over 25 years of experience in water resources engineering and policy development. He was the primary author of the State's original Water Conservation Plan Development Guidance Document, and the Statewide Water Supply Initiative (SWSI) Water Conservation Levels Analyses looking at passive savings and water conservation policy for the State of Colorado. He has been involved in over two dozen local water conservation planning efforts in Colorado.



## **Water Conservation Goals**

In the City's 2010 water conservation plan, it set forth a goal of reducing City water demand by 1% per year on average over ten years. The water use reduction were expected to be realized through improvements in metering (through metering unmetered uses), and reductions in residential use over time. Programs that were planned for implementation such as park and residential irrigation improvements, residential rebates for HE toilets and washing machines, water rate increases and improved water loss management were partially performed, based on funding availability and changing City needs. In the most recent years, the City's focus has been on the funding and installation of the AMR and AMI systems, which became fully operation in August 2013. The impact of that investment has not been fully realized at this time, as the City has been changing its procedures to collect data and estimate water loss.

The City remains committed to realizing about a 10% reduction in water production over the next ten year period through water use demand reductions and improvements in water loss management. This would constitute a reduction of about 200 AF in water production. More specifically, the City is focused on reducing non-revenue water by approximately 20 percent from the past average of about 420 AF per year during the upcoming planning horizon. This would result in a reduction in water production of about 84 AF. The remaining water use demand reductions will be realized through customer education, incentives and water pricing programs integrated with other City water planning efforts.

## **Water Efficiency Grant Request**

The City is requesting \$19,100 in CWCB Water Efficiency Grant funds to fund the proposed project. The City will contribute \$ 7,500 in cash and in-kind services<sup>4</sup> (in the form of staff hours and expenses) to match the Grant funding to complete the scope of work. The total cost to complete the proposed project is \$ 26,600, with a total match proposed as 28.2% of the project. A detailed description of the scope of work, and proposed project budget and schedule is presented in Attachment A.

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<sup>4</sup> Estimated to be \$1,650 in cash and \$5,850 in in-kind contributions. The cash match will be used to pay for the consultant expenses listed in Table A-1.

# **Attachment A**

## **Detailed Scope of Work, and Proposed Project Budget and Schedule**

### **Detailed Scope of Work**

The scope of work presented below involves the development of one updated water conservation plan for the City of Lamar. The detailed description of the tasks proposed to be performed to develop the updated water conservation plan is provided below.

#### **1.0 Draft Local Water Conservation Plan**

##### **Purpose**

This task relates to the drafting of one individual local water conservation plan for the City. Generally, the plan will follow the water conservation planning methodologies recommended by both the CWCB and state statute; however, due to the size and nature of the operations of the participating entities, the updated water conservation plan will also evaluate and assess the City's role and management of regional water supply efficiencies as a subset of the water conservation programs that would typically be included in a plan developed for a covered entity.

In general, the scope will focus on explaining the framework for the water conservation plan (e.g., the plan will present current water production and demand data, identify future demands, characterize current and future infrastructure improvements, etc.), defining the water conservation goals, and selecting water conservation measures and programs that will attempt to achieve the goals stated for the City. The plan will also present the implementation tasks that the City will conduct to move the water conservation programs forward, including listing data collection, monitoring, and verification efforts.

##### **Tasks**

1.1 Data Collection and Assessment – collect information from the City to update and supplement the data that has already been provided to the State as part of this application, including information on water sources and augmentation requirements, water production, customer water use, meters, billing, non-revenue water, population served, and expected future water demand; infrastructure needs related to meter and water line replacement; water rates; and current water conservation activities. An assessment will be performed organizing and summarizing the data in conjunction with the guidelines provided by the CWCB for this task. Included in the assessment will be summaries and evaluations of:

- 1.1.1 Water supply system characteristics
- 1.1.2 Systematic data management related to tracking production, distribution and customer water use
- 1.1.3 Trends in water loss and non-revenue water– both real and apparent
- 1.1.4 Current trends in customer water use demand

- 1.1.5 Projected future customer demands by customer category and total water production
- 1.1.6 City's capital improvement program related to water system improvements

1.2 Framework for Conservation – a narrative will be developed to describe the ongoing organizational needs and opportunities related to water supply reliability and sustainability; and to identify how water conservation and water use efficiencies could benefit the planning entity. This portion of the water conservation planning effort will appraise the City's needs related to investing in and integrating ongoing operations with water conservation related programs<sup>1</sup>. An assessment of local and regional water conservation programs and potential objectives will be included in this part of the water conservation plan, as appropriate.

1.3 Water Conservation Goals - identify water demand reductions that the City identifies as valuable and worthy of future investments related to planning for and implementing water conservation measures and programs.

1.4 Water Conservation Program Evaluations and Selection – based on the water conservation goals of the City, candidate water conservation programs will be evaluated for applicability and effectiveness. The evaluations will assess the costs and potential benefits of implementing any specific program and/or practice to:

- Reduce system and/or customer water demands,
- Improve data collection and management to help inform future conservation efforts,
- Adjust and set water rates,
- Coordinate programs with other organizations with shared interests (especially with respect to educational and outreach programs), and
- Integrate water conservation programs with other water utility business operations.

Candidate water conservation programs will be selected based on cost and benefit, as well as the interests of the City Council and staff, to the extent reasonable. Noteworthy is that the City utilizes various water supply sources to meet its customer demands and support replacement water requirements. As part of the water conservation program evaluation, assessments will be made to characterize the impact of proposed water conservation programs on the various water supply sources (e.g., timing of water deliveries, transit losses, costs to produce, etc.), and the nature of water conservation benefits on the management of the City's water supply portfolio.

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<sup>1</sup> Water Conservation related programs include all those contained within the Southeastern Colorado Water Conservancy District BMP Tool Box found online at [www.secwcd.org/BMPToolBox](http://www.secwcd.org/BMPToolBox). Relevant programs may include those that relate to system wide management of the water supply system, water production and treatment, water distribution, customer water use metering, and/or customer water use and demand management.

1.5 Implementation Plan – the implementation plan contained in the City’s water conservation plan will include the following:

- 1.5.1 Implementation schedule - identify significant implementation actions, and challenges that may impact the implementation of the selected conservation measures.
- 1.5.2 Customer engagement - Describe how to involve and engage the City’s customers in the implementation process, to the extent necessary.
- 1.5.3 Monitoring and evaluation processes - describe how water conservation will be measured and verified for effectiveness, and what the role of the City, as well as the SECWCD, will have during monitoring and reporting efforts.
- 1.5.4 Updating and revising the plan - describe when and how the Plan will be updated, in part, based on the state statute.
- 1.5.5 Funding strategy for the plan – identify potential funding needs and options related to the selected implementation efforts.

1.6 Draft Plan - compile and format information, data and other content into the Draft Plan for review and comment by City staff. Once staff comments have been received, produce adequate copies for public, City Council, state and other stakeholder review.

## **Deliverables**

The project team will develop the Draft Plan for the City.

## **2.0 Final Local Water Conservation Plan**

### **Purpose**

Conduct and coordinate public review, and revise the Draft Plan based on comments and finalize for City Council approval.

### **Tasks**

- 2.1 Support public noticing and state review – Provide guidance and support to the City as it advertizes for and receives public input during the required 60-day public comment period. Also coordinate the initial plan review by the CWCB.
- 2.2 Gather public and stakeholder comments and prepare a comment response – Gather and organize comments and develop comment responses for each comment.
- 2.3 Develop Final Plan – finalize the Plan based on comments received and the prepared comment responses, and produce for City Council approval.

## **Deliverables**

The project team will develop the Final Plan including a comment response document for City Council adoption.

### **3.0 Project Meetings and Administration**

#### **Purpose**

These tasks involve meeting with the planning entities, developing progress reports for the CWCB and preparing project invoices.

#### **Tasks**

3.1 Coordination meetings – conduct three (3) project coordination meetings with the City to: i) kick off the planning effort; ii) discuss plan develop, key assumptions, selection of candidate water conservation measures, and implementation strategies; and iii) review the proposed plan recommendations and implementation program prior to the completion of the Draft Plan.

3.2 Progress Reporting – prepare CWCB project progress reports at 50% and 75% complete to update the CWCB on project progress, successes, challenges and potential changes to scope, schedule and/or budget, as appropriate.

3.3 Project Invoicing – prepare project invoices on a monthly basis and support the grant project administrator in reporting and invoicing the CWCB as the project progresses.

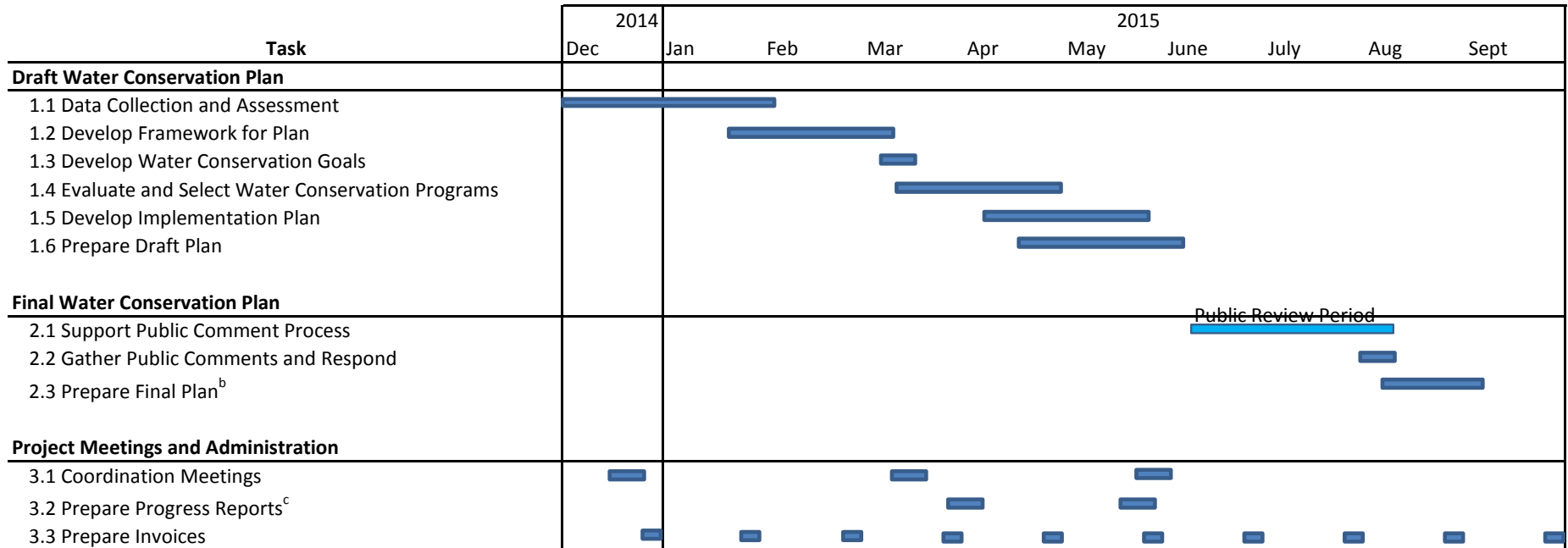
#### **Deliverables**

The project team will prepare for and attend meetings, prepare project progress reports and prepare project invoices.

### **Project Budget and Schedule**

The proposed project budget and schedule are attached in Table A-1 and Figure A-1, respectively.

**Figure A-1**  
**Proposed Project Schedule**  
**City of Lamar Water Conservation Planning Grant Application**



<sup>b</sup> Final Water Conservation Plan is estimated to be completed and submitted to CWCB September 4th.

<sup>c</sup> progress reports are estimated to be delivered to CWCB on April 3rd (50%) and June 5th (75%)

**Table A-1**  
**Proposed Project Budget**  
**City of Lamar Water Conservation Planning Grant Application**

Task	Hours	Bouvette		Expenses	City of Lamar		Total Cost	CWCB Grant Request
		Cost			Hours	Cost		
<b>Draft Water Conservation Plan</b>		\$100				\$65		
1.1 Data Collection and Assessment	45	\$ 4,500	\$ 800		20	\$ 1,300	\$ 6,600	\$ 4,500
1.2 Develop Framework for Plan	14	\$ 1,400	\$ -		4	\$ 260	\$ 1,660	\$ 1,400
1.3 Develop Water Conservation Goals	4	\$ 400	\$ -		2	\$ 130	\$ 530	\$ 400
1.4 Evaluate and Select Water Conservation Programs	40	\$ 4,000	\$ -		12	\$ 780	\$ 4,780	\$ 4,000
1.5 Develop Implementation Plan	12	\$ 1,200	\$ -		2	\$ 130	\$ 1,330	\$ 1,200
1.6 Prepare Draft Plan	40	\$ 4,000	\$ 25		4	\$ 260	\$ 4,285	\$ 4,000
	155	\$ 15,500	\$ 825		44	\$ 2,860	\$ 19,185	\$ 15,500
<b>Final Water Conservation Plan</b>								
2.1 Support Public Comment Process	2	\$ 200	\$ -		8	\$ 520	\$ 720	\$ 200
2.2 Gather Public Comments and Respond	4	\$ 400	\$ -		4	\$ 260	\$ 660	\$ 400
2.3 Prepare Final Plan	6	\$ 600	\$ 25		2	\$ 130	\$ 755	\$ 600
	12	\$ 1,200	\$ 25		14	\$ 910	\$ 2,135	\$ 1,200
<b>Project Meetings and Administration</b>								
3.1 Coordination Meetings	16	\$ 1,600	\$ 800		24	\$ 1,560	\$ 3,960	\$ 1,600
3.2 Prepare Progress Reports	4	\$ 400	\$ -		4	\$ 260	\$ 660	\$ 400
3.3 Prepare Invoices/Track Costs	4	\$ 400	\$ -		4	\$ 260	\$ 660	\$ 400
	24	\$ 2,400	\$ 800		32	\$ 2,080	\$ 5,280	\$ 2,400
<b>Project Totals</b>	<b>191</b>	<b>\$ 19,100</b>	<b>\$ 1,650</b>		<b>90</b>	<b>\$ 5,850</b>		
			<b>\$ 20,750</b>			<b>\$ 5,850</b>	<b>\$ 26,600</b>	<b>\$ 19,100</b>
					cash	<b>\$ 1,650</b>		
					<b>Match %</b>		<b>28.2%</b>	